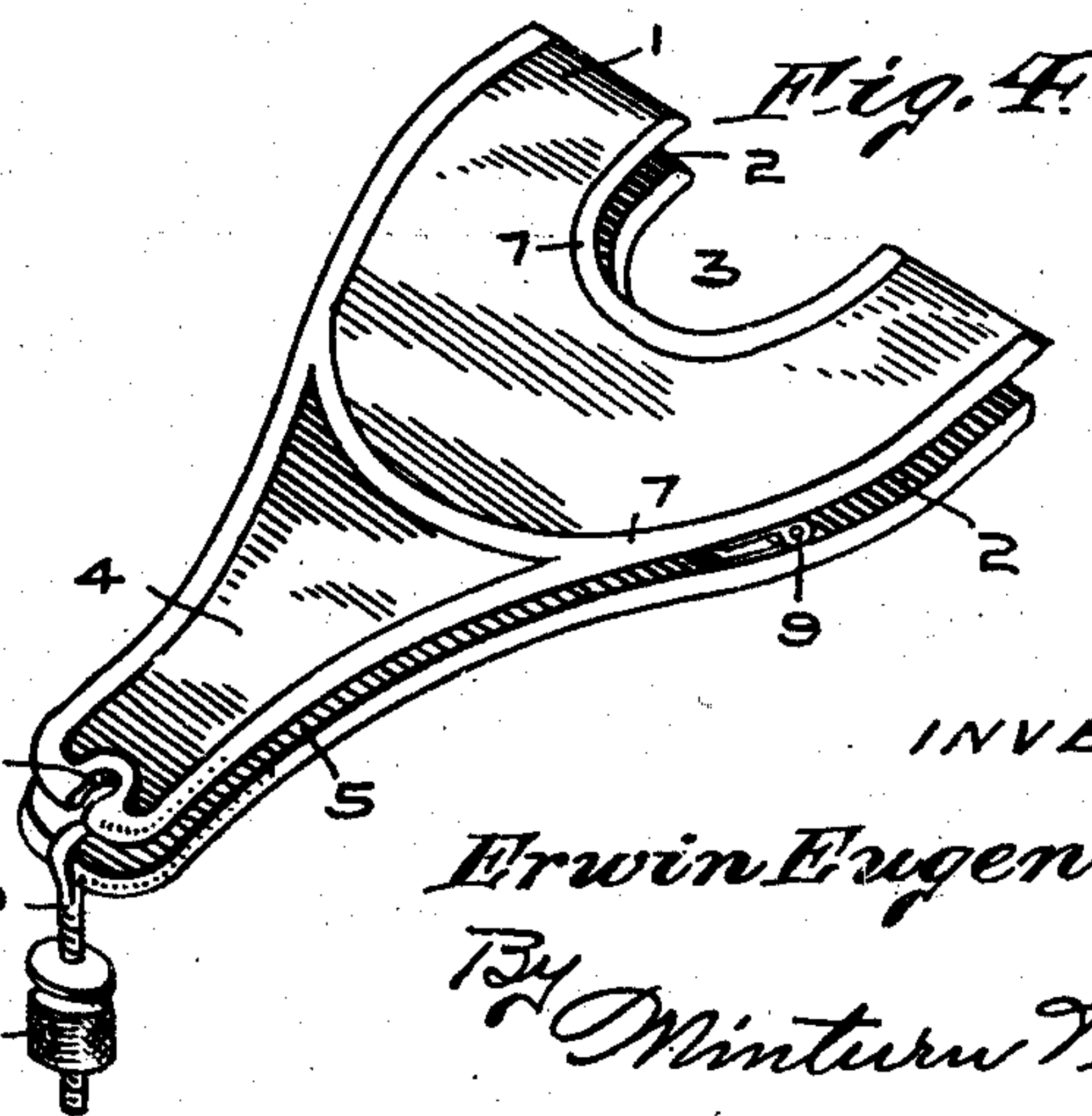
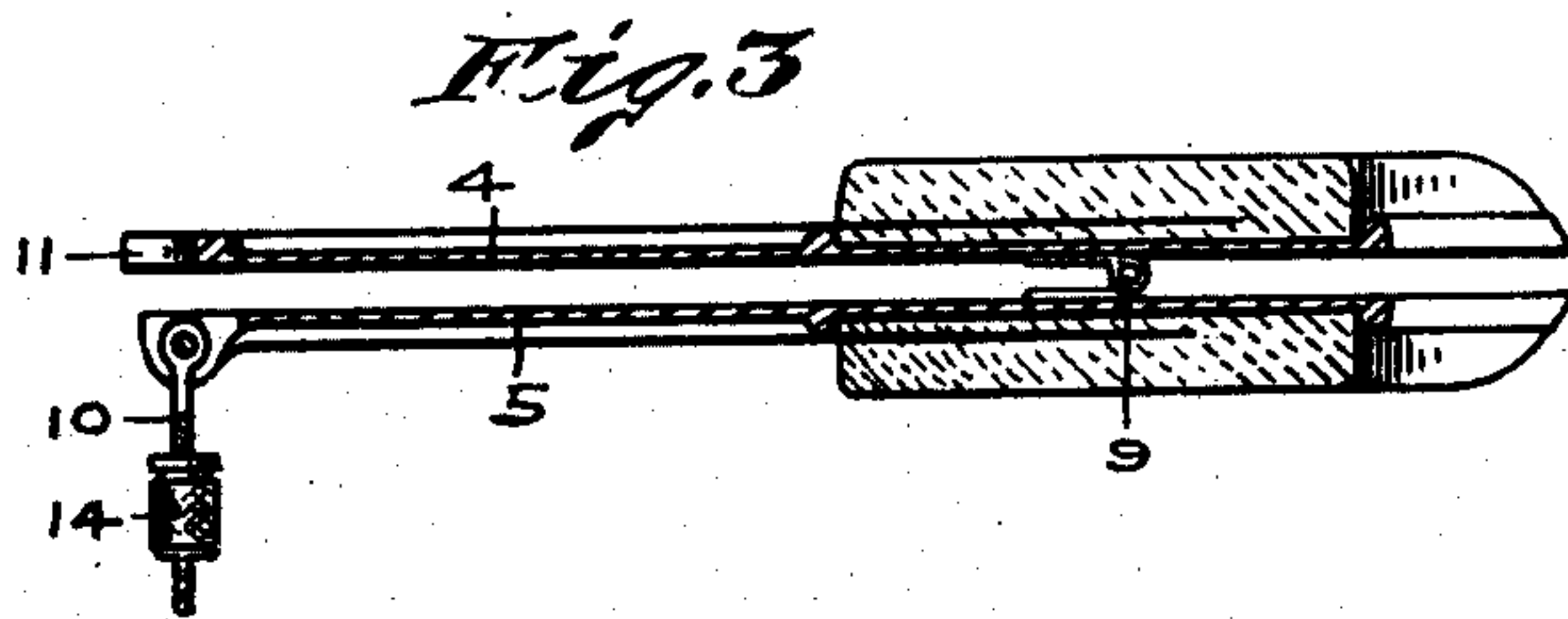
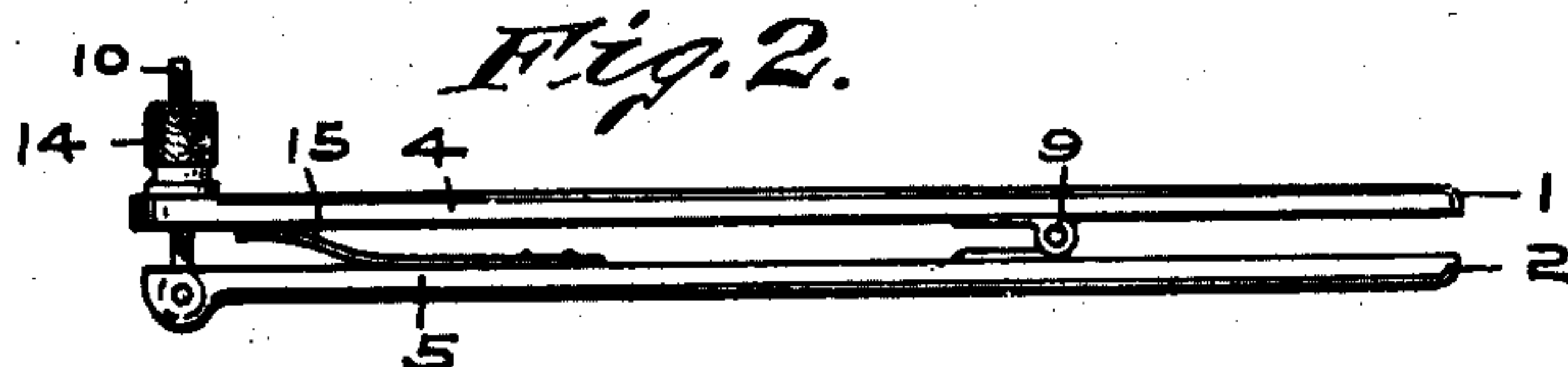
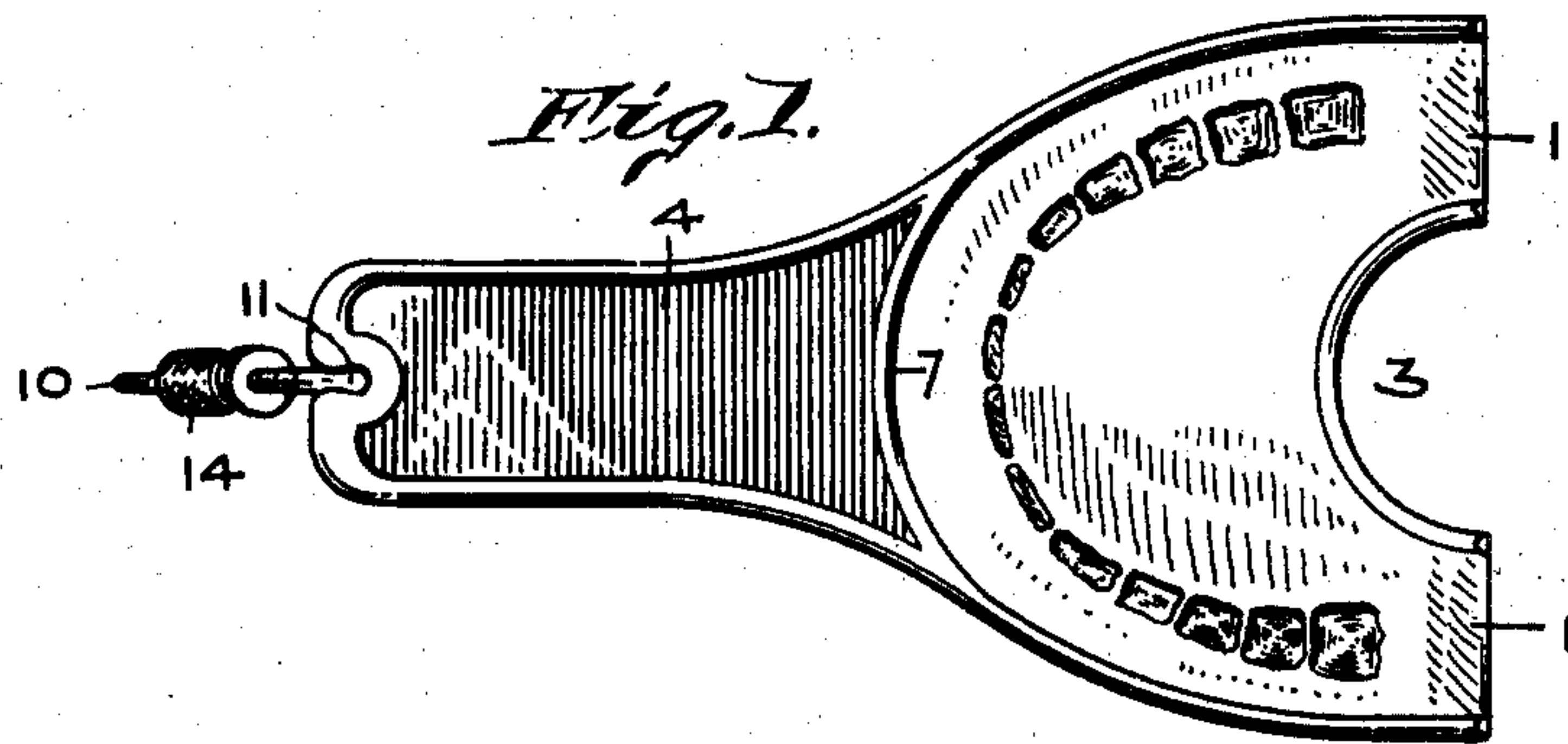


E. E. HOLMES.
DENTAL APPLIANCE.
APPLICATION FILED AUG. 13, 1907.

905,535.

Patented Dec. 1, 1908.



WITNESSES:
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UNITED STATES PATENT OFFICE.

ERWIN EUGENE HOLMES, OF INDIANAPOLIS, INDIANA, ASSIGNOR OF ONE-FOURTH TO GEORGE E. COBURN, ONE-FOURTH TO IDA A. HOLMES, AND ONE-FOURTH TO GRANT H. CLAY, OF INDIANAPOLIS, INDIANA.

DENTAL APPLIANCE.

No. 905,535.

Specification of Letters Patent.

Patented Dec. 1, 1908.

Application filed August 13, 1907. Serial No. 388,307.

To all whom it may concern:

Be it known that I, ERWIN EUGENE HOLMES, a citizen of the United States, residing at Indianapolis, in the county of Marion and State of Indiana, have invented certain new and useful Improvements in Dental Appliances, of which the following is a specification.

My invention relates to a device for taking wax impressions of teeth; and the object of the invention is to provide a device of the above character whereby wax impressions of the gums can be accurately taken.

Referring to the accompanying drawings which form a part of this application, Figure 1 is a top or plan view of my device for taking wax impressions for making sets of artificial teeth, showing the wax on the top tray or pan with the impression of a set of teeth indicated therein. Fig. 2 is a side elevation of the device shown in Fig. 1 in which the wax has been omitted. Fig. 3 is a central longitudinal sectional view throughout the device, showing the separation and relative position of the two wax biscuits. Fig. 4 is a perspective view of the device with the wax omitted.

In the drawings, 1 and 2 represent a pair of similarly formed interchangeable pans or trays which conjunctively form the body of my device, in which each tray is provided with a notch 3. The side edges of said trays are formed to assume curves to correspond, in a measure, to the inner contour of the human mouth and extend back sufficiently to take in the wisdom-teeth, where the plates are cut off in a transverse manner. The front ends of the trays 1 and 2 are contracted and terminate in the handles 4 and 5 so that the device can be more easily manipulated by the operator. The trays for receiving the wax are preferably defined by the marginal shoulders 7, but these are not essential except to impart a finished appearance to the tool.

After the wax has been applied to the trays, commonly known among the profession as the wax biscuits, and it is desired to take an impression of the teeth, the handles 4 and 5 are first brought closely together so that the device can be more easily inserted into the mouth. At this point of operation especial attention is called to the fact that after

the device has been inserted into the mouth, that instead of requiring the patient to make the bite which would simultaneously drive or force the upper and lower teeth into the wax biscuits, as the custom now obtains, the operator raises the device to the palate of the mouth and by manual force presses the wax biscuit on the upper tray against the teeth of the upper jaw—the patient contributing nothing up to and including this operation.

The first proposition now to be considered is that the upper jaw is formed with the head, moves with it, and is therefore, theoretically speaking, a "fixed" thing, and that the only movement that must be considered by the operator is that which relates to the lower jaw. The fixed or upper jaw thus becomes the base or starting point from which to carry forward the remaining portion of the work. Therefore, when the wax plate in the upper tray has been pressed around the teeth in the upper jaw by the operator, said tray and the associated wax biscuit becomes, for all intent and purposes, a fixed object, and together with the head collectively forms a fixed unit. At this point of the operation the patient is requested to make the bite, which requires only a movement of the lower jaw so as to force the teeth of said jaw into the wax on the lower tray. The latter operation is the only one which devolves upon the patient.

The plates 1 and 2 are hingedly secured together by means of the hinge 9 on a transverse line about central to parallel lines drawn through both the incisors and the wisdom-teeth. The closing of the lower jaw when making the bite will cause a slight upward movement of the bottom plate, and the tendency of this movement is to anatomically correct the action of the jaw, keeping it in its normal path, and thereby preventing the jaw from being extended, which would insure an improper occlusion and articulation of the teeth when completed, as has heretofore been pointed out. With this movement of the lower plate however, this error is overcome. When the movement of the lower jaw has ceased the plates 1 and 2, will have assumed the planes corresponding to the surfaces of the teeth, while the wax biscuits will contain the imprint of the teeth.

Before the patient is requested to open the mouth, for the removal of the device, the plates 1 and 2 are secured to hold them in the desired relation, by means of a screw-bolt 10 which is pivotally secured to one of said members. This bolt can be moved so as to engage the notch 11 in the second member and is provided with a milled thumb-nut 14. By means of the nut 14 minute adjustment between the plates 1 and 2 can be secured and maintained. The plates are also provided with an expanding tension-spring 15 which may be placed between said plates at either end as the operator may desire.

The plates 1 and 2, as before stated, are provided with the notches 3, and the object of these notches is to provide an air passage through which the patient may obtain air during the ordeal of making the wax impressions of the teeth.

Having thus fully described my said in-

vention, what I desire to secure by Letters Patent, is—

1. A device for taking impressions or bites for artificial teeth comprising a plurality of base-plates for holding the wax in divided parts, and means for pivotally securing said plates a distance from their ends.

2. A device for taking impressions or bites for artificial teeth comprising a plurality of base-plates for holding a like number of separated wax biscuits and provided with an air passage, and means for pivotally securing said plates a distance from their ends.

In witness whereof, I, have hereunto set my hand and seal at Indianapolis, Indiana, this, 9th day of August, A. D. one thousand nine hundred and seven.

ERWIN EUGENE HOLMES. [L. s.]

Witnesses:

F. W. WOERNER,
E. E. MILLER.