LIFE THROUGH A LABORATORY WINDOW

BY

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My friend Dr. Raymond Pearl has drawn a comparison between Dr. Carrel's *Man, The Unknown*,¹ and Carlyle's *Sartor Resartus*, adding that "in some respects" the former "is the better book." There are some resemblances of a metaphysical kind, but the differences between them are profound. The life which Dr. Carrel describes is that seen through a laboratory window which looks out on the sophisticated life of New York, whereas Carlyle's study window opened out on the wind-swept moors of Craigenputtock. Dr. Carrel sees the world through a film of "tissue culture," Carlyle saw it through the mystical haze of a Calvinistic philosophy. It is true that in both cases we have to deal with disgruntled men who suffer from some strange form of mental astigmatism; both have assumed the mantle of Jeremiah in the midst of a world which they conceive to be evil. Carrel, like Carlyle, is a hero-worshipper and a contemner of democracies. Carrel, like Carlyle, believes humanity has to be retailored, but, unlike Carlyle, he thinks the new suit must be cut under scientific guidance.

A Comparison with Metchnikoff

The book with which I prefer to compare *Man, The Unknown* is one written fully thirty years ago by Elié Metchnikoff. He named it *The Nature of Man*. It is strange that the one book was written by a Russian biologist who made his home in France, while the other is from the hand of a French biologist who has spent his working life in America. It is true Dr. Carrel claims to be a surgeon; like Lord Moynihan, he speaks of the god-like office of the surgeon; but nevertheless, like all great surgeons, he is at heart a biologist, and, as we now know, also a philosopher. So was Metchnikoff, but Carrel's philosophy is more robust and all-embracing. Metchnikoff was convinced that the evolution of civilization had far outstripped that of man's body and called in the surgeon to remove the big bowel and other parts which he believed to have become superfluous. Dr. Carrel's diagnosis is different: he is convinced that man's body is still sound, but that he has surrounded himself with a civilization that is suffocating him—squeezing out his intelligence, his morality, his personality, and his happiness. He proposes to reform humanity by calling in, not a surgeon, but a junta of superphysicians. The reformers are to be segregated in a superinstitute, modelled on the lines of the Rockefeller Institute for Medical Research in New York; they are to elaborate and apply a science of morals as well as the other sciences which normally fall within the purview of modern medicine. They have to see to it that "mind" stands above "matter," that men and women imprisoned in big factories and offices are set free to work out their "personalities." Our reformers are to think, not of the advancement of material things, but of man's progress. How far the super-institute is to replace our regularly constituted Governments is not disclosed. The cause of reform is also to be aided by a voluntary fascist organization—of a kind which has been so successful of late in Italy, Germany, and Russia. Also the cause will be assisted by eugenical measures—such as we have been made familiar with in Britain since the time of Francis Galton.

Alexis Carrel's Career

Viewed across the width of the Atlantic we had judged Dr. Carrel to be the most fortunate of men. We supposed him to be the last of all men to find fault with our civilization, seeing that it was able, just when his time came, to open the door of opportunity to his budding genius. Let us consider his career for a moment. Born in France and bred to medicine in the University of Lyons, he found himself in New York in 1905. He was then

32 years of age. The doors of the Rockefeller Institute of Medical Research were thrown open to him. This institute, the creation of modern civilization, with its big regimented businesses, provided the opportunities which Dr. Carrel stood in need of in 1905. By 1912 he had established his fame. In that year, while Dr. Carrel was still under 40 years of age, he was awarded a Nobel prize for his work on the suturing of wounded blood vessels and on the maintenance of life in organs and parts removed from the living body. Again, he was benefited by the munificence of an industrial magnate. Plainly, when Dr. Carrel wishes to annihilate the modern organization of industry he cannot be moved by any personal grudge. Still, for the sake of future Carrels we do hope that he will defer his plans for economic revolution. Even his super-institute for world reform will depend on big business for its maintenance.

Alexis Carrel's Beliefs

Let no one lose heart over the aridity of the earlier chapters. Presently come those which are green and fertile. In these Dr. Carrel, in the clearest of phrases, expounds the new aspects of living matter which have been revealed to him in his laboratory. Every fact cited is one which he can demonstrate, every result mentioned is one capable of verification. His methods relied on in these fertile chapters are those regarded as valid by all men of science. But presently readers will find themselves in realms where the writ of science is not yet valid—where faith rules rather than fact. Dr. Carrel will have his readers believe that there are men who come by powers such as are usually reserved for the deity—namely, those of "reading the thoughts as easily as faces," of seeing future events while they are still hid in the womb of time, of sending and delivering mental messages to friends on the other side of the earth. Dr. Carrel is convinced that prayer can cause a wound to heal at a much quicker rate than is normal, and that the patient need not participate in the supplication to gain such gratifying results. Yet although a follower of Richet he apparently does not believe in the existence of spirits nor in the supernatural powers of mediums. He is inclined to believe that the brain may be capable of throwing out waves which may prove to be akin to electro-magnetic waves. He believes in asceticism and in mysticism; fasting is advocated as an exercise in mental therapeutics. Dr. Carrel believes in the existence of a psychic principle, capable of evolving outside the living human body. He believes that genuine miracles do happen; mystics can work them. And yet, strange to say, he regards the human soul as being inseparable from the human body. Indeed, he is convinced that the doctrine of the separability of the soul is responsible in part for the threatened collapse of civilization. And then, again, he holds that there will be peace for the world of humanity only when the human mind is freed from materialism and is able to pass freely outside the bounds of our present universe to where time and space are not. Dr. Carrel the man of science shelters under the same hat as Dr. Carrel the mystic.

An Aphoristic Writer

Our author has the clear, emphatic style of French writers. His sentences are short, seldom extending beyond a line and a half, and often have the piquancy of aphorisms, as the following quotations will illustrate. "The sound body lives in silence." "Wealth is as dangerous as ignorance and poverty." "We are not able to fight successfully against misery or poverty." "Each one, in a certain measure, is born good, mediocre, or bad." "Body and soul are views taken of the same object." "They are saints—that is, those who are virtuous in a heroic manner." "Great scientists always have profound intellectual honesty." "Thought grows only within those who are capable of love and hate." "A great artist, a great scientist, a great philosopher is rarely a great man." "The lengthening of man's senescent period would be a great calamity." "It would not be wise to give everybody a long existence." "The ageing man should neither stop working nor retire." "The passion for conquest inspires all great adventures." "In

¹ *Man, The Unknown*. By Alexis Carrel. London: Hamish Hamilton. (12s. 6d.)

the poor as well as in the rich, leisure engenders degeneration." "There are as many different diseases as patients."

I have thought it well to discuss *Man, The Unknown*, at considerable length because of the high position occupied by its author in the realms of orthodox medicine. The ideas and doctrines which Dr. Carrel has enunciated in this book will evoke reverberations in medical and scientific circles for many a year to come. Those of us who believe that the art of healing can be advanced only by careful observation, clear-cut experiment, and sound reasoning will have Dr. Carrel cast in our teeth by charlatans, Christian Scientists, and faith healers, who believe there is a shorter road. Medical men ought to be familiar with *Man, The Unknown*. In reality, it reveals more concerning Dr. Alexis Carrel than about Man.

HEALTH EDUCATION

CONFERENCE IN LONDON

The eighth annual conference promoted by the Central Council for Health Education was held on November 21st, the morning session being devoted to health education in the schools, and the afternoon to physical education. There was a large attendance of representatives from local authorities, insurance committees, approved societies, and affiliated health organizations. Sir KINGSLEY WOOD, Minister of Health, who opened the second session, said that he hoped the Ministry would be able to extend the provision for playing fields and swimming baths. Further encouragement was to be given to nursery schools, in which good food, fresh air, and skilled training were available, also to plans for systematic physical training on school premises, and again to clubs and voluntary organizations in order that young people leaving school for office or workshop might keep up their physical exercises and continue to be instructed in healthy living.

Health Education in the Schools

Dr. A. S. MACNALT, Chief Medical Officer of the Ministry of Health and the Board of Education, presiding over the morning session, said that much of the teaching of hygiene in the elementary school must be indirect and given as an integral part of school life. For children between 7 and 11 years of age formal lessons in hygiene were of minor importance compared with the formation of right habits through training in practices which were the foundation of a healthy life. Lurid films, scathing denunciations, and descriptions of the diseases and ill-effects which might follow neglect of the laws of hygiene defeated the ends of health education. The sensitive child was terrified or repelled, and the callous remained uninfluenced. For children over 11 instruction in elementary physiology and hygiene developing out of the lessons in biology was desirable.

Dr. J. J. PATERSON (M.O.H., Maidenhead) suggested that in the approach to health teaching a useful analogy was furnished by the teaching of handicraft. Just as the first lesson in handicraft consisted in naming, describing, and explaining the use of the tools, so should the child be taught the names, uses, and functions of the parts of the body. The next lesson was devoted to the care and maintenance of tools or implements, and the same sequence might be observed in a series of health lessons, with emphasis on personal cleanliness, tidiness, and exercise of the natural functions.

Among those who took part in the discussion were Dr. W. G. SAVAGE and Dr. E. H. T. NASH, both of whom suggested that considerable improvement might be made in the teaching of hygiene in the training colleges for teachers, and Dr. HENRY HERD, school medical officer for Manchester, who suggested that school medical officers could do something positive in this direction. When a school medical officer visited a school, which ought not to be at longer than quarterly intervals, he might devote some time to talking to the elder children on health.

The school medical officer had an advantage over the teacher in this respect in his background of knowledge of the human body, and in the fact that even in the eyes of children he was recognized as an expert.

The Vogue of Medicines

Sir ARNOLD WILSON, M.P., a member of the Physical Education Committee of the British Medical Association, gave an address to the conference on "Health and Physical Education." He began by deploring the huge advertising of drugs, the advertisements being often accompanied by supposed recommendations from many anonymous members of the medical profession. The appeal of many of these advertisements was to fear. On reading them one would suppose the public to be in a state of appalling decrepitude, going about continually in terror of germs. The traffic in patent medicines and in medicines generally was of such dimensions that the cost exceeded that of the consumption of alcohol, if the tax were deducted on either side. And who could doubt that drugs did far more harm than alcohol? The patent medicine tax produced £337,000 just before the introduction of national health insurance. By 1924 it was producing nearly £1,500,000. It had since fallen to something like £750,000, and was still falling, but that was not because druggists and grocers were selling smaller quantities, but because measures of avoidance—he did not mean evasion—had been taken, and now by far the greater bulk of patent medicines was not subject to tax, but was sold by unqualified persons without let or hindrance. This problem must be seriously tackled. It was a form of maleducation which the council could not overlook. He was frankly surprised at the decision of the British Medical Association not to republish in a new form its classic book *Secret Remedies*.

Next he turned to the inadequacy of the national health insurance system as exemplified by the non-universality of adequate dental benefit. Far more education was necessary on the importance of the teeth. He was in constant touch with working men and women who were suffering in health far more from lack of dental care and treatment than from any other single thing. People in the middle classes often spent three times as much on dental treatment as on doctors, yet those in national health insurance were expected to be content with a sum allocated to dental treatment which was less than the amount allocated for drugs.

Again, there was the question of ophthalmic treatment. To what extent was that problem really being investigated? Was it desirable to give all children whose eyes were found to be defective a pair of glasses and leave it at that? That was what was going on on a large scale, and a vested interest was even growing up under it. Had the possibilities of eye exercises and eye training been properly investigated? He did not like to see a young country labourer wearing glasses to do his manual work for no better reason than that they had been prescribed for him in childhood for some defect which might have been dealt with in another way, and now he could not do without them.

Physical Education in the Schools

Sir Arnold Wilson expressed some healthy doubts with regard to school furniture. It could be made with a much better appreciation of scientific principles and more regard to the particular child. He understood that there were only three sizes of school desks officially approved by the Board of Education, though there were about forty sizes of boys officially approved by the Almighty! He wanted to see the child at school at least as well treated as the typist in the office with regard to adjustment of seat and desk.

Lack of sleep was probably the principal disadvantage from which the children of the working classes now suffered. It was a form of malnutrition, with a profound effect in frayed nerves, lassitude, and lack of appetite. Physical fitness should be one of the subjects for which marks were given in school examinations, the marks to be awarded not to those whose physical endowments were