

A new or improved enamel for re-fixing the dental plates of artificial teeth / [Thomas Clarke].

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COMPLETE SPECIFICATION.

A New or Improved Enamel for Re-fixing the Dental Plates of Artificial Teeth.

I, THOMAS CLARKE, of Choisy, Interlaken, Switzerland, Doctor of Medicine, do hereby declare the nature of this invention and in what manner the same is to be performed to be particularly described and ascertained in and by the following statement;—

5 My invention relates a new or improved enamel for re-fixing the dental plates of artificial teeth, and is designed for the purpose of overcoming the looseness of dental plates of artificial teeth, resulting from the shrinking of the gums, or arising from other causes, obviating thereby the necessity for a new model to be taken of the mouth, time after time, and the cost, delay and inconvenience
10 attending the recovering of the plates. It matters little of what the dental plates are made, vulcanite or gold, or whether none, or how many of the natural teeth remain, as long as there is no undue pressure on any point of the gums. So far does my invention extend that the prominences of the artificial teeth need not be ground down flat or level, but may be maintained, so that the grinding power
15 on the food may be preserved.

Where no natural teeth remain and where complete sets are required in any sudden emergency, by keeping a series of different sizes in stock, a new double or single set of teeth may be supplied and comfortably and accurately fitted in a very short space of time, and this even after the immediate extraction of the
20 teeth, avoiding thereby weeks and sometimes months of very unpleasant and unsightly delay. All that is required in any and every case is an easy channel for the gums to rest in, the enamel doing the rest.

In making my rubber enamel for these purposes I proceed as follows:—

First I make a saturated solution of the soft pink rubber used by dentists,
25 by dissolving it in the finest refined machine oil. I put the rubber and oil in a jar and then place the jar in a pan of boiling water, keeping the water boiling round it, constantly stirring it and adding a little oil carefully until the rubber is dissolved. When cold it is of the consistence of thick cream and then I scent it with otto of roses or some other suitable essential oil.

30 Then, 2nd, I take five parts (by weight) of the finest gums (but preferably the finest yellow gum-shell-lac) and place it also in a suitable jar. To this I add three parts of rectified spirits of wine and place the jar in a pan of hot water on a slow fire until the whole of the gum is entirely dissolved. To this I add three parts of the best plaster of Paris reground to the utmost fineness in a mortar
35 with a sufficient quantity of carmine to make it of a pink shade and ultimately mix.

I then add one and a half parts of the pink rubber composition, that is to say, as much as the other two constituents will carry and, lastly, to ensure purity and to keep the breath sweet I add one twentieth part of pure Condy's fluid and then carefully mix the whole together. The enamel should now be of the consistence
40 of thick oil-paint and should be gently re-heated on the fire and again well-stirred, and, if too thick may be thinned by adding a little more of the rectified spirit.

[Price 8d.]

A New or Improved Enamel for Re-fixing the Dental Plates of Artificial Teeth.

In the application of my enamel, the pieces to be treated are first well cleaned and warmed by being plunged into boiling water and dried or warmed over the low flame of a spirit-lamp and then the hot enamel is laid smoothly on the gum-surface of the plates thickly or thinly according to the looseness of the same.

When the plates are so loose as to require an extra thick coating of the enamel, I prefer to put it on in two layers and to let the first layer set before applying the second.

After the enamel is put on, it is advisable to warm the piece over the low flamed spirit-lamp which ensures the distribution of the enamel equally. The piece (or pieces) must then rest for a few minutes until the enamel is sufficiently set to bear the impression of the finger nail. It is then dipped in cold water for an instant and gently inserted in the mouth and the stringent pressure of the jaws exercised.

The pieces may then be removed dipped in hot water for a few seconds to soften the enamel and the process repeated until it is seen and felt that the "bite" is perfect all round and that an accurate fit, and an equable pressure over the whole surface of the gums, is obtained. When no further pressure is found of use and the mould is perfect, any overflow of the enamel may be scraped off with an ivory or bone bladed knife or its equivalent, and replaced in the pot for further use. The edges may then be hardened by running them round the low flame of a spirit-lamp.

If at any time the fit is too accurate and any slight tightness is felt, or the plates are in the least uncomfortable, dipping them in hot water for a second or two removes the difficulty, while if any point of the gum is tender or swelled, the enamel may be pressed down at that point or it may be peeled off so as to bridge the painful spot over and the part covered or not with a thinner solution. Any too prominent part of a tooth may be easily removed by the use of a suitable file, or the like. It is also clear that the pressure on any part must be from the hard vulcanite or gold plate itself and this part of the plate must be freely cut or taken away as the enamel is too soft to cause any pain.

Though the enamel sets sufficiently hard it is also from the heat of the mouth somewhat elastic, so that all plates (whether too loose or not) are benefitted by it because the gums have a softer bed to rest upon.

The proportions of the ingredients given in this specification are what I have found most suitable for ordinary cases, but by varying them so as to make a softer enamel by leaving out the plaster of Paris, or a harder or stick enamel, by leaving out the rubber oil, the adaptabilities of the process are multiform. When a tooth has been extracted, the space in the dental plate above may be covered temporarily by the stick or harder enamel. It is a very easy matter also, if desired, to cover the enamel with one or two layers of gold leaf, or to rub them into it and which, though not necessary, gives it an ornamental appearance.

To remove the enamel it is only necessary to put the plate into boiling water for about sixty seconds when the enamel is easily removed by a very stiff tooth brush or by a round ended ivory or bone knife, and after the surfaces have been brushed over with spirits of wine a re-application may be made in the manner already described.

If any natural teeth remain in the jaw, the fit of the piece is materially assisted, as the enamel when dipped in the hot water becomes soft as pulp and can be moulded round the teeth, thereby dispensing with the use of all clasps, which is a most valuable consideration, as clasps of whatever description round sound teeth must inevitably destroy them and cause the pieces to be remade with a renewal of annoyance and expense.

The enamel is absolutely innocuous as all the ingredients employed are perfectly harmless and this has been the great consideration sought after. It is both tasteless and (unless scent is used) scentless and renders the articulation and suction perfect, nor does it either shrink or swell. Any part may be scraped off and replaced at once. When required for use, it is only necessary to put the

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pot or jar into hot water until dissolved and well mixed and diluted if too thick with a little rectified spirits.

Having now particularly described and ascertained the nature of my said invention and in what manner the same is to be performed, I declare that what I
5 claim is:—

The new or improved enamel for re-fixing the dental plates of artificial teeth, composed of the ingredients used in or about the quantities specified.

Dated this 12th day of March 1898.

HUGHES & YOUNG,

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55 and 56, Chancery Lane, W.C., Agents for the Applicants.



I have the honor to acknowledge the receipt of your letter of the 10th inst. in relation to the above named matter. I have the honor to inform you that the same has been forwarded to the proper authorities for their consideration. I have the honor to inform you that the same has been forwarded to the proper authorities for their consideration. I have the honor to inform you that the same has been forwarded to the proper authorities for their consideration.

Very respectfully,
Wm. H. [Name]

Wm. H. [Name], [Address]

Enclosed for the [Name] is a copy of the [Name]

