

CAN  
P/AM  
E

Grant, James A.

*Reprinted from the New York Medical Journal for  
September 11, 1907.*

## ELECTROLYSIS AND THE NERVOUS SYSTEM.

BY SIR JAMES A. GRANT, K. C. M. G., F. R. C. P., Lond.,  
Ottawa, Canada.

Consulting Physician, General Hospital and St. Luke's Hospital.

In 1854, when a student at McGill University, my attention was directed to the marvelous operations of the nervous system, since which time I devoted spare hours to the problems of this intricate structure. Tear and wear are the result of both mental and physical strain, at no time more marked than in the present century. For many years I applied electricity in the ordinary way, frequently with beneficial results, without knowing exactly the why or the wherefore.

The power of the galvanic current to decompose water was discovered and first described by Nicholson and Carlisle in 1800. In 1806 Sir Humphry Davy presented to the Royal Society a lecture on some chemical agencies of electricity and the following year announced the discovery of the decomposition of the fixed alkalies. The phenomena of electrolysis are due to a modification, by the current, of the chemical affinity of the particles through which the current passes, causing them to undergo decomposition and recombination. In the electrolysis of inorganic substances, it cannot be expected to solve the mysteries of life and disease. As the body is largely composed of water, holding in solution salts of potash and soda, it thus becomes an excellent electrolyte. The current of a dry battery, transmitted by an ordinary neurotone, is the simplest and most efficient method of electrical application. The

Copyright, 1907, by A. R. Elliott Publishing Company.

SI 1111 0