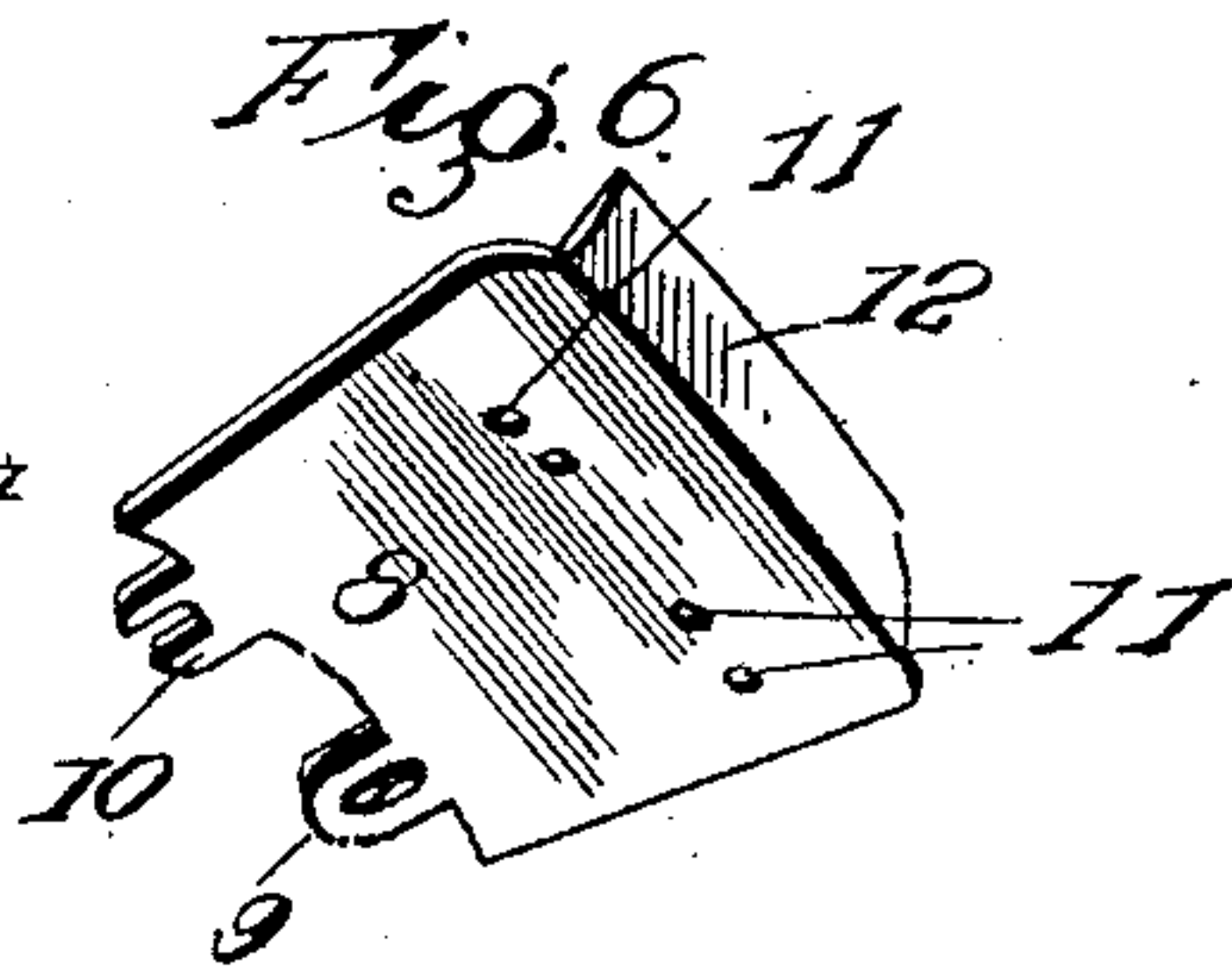
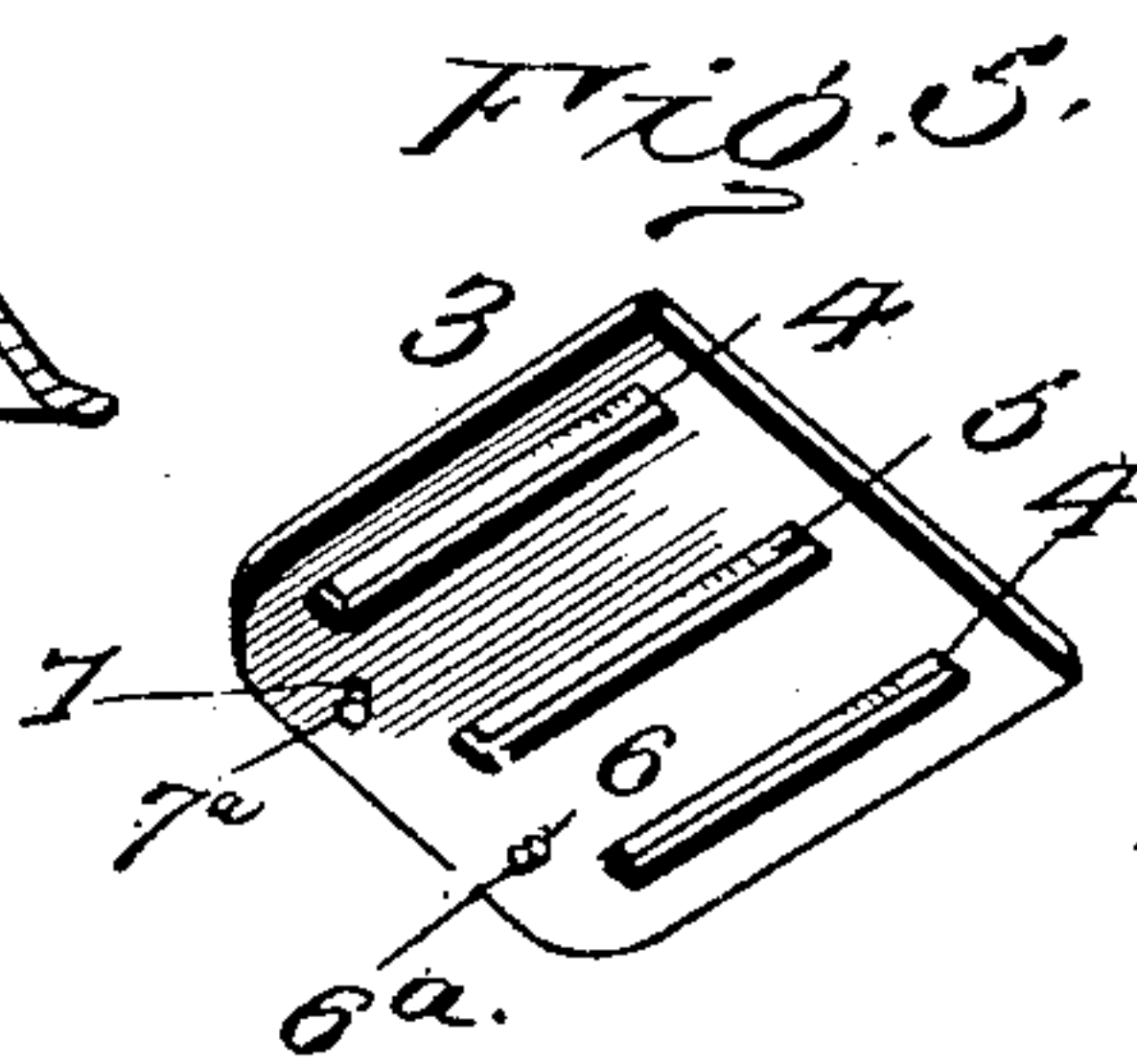
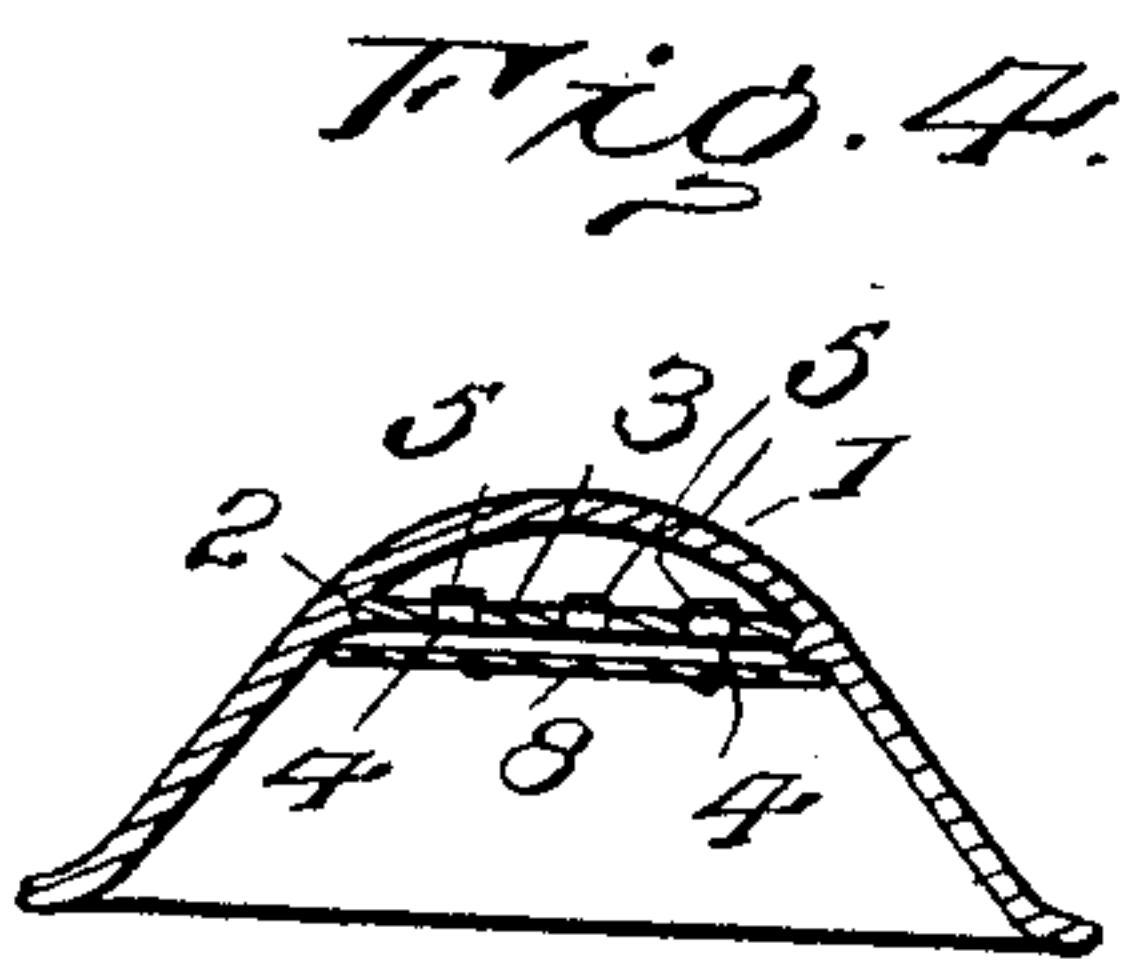
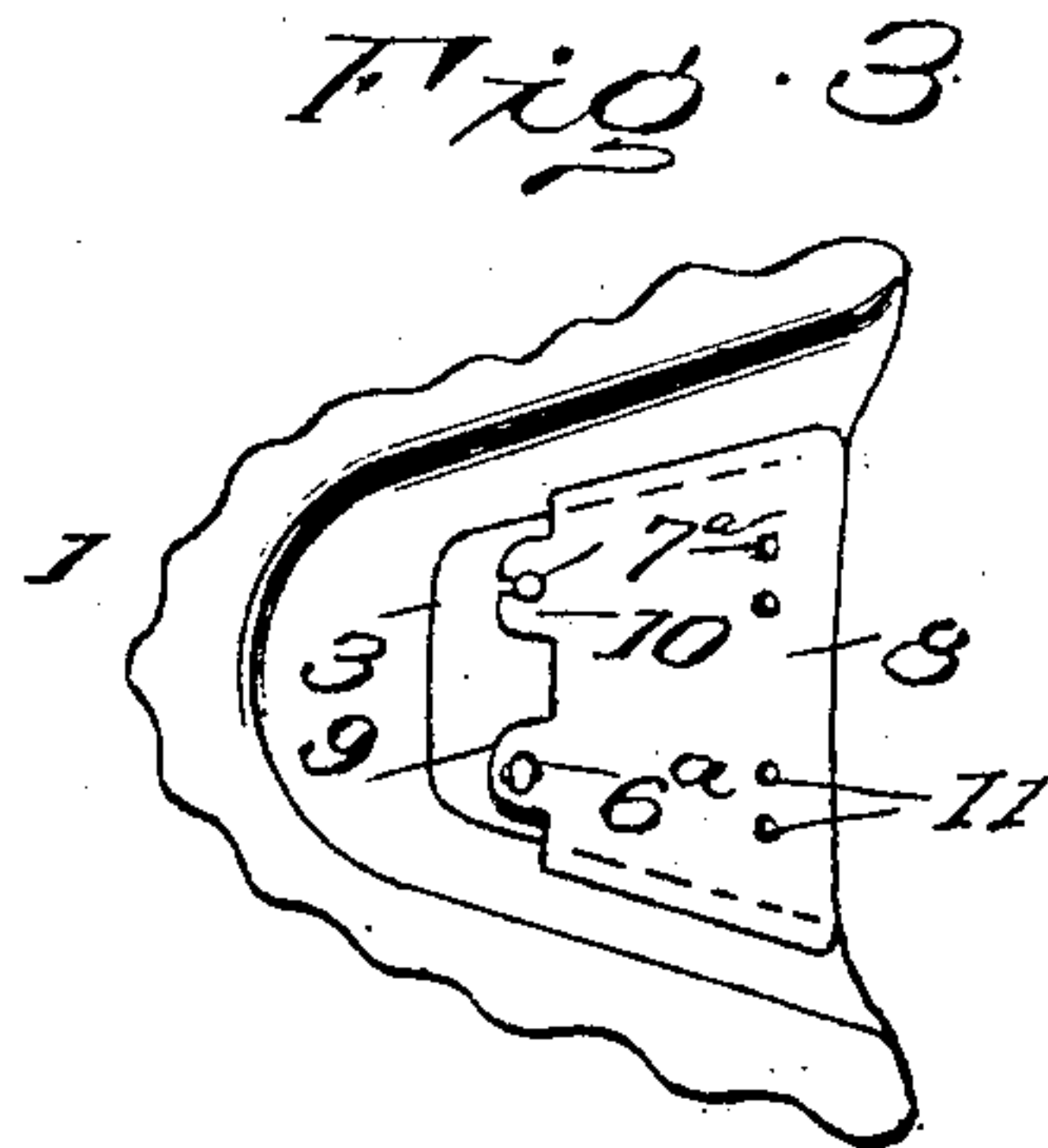
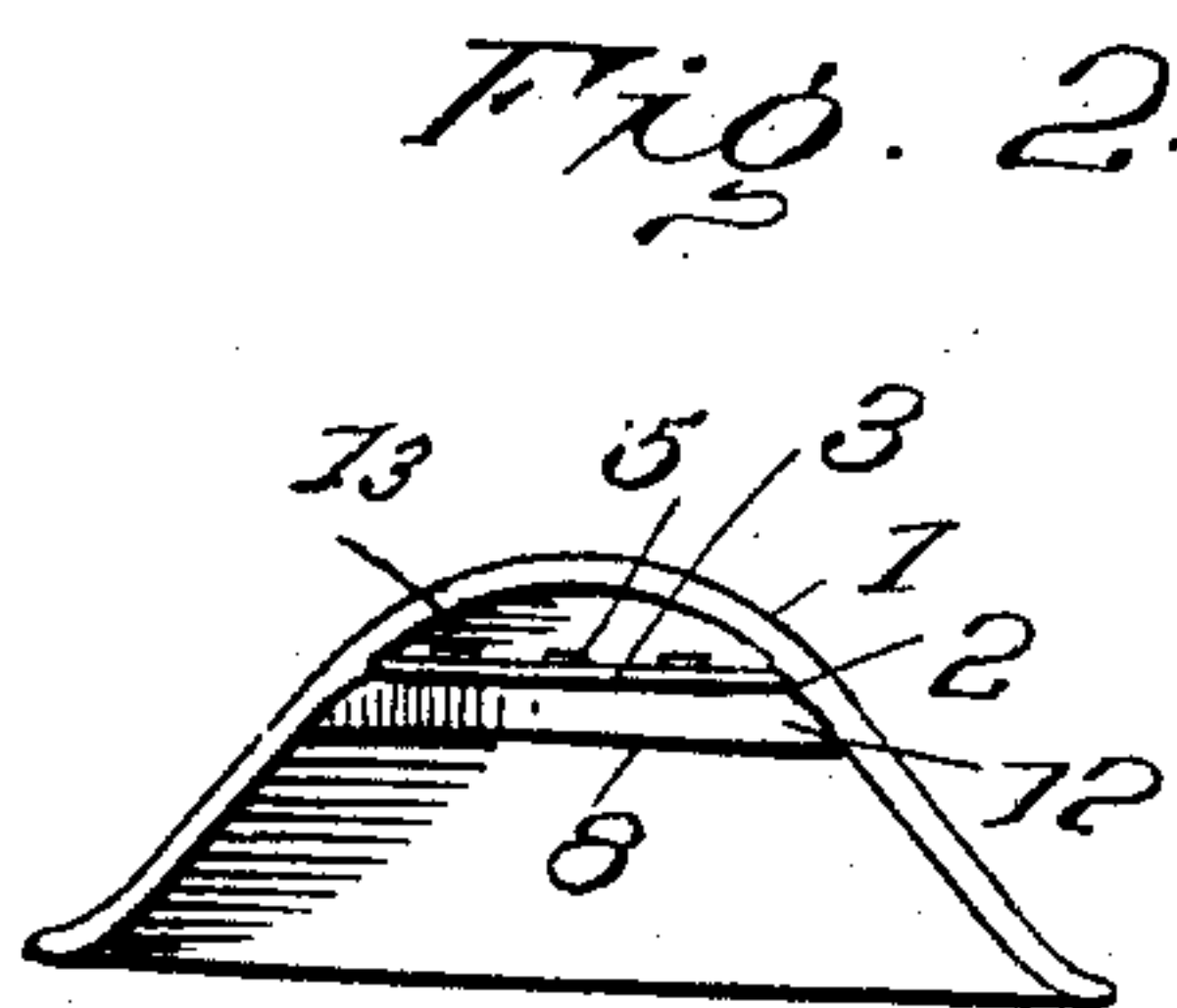
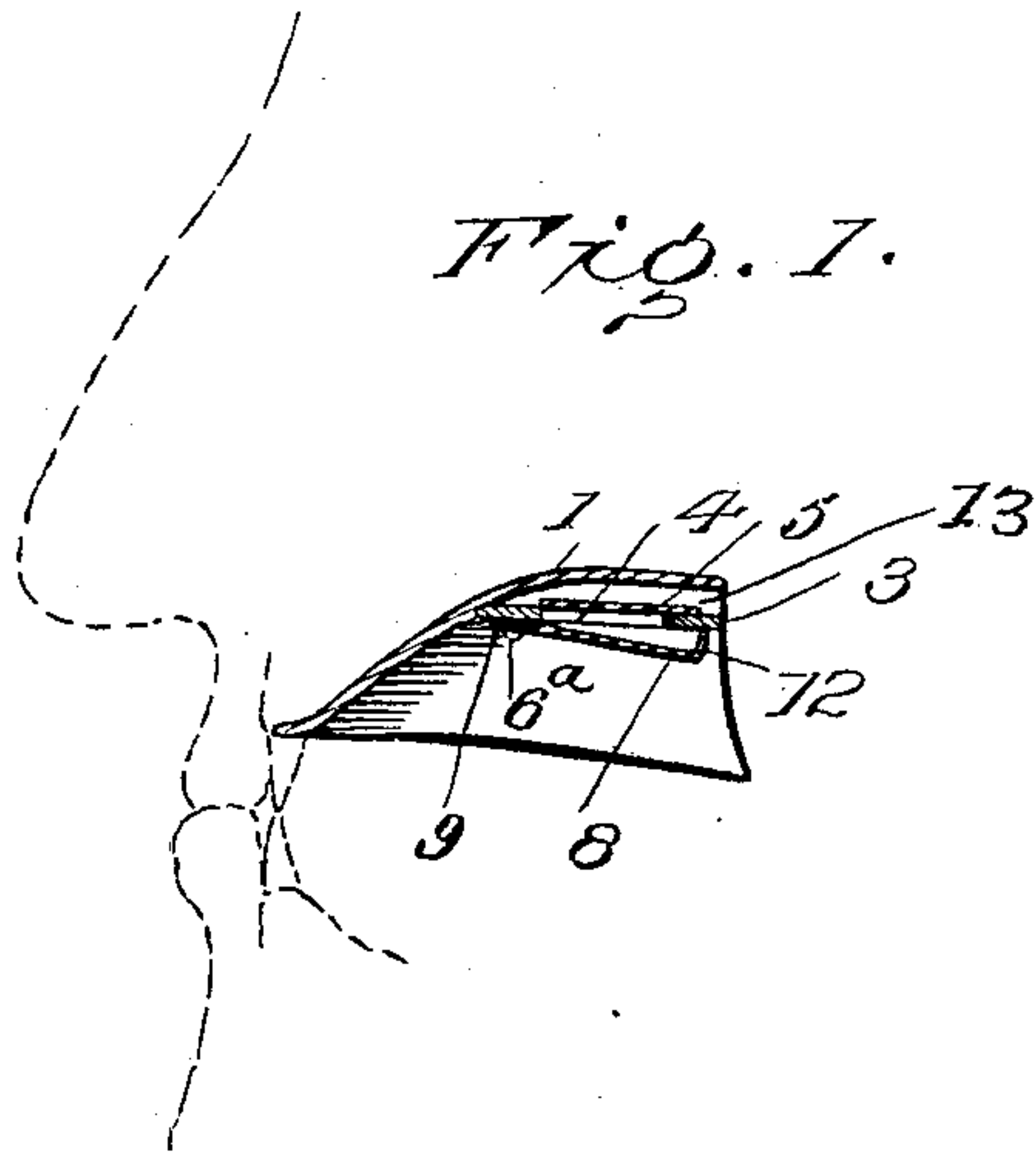


No. 861,436.

PATENTED JULY 30, 1907.

J. N. COURTNEY.  
COMBINATION VOICE EXTENSION ATTACHMENT.  
APPLICATION FILED NOV. 3, 1906.



Witnesses

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# UNITED STATES PATENT OFFICE.

JOHN N. COURTNEY, OF SALT LAKE CITY, UTAH.

## COMBINATION VOICE-EXTENSION ATTACHMENT.

No. 861,436.

Specification of Letters Patent.

Patented July 30, 1907.

Application filed November 3, 1906. Serial No. 341,958.

*To all whom it may concern:*

Be it known that I, JOHN N. COURTNEY, a citizen of the United States, residing at Salt Lake City, in the county of Salt Lake and State of Utah, have invented certain new and useful Improvements in Combination Voice-Extension Attachments, of which the following is a specification.

The object of my invention is to provide a voice auxiliary or mouth attachment designed to be retained in the roof of one's mouth for the purpose of augmenting and rendering smooth or sweet the tones of the human voice.

The invention consists essentially of a reed attachment designed to be held in the roof of a person's mouth on a dental plate such as is ordinarily used for holding one or more upper teeth, and in the constructions and arrangements of the parts hereinafter specifically described.

For a full description of the invention and the merits thereof and also to acquire a knowledge of the details of construction, reference is to be had to the following description and accompanying drawings in which:

Figure 1 is a sectional view of my improved device showing its application; Fig. 2 is an end view of the entire device detached; Fig. 3 is a bottom plan view; Fig. 4 is a transverse sectional view; Figs. 5 and 6 are detail perspective views respectively of the base plate and flap or cover of the device detached.

Corresponding and like parts are referred to in the following description and indicated in all the views of the drawings by the same reference characters.

Referring to the drawing, the numeral 1 designates a dental plate such as is ordinarily used to hold one or more teeth of an upper set and designed to be removably secured in the roof of one's mouth, and said plate is provided in its outermost walls with a groove 2.

3 designates the base plate of my improved voice augmenting device for which the dental plate 1 constitutes a support, said base plate 3 being removably secured to the dental plate by being inserted in the groove 2, as shown. The base plate 3 is provided with one or more slots 4 and over these slots are pallets or reeds of gold or other metal secured at one end and free at the other end, and arranged to produce a musical sound when blown through. In the present instance the slots are three in number and are so proportioned as to produce a musical chord. The pallets 5 are located on the upper face of the base plate 3, and on the lower face of said base plate are two studs designated 6 and 7, respectively.

8 designates a cover plate or flap, which is provided at one edge with two projecting ears 9 and 10, one of said ears being provided with an elongated aperture, and the other with an end recess. The stud 6 is provided with an angularly disposed extremity 6<sup>a</sup>, and the stud 7 has a head 7<sup>a</sup>, as shown. The aperture of the ear 9 is

so arranged that it may accommodate the angular extremity of the stud when the flap or cover plate 8 is disposed at right angles to the base plate 3. In this position the cover plate may be secured to and as readily detached from the base plate, but when the flap 8 is turned around so as to bring the recessed ear 10 into engagement with the headed stud 7, said cover plate or flap will be securely held to the base plate. As the side walls of the dental plate 1 engage with the side edges of the flap 8 when the device is in position, it will be seen that the cover plate or flap 8 will at all times, in operation, be held securely in proper relation to the base plate. When the base plate with the flap is removed from the dental plate 1, the said flap may be detached from the base plate by swinging it around on the stud 6, as is manifest, and the slots 4 may then be readily cleaned if necessary.

The flap 8 is provided at its rear edge with a flange 12 which engages the lower face of the base plate 3 so as to hold the flap always slightly spaced from the base plate, and said flap is provided with any desired number of orifices 11, so that the air issuing through the base plate may have free escape.

From the foregoing description in connection with the accompanying drawing, it is evident that when the dental plate with my attachment secured thereto is held in the roof of a speaker's or singer's mouth, the sound of the voice will be augmented and rendered sweet by the air passing into the space 13 above the base plate and underneath the reeds 5, through the slots 4 and the orifices 11.

The attachment is so arranged as to be inconspicuous, and it will be cheap to manufacture and easy to assemble and will not be liable to become fouled or choked up with particles of food, in view of the fact that the flap 8 effectively covers the slots 4.

Whenever it is necessary to clean the attachment, this may be readily done by simply sliding the plate 3 from its retaining groove in the dental plate 1 and then detaching the base plate in the manner above described.

Having thus described the invention, what is claimed as new is:

1. A device of the character described, comprising a dental plate adapted to be inserted in the roof of one's mouth, and a base plate supported by said dental plate and provided with one or more reeds.

2. A device of the character described, comprising an upper dental plate, and a base plate provided with one or more reeds and detachably connected to the outermost walls of said dental plate.

3. A device of the character described, comprising a dental plate adapted to be held in the roof of one's mouth, a base plate supported by said dental plate and provided with one or more reeds on its upper face, and a flap secured to the lower face of said base plate.

4. A device of the character described, comprising an upper dental plate, a base plate supported by said dental plate and provided with one or more reeds on its upper

face, and a flap secured to the lower face of said base plate and having a detachable connection therewith.

5 5. A device of the character described, comprising a dental plate adapted to be held in one's mouth, a base plate supported by said dental plate and provided with one or more reeds and slots coacting with said reeds, and a flap secured to said base plate and provided with a flange holding it spaced from the base plate, the said flap being also provided with orifices.

10 6. A device of the character described, comprising a dental plate adapted to be held in the roof of one's mouth, a base plate supported by said dental plate and provided with one or more reeds on its upper face and studs on its lower face, and a flap adapted to be located on the outer  
15 face of said base plate and provided with one aperture

and one recessed ear arranged for detachable engagement with said studs.

7. A device of the character described, comprising an upper dental plate provided in its uppermost walls with a groove, a base plate fitting in said groove and provided 20 on its upper face with one or more reeds, and a flap secured to the lower face of said base plate with its side edges engaged by the walls of the dental plate.

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

JOHN N. COURTNEY. [L. S.]

Witnesses:

T. S. HARLAN,

R. S. COURTNEY.