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TO-DAY AND TO-MORROW*

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I

A Message of Appeal and Exhortation

In many medical schools in peacetime it is customary to open the new academic year with a lecture or address of welcome and encouragement. On this occasion, at a time when we all—both young and old—stand in need of the encouragement, the duty falls to your, at present, absentee Professor of Physic.

To those of you who have just come to Cambridge, the new recruits to medicine, I extend a very warm welcome on behalf of the faculty and of those sciences into which it is your good fortune to be initiated by teachers renowned far beyond the walls of this University. Alike to you and to those whose enlistment was of earlier date and whose promotion to the clinic therefore seems a little less remote I bring a message of appeal and exhortation. Where the sick are and the injured we shall need your help. Let us hope that the bombing and the blasting and the maiming will be over before you arrive on the scene. But whether they are or not we shall still need your help, for there will be tasks of human reconstruction and repair, discoveries to make, educational reforms and reforms in our body politic, and a reorganization of medicine in the service of the State to keep your generation busy for many years to come. It is for these reasons that I want to talk to you about your present and your future. If my words help to set a course for you, to disarm despondency, and to discover in what will sometimes seem the drudgery of the syllabus the small beginnings of your own small contribution to the recivilization of mankind they will not have been wasted words.

We live in exciting and difficult days. It is a common remark (you must have heard it often) that the uncertainty is indeed such that we can only live and plan from day to day. I am an optimist, and would hold that to be altogether too narrow and too blind a philosophy. Whether as individuals or as groups it was never more necessary for us to think and plan and act efficiently, both for the moment which we call To-day and for those less calculable but none the less important moments which we designate To-morrow. Without planning, vision, determination, action, we are neither making our best contribution in the present crisis nor anticipating as we should the problems and difficulties which must confront us when it passes.

It has been all too easy for each one of us in this first year of war to be taken up with the dislocation of our own affairs. Grumbling is an epiphenomenon of war-

time. I am conscious and ashamed of many spoken and unspoken grumbles and frustrations of my own. But all our incidental troubles, including the interruption to study which the *Blitzkrieg* has brought, seem petty beside the latest cruel catastrophes which it has inflicted upon others. Should we not rather, therefore, in the time-worn phrase, count such blessings as remain to us? Let us consider some of yours.

II

Privileges of the Medical Student

The medical student, notwithstanding that his life and his curriculum (especially in the case of the London teaching hospitals) have been greatly disturbed and handicapped, is a very privileged person. He is immediately privileged in his generation by being considered worthy by the Government of exemption from military service. He cannot do too much to make himself worthy of that exemption. Many of you no doubt feel your position rather acutely at times and wish that you could be serving in some capacity with the fighting Forces or some other essential national service. There is no reason to doubt that you could and would give a good account of yourselves. I have recently seen medical students play their part as naturally and effectively and with as good a humour when their hospital was bombed and patients had to be moved by difficult routes to safety as if that were the occasion for which they had been particularly trained. For the moment, however, you must accept that your first line of national service is to learn as much as you can of the sciences essential to the equipment of a good doctor. There are also second lines of service to which I shall refer later. The discipline of the laboratory and the dissecting-room must precede the discipline of the ward, just as the discipline of the parade-ground precedes that of field manœuvres or of actual battle. In your case to-day academic discipline must deputize for military discipline.

The medical student is also greatly privileged in the career which lies ahead of him because it is almost the only scientific career remaining which is not concerned in some way with the destruction of life. The whole endeavour of medicine, in war as in peace, is the protection and preservation of life and limb and the advancement of learning with these ends in view. You have another privilege, too, in the infinite variety of interests and experiences which medicine provides from the day when you dissect your first frog until that on which you bid farewell to your last patient or your last class of students. Can the lawyer or the business man ever stand tiptoe for the new discovery or look back on a day's work grateful

* An opening address to students of the Cambridge Medical Faculty, October 15, 1940.

for the new discovery's humane application? For you, too, waits the privilege of choice from many opportunities when your apprenticeship is served, for medicine comprises many professions. There is general practice, often wrongly conceived as something too humble or too exacting but, in fact, still claiming the cream of the profession. There is the life of the teacher-consultant or specialist. There are whole-time academic appointments in physiology or pathology with opportunities for teaching and research. There are the public health and municipal hospital services, the colonial medical service, and service with the armed Forces. The list could be very considerably extended.

In this place finally you have a further privilege, for the direct impacts of war have not so far proved too disturbing to your studies. None can say when your battle-hour may come; but in the meantime the atmosphere of lecture-room, laboratory, college, and playing-field retains much of its peacetime sanity, so that you can make full use of an educational programme which has few rivals and of those facilities for healthy intercourse and exercise which keep mind and body fit and alert. Individual fitness and alertness are themselves a contribution to the national cause.

III

The Student's Task

Let us turn now from the student to his task. There are two main parts or qualities in a sound medical education. These may be broadly defined as the scientific and the human or humane. Both are quite indispensable to the equipment of the doctor. They are complementary and should never be allowed to conflict with one another. Never were we more urgently or more vividly reminded than we are to-day of the need for both of these qualities. Surgeons, physicians, physiologists, and pathologists are everywhere at this moment turning their attention to problems which became familiar to us but were never fully solved in the last war, and which now confront us again in variant or intensified forms. Shock and haemorrhage and their treatment, the blast effects of bombing on lungs and brain and ear, the prevention of epidemic disease in overcrowded deep shelters, to name but a few of these problems, are claiming much time and thought as well as the immediate practical ministrations of doctor and of nurse. Without anatomy, physiology, pharmacology, pathology, and biochemistry to guide their actions and to inspire and systematize research the surgeon and physician would be very helpless people. Be avid, therefore, for all that you can reasonably be expected to digest of these essential sciences during your sojourn here.

And yet remember, too, that these same sciences would avail little unless welded and amplified by the practical or field experience of the ward and out-patient clinic; by careful training of the special senses in their powers of clinical observation; and by human sympathy subjected to the long discipline which close contact with men, women, and children of all classes, and the steadfast will to help and understand them, can alone provide. It is no bad beginning to try to understand those around you first, to be dispassionately interested in their temperaments, their virtues, and their weaknesses, and sometimes, but not too introspectively, to analyse your own.

It has always seemed to me a pity that the training in observation, whether intimately clinical or broadly human, should have to remain separated so long from the other forms of scientific discipline which the pre-clinical years of study provide. I believe we shall ultimately have to find a way of maintaining a closer touch, at all stages, between the biological sciences and those practical human conundrums for the solution of which their aid is sought.

Is it right that we should be compelled only by war to invoke an intimate co-operation of science and practice for the solution of a number of problems which exist in peacetime too? Men of ability have been called from the quiet of their laboratories to help us in the war hospitals. Could not their research more often have sought and found direction towards urgent human needs before the advent of war?

And might not the pre-clinical student more often find advantage and stimulus from appropriate clinical illustration of anatomical and physiological principles and from other living reminders that his province is the whole biology of man in health and disease?

IV

Developing the Social Conscience

In the meantime, however, there are plenty of other ways, apart from application to your books and bones, in which you can be making a contribution to your own and to the world's To-day and To-morrow. Although your time in Cambridge has been shortened to two years not all of that time can or should be devoted to study and preparation for tripos or qualifying examination. It is essential that you should develop yourselves as citizens too. A doctor who is not a good citizen is not a complete doctor.

Some of you will join the Home Guard and help to make yourselves citizen-soldiers. Others perhaps will join first-aid groups. Others, again, will interest themselves in social or political organizations and, maybe, find an outlet for frustrated sympathies in collections of clothing, money, or other necessities (boys' and men's clothing is urgently needed at this moment in the poorer London boroughs), or by active relief work in vacation time.

By one means or another you must develop the social conscience, which has, in the view of many of us, been too little evident in the years preceding the war. Although there have always been noble and notable exceptions in every community it has seemed to me that medical students and doctors as a body, excusing themselves on the ground of their many preoccupations with the curriculum or the anxieties of practice, have held themselves too much aloof from the larger social problems. Social selfishness and abuse of privilege are diseases as troublesome as any of those described in the textbooks of medicine, and no one is better placed to counter them and to furnish the evidence for countering them than the medical man or woman. I do not ask you necessarily to ally yourself with any particular political creed, but I do ask you to be seriously interested in man's environment and the possibilities of its improvement.

I wish I could take every one of you for a walk through some of the poorer districts of London, not only to see the havoc that has been wrought there and the wretched conditions in which thousands of amazingly courageous and uncomplaining people of the working classes are herded together nightly in their shelters, but more particularly to see the disgraceful conditions of housing which have been allowed to persist so long in twentieth-century England. Hundreds of lids have been lifted from hundreds of squalid homes by high explosive. Here, but for the inhuman cruelty of it all, the bombs might almost be deemed to have done a useful service. Alas, that they should also have cracked or flattened many beautiful blocks of modern flats for working folk that do great credit to the London County and the borough councils and remind us that in our own lifetime progress has launched a great offensive for the next generation, for your generation, to carry through!

Here, surely, is a gap in medical education, that we teach so much about man and pay such scant attention to his surroundings. The slum is the chief breeding-ground of diphtheria, tuberculosis, rickets, anaemia—conditions of which you will shortly learn to appreciate the intimate pathology, and which we are still too content to palliate and cure, although we have long known how to eradicate them altogether. A complete review of a case of diphtheria or tuberculosis should include not merely a description or demonstration of the patient, of the Klebs-Loeffler or Koch's bacillus, and of the morbid findings from a fatal case, but also a visit to the house and the school of the victim and an inspection of the family diet sheet.

V

The Higher Aim

It is the doctors of your generation who have got to teach the people, both those who suffer and those who pay too little heed to suffering, how to build the new Jerusalem in England's green and pleasant land. To do this you cannot remain entirely non-political. To do this you must be honest, objective, courageous, and outspoken.

We all pass through a stage of thinking that our generation in its day was a little wiser than the one that followed it. In this we are doubtless very often wrong, but I believe that my generation of medical students was more alive to the uses and interests and educational value of the debating and scientific society than the generation that came between the two great wars. The criticism does not apply quite so strongly to other groups of students in this University. Make every use of your opportunities here. Learn to speak in public and test for yourselves the mental stimulus of logical dispute.

This war is but the first chapter of a revolution in which you will of necessity be among the actors. You cannot afford to school yourselves in science alone. You must know something of men and movements, too; you must qualify for citizenship as well as for your baccalaureate or doctorate in medicine. Whatever form our future State may take the doctor will always be a key-man in its organization. He must earn his freedom to think and to advise, and must seek by every means in his power to become like Grenfell of Labrador, like Balzac's "Country Doctor," like many a good physician who dies unsung after an arduous life devoted to the community, a man of ideals, a man of judgment, and a man of action.

VI

Mutual Aid in Nature

Once again, therefore, let me say to you that you are privileged people. You have a task To-day to fit yourselves for a much bigger task To-morrow. The course of an artery, the conduction of the nerve impulse, the complex structure of a protein molecule, the staining reactions of bacteria, are not aimless or trivial particles of knowledge. They are essential and vital. They train the mind, the hand, and the eye. They are also a part of the total biology of man. But it is essential, too, to know and love your fellow-men and to be as much concerned with their problems as with your own. "Where there is love of man there also is love of the Art," said Hippocrates, the first great teacher of medicine. Can any other profession boast a life's concern for two such remarkable creatures as man himself and the science of man which is of his own making? But Hippocrates did not belittle the magnitude or the difficulty of our task. How difficult it all looks now! It does not look much easier, I can assure you, to those of us who for thirty years and more have been on the road which you are now prospecting.

How easy to say, "Let's muddle through To-day and not bother too much about To-morrow"! But that, I am sure you will agree, is only another way of saying, "Let's be selfish." And selfishness, let me repeat, is one of the primary evils at the back of all wars and rumours of wars and of much other preventable disease. Nevertheless, Kropotkin showed that the principle of mutual aid in Nature—how well we see it demonstrated now in the heroic and devoted work of A.R.P. and fire and demolition squads!—is more effective in the long run than all the mutual conflict and destruction. Let us see to it that we foster the principle more thoroughly and fearlessly both now and when the fighting is over and past.

VII

The Help of Books

The tempo of this great war is rising. We may have more terrible times ahead than we can yet visualize, but, as witnessing the large-scale biological phenomena of human history, they will be intensely interesting times. Some of us will not live to see your To-morrow, but, however black the horizon may become, we must hope and desire most ardently to do so. Hard work, faith in the principle of mutual aid, and good emotional control are the benefits we should most desire by the way. Some of our help will come from friendships, some from books. Of books on the borderland of our common subject let me recommend a friendly shelfful. Osler's *Aequanimitas* and *An Alabama Student* and Osler's own favourite, Sir Thomas Browne's *Religio Medici*, at once occur to me. Harvey's *Circulation of the Blood*, Michael Foster's *Lectures on the History of Physiology*, Fulton's *Selected Readings in the History of Physiology*, should implement your textbook reading. For relaxation Dr. John Brown's *Rab and his Friends* with his other essays and short stories, and Balzac's *Country Doctor*. Darwin's *Expression of the Emotions in Man and Animals*, Cannon's *Bodily Changes in Pain, Hunger, Fear, and Rage*, and Pavlov's *Conditioned Reflexes* should be read before any page of a modern textbook of psychiatry is turned. Galton's *Enquiries into Human Faculty* and Kropotkin's *Mutual Aid* should set you thinking and talking. I would like to think that some of these old friends of mine, five or six of which are published in the Everyman edition, will become your friends and help to keep your science in perspective. Misapplied science, it would seem, is trying to destroy our race and all its priceless treasures of hand and mind. It must not, and cannot, succeed. And how grand it will be to be given the chance of applying our own science and our own humanity to the salvage and the mending of old treasures and to the discovery of new ones!

VIII

An Opportunity

The Cambridge Medical School is one of the best and most famous in the world. But I do not hesitate to say that it and its curriculum could be much better. It may well fall to some of you here to make them so. To others it will fall to further the science and practice of medicine far afield, to provide the disciples of science and humanity wherever they are most needed in the world.

The Moscow correspondent of the *Daily Telegraph* reports that a severe epidemic of "black death" (presumably bubonic plague) has broken out in Japanese-occupied Manchukuo, and the Soviet has ordered the establishment of quarantine posts at frontier railway stations and in the ports of Vladivostok and Nikolayevsk, on the Amur. All persons and freights from Manchuria and Korea will be subject to inspection.