

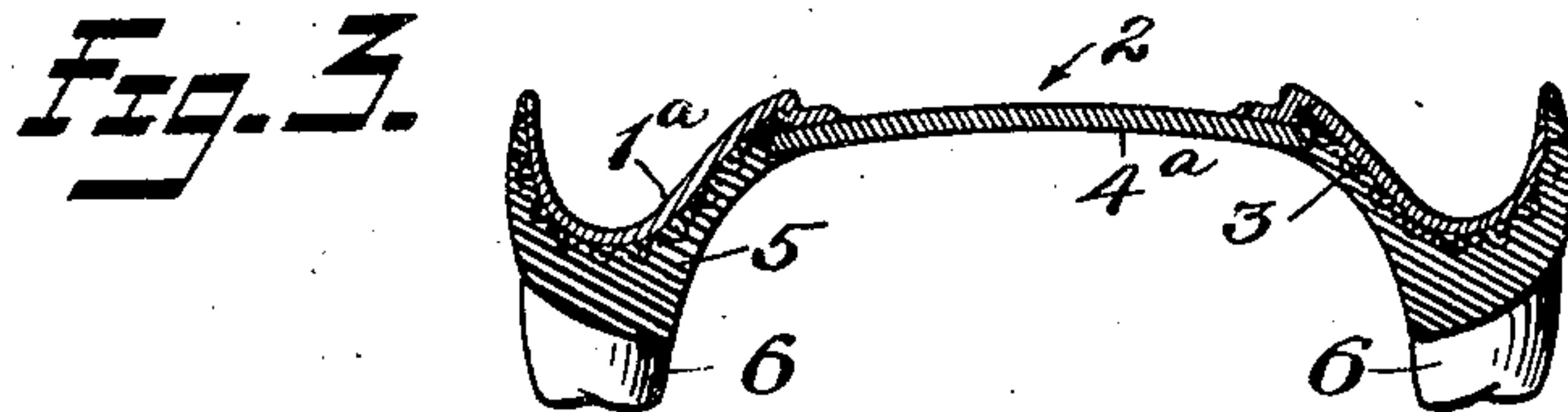
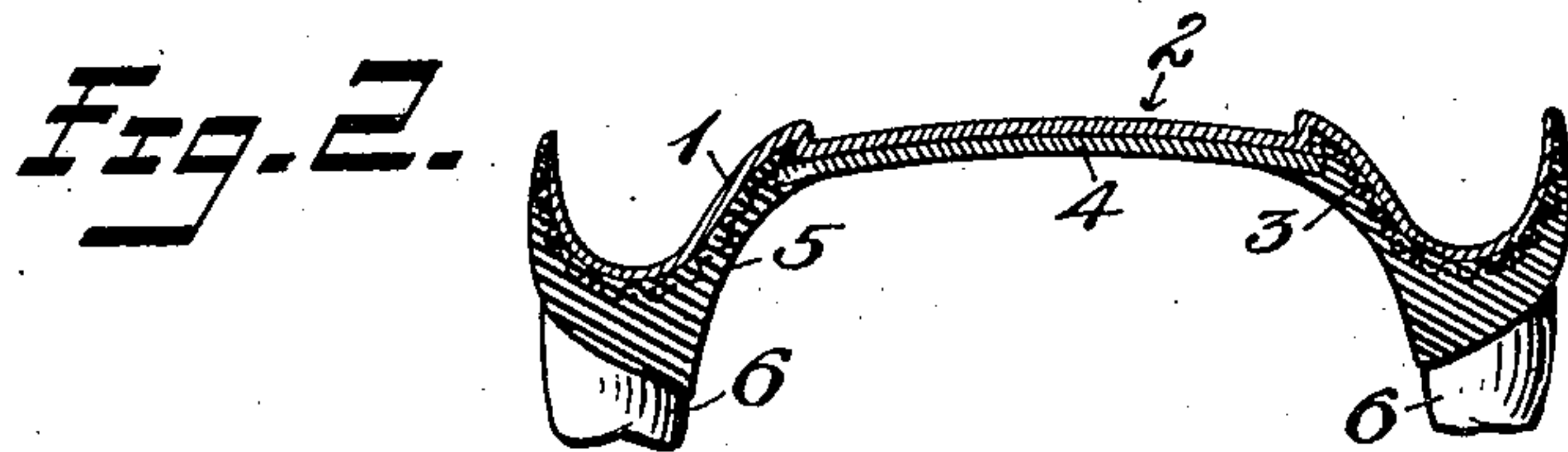
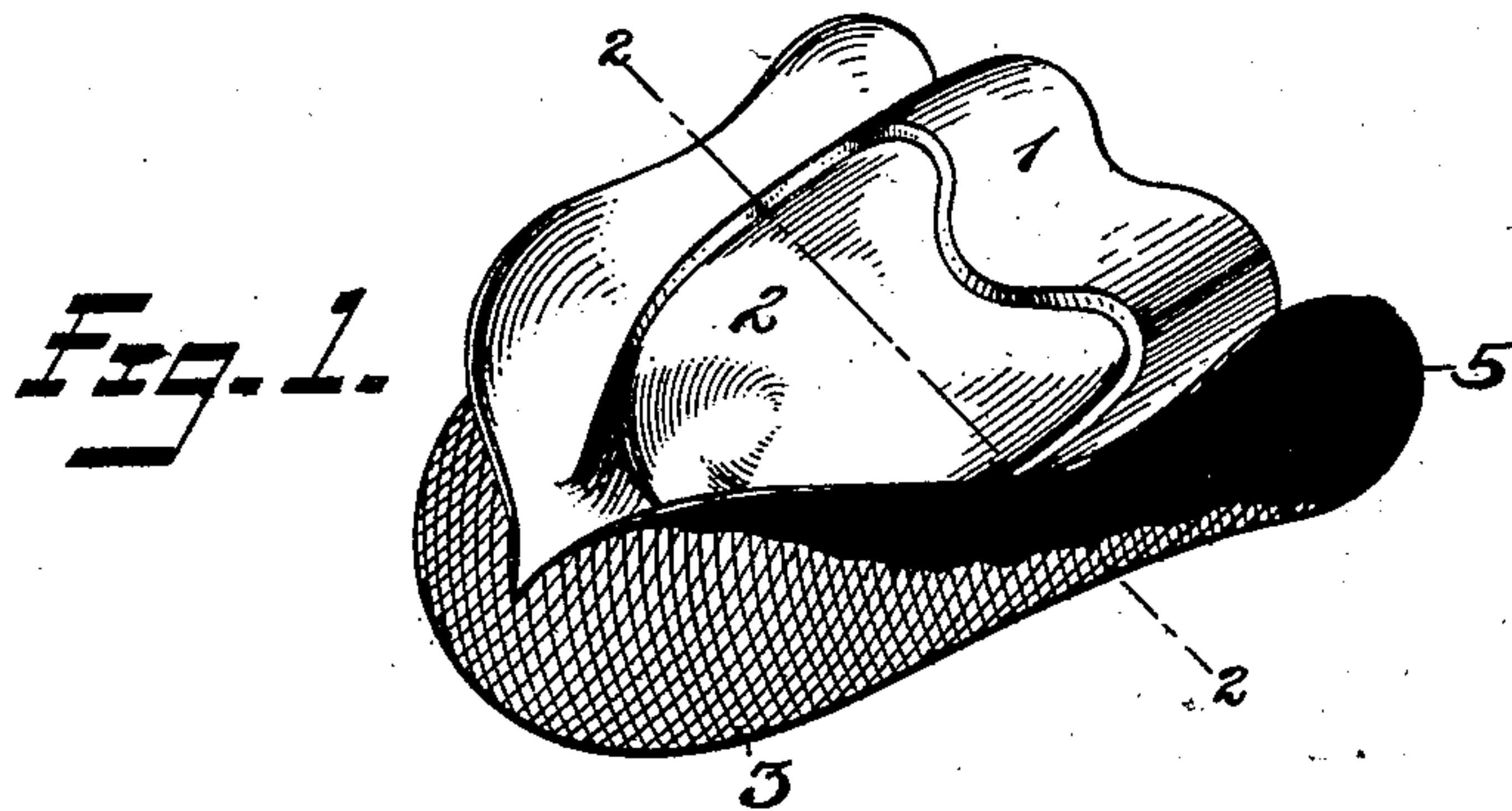
No. 728,633.

PATENTED MAY 19, 1903.

S. G. SUPPLEE.
DENTAL PLATE.

APPLICATION FILED MAR. 21, 1903.

NO MODEL.



WITNESSES:

Geo. V. Rasmussen
Wm. J. Allen

INVENTOR

SAMUEL G. SUPPLEE

BY

R. A. Whitehead
ATTORNEY

UNITED STATES PATENT OFFICE.

SAMUEL G. SUPPLEE, OF NEW YORK, N. Y.

DENTAL PLATE.

SPECIFICATION forming part of Letters Patent No. 728,633, dated May 19, 1903.

Application filed March 21, 1903. Serial No. 148,832. (No model.)

To all whom it may concern:

Be it known that I, SAMUEL G. SUPPLEE, a citizen of the United States, residing at New York city, county of New York, State of New York, have invented certain new and useful Improvements in Dental Plates, of which the following is a full, clear, and exact description.

My invention relates to dental plates, and it is my purpose to provide a plate which shall possess the advantages of an all-gold plate in addition to the advantages of a rubber plate, at the same time producing a construction substantially cheaper than an all-gold plate, yet strong, efficient, and durable in every particular. The base-plate is formed of gold, silver, platinum, or some other suitable or proper material to serve as the contact or bearing member, which engages with the roof of the mouth or "palatal surface," as it is termed. To this a coating of rubber, celluloid, or other suitable metal of a proper thickness is applied on the labial surface. The bearing-surface of the plate being metallic can be fitted more accurately to the roof of the mouth than can rubber. This is a recognized fact in mechanical dentistry, and in this respect metal plates are acknowledged to be superior to rubber plates.

This particular invention is broadly disclosed in my pending application, Serial No. 114,719; but because there are other features in that application for which broad claims are made, which features may be used independently of the subject-matter of the claims in the present application, I have elected to file this separate application to broadly protect the following features of improvement, which may be used conjointly with the invention of the other application or independently thereof.

The particular improvement set forth herein comprises providing in a composite plate in which the base-plate is metal and to which a coating of rubber is affixed on the lingual surface an exposed air-chamber. This air-chamber is exposed in the sense that its wall adjacent to the tongue is not covered by rubber or any other insulating material. As a direct result the thermal qualities of the plate are the same as in an all-metal plate. In other words, the metallic wall is

exposed on the under side of the plate and being a conductor serves to instantly convey to the roof of the mouth the sensation of heat or cold, which is a most desirable quality, since it makes the wearer less conscious of the presence of the artificial article. The showing in my former application referred to is sufficient on which to base the broader claims hereinafter made, and this application might properly be a divisional case, excepting that I have deemed it best to include in this application an improvement not disclosed in the former application and for which I desire specific claims.

In the drawings, Figure 1 is a perspective view of the base-plate constructed so as to embody my invention and with a fragment of the rubber coating shown thereon. Fig. 2 is a section on the line 2 2, Fig. 1. Fig. 3 is a similar view of a modification.

1 is a base-plate shaped to fit accurately to the roof of the mouth of any particular wearer. 2 is an air-chamber provided in said plate 1. In the particular form shown I have provided the under side of the base-plate 1 with the reticulated or cellular surface 3, described and claimed in my other application referred to. The purpose of the reticulations or cells is to provide a secure anchorage for the rubber coating which is applied to the labial and buccal surfaces of said base-plate.

5 represents the rubber coating, and 6 6 represent artificial teeth.

The air-chamber 2 is formed by depressing that part of the base-plate 1 wherein it is desired to locate the air-chamber.

4 is a metal plate, preferably made of the same material as the base-plate 1 and united directly with the lower wall of the air-chamber. This may be effected by soldering or by any other approved method by which the plate 4 is permanently and directly united to the base-plate 1. As shown in Fig. 1, this plate is slightly larger than the dimensions of the air-chamber, so as to overstand the same at the edge and form a recess or cavity into which the rubber coating 5 projects, so as to firmly anchor the same adjacent to the edge of the plate 4. This rubber coating may also overstand the plate 4 slightly at the edge to form a smooth and substantially flush surface there-

with, so that the wearer will not be conscious of any unevenness or bulge on the lower side of said plate, as would otherwise be the case. I prefer to construct the plate as shown in Fig. 3, in which the base-plate 1^a corresponds substantially to the base-plate 1 in Figs. 1 and 2, excepting that the central part of the air-chamber is perforated or cut away. In this case I substitute in place of the plate 4 a thicker plate 4^a, which may be soldered or otherwise permanently united to the plate 1^a. The plate 4^a may be made thicker than the plate 4, so as to give the desired strength. The single plate is preferable to the double plate for several reasons. For example, it is stronger, and it eliminates the space between the plates which might occur and to a certain degree impair the strength and thermal qualities of the plate. While I prefer in this case to employ my invention in conjunction with the base-plate having the smooth and imperforate bearing-surface and the reticulated or cellular lower surface, it is not necessary that a base-plate so constructed be employed. In other words, this invention does not depend upon a particular form of metal base-plate. That invention is fully covered and protected in my former application by itself and in combination with this invention. In this application, however, I seek to claim the following:

1. In a dental plate, a metallic base-plate, an air-chamber therein, a coating of rubber on the lingual surface of said plate adjacent to the edge of the air-chamber, the metallic wall thereof being uncovered and exposed on both sides.

2. In a dental plate, a base-plate, an air-chamber therein, the wall of said air-chamber on the lingual side overhanging the main body of the base-plate, a coating of rubber on the lingual side of the plate adjacent to said air-chamber and extending under the overhanging edge thereof, the metal wall of said air-chamber being uncovered and exposed on both sides.

3. In a dental plate, a metallic base-plate, an air-chamber therein, a separate sheet of metal secured thereto on the labial surface and extending slightly beyond the edge of the air-chamber on the lingual side and forming a recess at the edge of said air-chamber on said lingual side, a coating of rubber in said lingual side of said base-plate, said rubber extending into said recess.

4. In a dental plate, a metallic base-plate, an air-chamber therein, a separate sheet of metal of greater thickness than the thickness of the base-plate being permanently secured on the labial surface of said base-plate, the metal of the base-plate proper being perforated or cut away above said separate sheet of metal excepting at the edges thereof, the edge of the separate sheet of metal extending beyond the edge of the air-chamber on the lingual side and forming a recess, a coating of rubber on said lingual side of said base-plate, said rubber extending into said recess.

SAMUEL G. SUPPLEE.

Witnesses:

R. C. MITCHELL,
L. VREELAND.