

1,030,965.

Fig. 1.

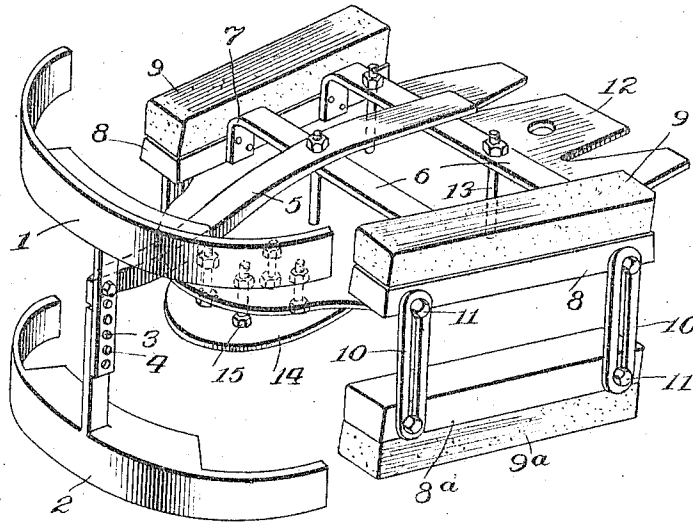


Fig. 4.

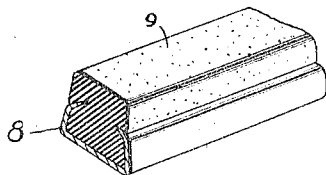


Fig. 2.

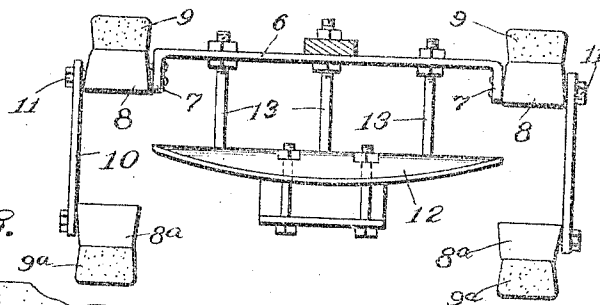
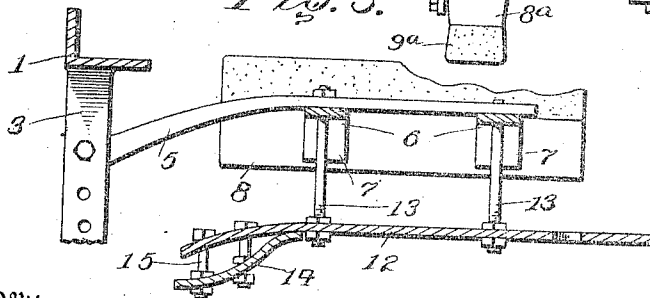


Fig. 3.



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UNITED STATES PATENT OFFICE.

GEORGE A. PEATE AND THOMAS BEATTIE, OF MONTREAL, QUEBEC, CANADA.

DEVICE FOR PREVENTING AND CURING STAMMERING AND STUTTERING.

1,030,965.

Specification of Letters Patent.

Patented July 2, 1912.

Application filed April 11, 1911. Serial No. 620,271.

To all whom it may concern:

Be it known that we, GEORGE A. PEATE and THOMAS BEATTIE, subjects of the King of Great Britain, residing at Montreal, Province of Quebec, Canada, have invented certain new and useful Improvements in Devices for Preventing and Curing Stammering and Stuttering, of which the following is a specification.

This invention comprehends certain new and useful improvements in surgical appliances and relates particularly to an apparatus designed for use on a patient in treatment by experts for the prevention and cure of stammering and stuttering.

The primary object of the invention is to provide an instrument which will perform a bloodless surgical operation in the nerve centers of the brain.

In stammering and stuttering speech, the bulk of the energy, or neural impulse, goes through habit to some part of the articulating organism, as distinguished from the vocal organism. Hence, in the first application of our improved instrument for the cure of stammering and stuttering, the instrument is so arranged that it will bind the articulating organs, namely, jaws, tongue, and lips, at a widely separated position and so that they cannot act at all, even to a slight degree. The purpose of rendering these organs inactive is primarily to prohibit the nervous energy in the brain from entering the motor nerve centers of the articulating organs at all, and, on the other hand, to turn such energy entirely into the motor centers of the vocal organism, namely, the larynx and diaphragm. The sending of such large and abnormal amounts of energy through these last named motor centers and neural processes (under the guidance of one who understands neurology and the neural nature of stammering, stuttering, and normal speech) opens up the vocal processes in the brain to such a degree of previousness that they will compete successfully for the bulk of the speech energy and carry it safely away from the articulating processes and

organs, which is the primary object of our invention.

Our invention also has for its object a device of the character outlined above which is adjustable so that it can be first applied to make all of the articulating organs inactive, its adjustable features, when applied, subsequently allowing some freedom to the less troublesome organ or organs, while keeping the more troublesome organs still inactive.

With these and other objects in view as will more fully appear as the description proceeds, the invention consists in certain constructions, arrangements and combinations of the parts that we shall hereinafter fully describe and claim.

For a full understanding of the invention, reference is to be had to the following description and accompanying drawing, in which:

Figure 1 is a perspective view of our improved device; Fig. 2 is a transverse sectional view thereof; Fig. 3 is a longitudinal sectional view thereof; and, Fig. 4 is a detail perspective view of a portion of the several parts.

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.

Our improved appliance comprises upper and lower curved plates 1 and 2, preferably somewhat angular in cross section and curved to fit snugly within the upper and lower lips of a person being treated, each of said plates being provided with an adjustment bar 3. These bars, in the assembled relation of the parts, are designed to overlap and they are formed with a plurality of apertures through corresponding ones of which pins or screw bolts 4 may be passed to secure said plates rigidly together at different distances apart.

The upper plate 1 is secured in any desired way to the forward end of a longitudinally extending bar 5, said bar being connected at its rear end and at a point inter-

mediate of its ends, to rear end front cross bars 6. These cross bars 6, in the present embodiment of the invention, have downwardly turned extremities 7 riveted or otherwise secured to the inner sides of cup-shaped pad holders 8 made of silver or any other desired metal and having their edges clenched into preferably rubber pads 9. In connection with these pad holders 8 and pads 9, we employ companion pad holders and pads, designated 8^a and 9^a, respectively, arranged underneath the pad holders and pads 8 and 9, these two pairs of upper and lower pad holders and pads being adapted to fit in between the upper and lower sets of teeth of the patient and arranged to rigidly hold the jaws apart the required distance. In order to effect this result, the pad holders 8 are connected to the lower pad holders 8^a in an adjustable manner, as by front and rear slotted plates 10 and set screws 11, as clearly illustrated in the drawing.

Underneath the cross bars 6 is a main tongue-depressing plate 12, preferably formed with openings to lighten it and permit sound to pass therethrough, said plate 12 having secured to it any desired number of relatively vertical rods 13 which project upwardly therefrom. The lower ends of the rods 13 are preferably rigidly connected with the plate 12. There are three of these rods in the present instance, two of them passing upwardly through the rear cross bar 6 while the third passes upwardly through the front cross bar. They are adjustably connected to these cross bars by nuts as shown, so that the plate 12 may be raised or lowered and held in different elevated position relative to the cross bars, the latter, in the practical use of the device extending across the roof of a person's mouth in close proximity thereto.

14 designates a secondary tongue-depressing plate, the same being preferably longitudinally curved, as shown, and being secured to rods or bolts 15 which are adjustably connected to the plate 14 near the front edge thereof. Obviously, the tongue-depressing plate 14 may be raised or lowered either by adjusting the bolts 15 or the rods 13, or both.

In the practical use of our improved surgical appliance, it will be manifest from the foregoing description in connection with the accompanying drawing, that the device is inserted, after adjustment by one who understands neurology and the neural nature of stammering and normal speech, within the mouth of the patient, the plates 1 and 2 fitting well up within the lips and the parts being at first so adjusted that the jaws, tongue, and lips will be held absolutely inactive. It will be understood that after certain surgical results have been ob-

tained in the speech centers of the patient's brain, by using the instrument in work specified for his particular case, the holding means for any organ may be adjusted to a less degree of tension without disturbing the other parts, thereby allowing freedom to any one or more less troublesome organs, while keeping the more troublesome muscles still inactive.

After the device has been under proper guidance a sufficient time, it is intended that it be succeeded by an apparatus which forms the basis of a companion application for Letters Patent of the United States, filed of even date herewith, Serial No. 620,270.

What we claim is:

1. A device of the character described, embodying lip-holding members, adjustable jaw-spreading pads, and means for extending and retracting said members and pads independently.

2. A device of the character described, embodying lip-holding members, adjustable jaw-spreading pads, and a tongue depressor, and means for extending and retracting said depressor independently of the jaw-spreading pads.

3. A device of the character described, embodying lip-holding members, adjustable jaw-spreading pads and a tongue depressor and means for extending and retracting said members, pads, and depressor independently.

4. A device of the character described, comprising lip-holding members, cross bars connected to said members, a tongue-depressing plate underneath said cross bars and adjustably connected thereto, jaw-spreading pads connected to said cross bars and having an adjustable connection with each other, and a secondary tongue-depressing plate carried by the primary tongue-depressing plate.

5. A device of the character described, embodying a primary tongue-depressing plate, means for supporting the same in a person's mouth, and a secondary tongue-depressing plate adjustably connected to the primary depressing plate.

6. A device of the character described, comprising lip-holding members, cross bars connected to said members, a tongue-depressing plate underneath said cross bars and adjustably connected thereto jaw-spreading pads connected to said cross bars and having an adjustable connection with each other, and a secondary tongue-depressing plate adjustably connected to the primary depressing plate.

7. A device of the character described, comprising upper and lower lip-supporting members, means for adjustably connecting the same together at different distances apart, a longitudinal bar connected at its forward end to the upper lip-supporting

member, cross bars connected to the longitudinal bar at and near the rear end thereof, upper jaw blocks connected to the said cross bars, lower jaw blocks having adjustable
5 connection with the upper jaw blocks, rods adjustably connected to the cross bars and depending therefrom, a primary tongue-depressing plate connected to the lower ends of said rods, a secondary tongue-depressing
10 plate underneath the primary depressing plate, and rods adjustably connected to said plates.

In testimony whereof, we affix our signatures in presence of two witnesses.

GEORGE A. PEATE. [L. S.]
THOS. BEATTIE. [L. S.]

Witnesses as to the signature of George A. Peate:

JOHN B. LAYEUX,
GEO. H. QUILLIAM.

Witnesses as to the signature of Thos. Beattie:

R. J. BURKETT,
F. C. WALLACE.