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**THE SIMPLEST AND MOST PRACTICAL ELECTRIC
APPARATUS,¹**

ESPECIALLY FOR GALVANO-CAUTERY OPERATIONS.

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Member of the Georgia State Medical Association; and Fellow of the Atlanta Society of Medicine, etc., etc.

THE little apparatus that I am using, especially for galvano-cautery operations, is the only perfect appliance for that purpose in my knowledge. It has been used in my own and assistants' rooms perhaps a thousand or more times during the last year, and in no instance has it ever failed us, or caused us any care or trouble. Indeed, no thought of its presence is ever suggested until it is needed for actual use, quite unlike any of its predecessors, even the best of which require an occasional charging. It is small and compact, contained in a mahogany box eight inches long, four inches thick, and four inches deep, and is securely screwed to the wall at a convenient distance from the operator's chair.

The wires from an alternating current of fifty-two volts, the most generally used circuit, particularly in the medium and smaller cities, are brought into the operating room from the street wires, and attached at each upper corner of the little box. The conducting wires are similarly attached to the lower corners.

The apparatus is now ready to be used for the cautery, the magnet, or for the small incandescent lamp, and it remains always and ever ready. When the moment for using it arrives it is only necessary, first

¹ Read at the Section on Laryngology and Rhinology, Sept. 6th, 1893, Washington, D.C.

to turn a screw projecting from its nearer surface with the left hand, while the instrument is held with the right. It thus serves as a gauge for measuring out the exact quantity of electro-motive force in the form of heat, magnet power, or light, by modifying the fifty-two volts, conducted to it from the nearest street transformer, into the fractional number of volts that may be required for the occasion.

As the electro-motive force in actual use with this transformer is acquired by induction, and is not in direct contact with the initial current, there can be no possible danger to either the patient or the operator, even if the initial wires should by accident come in contact with more powerful wires.

The electro-motive force can be gauged between one and sixteen volts by the screw, and the ampèrage can be determined by the resistance of the conducting wire. The cost of the electric supply is very small, perhaps two or three dollars per month, for all ordinary purposes, including the rent of the meter. It is quite as easy, by modifying the force with a slight turn of the screw, to adapt it to the forehead lamp in ear operations, and to the still smaller lamps used for translucent and direct illuminations in the small cavities, as in antrum diagnoses.

A much smaller cautery handle than the conventional one is more convenient for actual use, while, in addition to this, it may be permanently attached to the conducting cord, where it is always at hand, requiring only to change the point to suit the occasion. The larger handles are necessary, however, for the wire loop operations.

The needle and a very narrow blade are the only cautery points used in my office, and in all cases they are made to enter at the most prominent part of the hypertrophied tissue, penetrate down to the bone with a white heat, and then withdrawn through the same puncture while the point is still hot. In no case is a wholesale destruction of the mucous membrane ever produced by applying the flat surface of the blade to the protruding part.

The needle and the narrow blade produce little or no pain when an application of a ten or twenty per cent. solution of cocaine has been locally applied on a cotton probe ten minutes before the operation. The annoying constitutional symptoms that not infrequently follow even a weak spray, are rarely encountered when a many times stronger solution is applied to a limited area of mucous membrane surface. Its easy control renders it the most reliable and certain means for making cautery operations on the cornea, because of the small and exact amount of electro-motive force required to heat the fine points used for this purpose.

This means of treating corneal ulcers, and, I may also add, of reducing the corneal part of a pterigium, is not only less painful than any other, but the resulting cicatrix is more transparent, provided the cautery is not allowed to touch the healthy cornea. A pterigium will in some cases need no further operative procedure, although it will usually be necessary, in addition to the cautery, to sever the vascular supply without excising any part of the hypertrophied conjunctiva, except where it is decidedly thickened.

The magnet in general use is constructed for the continuous current,

yet it can be charged for the lighter uses with the alternating current. My electrician (who devised this transformer for me) is now adapting one of these magnets to the alternating current.

The electric motors heretofore used for fans and drills were supplied with the continuous current only, but some are now being adapted to the alternating current.

In addition to the varied purposes that this little apparatus may be called upon to serve, the current that supplies it may be still further utilized before its entrance. For example, it will light two incandescent lamps, and, at the same time run two fans or drills, when the motors are suitable, and still supply the transformer.

While the volume of the current or ampèrage is large, the electro-motive force can be reduced sufficiently for therapeutic uses when the alternating current is advisable.

In short, it is safe, it is inexpensive, it is always ready, it is reliable, it exacts no time or attention, it dispenses its force and volume in many practical ways, it occupies but little room and is not unsightly, it does its work perfectly, and if it once gains an entrance to the consultation room of one who resorts to electricity in many of its varied forms, it will become a fixture.

THERAPEUTICS AND DIPHTHERIA.

Winckler (Bremen).—*New Electric Lamps for Examination.* "Münchener Med. Woch.," 1893, No. 36.

THE author recommends an electric "Bogenlampe." *Michael.*

Bayer (Brussels).—*On the Therapeutic Value of Hydro-Carbons, especially of Oxygenated Vaseline (Vasogene).* "Deutsche Med. Woch.," 1893, No. 37.

THE author recommends the application of this preparation for internal and external use in tubercular affections. The paper has already appeared in this Journal (October, 1893). *Michael.*

Rhodes.—*Notes on the Use of Cocaine for Local Anæsthesia.* "North American Practitioner," July, 1893.

THE following solution is recommended in order to diminish the constitutional effects of cocaine :—

℞ Atropinæ sulph.	gr. $\frac{1}{2}$
Strophanthin	" 1
Cocain. hydrochlor.	grs. xx.
Acid. carbolic.....	" v.
Aqua dest. ad.....	℥i.

This can be injected for tracheotomy, aspirating the chest, removal of cartilage in anterior deviation of the septum, two to four minims being sufficient.

For nasal cauterizations, rubbing it on the mucous membrane rapidly