

No. 720,105.

PATENTED FEB. 10, 1903.

G. A. BROUILLET.
DENTAL IMPRESSION CUP.
APPLICATION FILED MAY 31, 1902.

NO MODEL.

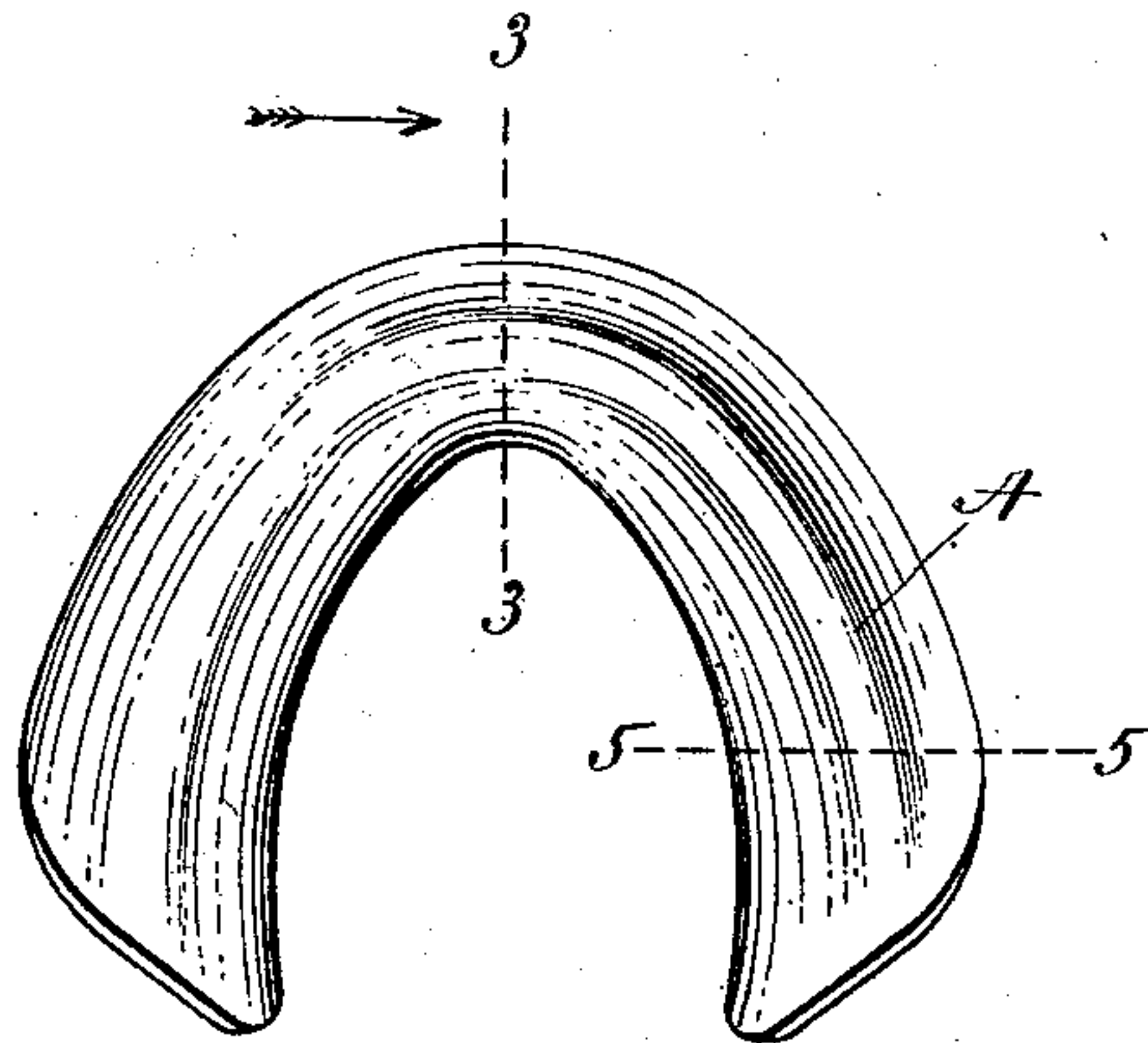


Fig. 1.

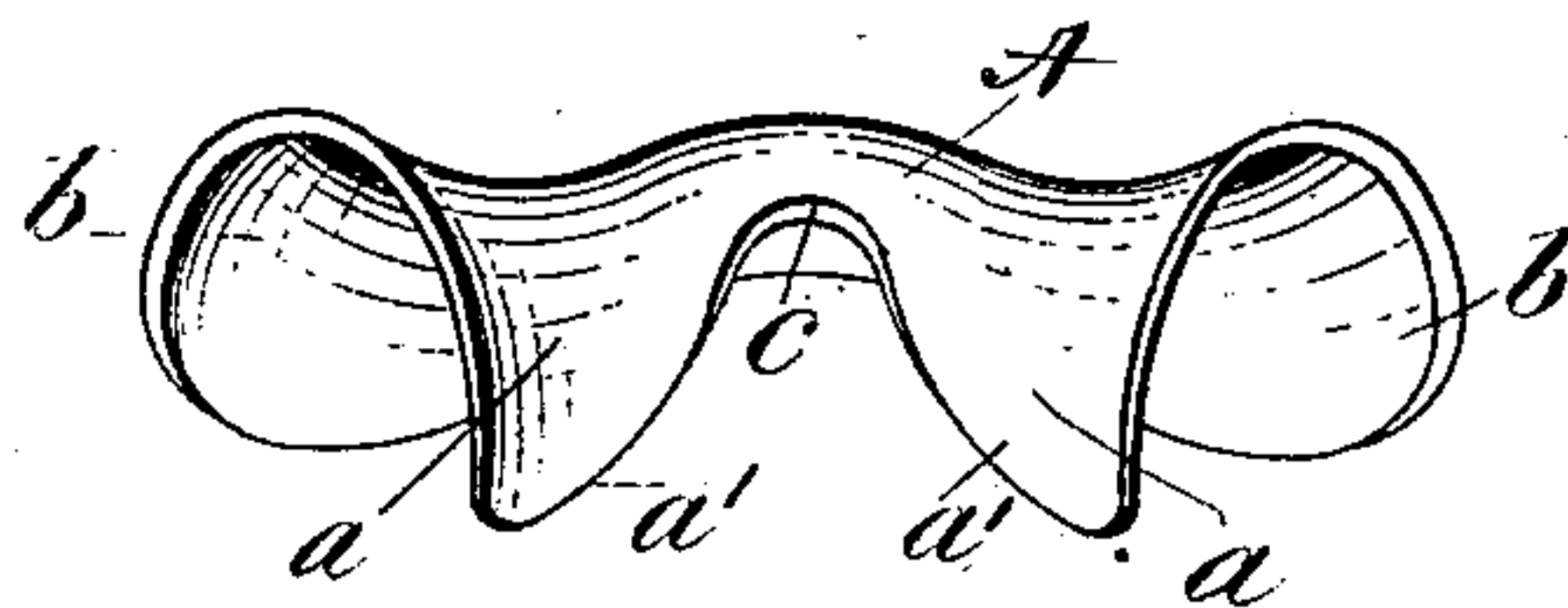


Fig. 2.

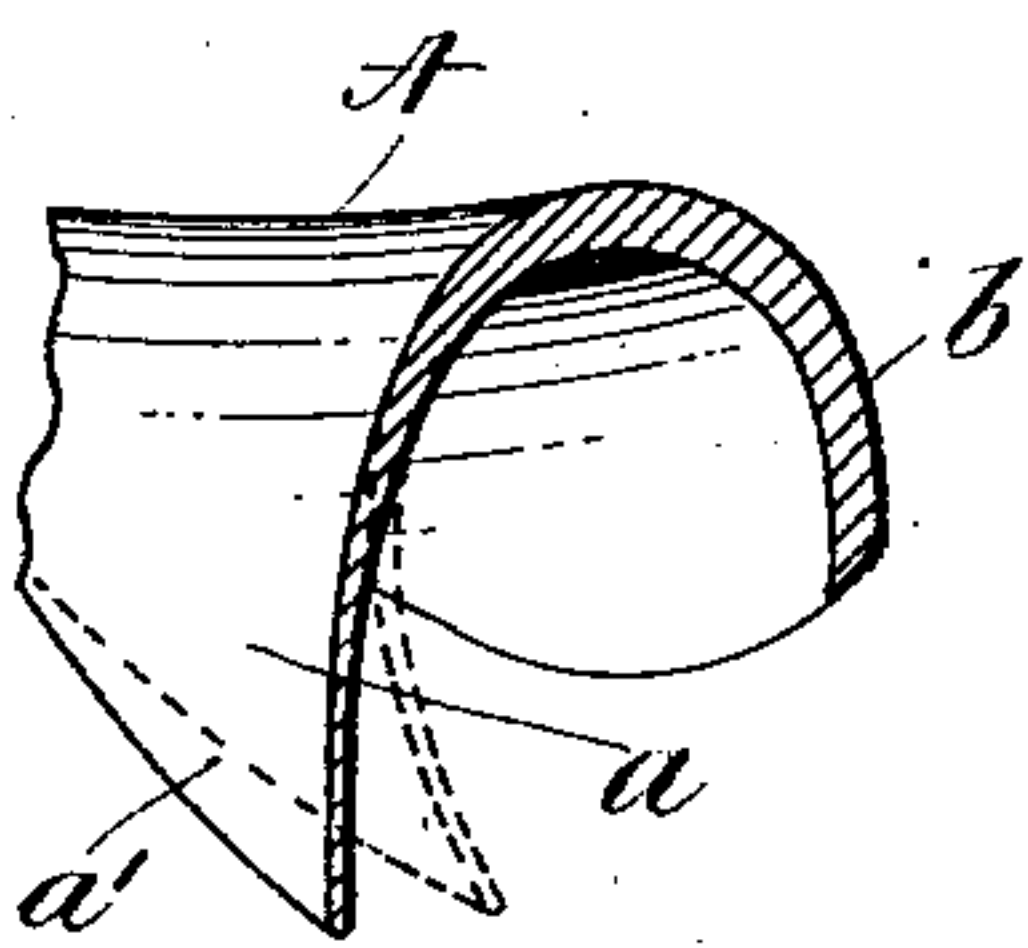


Fig. 5.

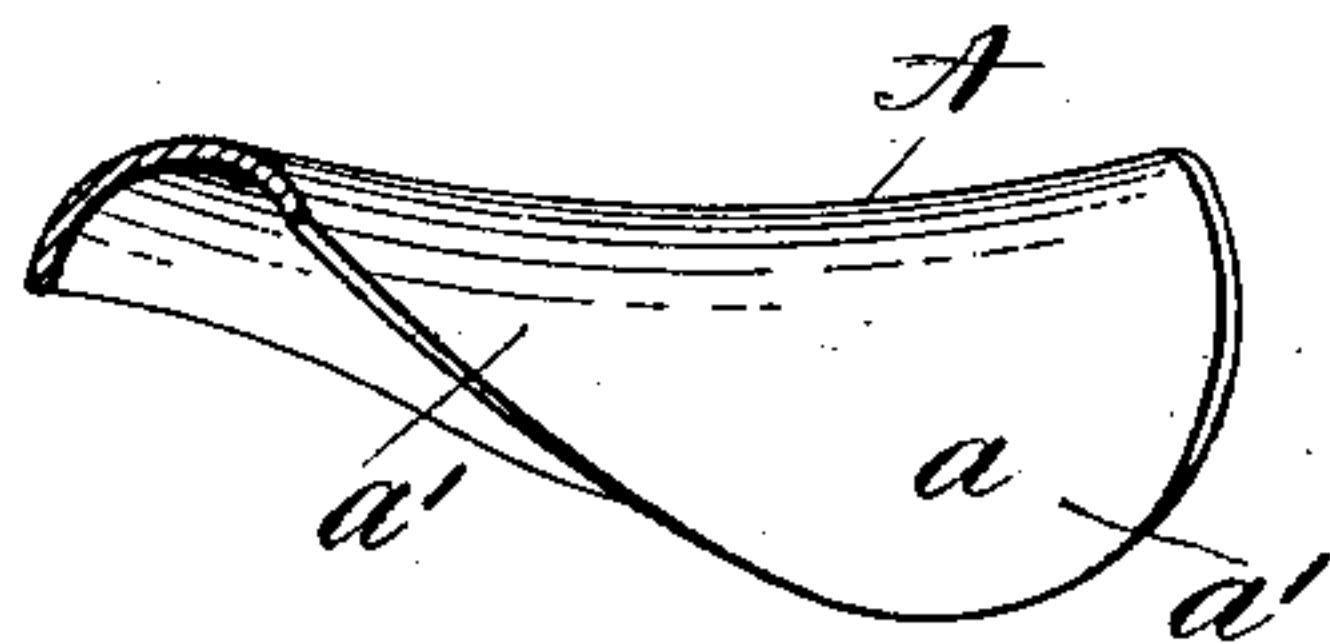


Fig. 3.

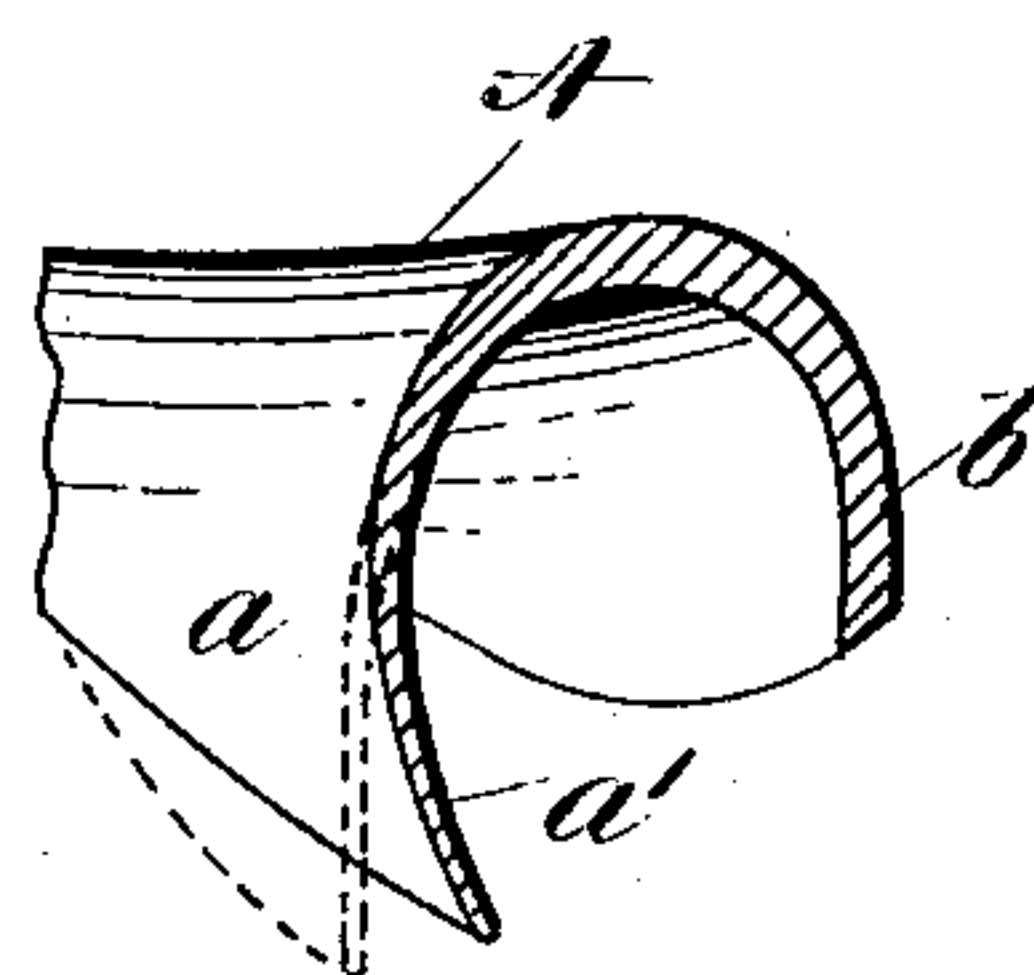


Fig. 6.

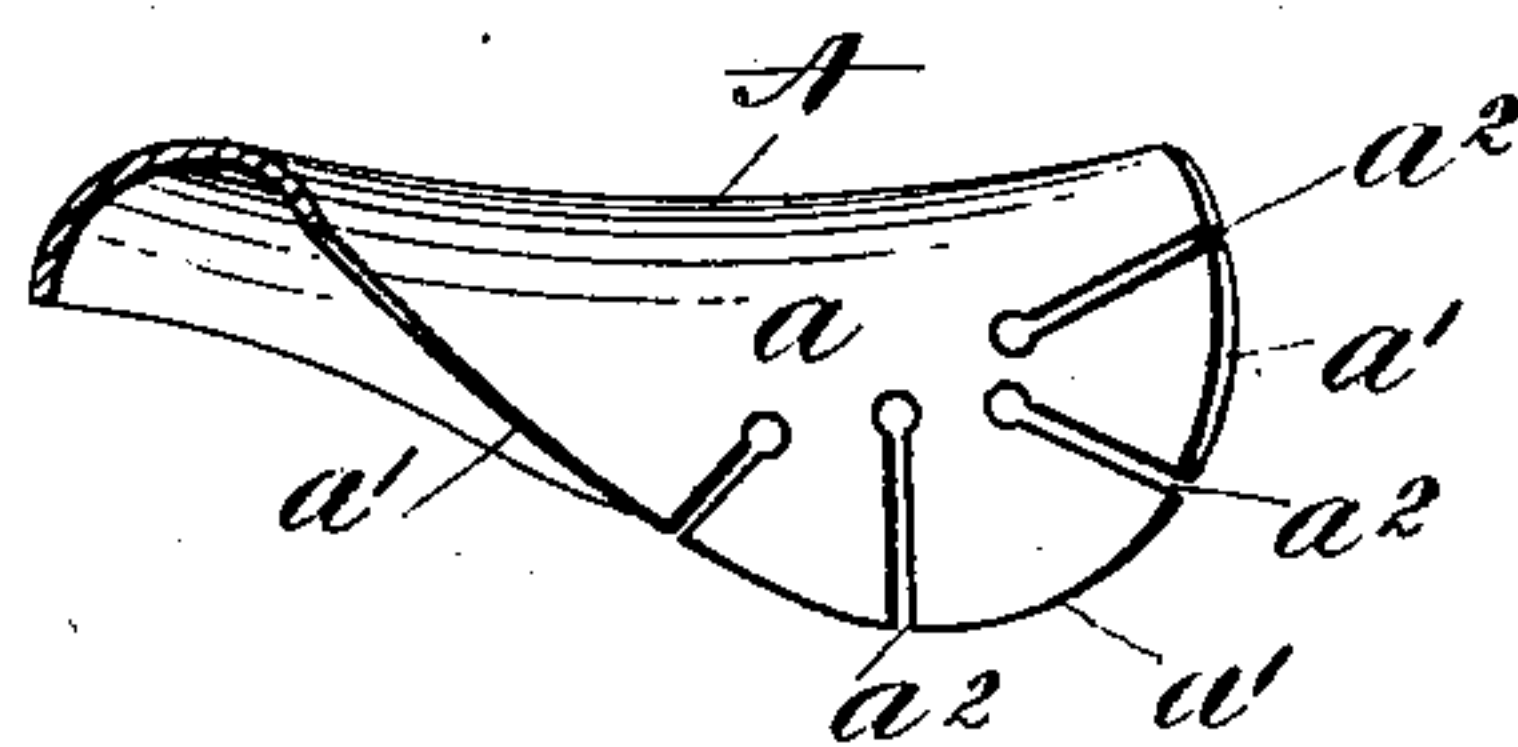


Fig. 4.

WITNESSES.

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GEORGES A. BROUILLET, OF BOSTON, MASSACHUSETTS.

DENTAL IMPRESSION-CUP.

SPECIFICATION forming part of Letters Patent No. 720,105, dated February 10, 1903.

Application filed May 31, 1902. Serial No. 109,581. (No model.)

To all whom it may concern:

Be it known that I, GEORGES A. BROUILLET, of Boston, in the county of Suffolk and State of Massachusetts, have invented certain new and useful Improvements in Dental Impression-Cups, of which the following is a specification.

My present invention relates to improvements in impression-cups for the use of dentists in taking impressions of the lower jaw.

The object of my invention is to make a simple adjustable cup, so that a certain class of jaws may be more correctly and easily taken, especially upon the inside, and that the plate made from such impression may be worn with much greater comfort. There are also other advantages which will be readily apparent to any one skilled in the art.

Hitherto these impression-cups have usually been made rigid from one piece of metal and of the same general form, different sizes being used to correspond with the general size of the jaw. There has also been used to a limited extent a cup arranged to be adjustable laterally in order that a less number of cups might be employed. In this case the walls of the cup are formed rigid, but may be moved as a whole out and in, so that the cup may be made wider or narrower. In use the said cup is adjusted to the proper width required and then used the same as an ordinary cup. This simply lessens the number of sizes of cups needed to be kept on hand, but does not fit the jaw any better or differently than the usual style first named.

I am aware that cups with elastic rims or flanges have been employed to protect the gums, tongue, or other parts of the mouth from the plaster used in making the impressions or to aid the removal of small pieces of broken plaster; but these do not appertain to the spirit of my invention.

My present invention has special reference to a form and design of cup that may be closely fitted to the jaw on the inside after being inserted in the mouth. In many cases the interior wall of the under jaw on each side along the bottom near to and at the back recede, thereby forming a circular channel which renders it extremely difficult to obtain a perfect impression. In all such peculiar conformations by my present invention I am

enabled to obtain an impression of the interior, back, and side walls most perfectly. This cannot now be accomplished by any other impression-cup known to me. From an impression thus made a more perfectly fitting plate can be made, the said plate having the added advantage of locking under the jaw in such a manner that it is better retained in its normal position in the mouth, and it is worn with increased comfort.

In the accompanying drawings, Figure 1 is a plan view of the body of my improved cup. Fig. 2 is a front elevation of the same. Fig. 3 represents a part of the body as cut from Fig. 1 on line 3 3, the inner wall or lip of the cup showing. Fig. 4 is a modification of the form of the section shown by Fig. 3. Figs. 5 and 6 are sections on line 5 5, Fig. 1.

In Fig. 1, A represents the body of the cup, the usual handle not being shown. In Fig. 2, *a* represents the inner wall or lip, and *b* the outer wall of the cup. This form of cup is designed for use in taking impressions of the under jaw. In many instances the under jaw upon the inner sides slants under, so that the form of cup hitherto used does not fit with any degree of exactness. I have therefore conceived the form of cup shown in the drawings and which is preferably cut out in the center inside, as shown in Fig. 2 at *c*. From the point *c* the inner wall or lip *a* is preferably elongated and the metal is formed thin and pliable, though retaining sufficient stiffness to sustain the material from which the impression is made. The outer walls and other parts of the cup may be of the usual thickness, if desired.

In operation the cup is placed over the jaw in the usual manner, and then the inner walls or lips *a a* are pressed toward the jaw and the stiffness of the metal holds in place the material with which the impression is being made. In Fig. 5 the position of the inner wall *a* is shown as ordinarily used, while the dotted line shows the wall or lip in its application to the special conformation of jaws hereinbefore described. In Fig. 6 the reverse is shown, in which the lip *a* is shown as in use and the dotted line as when first inserted, the latter position resembling the position of the inner wall of the ordinary cups heretofore in use.

My cup may be made of the same thickness of material throughout, provided the pliability and stiffness of the inner lips are assured, or the walls may be of uneven thickness, as illustrated in the drawings.

In Fig. 4 I show a modification of the lip a , which may be used with thicker or stiffer material, and consists of the same form of lip, but provided with the slits a^2 a^2 for the purpose of giving pliancy to the lower end of the lip a , thus enabling it to be readily turned under and closely fitted against the lower inside of the jaw; but I prefer to form the whole lip a of thin, pliable, or yielding material of a thickness which will give the necessary yielding and pliancy with the requisite stiffness.

The expense of making my new form will be little, if any, more than that of the old styles of cups.

The cup is made, preferably, of one piece of metal, with a short projection back of the exterior center of the body to be used as a convenient handle.

I do not show any form designed to be used in connection with the upper jaw, as the peculiarities mentioned are chiefly confined to the lower jaw.

Having now fully described my invention,

what I claim as new, and desire to secure by Letters Patent of the United States, is—

1. The integral metal dental impression-cup herein described, consisting of exterior and interior walls; the interior walls being substantially removed near the central portion and having the extremities of the inner walls or lips elongated and made pliable or yielding in order to be closely fitted to the inside bottom of the lower jaw, and of sufficient stiffness to hold the material in place while the impression is being taken, all substantially as and for the purposes set forth.

2. A metal impression-cup, having inner flexible walls, in combination with integral outer rigid walls, substantially as and for the purposes described.

3. A metal dental impression-cup, provided with inner lips or walls having the slits a^2 , a^2 , to allow the material to be easily bent, in combination and integral with the rigid outer walls and body of said cup substantially as set forth.

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

GEORGES A. BROUILLET.

Witnesses:

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