

PROFESSOR BRAILSFORD ROBERTSON AND JACQUES LOEB.

To the Editor. Sir—I have genuine respect for our University professors, and for that reason slowly study their deliverances. Each is an expert carefully chosen for a special subject. Professor Brailsford Robertson is a highly qualified professor of biology, who by observation and experiment has rendered distinguished service to the cause of science. I fully recognise his abilities and his service. It is a simple fact, however, that, outside the limits of his special subjects, a University professor stands on the same ground as the average educated man, and must therefore expect criticism. The report of the lecture on "The life and work of Jacques Loeb" I read with interest, and, I am bound to say, with considerable disappointment. The proven facts of science are one thing, their interpretation another. No sane man will dispute a fact scientifically demonstrated, whatever its implications may be. But on the interpretation of the facts the ordinary man is entitled to his opinion; and it is on this ground that I venture to break a lance with Professor Brailsford Robertson.

To make my position quite clear, let me say that I do not dispute any of the facts regarding Loeb's life and work adduced in the lecture. Nor am I, as someone suggested in a previous correspondence, foolish enough to dispute the professor's right to his opinion. The burden of my complaint is that the inferences drawn from the facts are for the most part quite unwarranted. The professor regards his former chief with a kind of hero worship, which perhaps obscures his better judgment. A recent scientific authority expresses very concisely what I wish to say. I respectfully suggest that these words apply equally to Professor Robertson:

It has repeatedly been proved that eminence in physical and chemical experiments, such as Dr. Loeb's have really been, does not necessarily qualify a man for discussing the ultimate problems of life and mind. The psychological and philosophical writings of Dr. Loeb have done nothing to advance his reputation, and have been very severely handled by the students of those subjects. Further researches along the lines of those made by Dr. Loeb have also been carried out by Professor Driesch and others, with the result that a wholly mechanistic interpretation is found to be impossible.

The professor asks, What should be said of the main theses (of Dr. Loeb), culminating in the view that man was an automaton, moved wholly by chemical or physical forces. I reply that this view is not proven, that it is rejected by the majority of eminent men of science to-day, and that it is inadequate to account for manifold and vital activities of men. One might add that it is incorrect to ascribe this view to Dr. Loeb as its originator. It is as old, at least implicitly, as Democritus, Epicurus, and Lucretius, and is therefore over 2,000 years old. Loeb set to work to strip the mystery from life, and to show that living bodies, no less than inanimate bodies, were machines, impelled by physical and mechanical forces. In reply the professor, who obviously opines that Loeb has succeeded in stripping the mystery from life. This is news indeed. Years ago Du Bois-Reymond, whom Professor Haeckel hailed as the all-powerful secretary and dictator of the Berlin Academy of Science, declared that science had no solution for seven enigmas. These are (1) the nature and origin of matter and of force; (2) the origin of motion; (3) the origin of life; (4) the apparently designed order of nature; (5) the origin of sensation and consciousness; (6) the origin of rational thought and speech; (7) free-will. Assuming that Dr. Loeb rejects the idea of Creation, may I ask the professor to supply the solution of the above problems now that the mystery has been stripped from life? He cannot do it, I fear.

Again, "In many of the simpler forms of life inhabiting the ocean bed, maturation resulted in the regeneration or regrowth of the missing parts." Far from proving the truth of mechanism, this seems to me to prove the opposite, and indicates that "some kind of force other than that recognised by chemists and physicists must have its existence in living cells, a force which is able to direct it to its appointed term of development and even to lead it there in spite of difficulties which it could never have been supposed a few years ago would have been insurmountable in its way." Once more, Loeb "proved that the polarity of many of these organisms was entirely due to gravity." I do not know if Herbert Spencer anticipated Loeb, but he gave a similar explanation, to which a very learned professor replied:—"This explanation to the careless no doubt sounds to the full as satisfactory as did the blessed word Mesopotamia, but when we come to examine the meaning of the phrase we find the explanation is no explanation at all." (See Barron Wield, M.A., M.D., D.S., LL.D., F.R.S., F.S.A.)

But in any case, as we are stripping away mysteries, let us ask, what is matter? and what is gravity? I do not know, but in themselves. No satisfactory answer appears possible, since these things come under the account given by Lange of matter and force. This great scholar affirms in his History of Materialism, that "the inner nature of matter and force escapes the notice of the man of science." If that be true, and it is true, how can mechanism claim to account for all phenomena, including matter and force, as mere chemico-physical manifestations? Dr. Loeb knows no more of the inner nature of matter of the forces

in the crumpled wall or any single lamp than a street arab. Newman asked: "What do I know of matter? Just as much as the greatest philosopher; and that is nothing." One might reasonably expect historical accuracy in a set lecture. Yet we read of the pre-revolutionary period in France that "people were taught to believe at that time by their religious instructors that human nature was essentially bad." Now the religious instructors at that period were, in France, doubtless the Catholic clergy. Since the doctrine that human nature is essentially bad has always been explicitly and strongly condemned by the Catholic Church perhaps the professor will consider a withdrawal or explanation not out of place.

There are other passages one might wish had been omitted. For example:—"The masses were fettered to unwearying labor by religious dogma, superstition, and recognition of a higher will;" also, "The mysticism which revelled in ignorance of natural phenomena," and others of a similar type. "The persecution of the Inquisition" is also introduced as if to complete the resemblance of the professor's discourse to a cheap rationalist reprint or the most approved sectarian sheet. One may say that the above selections, and, indeed, the whole address, betrays a looseness and inaccuracy of thought and expression by no means consistent with the reputation of a scholar. There is an element of humor in the thought that Professor Mitchell was chairman during the address. I wonder what thoughts passed through the mind of this kindly and cultured gentleman as he listened to a lecture of which the logical issue was the abolition of the chair of psychology. Nay, to pursue the thing to its final analysis, Professor Robertson's own chair is doomed, for if everything can be reduced to physics and chemistry, and finally to mechanics (and some say to mathematics), the faculty of science at our University can do without a professor of biology; which is absurd. Of the thesis of Loeb as formulated by Professor Robertson, Dr. Haldane says:—

This argument, in its widest form, is undoubtedly based on the metaphysical assumption that the universe, interpreted as it is in the physical sciences as a universe of matter and energy, corresponds to absolute reality, and is for this reason incapable of further interpretation. The work of modern philosophy since Berkeley and Hume has shown that the assumption in question is without foundation.

In conclusion I venture to think that Professor Robertson does not exhibit the modesty of a true man of science in the presence of the mysteries of Nature, mysteries which profound study tends to deepen rather than dispel. Three centuries ago Bacon observed that "a little philosophy inclineth man's mind to atheism; but depth in philosophy bringeth men's minds about to religion." The great Frenchman, J. Henri Fabre, who stands in the very forefront in the ranks of scientific men, gives wise counsel in the following words:—

Let us acknowledge that in truth we know nothing about anything so far as ultimate truths are concerned. Scientifically considered, Nature is a riddle to which human curiosity can find no answer. Hypothesis follows hypothesis, the ruins of theories are piled one on another, but truth ever escapes us. To learn how to remain in ignorance may well be the final lesson of wisdom.

Here he speaks as a man of science, to which he had devoted the whole of his life. In his private life, like his illustrious compatriot, Pasteur, he was a devout, humble, religious man. Both these great men held with Bacon, "It is no less true in God's kingdom of knowledge than in His kingdom of heaven, that no man shall enter it except he become first as a little child."—I am, &c.,

R. B. DENNY.
Hamley Bridge, July 31, 1925.

REGISTER 4. 8. 25
Among the arrivals in Adelaide by the R.M.S. Orana is Mr. Bruce Anderson, son of Mr. and Mrs. H. W. Anderson, of Robe terrace, Medindie. About 18 months ago Mr. Anderson left for England to



MR. BRUCE ANDERSON.

continue his studies along the lines of research work at Cambridge. At present he is spending the long vacation in his native city, and will undertake the overseas journey in about six weeks' time.

ELDER CONSERVATORIUM ASSOCIATION.

Evening of Original Compositions.

The second gathering, held under the auspices of the recently formed Elder Conservatorium Association, attracted a deeply interested assembly of past and present students and members of the staff to the Elder Hall on Monday evening. Included in the audience were the Director of the Conservatorium (Dr. E. Harold Davies), the President (Mr. Frederick Bevan), and the secretary (Mr. H. R. Othams), who had capably organized all the details. The occasion was a distinctive one in the Conservatorium annals, for the concert consisted entirely of original compositions by the members. To Mr. Arthur Williamson is due the credit of having arranged the programme. All the numbers were splendidly performed. There were songs, pianoforte solos, violin solos, and a pianoforte concerto. In the majority of cases the songs and stringed items were accompanied by the composers. There was a preponderance of vocal numbers, but great variety was manifested in this section.

The introductory pianoforte solos, "Two preludes," by H. J. Perkins, were played by the composer, and their contrasting themes—the one thoughtful, the other brilliant—were finely interpreted. Reginald Bevan's delightful three-fold bracket of songs commenced the vocal portion, and Miss Hilda Gill's rich contralto notes did full justice to the melodious and attractive love songs—"The thought of you" (Celia M. Robinson), "Visions" (Christabel), and "The night has a thousand eyes" (Bourdillon). Two songs by Harold Wyde, "Dawn" (Anon), and "Wilt thou be my dearie?" (Burns) were rendered by Miss Ada Wordie, with due appreciation of their scholarly appeal. To Miss Clarice Gmeiner was entrusted the rendition of Arthur Williamson's violin solos. Both were thoughtfully played. They comprised a delicious "Andante espressivo," and a dainty rhythmic "Canzonetta." Alex Burnard was represented with a bracket of songs, "The city child" and "Birdie and baby." Miss Olive Bassett acquitted herself creditably as the soloist for their distinctive items with their difficult accompaniments. Maude Puddy's group of songs, "Renunciation," "Præterita," and "A song in summer," was charmingly presented by Miss Ada Wordie. The purity and clarity of the first item, the classic delicacy of the second, and the lifting air of the last one were rendered each in its corresponding mood. T. D. Campbell's very modern pianoforte solo, "Brolgas" was played with insight by Mr. Alex Burnard, who skilfully brought out the quaint beauty of that composition. Francis S. Walker's impressive writing, "A vagabond song" (K. H. Weston) eminently suited Miss Olive Bassett's range, and she sang that fine melody to Miss Mignon Weston's accompaniment. An example of true, artistic singing was afforded by Miss Ethel Ridings, in Reginald Bevan's bracket, "My true love hath my heart" (Philip Sydney) and "When I am dead, my dearest" (Christina Rossetti). The evenness and limpid sweetness of Miss Ridings' voice were ideal for these exquisite melodies. Arthur Williamson's vocal bracket, "Morning song" (to a sleeping child) (E. Nesbit Bland), and "Golden stars" (Heine) were compositions worthy of the finished singing of Miss Linda Wald, who in both numbers excelled herself, the velvety softness and roundness of tone suggesting much careful foundation work. Mr. Harold Parsons contributed a customarily able 'cello obbligato to the dramatic "Golden stars." The concluding offering was the brilliantly composed and also brilliantly played "Pianoforte Concerto in A Flat," by H. Brewster Jones, who had selected Mr. Spruhan Kennedy and Miss Alice Moncrieff as the interpreters. This is a difficult, thoughtful, and clever work, in three sparkling movements.

At the conclusion of the programme Mr. Bevan briefly thanked the artists for collaborating in giving such an enjoyable evening. He said there was evidently abundance of creative talent in their midst. (Applause.)

ADVERTISER 4. 8. 25
CONSERVATORIUM STUDENTS' CONCERT.

With the object of fostering composition among its members the Elder Conservatorium Association on Monday night held an evening for the presentation of original compositions. The programme embraced both vocal and instrumental numbers, under the latter heading being violin and pianoforte items. A gift for composition on the part of several members of the association manifested itself in works of undoubted merit. The composers represented on the programme were:—Messrs. H. J. Perkins, Reginald Bevan, Harold Wyde, Arthur Williamson, Alex. Burnard, T. D. Campbell, Francis S. Walker, and H. Brewster Jones and Miss Maude Puddy. Those who presented the numbers were:—Messrs. H. J. Perkins, Alex. Burnard, and Spruhan Kennedy and Miss Alice Moncrieff (pianoforte), Miss Clarice Gmeiner (violin), Misses Hilda Gill, Ada Wordie, Olive Bassett, Katie Jones, Ethel Ridings, and Linda Wald (vocal). The accompaniments were the composers and Miss Mignon Weston.

PRICKLY PEAR.

Commonwealth Investigation.

South Australian to Visit America.

On September 16 Mr. H. K. Lewcock, B.Sc., Ag., a graduate of the Roseworthy Agricultural College, will leave for America. His mission will be observation on behalf of the Commonwealth Government of points with regard to prickly pear eradication.

Mr. Lewcock will also enquire into the practical application of destructive methods for a pest which is monopolizing large sections of country in Queensland and the northern semi-tropical regions of New South Wales.

Born at Clare 25 years ago, son of Mr. W. G. Lewcock, and the grandson of the Clare pioneer intense culturist, Mr. Lewcock comes of a family which is decidedly practical. On top of it all Mr. Lewcock has added the latest scientific knowledge, and his preferment was won in competition from about 40 others (from all parts



MR. H. K. LEWCOCK, B.Sc.

of the Commonwealth). It is probable that he will be absent from Australia for at least two years, as the travelling mycologist, under the Commonwealth Prickly Pear Board, which was established on the recommendation of the Department of Science of Industry. The duties entailed will necessitate close application for two years under the direction of the United States Department of Mycology with study both in the universities and in the field. Subsequently he will inspect the opuntia areas of Mexico to make himself conversant with the latest methods adopted there to combat the prickly pear trouble. Upon his return to Australia his headquarters will be in Queensland.

Mr. Lewcock has a distinguished scholastic record, as after gaining honours at Roseworthy Agricultural College he went to the Adelaide University, where he won the John Bagot Scholarship in Botany, and after graduation became the Lowrie Scholar for Research, in which capacity he was subsequently an assistant in the laboratory of Professor Cleland. His earlier successes included the Ridley Scholarship.

NEWS 1. 8. 25.
University Lectures

The Council of the University of Adelaide at its meeting yesterday adopted the report of the sub-committee in regard to the lectures to be delivered by Sir Ernest Rutherford. He will arrive in Adelaide early in September. The subject of the lecture will be "The Structure of Atoms," and as Sir Ernest's stay in Adelaide will be short the lectures have been arranged for the evenings of September 3 and 4, and will be delivered in the Brookman Hall, at the School of Mines.

A film of the Brownian movement will be shown and the lectures will be illustrated with slides. Sir Ernest will proceed to Melbourne and Sydney to deliver a course of lectures in each of those cities. He will then return to Britain by way of New Zealand.