CHAPTER VI

IONIZATION AND ELECTROLYSIS

Ionization.

This is the forcing of ions into the tissues from without, by means of the galvanic current. Electrolysis is a form of chemical cauterization, the active agents being the acids and alkalis formed by secondary chemical action at the poles of a galvanic circuit flowing through an electrolyte, the electrolyte generally being furnished by the fluids of the patient's tissues, into which one or both of the bare electrodes are introduced.

As has been described in Chapter I., a constant galvanic current flowing through an electrolyte, such as a solution of sodium chloride, splits up the molecules of the salt into ions of sodium and chlorine. The chlorine passes to the positive electrode, the sodium to the negative. Suppose the procedure to be modified by covering the two electrodes with many layers of lint soaked in sodium chloride solution, and binding them firmly to opposite sides of a limb. Then, when a constant galvanic current is passed the following changes will take place: At the positive electrode the chlorine ions migrate to the metal surface of the electrode itself, where they give up their electrical charge, and combine with the water of the solution to form HCl. Some of the acid radical is then propelled back through the lint.