

June 10, 1930.

C. B. DENNIS  
METHOD OF AND APPARATUS FOR USE IN TAKING  
IMPRESSIONS OF EDENTULOUS MOUTHS  
Filed March 21, 1929

1,763,553

2 Sheets-Sheet 1

FIG. 1.

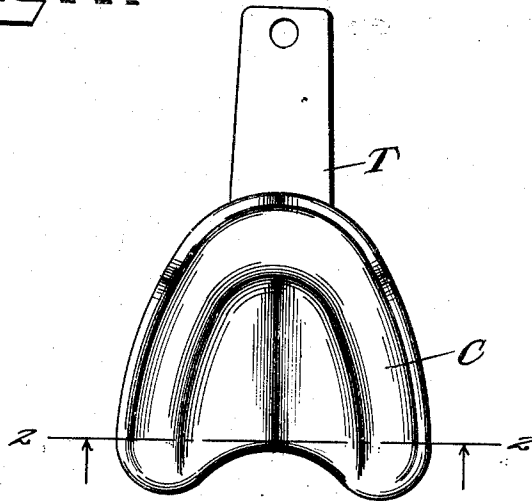


FIG. 5.

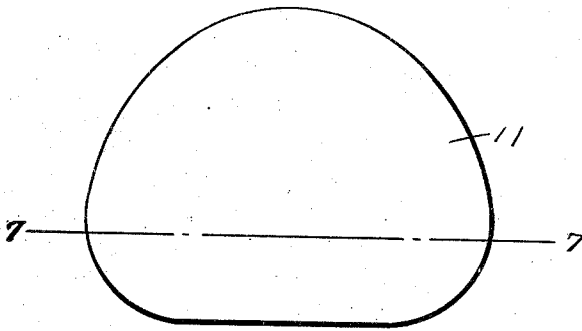
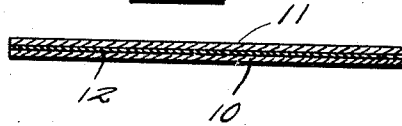


FIG. 7.



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2 Sheets-Sheet 2

FIG. 2.

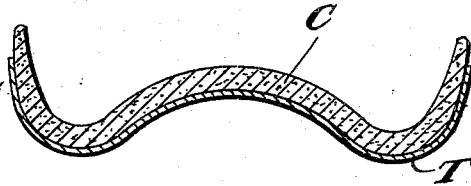


FIG. 3.

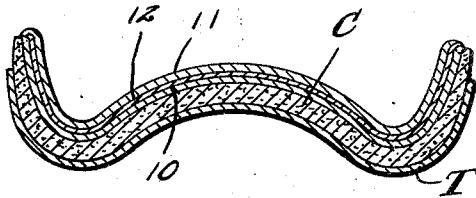


FIG. 4.

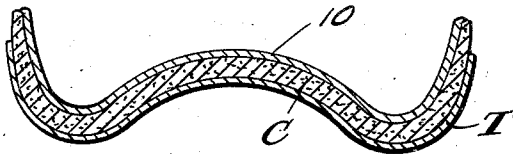
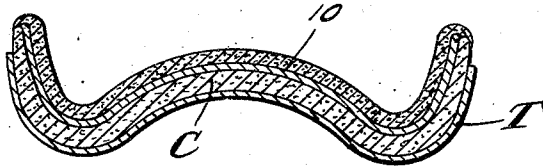


FIG. 5.



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# UNITED STATES PATENT OFFICE

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## METHOD AND APPARATUS FOR USE IN TAKING IMPRESSIONS OF EDENTULOUS MOUTHS

Application filed March 21, 1929. Serial No. 348,900.

This invention relates to method of and apparatus for use in taking impressions of edentulous mouths.

In the ordinary process of making such impressions as at present practiced, a modeling compound is placed in a tray T and while in position in the tray is subjected to pressure to cause the modeling compound to conform to the contours of the mouth. It is then removed and the impression covered with a thin batter of plaster of Paris, after which it is replaced in the mouth, pressure applied thereto and the plaster of Paris allowed to harden. This process is open to objection in that the heated compound compresses and displaces the thin layer of tissue or mucosa covering the maxilla. Use of the plaster layer fails to eliminate this objection and furthermore, the impression is in such close contact to the tissue that very little space is left for the plaster, making it extremely difficult to separate and producing a rough model.

Accordingly, an important object of the present invention is to provide a method of forming such impressions wherein compression and displacement of tissue during the final step of formation of the impression is avoided, and wherein it is possible to construct the impression with the use of a minimum amount of plaster, thus lessening the discomfort to the patient.

My method and apparatus are illustrated in the accompanying drawings, wherein:—

Figure 1 is a plan view of an impression of an edentulous mouth;

Figure 2 is a section on line 2—2 of Figure 1, illustrating the first step in the process of forming an impression;

Figure 3 is a similar view showing the next step therein;

Figure 4 is a similar view showing the third step;

Figure 5 is a sectional view through the complete impression;

Figure 6 is a plan view of the accessory employed in carrying out my process;

Figure 7 is a section on line 7—7 of Figure 6.

In accordance with my invention, I first form the compound impression in the usual

manner. After formation of the compound impression C, I place thereon a filler consisting of two sheets of wax 10 and 11 cut to conform substantially to the modeling compound and having arranged therebetween a separating medium consisting of some thin, flexible material, such as a very fine sheet of rubber, indicated at 12. This filler is heated and pressed into the compound impression so that it substantially conforms to the shape thereof. The compound impression with the filler is then placed in the patient's mouth and pressure applied. When removed from the mouth, a wax impression is provided for which the compound impression acts as a tray.

The next step in the process is the removal of the upper wax sheet 11 and the separating medium 12, this separation being facilitated by the use of the separating medium which prevents the sheets of the filler from adhering to each other.

Removal of the upper wax layer or sheet leaves a space of predetermined thickness in the impression over the entire area thereof which may be filled with plaster of Paris before the impression is again placed in the mouth. Since the space provided is uniform, the thickness of the case provided will be uniform and a smooth, finished impression in the plaster can be obtained.

It will be obvious that by employing this method, failures in the formation of impressions may be reduced to a minimum and the work of the dentist accordingly facilitated and decreased. The wax sheets 10 and 11 with their separating media 12 may be sold as a unit in different sizes and shapes as are the ordinary dental trays.

While I have above consistently referred to the use of a compound in forming the original or rough impression, it will, of course, be understood that instead of the compound, I can employ wax or any other suitable substance having the desired characteristics and I am still assured of having a thin uniform layer of plaster in completing the impression.

While I have above referred to the use of wax sheets, it will, of course, be obvious that in the use of this term, I refer not only to

sheets of actual wax but likewise to sheets of composition material having the same or similar properties.

I claim:—

- 5 1. The method of taking impressions of edentulous mouths consisting in forming the usual composition impression, superimposing upon this impression a pair of layers of plastic material having a medium arranged  
10 therebetween to facilitate separation thereof, reforming the impression in the layers, removing the outer layer and substituting therefor a substance in a semi-liquid state which hardens as it dries and forming an im-  
15 pression in said substance.
2. As an article of manufacture, a filler for a composition impression comprising upper and lower layers of plastic material and a medium between the layers to prevent them  
20 from adhering to each other so as to permit the removal of the upper layer after an impression has been made in the filler.
3. The method of taking impressions of edentulous mouths consisting in forming an  
25 approximate impression, superimposing upon the approximate impression a plastic material, reforming the impression in said material, removing the upper portion of said material, and substituting for the removed por-  
30 tion of said material a substance hardened as it dries and forming an impression in said substance.
4. The method of taking impressions of edentulous mouths consisting in forming an  
35 approximate impression, superimposing upon the approximate impression a pair of layers of plastic material of uniform thickness having a medium arranged therebetween to facilitate separation thereof, reforming  
40 the impression in the layers, removing the outer layer and substituting therefor a substance hardening as it dries and forming an impression in said substance.
5. The method of taking impressions of edentulous mouths consisting in forming an  
45 approximate impression, superimposing upon the approximate impression a pair of layers of wax of uniform thickness having arranged therebetween a thin, flexible sheet of rubber, reforming the impression in the  
50 layers, removing the outer layer, superimposing the casting material upon the under layer and forming an impression in the casting material.
6. A dental impression of an edentulous  
55 mouth comprising a composition base formed to approximate the impression, a layer of wax of uniform thickness superimposed upon the composition and likewise approximating the  
60 impression, and a uniform plaster layer upon the wax layer and providing the exact im-  
65 pression.

In testimony whereof I hereunto affix my signature.