

Specification of Joseph Maurice : fastenings, &c.; for securing artificial teeth.

Contributors

Maurice, Joseph.

Publication/Creation

London : Great Seal Patent Office, 1857 (London : George E. Eyre and William Spottiswoode)

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A.D. 1857 N° 1035.

S P E C I F I C A T I O N

OF

JOSEPH MAURICE.

FASTENINGS, &c. FOR SECURING
ARTIFICIAL TEETH.

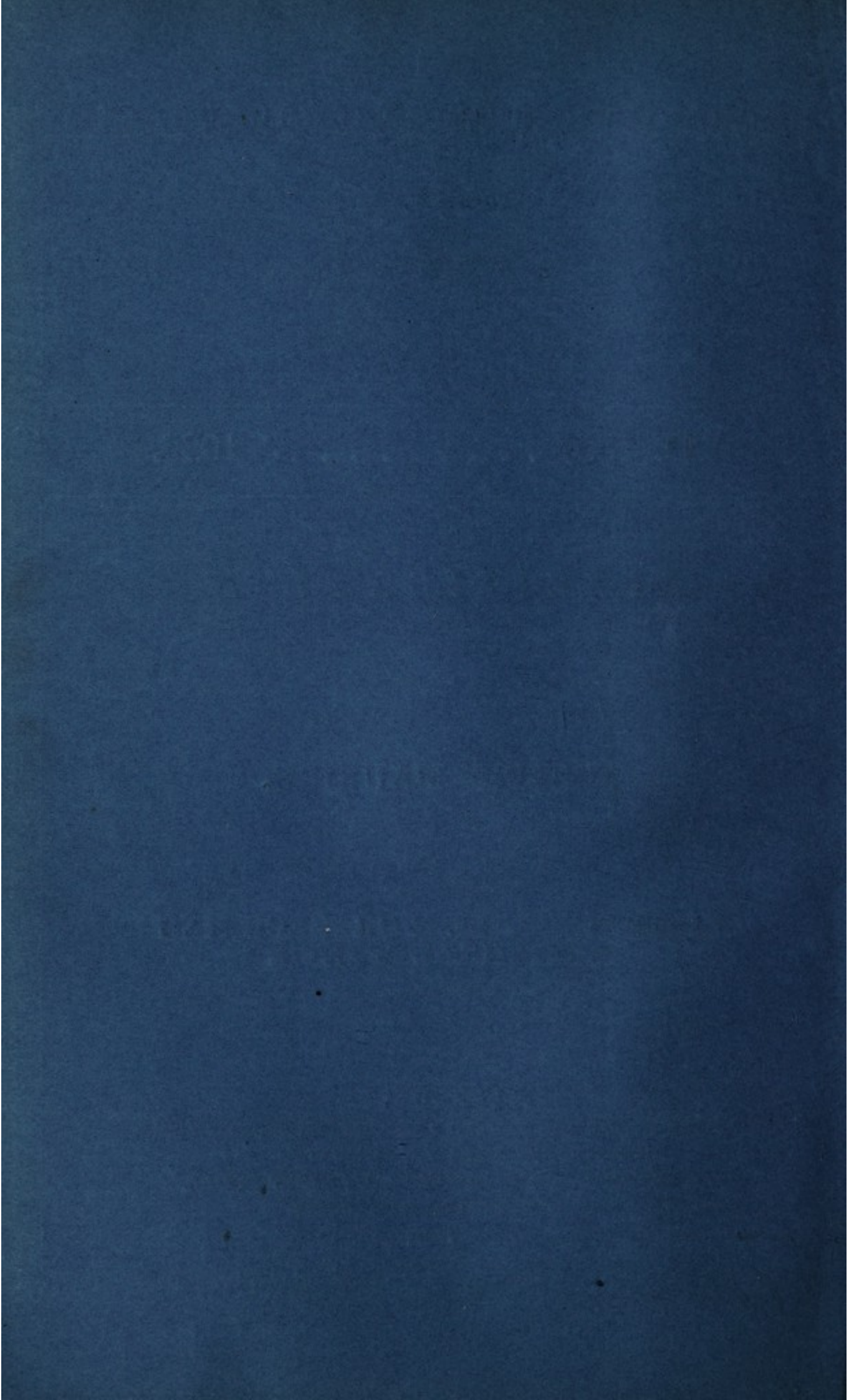
LONDON:

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

PUBLISHED AT THE GREAT SEAL PATENT OFFICE,
25, SOUTHAMPTON BUILDINGS, HOLBORN.

Price 6d.

1857.





A.D. 1857 N° 1035.

Fastenings, &c. for Securing Artificial Teeth.

LETTERS PATENT to Joseph Maurice, of the firm of Gemble and Maurice, of 316, Regent Street, Dentist, for the Invention of "**CERTAIN IMPROVEMENTS IN THE FASTENINGS, FIXINGS, AND ATTACHMENTS USED FOR SUPPORTING OR SECURING ARTIFICIAL TEETH IN THE MOUTH.**"

Sealed the 9th October 1857, and dated the 13th April 1857.

PROVISIONAL SPECIFICATION left by the said Joseph Maurice at the Office of the Commissioners of Patents, with his Petition, on the 13th April 1857.

I, JOSEPH MAURICE, of the firm of Gemble and Maurice, of 316, Regent
5 Street, Dentist, do hereby declare the nature of the said Invention for
"**CERTAIN IMPROVEMENTS IN THE FASTENINGS, FIXINGS, AND ATTACHMENTS USED
FOR SUPPORTING OR SECURING ARTIFICIAL TEETH IN THE MOUTH,**" to be as
follows:—

Whereas the contact between the natural teeth and the metal bands and
10 other fastenings used for fixing artificial teeth in the mouth is frequently pro-
ductive of inconvenience and injury, as also in cases where the wire fastenings
are used in the various positions and forms in which they are employed, and
where an artificial crown is fitted to a natural stump the same inconvenience
or damage to the natural stump or tooth frequently arises. •

15 Now, this Invention consists in applying a covering of vulcanized or
mineralized india-rubber, or other soft and permanently elasticated india-

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rubber material, to such metal fastenings or fixings, and also for the purpose of protecting the mouth from injury by contact with the side springs or fastenings used for securing cases of artificial teeth in the mouth. I prefer to use the said material in the form of tubes, and of a color to assimilate as closely as possible to the natural color of the gums or the teeth; thus, and whilst I 5 employ one of the materials described for covering the bands, clasps, or wires, in the manner described for the purpose of preventing the well-known injurious action of the metal upon the teeth, it likewise serves to prevent the unpleasant jar and pain resulting from direct contact, in consequence of the soft and flexible surface presented, which softness and flexibility in the case of 10 coverings for clasps enables a secure lodgment to be effected upon the necks and in the inequalities of the natural teeth, whereby the necessity for continuing the fastenings round the fronts of the teeth will be frequently obviated; and when the side springs used in the cases of artificial teeth applied in the mouth are covered according to this Invention such springs are less liable to 15 injury, whilst the cheeks are also protected; also in fixing or pivoting artificial crowns upon natural roots, the pin, stud, or pivot, is similarly covered. I employ the same material for regulating cases, and the covering for bone clasps in bone pieces.

The tubing by reason of its elasticity clings to the fastenings, and thereby 20 remains firm; but as an additional security, bands, clasps, wires, or other fastenings may be scored, grooved, or otherwise irregularly shaped or worked, and gutta percha or other adhesive cement may be interposed between the fastening and the vulcanized india-rubber covering.

SPECIFICATION in pursuance of the conditions of the Letters Patent, filed 25 by the said Joseph Maurice in the Great Seal Patent Office on the 13th October 1857.

TO ALL TO WHOM THESE PRESENTS SHALL COME, I, JOSEPH MAURICE, of the firm of Gemble and Maurice, of No. 316, Regent Street, Dentist, send greeting. 30

WHEREAS Her most Excellent Majesty Queen Victoria, by Her Letters Patent, bearing date the Thirteenth day of April, in the year of our Lord One thousand eight hundred and fifty-seven, in the twenty-first year of Her reign, did, for Herself, Her heirs and successors, give and grant unto me, the said Joseph Maurice, Her special licence that I, the said Joseph 35 executors, administrators, and assigns, or such others as I, the said

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Joseph Maurice, 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,
5 the Channel Islands, and Isle of Man, an Invention for "**CERTAIN IMPROVEMENTS IN THE FASTENINGS, FIXINGS, AND ATTACHMENTS USED FOR SUPPORTING OR SECURING ARTIFICIAL TEETH IN THE MOUTH,**" upon the condition (amongst others) that I, the said Joseph Maurice, by an instrument in writing under my hand and seal, should particularly describe and ascertain the
10 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 Joseph Maurice, do hereby declare the
15 nature of my said Invention, and in what manner the same is to be performed, to be particularly described and ascertained in and by the following statement and accompanying Drawing :—

Whereas the contact between the natural teeth and the metal bands and other fastenings used for fixing artificial teeth in the mouth is frequently productive of inconvenience and injury, as also in cases where the wire fastenings
20 are used in the various positions and forms in which they are employed, and where an artificial crown is fitted in a natural stump the same inconvenience or damage to the natural stump or both frequently arises.

Now, this Invention consists in applying a covering of vulcanized or
25 mineralized or other soft and permanently elasticated india-rubber material, to such metal fastenings or fixings, and also for the purpose of protecting the mouth from injury by contact with the side springs or fastenings used for securing cases of artificial teeth in the mouth. I prefer to use the said material for covering clasps, springs, wires, and pins or studs in the
30 form of tubes, and of a color to assimilate as closely as possible to the natural colors of the gums or the teeth; thus, whilst I employ one of the materials described for covering the bands, clasps, or wires in the manner described for the purpose of preventing the well-known injurious action of the metal upon the teeth, it likewise serves to prevent unpleasant jar and pain resulting from
35 direct contact, in consequence of the soft and flexible surface presented, which softness and flexibility in the case of coverings for clasps enables a secure lodgment to be effected upon the necks, and in the irregularities of the natural teeth, whereby the necessity for continuing the fastenings round the fronts of the teeth is obviated.

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When the side springs used in cases of artificial teeth applied in the mouth are covered according to this Invention, such springs are less liable to injury, whilst the cheeks are also protected.

In fixing or engrafting artificial crowns upon natural roots, the pin, stud, or pivot may be similarly covered; this material may be used also for regulating 5 cases, and the covering for bone clasps in bone pieces. The tubing by reason of its elasticity clings to the fastenings, and thereby remains firm; but in certain cases, where it may be advisable to have the least amount of play, action, or motion, and as an additional security, the wires may be formed into irregular shapes, and also gutta percha or other adhesive cement may be 10 interposed between the metal or bone piece and the vulcanized india-rubber tube or covering.

I apply the same system of interposing vulcanized or mineralized india-rubber between the artificial and the natural palate by applying the material in the form of prepared sheet or layer, by means of suitable cement or solu- 15 tion, and the application of heat or pressure upon the surface for the better securing the adhesion. I prefer to employ wire gauze or net composed of platina, gold, or other metal wire finely woven, and which being cut of a suitable form is placed upon and pressed into the upper surface of the plate or the artificial palate, and to which it may be attached by soldering, or any 20 other equally secure mode of fastening, or serrations may be formed in the plate for the better holding of the india-rubber material as the mode of covering clasps, wires, springs, and such like articles as herein-before described. And I will now proceed to explain the mode of applying my Invention to the plates, and to artificial palates, and such like surfaces. 25

I either take thin sheets of vulcanized india-rubber, and by means of cement or solution of india-rubber filled into the interstices of the serrated or scored surface of the plate, or of the wire gauze or net, upon which I place in contact and press into the sheet of prepared or vulcanized india-rubber; or instead thereof, I take a thin sheet of vulcanized india-rubber to the back of 30 which has been attached a sheet of unvulcanized or plain india-rubber, and by heat and pressure bring the prepared metal surface in contact therewith, and thus form perfect union, taking care that the air is properly expressed and excluded from between the metal plate and the applied material. Instead, however, of applying the material as above described, I prefer in some cases 35 to coat or line the prepared surface of the plate, artificial gum piece, palate, and such like surfaces with prepared india-rubber, either in the form of paste or in a sheet pressed into and upon the said surface, and afterwards vulcanize such prepared india-rubber either by the wet or the dry process, in which

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cases the entire thickness of the material becomes converted into vulcanized or mineralized and permanently elasticated india-rubber without injury to the metal, mineral, enamel, or other parts of the artificial teeth and their fixings, or I so prepare the plate or other part operated upon before it has had
5 attached to it the artificial teeth or gum pieces, or any part liable to injury.

In the accompanying Drawing, Fig. 1 exhibits an under side view or plan of a set of front teeth, or portion of a complete set of artificial teeth belonging to the upper jaw, *a* being the gold plate to which the teeth are attached;
10 *b*, the gold clasp by which the plate with its set of teeth are attached to a natural tooth remaining to the right side of the jaw, this clasp or flat band of metal being made to girth and securely fit round the root of the natural tooth, and it is this that produces the injurious action or wearing away of the tooth to which it is attached; *c* represents a similar clasp or band for the left
15 side of the jaw, and is shewn as covered with the vulcanized india-rubber tubing. Fig. 2 exhibits a front view of a case of artificial teeth for the upper and lower jaw with the side springs attached thereto, that on the right side of the mouth *d* being shewn uncovered, whilst the spring *e* on the opposite side has a tube or covering of vulcanized india-rubber. Fig. 3 is a side view in
20 perspective of Fig. 2, the two rows of teeth being extended by the springs *e* and *e*¹. Fig. 4 exhibits two views of side springs, the one *d* uncovered, and the other *e* covered. Fig. 5 exhibits a longitudinal section *f*, and an end view *g*, of a piece of vulcanized india-rubber tube suitable for covering springs, or when cut into shorter lengths for covering bands, clasps, and such like
25 articles. Fig. 6 is a plan view of a gold plate having teeth attached thereto, exhibiting wire gauze *h* applied thereto, and also the elastic material *i* applied thereupon, and which is intended to receive the pressure of the gums; the piece or portion *i* of the elastic material is only shewn so far along or around the plate, the rest being removed. Fig. 7 exhibits a section of Fig. 6
30 on the line A, B, but the elastic material or yielding surface is shewn as applied thereto; thus the thicknesses are shewn. *a*, the plate; *h*, the wire gauze, (or where not used it will represent the depth of the scores or grooves in the surface of the plate,) *i* being the vulcanized india-rubber.

Having described my Invention and illustrated some of its applications, I
35 wish it to be understood that I am aware that gutta percha and pure and unvulcanized india-rubber have severally been applied to various parts of artificial masticating apparatus, but my Invention relates to the application of vulcanized or permanently elasticated india-rubber; I claim the employment of vulcanized or permanently elasticated india-rubber as herein described,

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whether such vulcanized or permanently elasticated india-rubber be applied in the form of tubes to clasps, bands, and such like articles, or as strips, ribbons, or threads wound thereupon for the purpose of covering the same, or whether it be applied in sheets in the manner herein described or prepared; but (non-vulcanized) india-rubber be applied to the surfaces of metal plates, 5 bands, or other parts of artificial masticating apparatus, and afterwards subjected to treatment by the wet or dry processes, for the purpose of vulcanizing or rendering it permanently elastic, and not liable to alteration or deterioration by the temperature of the mouth, or the acid or other actions to which materials so placed are liable. 10

In witness whereof, I, the said Joseph Maurice, have hereunto set my hand and seal, this Twelfth day of October, in the year of our Lord One thousand eight hundred and fifty-seven.

JOSEPH MAURICE. (L.S.)

Witness,

WILLIAM SMITH, C.E.,

10, Salisbury St., Adelphi.

15

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Printed by GEORGE EDWARD EYRE and WILLIAM SPOTTISWOODE,
Printers to the Queen's most Excellent Majesty. 1857.

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FIG. 2.

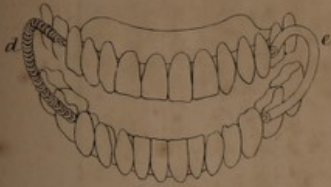


FIG. 4.

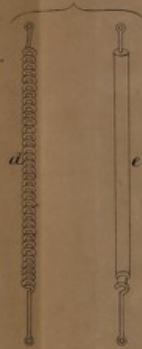


FIG. 3.

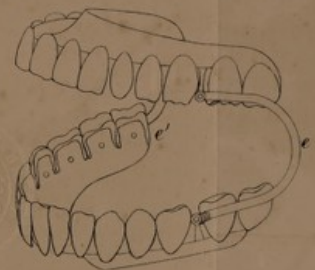


FIG. 6.



FIG. 5.

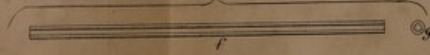


FIG. 7.



FIG. 1.

The filed drawing is colored.

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