

would make them medicines, these medicines must flow from the positive to the negative conveyed by the current; and that if you make application to the one tissue by the positive pole and any remote part by the negative, and this solution should have a tendency to flow with the current, then these medicines will travel in that direction.

To what extent then do remedies under this influence travel? This is a matter which must be left largely to future demonstration. So far as I am personally concerned, I know absolutely nothing in regard to it of a definite character. Some good authorities, however, claim that if you apply to one side of elevated tissue (as the alveolus) the negative pole, and to the other the positive pole, loaded with a solution of cocaine, the anæsthetic effect will only reach half-way through that tissue. More than this, that the remaining half will not only not be influenced by the cocaine, but will also be rather increased in hypersensitiveness.

It will be well here to discuss somewhat the mechanism of the apparatus, for, simple as it is, you should have some definite knowledge of its operation. I will call your attention to (1) The voltage which concisely represents the pressure of the current, as indicated by the numbered attachments. May increase at pleasure. (2) The milliamperedial records simply the flow of the current through the tissue. A mechanism attached to the apparatus, which is designated as the current controller, is intended simply to furnish in the smallest quantities further pressure upon the tissue as may be suggested by the case in hand.

We now come to the question of current strength which may be required. My clinical experience seems to suggest that a large voltage is not at all necessary in securing the desired results. Indeed, so firm am I in this conviction, that I boldly assert that from one-half to one and a half milliampered registrations will be sufficient to anæsthetize perfectly almost every case which may present itself. Another very important reason why a low voltage should be applied is for the comfort of our patients, which we should under no circumstances lose sight of.

Another very important element in the success of this method consists in the *uniform* and *continuous constancy* of current application. If the current be spasmodic, interrupted or unreliable in any degree, it will not only impair the results sought, but will also seriously disturb the comfort of the patient. There is nothing which so quickly develops remonstrance from the one operated upon as an interrupted current or the sudden elevation from a low to a high voltage. To this general rule, emphatic as I would make it, there are some exceptions which do not figure in the general summing up. The importance of continuous application of current should be borne in mind even to the end, that when a renewed