No. 869,191. PATENTED OCT. 22, 1907.

G. W. MORGAN.

DENTAL PLATE.

APPLICATION FILED JUNE 18, 1907.

Fig. 1.

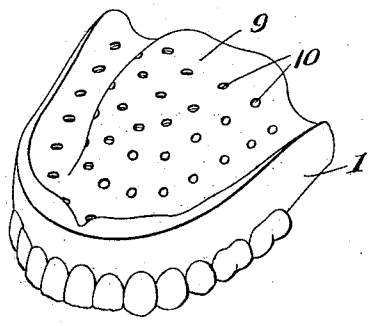



Fig. 2.

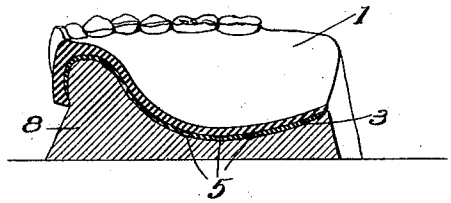



Fig. 3.

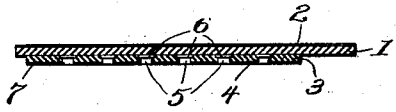



Fig. 5.

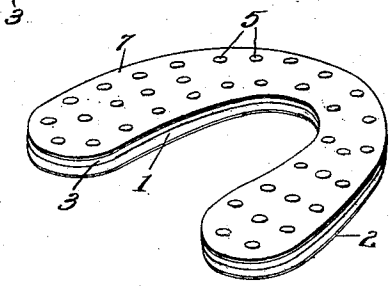
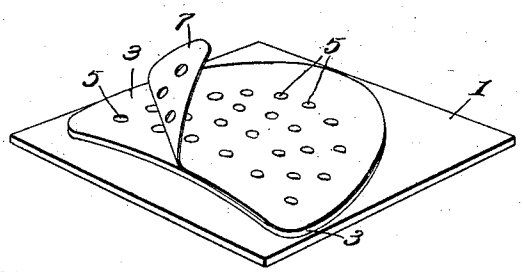



Fig. 4.

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# UNITED STATES PATENT OFFICE.

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## DENTAL PLATE.

No. 869,191. Specification of Letters Patent. Patented Oct. 22, 1907.

Application filed June 18, 1907. Serial No. 379,619.

*To all whom it may concern:*

Be it known that I, GORDON W. MORGAN, a citizen of the United States, residing at Salem, in the county of Roanoke and State of Virginia, have invented new and useful Improvements in Dental Plates, of which the following is a specification.

This invention relates to dental plates of that type provided with suction cavities whereby the plates can be held in the mouth with comfort and without inflaming the gums by reason of irritating pressure.

The invention has for one of its objects to improve and simplify the construction of devices of this character so as to be comparatively easy and inexpensive to manufacture, thoroughly satisfactory in use, and extremely comfortable to the user.

A further object of the invention is the provision of a dental plate provided with a comparatively soft rubber backing that has a plurality of suction cavities for effectively holding the plate in position, the design being especially adapted for fitting mouths having flat palates, badly sunken gums and the like.

A still further object of the invention is the provision of a soft rubber suction lining manufactured for the trade in such form as to be readily employed by dentists in the process of making dental plates, the lining comprising a strip of rubber serving as the body of the plate in the completed article, and which is provided with a layer of soft rubber having embedded therein molding members adapted to be removed to leave suction cavities.

With these objects in view and others, as will appear as the description proceeds, the invention comprises the various novel features of construction and arrangement of parts which will be more fully described hereinafter and set forth with particularity in the claims appended hereto.

In the accompanying drawing, which illustrates one of the embodiments of the invention, Figure 1 is a perspective view of an upper set of false teeth. Fig. 2 is a section showing the process of making the dental plate. Fig. 3 is a longitudinal section of the soft rubber suction lining before being molded into a plate. Fig. 4 is a perspective view of the same. Fig. 5 is a perspective view of a soft rubber suction lining form for a lower set of teeth.

Similar reference characters are employed to designate corresponding parts throughout the several views.

In carrying the invention into practice, the form from which a dental plate is made comprises a body of rubber 1 which, when vulcanized, forms the body of the dental plate and on one side thereof is a protecting cover 2 of fabric that adheres thereto and can be readily removed when the plate is to be formed. On the opposite side of the body 1 is a piece of soft pure rubber 3 that is provided with a plurality of apertures 4 for receiving small filling pieces 5 of lead or the like which are provided with annular flanges 6 that serve to anchor the pieces in the soft rubber 3 and over the latter is a fabric 7 which is a protecting cover and is removed when the plate is formed.

In making a set of teeth, an impression is taken of the mouth in the usual manner with plaster of paris and the mold thus formed is indicated at 8, Fig. 2. The coverings 2 and 7 are removed from the rubber 1 and the form is applied to the mold by presenting the side having the covering 7 to the mold, and the plate is shaped and vulcanized and the teeth applied in the usual manner. After this is done, the set of teeth is removed from the mold, after which the filling pieces 5 can be removed by a sharp implement. The set of teeth thus constructed, as shown in Fig. 1, has a soft top surface 9 having evenly distributed suction cavities 10 that are larger at their bottom by reason of the heads 6 on the filler pieces, and by means of these cavities, an easy and comfortable suction action is produced which is not at all disagreeable and insures a ready holding of the plate. Furthermore, the soft cushion on the plate protects the teeth when masticating hard food and relieves irritating pressure on the gums and also prevents inflammation.

In Fig. 5, the soft rubber suction lining form is shown for use in making the plate for the lower set of teeth. This is used in substantially the same manner as the form previously described and it differs from the latter only in its shape.

In practice, the forms are put up for the market as shown in Figs. 3 to 5, inclusive, and may be of any desired shape and size so that dentists can equip their plates with the improved cushion and suction lining.

From the foregoing description, taken in connection with the accompanying drawing, the advantages of the construction and of the method of operation will be readily apparent to those skilled in the art to which the invention appertains, and while I have described the principle of operation of the invention, together with the apparatus which I now consider to be the best embodiment thereof, I desire to have it understood that the apparatus shown is merely illustrative and that such changes may be made when desired, as are within the scope of the claims.

Having thus described the invention, what I claim is:—

1. A dental plate provided with a plurality of distributed suction cavities, each cavity being larger at its bottom than at its mouth.

2. As an article of manufacture, a body of rubber adapted to form the vulcanized plate of a set of teeth, a body of soft rubber, and removable filling pieces embedded in the soft rubber to provide suction cavities therein.

3. As an article of manufacture, a body of rubber adapted to be treated to form a dental plate, a body of soft rubber adhering thereto, and removable filling pieces of metal embedded in the soft rubber and adapted to leave cavities in the rubber when removed therefrom, said cavities being abruptly enlarged at their inner ends.

In testimony whereof, I affix my signature in presence of two witnesses.

GORDON W. MORGAN.

Witnesses:
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M. H. BOWLETT.