

paralleled by that of an American surgeon of my acquaintance who rejects electrolysis even in cases where its effects are unquestioned, on the same grounds.

The study of the electrolytic decomposition of organic tissues has hardly been begun. No clear conception of the process can be obtained until the principles of electrolysis in inorganic fluids are first thoroughly studied. Careful experimental and clinical research is demanded. In face of honest, thorough work, based upon exact knowledge, criticism of the nature of that which has been aimed at electrolysis during the past two or three years will bear its own condemnation.

The present development of the practical applications of electrolysis in medicine and surgery is so largely due to the intelligent and persistent labors of American dermatologists that I considered this association the body best qualified to judge of the worth of the remarks I have submitted. I trust that I have not deviated too far from the subjects that may properly be brought to your attention.

NEUROLOGY.

Some Problems of Mental Action.

Such is the title given to his annual address (a copy of which has kindly been given us by Dr. Richard Gundry, Medical Superintendent of the Asylum for the Insane, Maryland, and President of the State Medical and Chirurgical Faculty, Referring by quotation to a remark of Sir Walter Scott, the speaker said: "These materials for tragedy or comedy are all around us, though their relation and importance may not be recognized until some magic weaver blends them into an appropriate design." Of the numbers of such in the families which make up a community, some one becomes the trusted adviser, and to the family physician—if he be really one—people instinctively turn. "He is not only called upon to rectify disordered bodily functions, but also, at times, to estimate the influence of these disturbed activities upon the highest nervous processes, in influencing the power of adjustment of the patient to his environments; to calculate the future progression of such disturbances," so that the sources of strength may be carefully cultivated and brought into action. In the study of such a question three factors must be considered: 1, inheritance; 2, en-

vironment; 3, personality. As regards the first: "The fundamental principle is that every attribute of the parent tends to be exhibited in the offspring." But this is not invariably the case, or when it is present, is the same quality inherited equally by every child. "The children of epileptic or insane persons are more likely to inherit the epilepsy or insanity of their parents, as well as their other qualities; but all children of epileptic parents do not have epilepsy, nor all children of insane parents become insane. . . . This transmitted tendency will probably appear in the offspring at an epoch corresponding to its appearance in the parent." Cases were cited where blindness and carcinoma had been transmitted. Porrey tells of a family every member of which became insane at forty. . . . The tendency tends to develop at an earlier age in successive generations, while the tendency derived from one parent only is apt to fall on the sex of that parent. The attributes peculiar to one parent may be displayed by the offspring at one period of life, and those of the other parent at another time."

Granting these observations to be correct, another important question arises: Are acquired peculiarities and injuries transmitted? "It is observed that injuries to nerve matter which are efficient causes of hereditary disease are those which in the first instance were inflicted upon a nerve centre or the trunk of a nerve, and that no injury suffered by the peripheral expanse of nerve matter is capable of being transmitted." Deformities of limbs are not transmitted. When epilepsy is acquired it becomes a permanent possession of the race, and passes to some member of the family in each generation. And so it is with intemperance and other causes of change of nerve tissue.

With regard to the neurotic or insane diathesis, Dr. Gundry remarks that, whether a true diathesis or not, certain it is that all persons inheriting such are marked by a permanent lowering of nervous energy, or that quality of nerve force which is called *tone*. "In all these we are apt to see explosions from slight or inadequate causes, an apparent eagerness to respond to external suggestions, and an inability to resist the approach or progress of morbid causes. These are the people who are never well. . . . A healthy man does not work up to his full income of nervous energy, except upon special occasions of strain," and is saved