Oct. 16, 1923. 1,470,826

W. M. GAMBILL

IMPRESSION AND CAST RETAINER

Filed Aug. 29, 1922

Fig. 1.

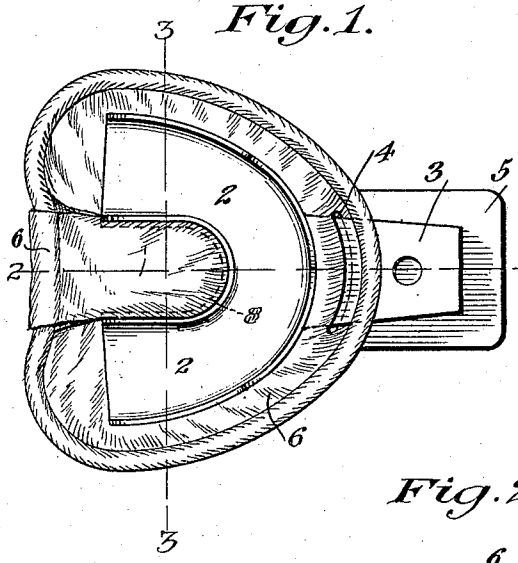


Fig. 4.

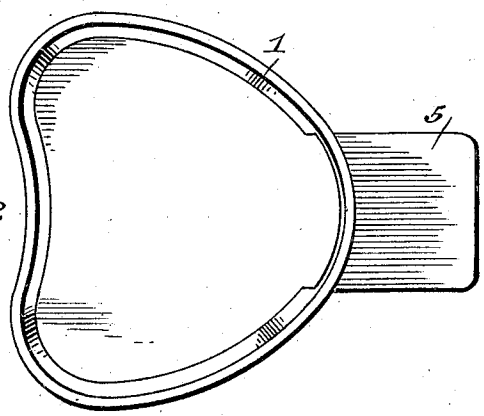


Fig. 2.

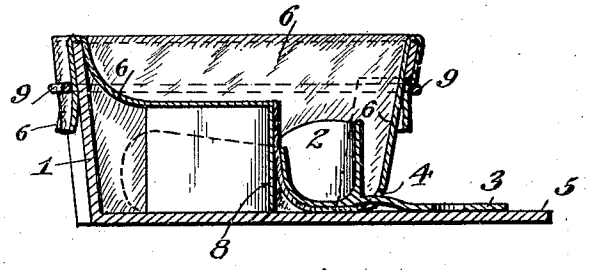


Fig. 3.

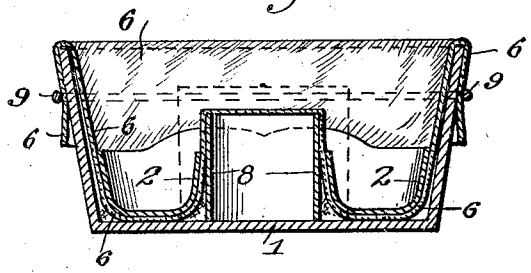
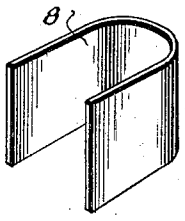


Fig. 5.



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UNITED STATES PATENT OFFICE.

WILLIAM M. GAMBILL, OF MERKEL, TEXAS.

IMPRESSION AND CAST RETAINER.

Application filed August 29, 1922. Serial No. 584,982.

To all whom it may concern:

Be it known that I, WILLIAM M. GAMBILL, a citizen of the United States, residing at Merkel, in the county of Taylor and State of Texas, have invented certain new and useful Improvements in Impression and Cast Retainers, of which the following is a specification.

This invention has reference to dental impression and cast retainers and its object is to provide means for running a cast from all hard materials used for the cast and also for plaster of Paris for the same purpose, the cast being produced from either the upper impression or the lower impression.

The invention has certain advantages over means heretofore employed for similar purposes in that the invention saves time in making the cast, does not cause a mess, saves material, mounts readily on an articulator, fits the flask without trimming, eliminates bubbles from the cast, admits of vibration, the material does not spread, gives a perfectly smooth cast and more dense than heretofore, and makes the cast of any thickness desired.

The invention comprises a flask adapted to hold an impression tray with the handle inserted through a hole in a sheet of cloth used in connection with the cast retainer or flask.

In operating the cast retainer, the cloth is first immersed in water and squeezed to press out excess water. The handle of the impression tray is then inserted through the hole in the cloth and through a slot in the flask to reach to the exterior thereof. Then the impression tray is held in place by the index finger of the hand so as to engage against the bottom of the impression retainer, pulling the cloth evenly around the periphery of the cast retainer. After this, a rubber band is placed about the periphery of the cloth at a distance of about one-half inch down the cast retainer. The handles of the impression tray and the cast retainer are held firmly together and the cloth is then pulled straight down all around the periphery of the cast retainer so as to get out all folds of cloth. As soon as this is accomplished, the cast is run and is jarred continually until the desired fullness or density is accomplished. When the casting material has hardened, the rubber band is removed and the cloth is pulled gently around the periphery of the impression and cast retainer to remove the cast.

The procedure for making a cast of an upper impression is that described. For casting a lower impression, a horse shoe shaped attachment is placed in the flask and the procedure is then the same as for the upper impression.

The invention will be best understood from a consideration of the following detailed description taken in connection with the accompanying drawings forming part of this application, with the understanding that the invention is not confined to any strict conformity with the showing of the drawings, but may be changed and modified so long as such changes and modifications mark no material departure from the salient features of the invention as expressed in the appended claims.

In the drawings:—

Figure 1 is a plan view of the flask assembled for casting.

Fig. 2 is an upright section on the line 2—2 of Fig. 1.

Fig. 3 is a cross section on the line 3—3 of Fig. 1.

Fig. 4 is a plan view of the flask.

Fig. 5 is a perspective view of a U-shaped form for location at the suction zone of the cast.

Referring to the drawings, there is shown a flask 1 in which there is lodged a dental impression tray 2 provided with the customary handle 3 extending through a slot 4 in what constitutes the front wall of the flask and which handle 3 extends to the outside of the flask onto a ledge or handle 5 whereby the handle 3 may be held against the handle 5 by the thumb and fingers of the human hand.

Placed upon the flask 1 is a cloth sheet 6 having a marginal drop extension 7 over the upper margin of the flask so as to produce a loop into which the casting material may be deposited.

When the parts are assembled to produce a cast, there is provided a horse-shoe shaped attachment which, when the cast retainer is to be used for producing a lower cast, is used, but when an upper cast is to be produced, such attachment is temporarily discarded.

The cloth 6 is immersed in water and then squeezed to discharge excess water and

the cloth is disposed on the flask as shown in Figs. 1, 2 and 3. When this has been accomplished, the impression tray is placed in the flask with the handle 3 inserted through the slot 4 and onto the handle 5, the impression tray being held by the index finger of the human hand in the middle of the flask so as to hold against the bottom of the flask and the cloth 6 is pulled evenly around the periphery of the cast-retainer. When this is accomplished, a rubber band is placed around the cloth encircling the upper edge of the flask preferably at a distance of about one-half inch below the upper edge. Now by holding the impression tray and the cast retainer firmly together by the fingers of the hand, the cloth is pulled straight down all around the periphery of the cast retainer so as to get out all the folds of the cloth.

Having accomplished the assembly of the parts, the handles 3 and 5 are grasped and the cast is poured, the flask being jarred continually until the desired fullness is reached.

After the casting material has hardened, the rubber band is removed and the cloth 6 is pulled gently all around the periphery of the impression and cast retainer and the parts are thereby removed.

The invention greatly facilitates the casting operation and therefore saves time and the presence of the cloth prevents any messing in the operation. The cast mounts on the articulator much easier than heretofore and no trimming is needed.

Besides all this, the operation eliminates bubbles from the cast and therefore produces a perfectly smooth cast with more density than heretofore. Moreover, the invention admits of vibration without the material spreading and the cast is correspondingly compacted and made more dense.

What is claimed is:

1. A cast retainer for dental purposes, of a depth to receive a dental impression tray, with the retainer having a handle, said cast retainer also having a slot through the upright wall adjacent to the handle to pass the handle of the impression tray, and a fabric sheet with a slot therethrough to pass the impression tray handle.

2. A cast retainer for dental purposes, of a depth to receive a dental impression tray, with the retainer having a handle, said cast retainer also having a slot through the upright wall adjacent to the handle to pass the handle of the impression tray, and a cloth sheet with a slot therethrough for the impression tray handle, said cast-retainer having associated therewith a U-shaped member to support the cloth at a height to form the suction cavity.

In testimony whereof, I affix my signature hereto.

WILLIAM M. GAMBILL.