

structure in which it ends that causes it to stop abruptly the process going on? In other words, are there two opposite processes of excitation and inhibition, similar in nature but opposite in sign? We come across the old problem of duality, of some philosophical interest. The question as to the existence of positive and negative electricity, as in the nucleus and electrons of an atom, is a cognate one, and we are reminded of the frequent physiological opposition between anions and cations.

With respect to the hope or probability of further progress in the explanation of vital processes, Sir Charles Sherrington directs attention to the justification that what has already been done gives us in believing that "further application of physics and chemistry will furnish a competent key" to many mechanisms. Although we may not be able to construct such mechanisms ourselves, we may understand the principles on which they work, somewhat as a man may be able to explain how an electro-motor works, notwithstanding that he may not have the skill to make one. There are, however, other things, more particularly concerned with growth and development, which we, as yet, are a long way from comprehending. What it is that makes a living creature a united whole and "how the mind is connected with its bodily place" belong to these. The question is asked, "Can we suppose a unified entity which is part mechanism and part not?"

The latter part of the address is devoted to some important relations of the physiology of the brain to the doctrines of psychology and sociology. We must not leave out of consideration the combination of individuals into social organisms, "new in the history of the world." Man must feel that to rebel against this great supra-individual process "would be to sink lower rather than to continue his own evolution upward."

There are many apposite points brought out in the discussion on the "mental" functions of the brain. We know that the integrity of certain parts of the brain is essential for mental activity, while what we call the lower levels are non-mental. Since we step from one world to another, as it were, when we pass from a nerve impulse to a psychical event, we might expect that there would be some striking change of structure when we cross the boundary between the non-mental and the mental regions of the brain. But we find the "same old structural elements." "The structural interconnexions are richer, but that is merely a quantitative change." Another difficult problem is the position of psychical events in the energy balance-sheet of the body. Do they take their place in obeying the first law of energetics? But the whole of this discussion must be read in the address itself to be properly appreciated.

The United States Chemical Foundation.

EARLY in July last, President Harding instructed the Alien Property Custodian of the United States to demand the return of all patents, trade marks, etc., which had been sold to the Chemical Foundation, on the ground that "the sale was made at so nearly a nominal sum that there is reason to believe that this government has not faithfully observed the trust which was implied in the seizure of this property." The birth of the Foundation was the subject of much abuse in Germany, and now a resolution of the third German-American National Conference, with Mr. G. S. Viereck as chairman of the resolutions committee, declares that "we greet with satisfaction the first steps of the administration to correct the iniquities committed by the custodian of alien enemy property." Meanwhile, the consternation produced among chemists of the United States by the President's action will be readily understood.

The Chemical Foundation was established in 1919, and purchased 4000 patents from the Alien Property Custodian for a sum of 250,000 dollars. It is a privately managed enterprise, with well-known men of high character as voting trustees, and the president, Mr. Garvan, is not salaried. The Foundation was generally commended at the time of its inception, and its affairs appear to have been conducted on altruistic principles and without profit. Non-exclusive licences have been granted in order to break monopolies and to benefit consumers; licences to the Government have been free, and on others the royalties have been low. To illustrate the beneficial effect of this policy, it has been stated that under the German monopoly the cost of salvarsan was 4.50 dollars per dose to the physician, and 2.50 dollars per dose in quantity to the Government, whereas now the price has fallen to 1.50 dollars and about 30 cents, respectively.

A reasonable conclusion to draw from such evidence is that although the original price paid by the Foundation for the patents may have been "nearly a nominal sum" if regarded as a monopoly price, it was nevertheless a fair competitive price. Action is being taken by the American Chemical Society, which represents some 15,000 men and women working in educational institutions, research laboratories, and industrial plants, who regard the Chemical Foundation as the nucleus of organic chemical industry in the United States. The society, through a committee which does not include dye-makers or chemical manufacturers, is seeking a conference with President Harding for the purpose of presenting information which it believes he cannot have received before adopting such revolutionary procedure.