

SPRIT OF RESEARCH

Fine Book by Late Prof. Brailsford Robertson

(By L. J. W.)

BRAILSFORD ROBERTSON'S brief but exceedingly intensive life was devoted to scientific research. Nevertheless, he found time to write numerous articles of a more general appeal. They show an amazing breadth of knowledge and a deep outlook on the fundamental things of life. Their powerful and picturesque expression reveals the mental and power of mind that lay behind all Robertson's work."



In these sentences Dr. S. W. Pennycook, D.Sc. (of the Faculty of Science, University of Adelaide), begins an introduction to "The Spirit of Research," by T. Brailsford Robertson. The book, which was edited by Jane W. Robertson, widow of the author, is dedicated to their children (Judith, David, and Stirling), and "all those who carry on his work."

No more appropriate title could have been chosen for the volume, for the spirit of research guided and animated Prof. Robertson throughout his life. His untimely death when at the zenith of his powers—he was only 45 when

he died in January, 1900—was a loss not only to science, but to the world at large, because in these collected articles he shows a philosophic understanding of things in general that must have enhanced the great reputation which he had already established among those to whom his work was familiar.

Fortunately, however, he was farseeing and thorough, and he made every provision to enable his labors to be continued, even though his guiding hand might be removed. It is characteristic of the man," writes Dr. Pennycook, "that even death was not to interrupt the work he had planned, for he had elaborately committed to paper all the details he had in mind for the immediate (and even the distant) future. These have been placed in such able hands that there is no doubt of the great and lasting benefits which must grow upon his sound foundations."

"The Spirit of Research" is no more the dry-dust tome usually associated with scientific works than Prof. Robertson was the traditional scientist. On the contrary, it is brightly written and holds the attention from start to finish.

"The average man in the street or man of affairs has no very clear conception of what manner of man a 'scientist' may be," says the author. "More or less indefinitely, I suppose, it is conceded by all that a 'scientist' is a man of vast erudition (an impression, by the way, which is often strikingly exaggerated) who lives a dreary life with his head buried in a book or his eyes glued to telescope or microscope, or perfumed with those disagreeable odors which, as everybody knows, are inseparably associated with chemicals. The purpose of this life is not very clear, but doubtless a vague feeling exists in the minds of most of us that people who are willing to pursue such an unattractive career must be worthy of admiration for, despite all the triumphs of commercialism, humanity still loves idealism, even idealism which seems objectless, because it is incomprehensible."

That is graphic descriptive writing, with a touch of whimsical humor, which lifts the book into the realm of good literature, and there are many such gems. And then note how interestingly the author can deal with a scientific fact—

"LONG ago, in ages so remote that no record of them survives save our heritage of labor well achieved, some pastoral savage, more reflective and less practical than his brethren, took to star-gazing and musing in his menery certain coincidences. Doubtless he was chidden by his tribal leaders, who were hard-headed men of affairs, skilled in the conventional art of imposing conventional behavior upon unruly tribesmen. But he was an inveterate dreamer, this prehistoric Newton, and the fascination of the thing had gripped his mind. In due time he was gathered to his fathers, but not before he had passed on to a few chosen ones the peculiar coincidences he had observed. And thus from age to age was added coincidence to coincidence, and the result of all this unpractical labor was, at 1602, a calendar."

What could be simpler or more explanatory? The whole book shows that Prof. Robertson lived up to the motto he recommends for all research workers: "Do the best you can with what you have where you are. And what a very fine best was his!" This readable volume should not be missed by anyone.

Our copy from F. W. Preese & Sons, the publishers. The printing has been excellently done by the Hassell Press.

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Education Expenditure

Apparently from the latest remarks of the Premier (Mr. Hill), the report of the Education Committee is to be shelved. As frequently pointed out in this column, Liberals are not opposed to education, but think that the State should make an honest effort to live within its means. As present, we can no more afford certain phases of free education than we can afford champagne every day.

A WORLD-AMOUS SCIENTIST

"The Spirit of Research" By Dr. T. Brailsford Robertson, Adelaide: F. W. Preese & Sons.

"A prophet is not without honor, save in his own country, and in his own house." Although this dictum has divine authority, there are some to whom it is less applicable than others, and one was the late Dr. Brailsford Robertson, Professor of Physiology and Biochemistry at the Adelaide University. Although, as Dr. S. W. Pennycook reminds us in a biographical sketch, its subject was recognized throughout the world as one of the authorities on proteins, and it is difficult to say whether Robertson, or his foremost master, Jacques Loeb, of California, was the leader in this particular field, Robertson's labors as a research worker were also highly appreciated by his colleagues, and all others in South Australia capable of forming an opinion upon them. We may infer from his achievements, literary and other, what science lost by his death from pneumonia last year, at the early age of 45. His voice and pen appear never to have been still, excepting during the many hours he spent so profitably for science in the laboratory. His "Principles of Biochemistry" and "The Chemical Basis of Growth and Senescence" afford but a faint idea of his literary activity, to obtain anything like a notion of which many journals would have to be consulted.

Loeb's Doctrines

From these journals, including "The Scientific Monthly," "The Canadian Magazine," "Scientia," "Science Progress," and "The Hibbert Journal," the articles collected in the present volume have been reproduced, and, apart from their value in commemorating a really great man, they are of special interest at a time when the subjects of which they treat are engaging world-wide attention. The spirit of research, as a vehicle of education, the cash value of scientific research, and the place of such research in life, science and evolution, the "fit" in social evolution, and the life and work of Jacques Loeb are among the subjects luminously discussed. What astonishes the reader is that so arduous a student of nature, who so incessantly absorbed in the work of the laboratory, should have found time for the mass of speculative thought revealed in these pages. For example, like Loeb, under whom he studied for five years, Brailsford Robertson made himself a master of the writings of the French Encyclopaedists, D'Alembert, Diderot, Holbach, and others, having, like Loeb, taken very seriously their "mechanistic" philosophy. To these thinkers Loeb dedicated his principal work, "The Organism as a Whole." In admiration of their humanitarianism and singleness of mind, as shown in their belief that human beings were originally as virtuous as was Adam before the fall, and that it was through faulty education and evil institutions that they deteriorated. The defect of this reasoning is obvious to anyone who thinks a little, for if mankind were originally so perfect, how was it that this perfection did not imprint itself permanently on their education and institutions?

Good and Evil

Evolution gives quite another account of those influences, showing that, like the human race, they were developments from pre-existing causes, and took their color from the state of human society at any given time. Good and evil, like wheat and tares, developed together, and the history of the world has been that of the struggle between them for survival. Robertson tells us that Loeb, as a sane biologist, did not dispute organic evolution, but it was a subject on which he was not enthusiastic, any more than he was with regard to any other hypothesis not capable of experimental verification. What Loeb had in common with the Encyclopaedists was their belief that "religious dogma and superstition, recognition of a higher will, which holds out an illusory hope of a better world in the hereafter, and a fear of asserting individuality" were so many fetters on the human spirit which must be broken before progress was made. Loeb carried his denial of a guiding spirit of the universe so far as to treat all life as automatic, and

subject to the dual control of heredity and environment. Plants and animals alike, for example, are irresistibly attracted to the light, the plant because "the tension of its protoplasm is greatest on the illuminated side," and the living creature because the tension of its muscles is greatest on the same side.

A Profound Thinker

How consciousness came to be and what part it plays in the economy of life, its relation to memory, whether Darwin or Weismann was right on the question of the inheritance of acquired character, the effect of environment on human development, and the part played by the sense of time in intellectual development, are among the questions to which many suggestive and illuminating pages are devoted. Robertson's tireless labors in the work of research in respect to animal nutrition and in other practical directions might not at first sight appear to have left him much time for deliberation on abstract questions, but he had a fondness for them, and those who share it will be well rewarded for the acquisition of this volume, the more that the language is so free of terminological difficulties that "he who reads may read." The volume is prefaced with a fine portrait of Robertson in his laboratory, and its general get-up is a credit to the Hassell Press Adelaide.

Adv. 10-10-31

GRANT FOR RESEARCH IN SURGERY

£40,000, Under Will Of Dr. Gordon Craig

Sydney, October 9. Under the will of the late Dr. Gordon Craig, the Royal Australasian College of Surgeons will ultimately benefit to the extent of about £40,000.

Dr. Craig was a founder of the college and a member of the council from the time of its inception. The sum bequeathed to the college will be held in trust. One half of the income from it will be devoted to the promotion of research in surgery, and the remainder will be used to assist young graduates of exceptional ability and promise to undergo post graduate education in surgery. All scholarships and bursaries under the bequest will bear the name of Dr. Gordon Craig.

The provisions in favor of the College of Surgeons are subject to certain annuities and legacies in favor of members of the family, certain employees and friends, and a legacy of £1,000 for the Burnside Homes at Parramatta.

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SOUTH AUSTRALIA'S DENTISTS

Although South Australia has fewer dentists on a population basis than any other State, there being 181 registered here, those associated with the profession said yesterday that the forecast of a scarcity of dentists in Victoria in a few years, made by the Dean of the Faculty of Dentistry of the Melbourne University (Professor Wilkinson), could not be applied to South Australia. At present there were perhaps a dozen who were barely able to make a living. The registrar of the Adelaide University (Mr. Eardley) said yesterday that there were 20 dentistry students, but none would complete his course this year. The number going out was normal. He pointed out that the Adelaide numbers were much smaller than those of Melbourne, about which Professor Wilkinson had complained that there were not enough students coming forward. Four Adelaide students completed their course in 1930, and three in 1929.