

No. 768,721.

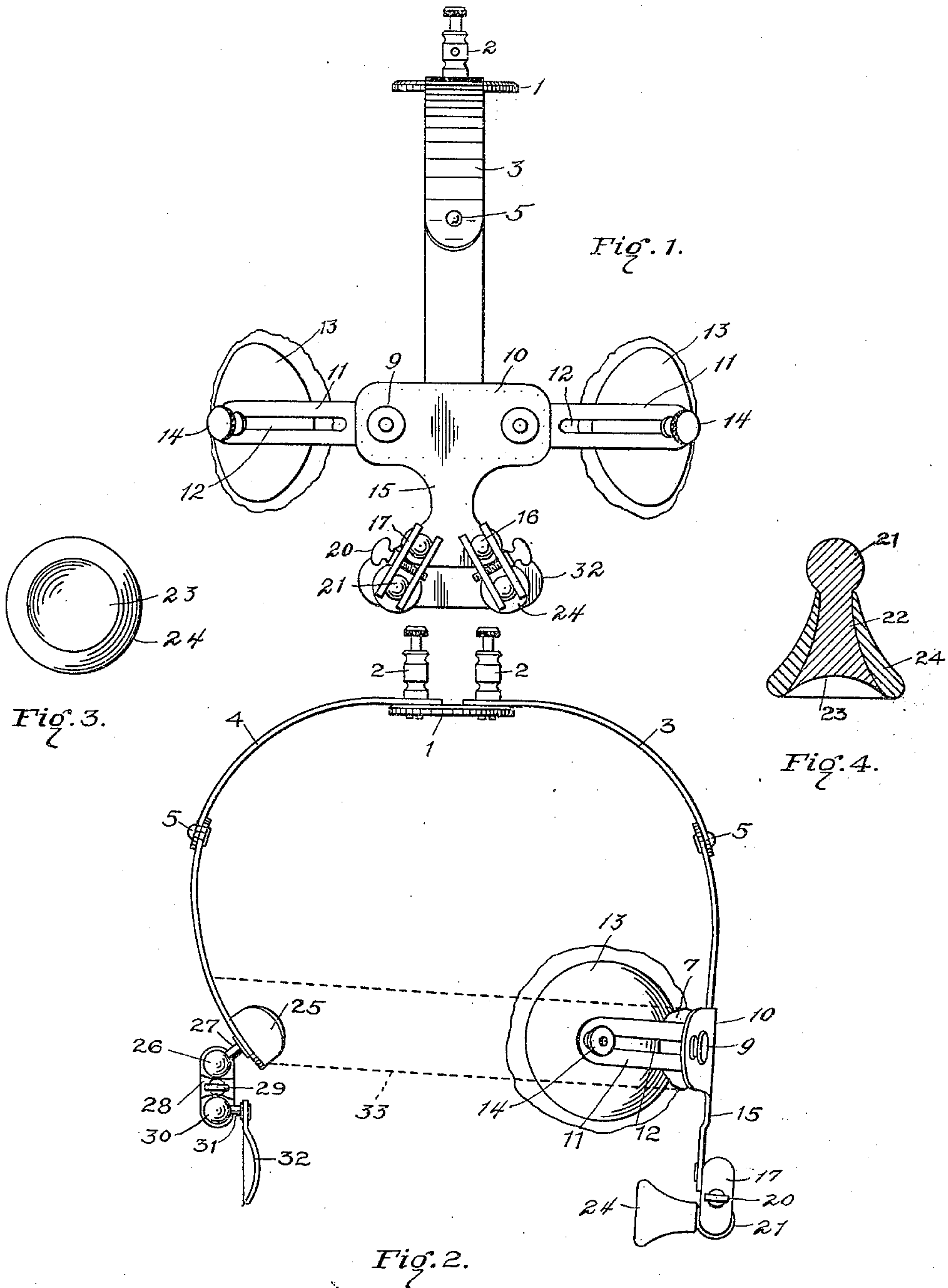
PATENTED AUG. 30, 1904.

W. B. BASSELL.
ELECTRODE FOR THERAPEUTICAL PURPOSES.

APPLICATION FILED APR. 4, 1904.

NO MODEL.

3 SHEETS—SHEET 1.



WITNESSES:
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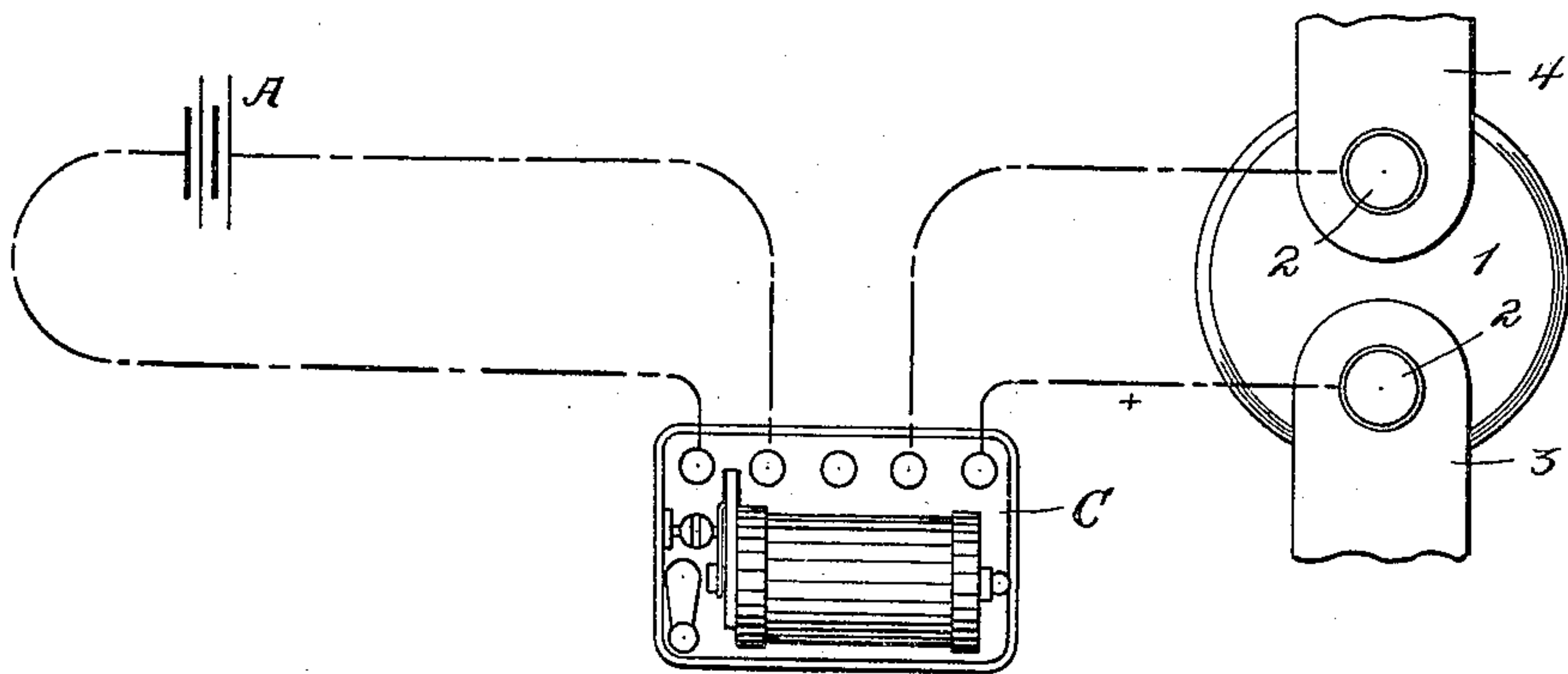
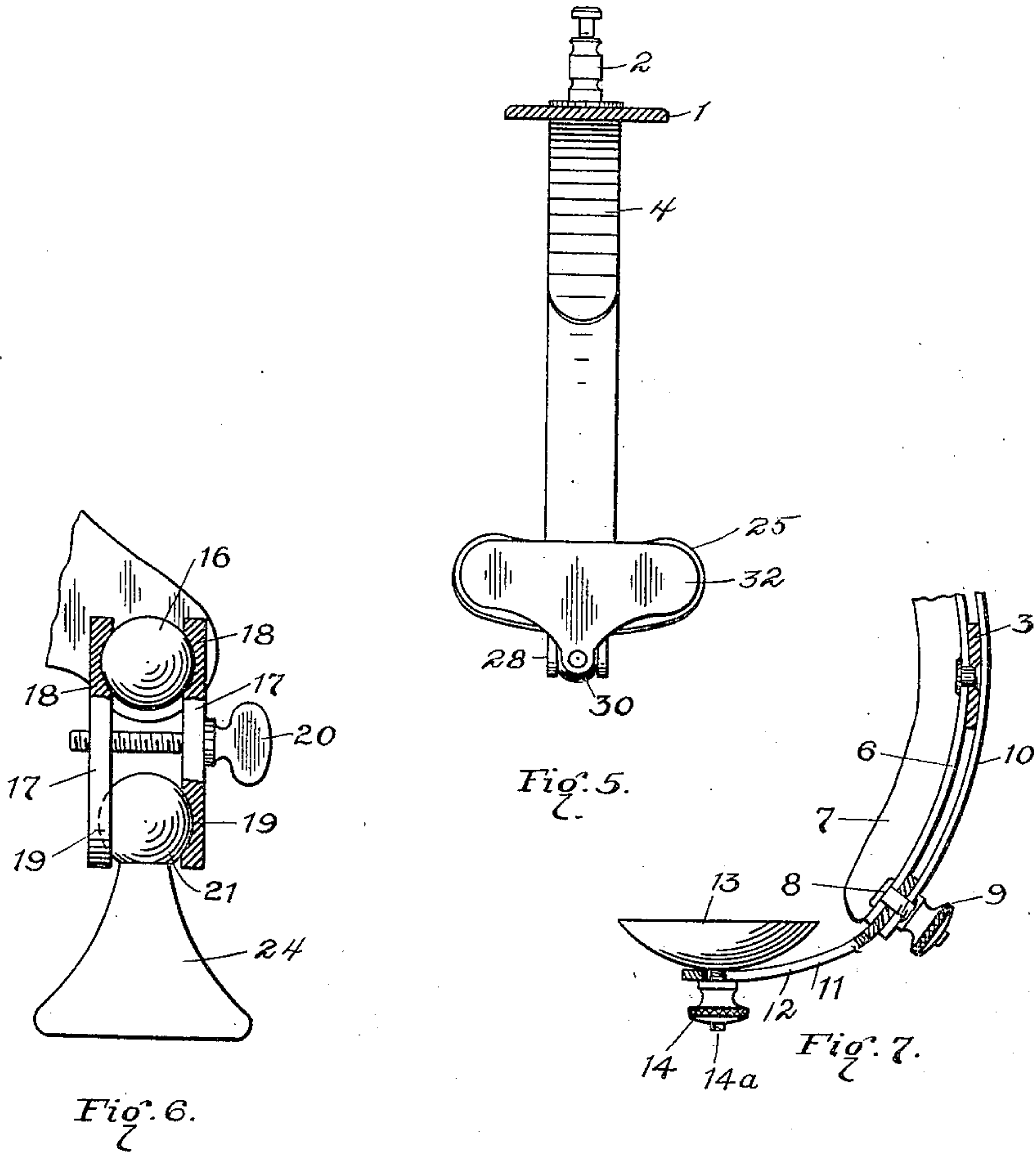
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3 SHEETS—SHEET 2.



WITNESSES:

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Fig. 8.

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3 SHEETS—SHEET 3.

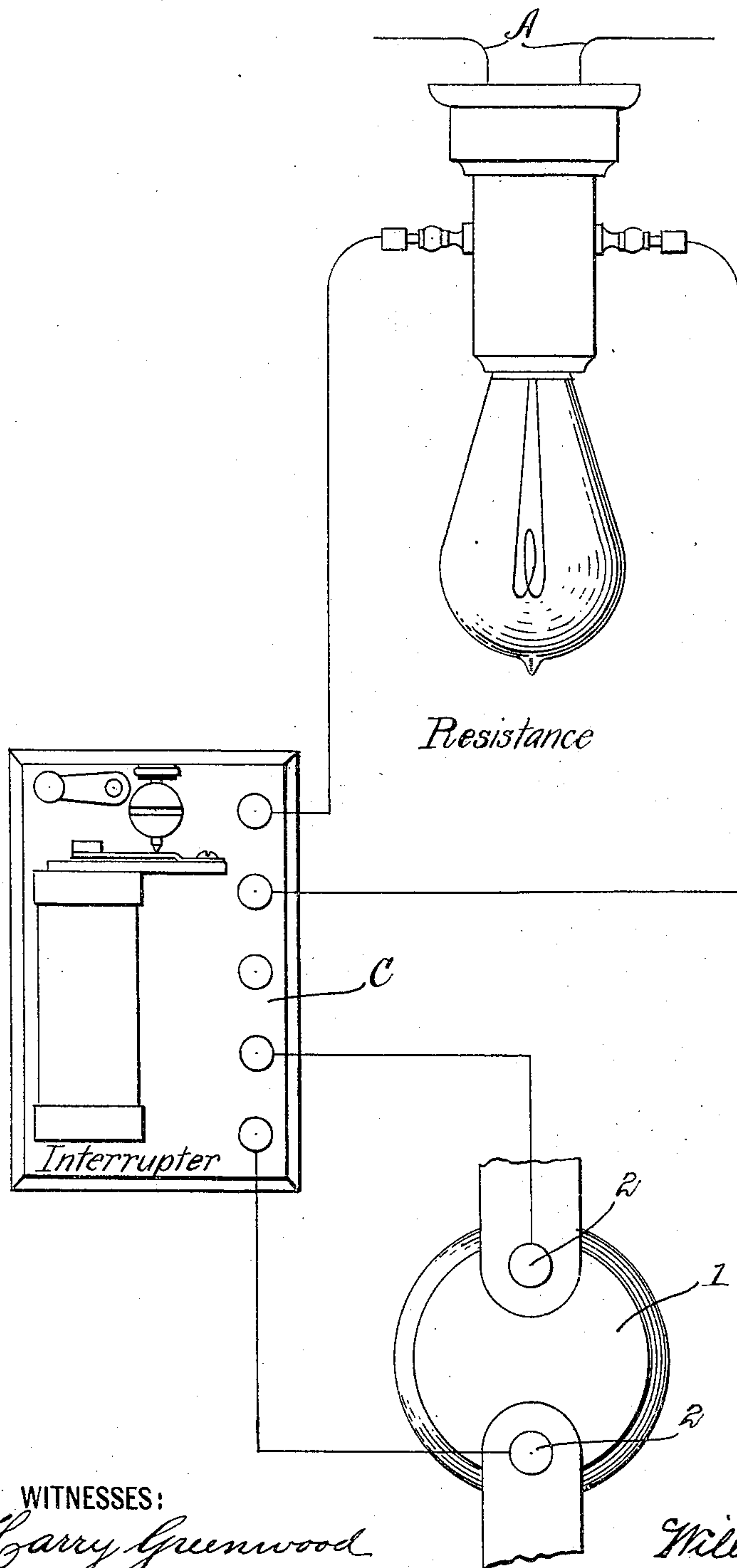


Fig 9.

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UNITED STATES PATENT OFFICE.

WILLIAM BENEDICT BASSELL, OF COLUMBUS, OHIO.

ELECTRODE FOR THERAPEUTICAL PURPOSES.

SPECIFICATION forming part of Letters Patent No. 768,721, dated August 30, 1904.

Application filed April 4, 1904. Serial No. 201,466. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM BENEDICT BASSELL, a citizen of the United States, residing at Columbus, in the county of Franklin and State of Ohio, have invented a certain new and useful Improvement in Electrodes for Therapeutical Purposes, of which the following is a specification.

This invention relates to a new and useful improvement in electrodes for therapeutical purposes.

The object of the invention is to provide a device that may be readily applied to the head of the patient, so that a suitably-generated current conveyed to the device may be applied to the various parts of the head.

Another object resides in adjustable eye-electrodes which may be brought to bear upon the eyes of the patient at the will of the operator.

Still further objects lie in adjustable templets and a universally-mounted base-plate, which may be so adjusted as to contact with various points on the back of the head and the neck or swing out of the way, so that the current may be concentrated at other points.

Further, another important feature is set forth in the hinged sections of the device, whereby it may be folded into a neat and compact form.

Finally, the object is to provide a device that will be strong, durable, and efficient and efficacious in its purposes and simple and comparatively inexpensive to make and one in which the several parts will not be liable to get out of working order.

With the above and other objects in view the invention consists of the novel details of construction and operation, a preferable embodiment of which is described in the specification and illustrated in the drawings, wherein—

Figure 1 is a front elevation of the device. Fig. 2 is a side elevation. Fig. 3 is a bottom plan view of one of the eye-electrodes. Fig. 4 is a vertical sectional view of the same. Fig. 5 is an elevation of the inner rear half of the device. Fig. 6 is a detail view, partly in section, of one of the eye-electrodes and its connections. Fig. 7 is a detail plan view,

partly in section, of one of the templets and its supporting means. Fig. 8 is a diagrammatical view of the elements of the electrical generating and transmitting means, and Fig. 9 is a similar view showing a slightly-modified means for supplying the current.

In the drawings the numeral 1 designates the pivot-plate, which is formed of some suitable non-conducting material and supports the binding-post 2, upon which are pivoted the folding brackets 3 and 4, which bear on the pivot-plate and are each formed of two sections pivoted by rivets or the like at 5. The brackets are made of light spring material and curved so as to readily adapt themselves to the general contour of the head and securely clasp the same. The forward bracket 3 is pivoted at its lower end to a back plate 6, which is curved to fit the forehead and has suitably secured to its rear face a pad 7. Fixed at the outer ends of the plate 6 and projecting therefrom are bolts 8, having their ends threaded and provided with thumb-nuts 9, which bear against the outer surface of a face-plate 10, disposed parallel thereto and on the opposite side of the bracket 3 and through which the bolts pass. Standing in the space between the plates 6 and 10 are curved arms 11, each having a central longitudinal slot 12 and pivoted on the bolts 8. It will be readily seen that the arms 11 may be swung up or down and securely held at any desired point by tightening the thumb-nut 9, which draws the plates 6 and 10 together and binds the arm therebetween. Templets or sponge-cups 13 are adjustable in the slots, being supported by screw-bolts, which project through the slots and provided with thumb-nuts 14, by which the cups may be fastened at any desired point along the slots. Preferably formed integral therewith and projecting downward from the face-plate is a supporting-bracket 15, having projecting therefrom socket-balls 16. Connecting-links 17, each having opposed concavities 18 and 19, are connected by thumb-screws 20, by which they are drawn together, causing the concavities 18 to engage the opposite surfaces of the balls 16 and form therewith universal joints, while the concavities 19 impinge the opposite sides of ball-

heads 21, thus constituting second universal joints. The heads 21 are formed with depending bell-shaped eye-electrodes 22, having concaved bottoms 23, adapted to fit the contour of the eyeball. The electrodes 22 are incased on their sides by a non-conducting covering, such as hard rubber or the like, whereby they are insulated and may be manipulated by the operator. It is obvious that through the medium of the universal joints the electrodes 22 may be swung to any desired position and securely fastened by tightening the screw 20, which causes the links 17 to bind on the balls 16 and 21.

The rear bracket 4 has secured to its lower end a curved insulating-plate 25, which normally engages and fits the back of the head. A ball 26, formed on a shank 27, extending from the rear side of the bracket at the lower end thereof, is engaged by a pair of links 28, having a thumb-screw 29, similar to the links 17, which support at their lower ends a ball 30, having an integral shank 31, secured to a base-plate 32, and thus universally supporting the same. The plate 32 may be swung upward and caused to stand in front of the insulating-plate 25, so as to apply the current to the back of the head, as shown in Fig. 5, or it may be swung down to contact with the napè of the neck or swung out to the rear out of contact with the head or neck of the patient, causing the same to be insulated from the current by the plate 25, which in such case would contact with the head.

The electrical current supplied to the device may be of any specific nature or combination thereof, such as stable or interrupted or pulsating currents. The current may be derived either from suitable batteries A, such as is indicated in Fig. 8, or from a transformer B, arranged in connection with an ordinary incandescent lamp, as shown in Fig. 9. Should a stable current be desired, the positive and negative wires are connected directly to the binding-posts 2 of the plate; but should a pulsating current be necessary the wires are carried to an ordinary interrupter C and from there to the binding-posts.

In connecting the binding-posts 2 and the wires the negative is generally applied to the rear post, which supports the rear bracket 4, the current being conducted over the same, it being insulated from the other binding-post and the front bracket 3 by the plate 1. The positive wire is connected to the front post 2, which transmits it to the front bracket 3, the templets 13, and the eye-electrodes 23. It will thus be seen that the current may be concentrated at various points by throwing the other parts of the device out of contact with the head of the patient.

As an additional means for securing the device to the head I employ a belt and buckle

33, which is suitably secured between the back and face plates 6 and 10. The brackets may be folded on the pivots 5, so as to cause the sections to overlies each other, and which folded sections may be swung around by loosening the binding-posts, so as to stand side by side, thus forming a neat and compact device.

I do not wish to limit myself to the exact details of construction and operation herein set forth, as I may make various changes in the same without departing from the spirit of my invention.

Having now fully described my invention, what I claim, and desire to secure by Letters Patent, is—

1. The combination with means for producing an interrupted or stable current, of a frame connected with the said means, comprising adjustable means for applying the current to the forward and rear portions of the head.

2. In a device of the type set forth, a spring-head engaging member, adjustable templets supported from the member, eye-electrodes supported from the member, and an adjustable base-plate supported from the member.

3. In a device of the type set forth, a pair of spring-brackets, an insulating-plate from which the brackets are supported, a face-plate supported by the forward bracket, eye-electrodes adjustably supported from the face-plate, adjustable templets supported from the ends of the face-plate, and an adjustable base-plate supported from the lower end of the rear bracket.

4. In a device of the type set forth, an insulating pivot-plate, hinged brackets extending from the plate, binding-posts arranged on the plate and pivotally holding the brackets, a back plate and a face-plate carried by the forward bracket, adjustable templets supported between the plates, a bracket supported from the face-plate, balls projecting from the brackets, in combination with eye-electrodes having socket-balls, and means for connecting the socket-balls and the first-named balls whereby the electrodes are universally mounted.

5. In a device of the type set forth, an insulating-plate, brackets extending from the plate, eye-electrodes supported from the forward bracket, templets supported from the said brackets, an insulating-plate carried by the rear bracket, in combination with a universally-mounted base-plate supported from the rear bracket and adapted to be swung in front of and below the last-named insulating-plate.

WILLIAM BENEDICT BASSELL.

In presence of—

A. L. PHELPS,
W. L. MORROW.