

F. & G. G. HICKMAN.
 Manufacture of Dental-Plates.

No. 167,336.

Patented Aug. 31, 1875.

Fig. 1.

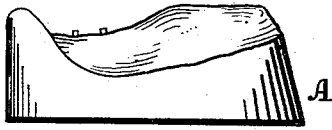


Fig. 2.

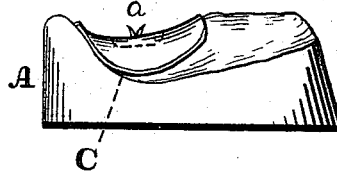


Fig. 4.

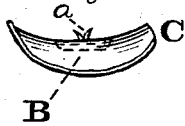


Fig. 5.



Fig. 3.

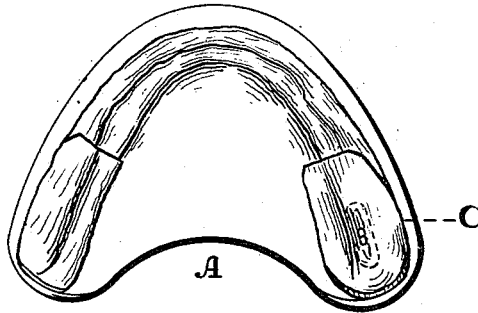
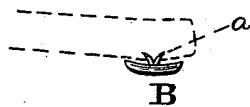


Fig. 6.



Witnesses:

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UNITED STATES PATENT OFFICE.

FRANCIS HICKMAN, OF READING, AND GIBBONS G. HICKMAN, OF
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IMPROVEMENT IN THE MANUFACTURE OF DENTAL PLATES.

Specification forming part of Letters Patent No. 167,336, dated August 31, 1875; application filed
April 17, 1875.

To all whom it may concern:

Be it known that we, FRANCIS HICKMAN, of Reading, in the county of Berks, and GIBBONS G. HICKMAN, of the city and county of Philadelphia, State of Pennsylvania, have invented a new and useful Improvement in the Manufacture of Dental Plates; and we do hereby declare the following to be a clear and exact description of the nature thereof, sufficient to enable others skilled in the art to which our invention appertains to fully understand, make, and use the same, reference being had to the accompanying drawings making part of this specification, in which—

Figure 1 is a side view of a cast or mold. Fig. 2 is a similar view, showing our invention applied thereto. Fig. 3 is a face view thereof. Fig. 4 is a side view, and Fig. 5 is an end view, of a detached part. Fig. 6 is a side view of another detached part.

Similar letters of reference indicate corresponding parts in the several figures.

Our invention relates to the method of securing to the dental base the plate by which flexible material is attached to said base; and it consists in combining with the attaching or retaining plate a piece of paper, soft metal, or other suitable material, of the thickness of the flexible material to be attached, the plate and piece to be placed on the cast or mold, so that after the base has been hardened the piece of material may be removed, whereby, the plate being properly secured to the base, space is afforded for subsequent application of the flexible material, and the proper position of parts is preserved. It also consists in the attaching-plate having prongs, to be embedded in the denture-base, for firmly securing the plate thereto.

In securing the piece of flexible material to dental bases, as heretofore practiced, the said material was simply attached to the interior surface of the base, so that the size of such interior, which conforms with the gums, was diminished or reduced to the extent of the thickness of said flexible material, and, therefore, the gums could not fit comfortably therein. To remedy this evil is the object of our invention.

Referring to the drawings, A represents the plaster mold or cast. B represents a plate, for attaching the strip of rubber or flexible material to the denture-base. This plate B is

formed with prongs *a a*, which are to be embedded in said base, and thus securely hold the plate in position.

The plate B is placed on the mold or cast A, the prongs *a a* being uppermost, and a piece, C, of paper, ductile metal, or other suitable soft material, is fitted over the prongs on the plate B, the prongs projecting, and the piece C being of thickness equal to the strip of rubber or flexible material to be attached to the denture-base.

The base is now located on the piece C, and all parts are subjected together to the vulcanizing or other process, so that the prongs *a* will be firmly embedded in the base, and the plate B thus secured thereto; or the plate, with the superimposed piece C, may be secured to the base subsequently to vulcanization.

The piece C is afterward torn, cut, or otherwise removed from between the base and plate B, and there is found a recess or space sunk in the base, of the size of said piece C. The flexible material is then formed of the size of this space. A slit is cut in its center, and it is then placed in position by slipping the edges of the slit portion under the plate B, whereby it is firmly held in place, and the gum-cavity in the base is of uniform width and depth throughout, in conformity with the cast, so that the gums may fit perfectly therein.

Having thus described our invention, what we claim as new, and desire to secure by Letters Patent, is—

1. The combination, with the retaining or attaching plate B, of the piece of material C, interposed between said plate and the denture-base during attachment of the plate to said base, and subsequently removed for location of the rubber or other strip of the base, as set forth.

2. The retaining-plate B, provided with prongs *a*, embedded in the denture-base in the process of manufacture, and allowing an intervening space between said base and plate, substantially as and for the purpose described.

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