Specification of William Edward Newton : setting artificial teeth.

A.D. 1862, 16th April. N° 1107.

SPECIFICATION

OF

WILLIAM EDWARD NEWTON.

SETTING ARTIFICIAL TEETH.

LONDON:
PRINTED BY GEORGE E. EYRE AND WILLIAM SPOTTISWOODE,
PRINTERS TO THE QUEEN'S MOST EXCELLENT MAJESTY:
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Price 6d. 1862.

A.D. 1862, 16*th* APRIL. N° 1107.

Setting 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 "AN IMPROVEMENT IN SETTING ARTIFICIAL TEETH."—A communication from abroad by David Steinberg, of the City and County of San Francisco, United States of America.

Sealed the 29th August 1862, and dated the 16th April 1862.

PROVISIONAL SPECIFICATION left by the said William Edward Newton at the Office of the Commissioners of Patents, with his Petition, on the 16th April 1862.

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 "AN IMPROVEMENT IN SETTING ARTIFICIAL TEETH," to be as follows:—

This Invention of an improvement in setting artificial teeth consists in combining the teeth with a gold, platinum, or other metallic plate by means of india-rubber or other vulcanizable gum, whereby all soldering and rivetting, by which the plate is liable to be warped, is dispensed with; also the metal is prevented from oxydizing, and the gum, when vulcanized, is made to serve as a means of strengthening and preserving the form of the plate. The utility of the Invention is particularly enhanced, inasmuch as any and all kinds of

teeth can be employed. As a further means for strengthening and preserving the metallic plates but which has more particular reference to the application of the gummy or vulcanizable substances, a series of bars are employed for the purpose of serving as a means whereby the gummy substances may receive additional strength and durability.

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 16th October 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 Sixteenth day of April, in the year of our Lord One thousand eight hundred and sixty-two, 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 "AN IMPROVEMENT IN SETTING 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):—

Newton's Improvement in Setting Artificial Teeth.

This Invention of an improvement in setting artificial teeth consists in a certain mode of combining the teeth with a gold, platinum, or other metallic plate, by means of india-rubber or other vulcanizable gum, whereby all soldering and rivetting, by which the plate is liable to be warped, is dispensed with. The metal is also prevented from oxidizing, and the gum, when vulcanized, is made to serve as a means of strengthening and preserving the form of the plate. The utility of the Invention is particularly enhanced inasmuch as any and all kinds of teeth can be employed. As a further means of strengthening and preserving the metallic plates, but which has more particular reference to the application of the gummy or vulcanizable substances, a series of bars are employed (as fully described herein-after) for the purpose of serving as a means whereby the gummy substances may receive additional strength and durability.

Fig. 1 in the accompanying Drawing is a side view of an upper set of teeth set according to the present Invention; Fig. 2 is an under side view of the same; Fig. 3, a central section of the same from back to front; Fig. 4, a transverse section, as indicated by the line *x* in Fig. 2; and Fig. 5 is an under side view of an upper set of teeth with a series of bars, as represented by the dotted lines in Figs. 2.

In carrying out the Invention the impression of the mouth is first taken and the mould made and metal cast. The plate A to fit the mouth is thereby obtained in the manner commonly practised by dentists when the teeth are to be mounted on the plate in the usual manner, such plate, however, being made of much thinner metal than is required when the india-rubber is not used. The rear edge of the plate is then turned forward over its face, as shewn in Figs. 2 and 3 at *a*, and the front and side edges *b*, *b*, are also turned over, as shewn in Figs. 3 and 4, to make it hold the india-rubber *c*, *c*^{1}, which is tinted of red color in the several Figures. When the plate A has been made the articulation is taken in the usual way and the teeth B, B, arranged upon the plate, the teeth being formed with pins on hooks *d* to hold the india-rubber. Wax is then applied to the teeth and plate, where the india-rubber *c*, *c*^{1}, is required of the thickness desired for the rubber. An impression in plaster of the back or uncovered surface of the plate A is then taken in one of the vulcanizing blocks, and when the plaster is set the surface of the portion remaining around the outside of the plate is to be oiled, and while the plate remains in this flask the other flask is put on the top of it and filled with plaster, entirely covering the plate, teeth, and wax, the latter having been previously oiled to prevent the plaster from sticking to it. Having now

obtained a perfect mould of the teeth, wax, and plate, the flasks are to be separated, and the teeth not having been oiled are left sticking in the plaster in the upper flask when the flasks are separated. All the wax is then removed from the plate A, and the india-rubber which has been prepared for vulcanization is to be applied to the portions of the plate formerly occupied by the wax in such quantity as is required and the plate placed back in the first flask; the two flasks are then pressed together in such a manner as to force the india-rubber firmly into the plate and the plate firmly into the impression in the first flask, that the proper shape may be perfectly retained. The flasks are then placed in the vulcanizing oven, and after vulcanization has been effected the flasks are removed from the oven and separated, and in this separation the teeth easily leave the plaster in which they were held while the india-rubber was being applied to the plate and now remain firmly and permanently united to the plate by means of the india-rubber. The principal advantages of this mode of combining the teeth with the plate by means of india-rubber or other gum capable of vulcanization are, first, that all soldering and rivetting, whereby the plate is liable to be warped and a misfit or imperfect fit produced, is dispensed with. Second, that it is a safeguard against oxidization. Third, that no special construction of the teeth is required, but any teeth that are generally employed by dentists can be used. Fourth, that by covering the plate entirely with gum it is much strengthened. To insure additional strength to the plate and the adhesion of the india-rubber or other gum thereto, the bars e, f, f^1, (Figs. 2 and 5) are applied to form a frame or lathwork, so that the gum may be applied under and around these bars before the vulcanizing process is resorted to, which insures additional strength to the plate and the adherence of the gum thereto. These bars may be placed in any desired position, and the bar e has its ends bent at right angles, as shewn at g, Fig. 3, to form a rest, and both ends are soldered to the plate. The bars f, f^1, have one or both ends bent at right angles, and are likewise soldered to the plate A; but in Figs. 2 and 3 I represent the back ends soldered to the lapping a, as shown at h.

Having now described this Invention of an improvement in setting artificial teeth, I would observe that I do not broadly claim the employment of india-rubber to unite the teeth to the plate, but what I claim as new in the present Invention, and desire to secure by Letters Patent, is,—

First, combining the teeth with the gold or other metal plate by means of india-rubber or other gum capable of vulcanization applied in the manner herein specified.

Second, I claim the application, in combination with the gum, of the bars e, f, f^1, for the purposes herein set forth and described.

In witness whereof, I, the said William Edward Newton, have hereunto set my hand and seal, the Fourteenth day of October, 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.

A.D.1862. April 16. N°1107.
NEWTON'S Specification.

(1 SHEET)

FIG. 1.

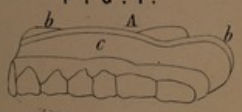


FIG. 3.

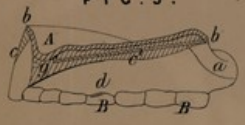


FIG. 4.

FIG. 2.

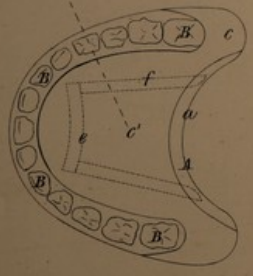
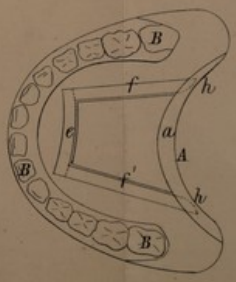


FIG. 5.



The tited drawing is colored.

Drawn on Stone by Malby & Sons.

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