

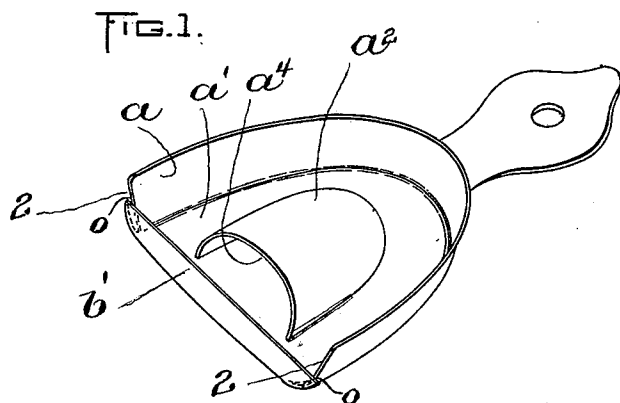
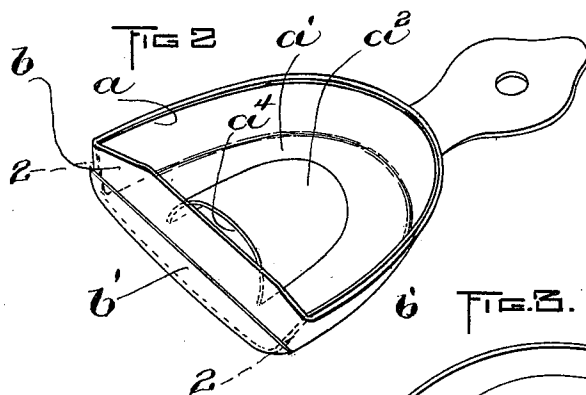
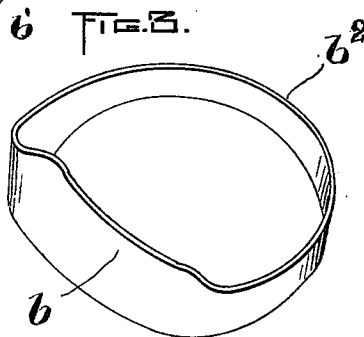
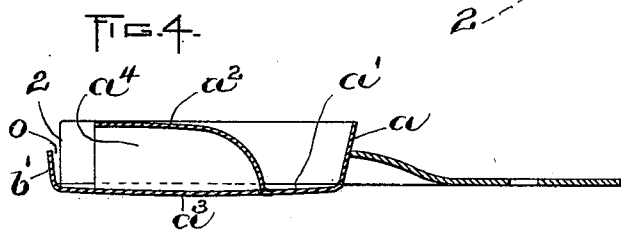
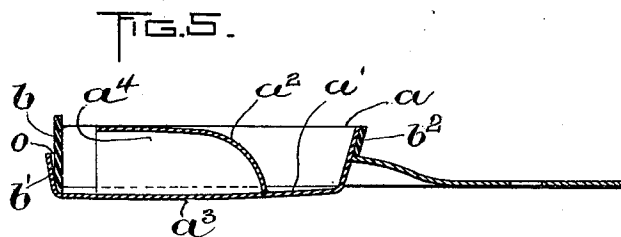
No. 637,480.

Patented Nov. 21, 1899.

H. D. OSGOOD.
DENTAL IMPRESSION CUP.

(Application filed Feb. 25, 1899.)

(No Model.)



WITNESSES.

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UNITED STATES PATENT OFFICE.

HERMAN D. OSGOOD, OF CONCORD, MASSACHUSETTS.

DENTAL IMPRESSION-CUP.

SPECIFICATION forming part of Letters Patent No. 637,480, dated November 21, 1899.

Application filed February 25, 1899. Serial No. 706,803. (No model.)

To all whom it may concern:

Be it known that I, HERMAN D. OSGOOD, of Concord, in the county of Middlesex and State of Massachusetts, have invented certain new and useful Improvements in Dental Impression-Cups, of which the following is a specification.

This invention relates to appliances used by dentists in taking an impression in plaster of the roof of the mouth and the adjoining parts.

The invention has for its object to provide a cup adapted to retain the plaster which is displaced during the operation of taking the impression and thus prevent the displaced plaster from falling into the throat of the patient.

The invention consists in the improvements which I will now proceed to describe and claim.

Of the accompanying drawings, forming a part of this specification, Figure 1 represents a perspective view of a dental impression-cup embodying my invention, the cup being shown without the elastic dam or barrier. Fig. 2 represents a view similar to Fig. 1, showing the elastic dam in place on the cup. Fig. 3 represents a perspective view of the elastic dam and its confining-strip. Fig. 4 represents a longitudinal section of the cup without the dam. Fig. 5 represents a longitudinal section of the cup with the dam.

The same letters and numerals of reference indicate the same parts in all the figures.

The cup comprises a U-shaped retaining-wall a and a bottom plate a' , extending across the space within the said wall. The bottom plate is provided with a hollow protuberance a^2 , the upper surface of which forms the usual arch or projection approximately fitting the roof of the mouth, this arch being common in dental impression-cups. The protuberance a^2 differs from that heretofore provided in that it has an opening or mouth a^4 at the end nearest the wider end of the cup and has a bottom piece a^3 formed to prevent the escape from the cup of plaster entering the mouth a^4 , the protuberance and its bottom piece forming a receptacle which receives through the mouth a^4 the surplus plaster displaced by the pressure exerted in taking an impression.

The cup is provided with a dam or barrier

extending across the mouth of the said receptacle and adapted to deflect the displaced plaster into the receptacle. Said dam or barrier, as here shown, includes a strip or body b of elastic material, preferably rubber, having an elastic confining-strip b^2 united to its ends, the body b and strip b^2 forming a continuous elastic band adapted to embrace the confining-wall a , so that the body b can be readily applied and removed. The ends 2 2 of the retaining-wall a constitute abutments or shoulders formed to support and hold the elastic body portion b in its operative position, said shoulders being preferably slightly inclined, so that their upper portions overhang their lower portions, this form tending to hold the lower edge of the body portion b closely against the bottom plate of the cup and preventing any tendency of the said body portion to slip upwardly from the bottom plate.

The elastic body portion or strip b may constitute the entire barrier; but owing to its elastic and yielding nature I prefer to supplement it by a flange b' , preferably of sheet metal, attached to the bottom of the cup and projecting upwardly therefrom in position to bear against the outer side of the body portion or strip b and prevent the lower edge of the latter from bulging outwardly, said body portion b being considerably wider than the flange b' and retaining-wall a , so that its upper edge projects above said parts and is free to adapt itself to the contour of the roof of the mouth, thus forming a close joint to prevent the escape of plaster. The ends of the flange b' are separated from the shoulders 2 2, as shown in Fig. 1, by openings adapted to receive the ends of the elastic body portion or strip b .

It will be seen that the body portion b and its confining-strip b^2 resemble an ordinary elastic band, although differing from the latter in that the portion b is wider than the portion b^2 . This band can be cheaply made and quickly applied and removed, so that a dentist can discard each band after once using it, using a fresh clean band for each operation.

The relatively-rigid flange b' serves to exert pressure upon the plaster at the larger end of the cup, and thus make the impression more solid at this point than it would be if there

were no such relatively-rigid support for the plaster—or, in other words, if the only barrier between the ends of the retaining-wall were the elastic body *b*.

5 I claim—

1. A dental impression-cup having a hollow protuberance the upper surface of which forms the usual arch between the side walls of the cup, said protuberance having a closed
10 bottom and an open end adjacent to the wider end of the cup, whereby the protuberance is adapted to receive and retain the surplus plaster that is displaced during the operation of taking an impression.

15 2. A dental impression-cup having a hollow protuberance opening toward the larger end of the cup, and a barrier adjacent to and extending across the opening or mouth of the protuberance and adapted to deflect displaced
20 plaster into said mouth.

3. A dental impression-cup having a U-shaped retaining-wall the ends of which are formed as band-supporting shoulders, whereby an elastic band may be held in position to
25 form a dam or barrier across the space between said shoulders, and a flange projecting upwardly from the bottom of the cup between

the said shoulders as a support for the said elastic dam or barrier.

4. A dental impression-cup having a U- 30 shaped retaining-wall the ends of which form band-supporting shoulders, and an elastic band formed to embrace said wall, a portion of the band being supported by said shoulders in position to form a dam or barrier 35 across the space between the ends of the retaining-wall.

5. A dental impression-cup having a U-shaped retaining-wall the ends of which are formed as band-supporting shoulders, a flange 40 projecting upwardly from the bottom of the cup between said shoulders, and an elastic band formed to embrace said wall, a portion of the band being supported conjointly by said shoulders and flange in position to form 45 a dam or barrier across the space between the shoulders.

In testimony whereof I have affixed my signature in presence of two witnesses.

HERMAN D. OSGOOD.

Witnesses:

C. F. BROWN,

A. D. HARRISON.