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A HERITAGE TO PRESERVE*

BY

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There is, I am sure, no need for me to stress the importance or the significance of this great gathering of doctors from all over the Commonwealth—the first of such magnitude to be held in this country. In preparing my address I did what I suppose most lecturers do, I looked at some of the addresses of my predecessors and read something of what had happened at previous conferences.

First Inter-Colonial Medical Conference

During my search I came across an account of the first Inter-Colonial Medical Conference held in Adelaide in 1887 at the time of Queen Victoria's Jubilee. A fascinating account of the conference appears in the first volume of the *New Zealand Medical Journal*. There were representatives from all the States of Australia, from New Zealand, and from Fiji.

His Excellency the Governor opened the conference, welcomed the visitors to "Fair Adelaide," and in the course of his remarks said: "But a few years ago a meeting of medical men engaged in the active business of their profession would have been impossible. To-day this is not only possible, but easy—thanks to the rapid improvement that has of late taken place in the means of communication between the Colonies." I wonder what he would have thought of this jet age.

You can imagine that I read the inaugural address delivered by the President with interest, and I can assure you it well repays reading. It is recorded that "he spoke eloquently for over an hour without a single note." I cannot forbear quoting some samples of his alliterative Victorian eloquence. In welcoming the guests he said: "Such a large gathering as this of busy men—some from great distances—testifies that our Congress is neither premature in time, puerile in its intentions, nor petty in its anticipated results; and we do not feel the slightest diffidence in assuming at this early period the mantle of the prophet, and predicting to those anticipations a large measure of fulfilment."

In his speech the President referred among other things to the increased risk of the introduction of disease because of the increasing speed of communication, to the need for special study of local diseases such as hydatid infection, pterygium, and Barcoo. He discussed social and climatic factors in medicine, and stressed the

need for research and for the investigation of potential remedies from local plants. He referred to differences between practice in England and in Australia and suggested the need for an Australian medical journal.

After pointing out that although the journey to England "even though now contracted within the space of one month" was too long a voyage to allow of much participation in truly international conferences, he refers to the importance of local meetings. He goes on to say: "Coming as our enterprising forefathers did a three or four months' voyage over a disinfecting sea, they left many of the terrible scourges of humanity behind. The plagues of the olden time, and of the new, are largely only names and phantoms among us. Hydrophobia, the sweating sickness, relapsing fever, typhus, the cholera, have never from their shrivelled lips breathed pestilence and death over our fair land. Now and again a foul form is seen prowling at our doors: the people are anxiously uneasy at the threatening danger. But hitherto the monster has been strangled upon the threshold. I ask, is not the heritage we enjoy in our freedom from these plagues a special boon?"

Those in charge of the social programme of this meeting will have to do well to exceed the splendour of the *Conversazione* at the University.

"Over the entrance to the building on the outside a powerful electric light, supplied by wire from the exhibition dynamos, illuminated the grounds and greatly facilitated the movement of the numerous carriages that lined the way during the evening.

"On the main landing opposite the entrance to the library was arranged a most artistic and tastefully designed miniature fountain. This pretty contrivance consisted of a glass basin with a jet in the middle throwing up perfumed water. The basin which was lighted from beneath was surrounded by delicate ferns and foliage plants, the light shining through the crystal and making the fern leaves and other foliage almost transparent. Red camellias were placed among the leaves in such a way as to add to the effect by their brilliant colour. The whole was charming. The mechanical apparatus was worked by a tiny steam engine which obtained its power from the heat of a spirit-lamp."

Fundamental Duties in Medicine

To say that these are difficult times for our profession is merely to state what is obvious to all. This is a period of unsurpassed advance in knowledge—so rapidly

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acquired that no one human being can possibly keep up with it all. It is a time when the whole basis of practice is being debated and changed all over the world. Men fear domination by the State and the loss of traditional freedoms and privileges. Medical schools are concerned about the education of the doctor, and in some cases revolutionary experiments are being made. The world in which we practise is changing too—old traditions and principles are being challenged and denied. Where in this state of flux are we to seek for any stability? It seemed to me that it might be helpful for us, before we start our week of scientific sessions and social activities, to remind ourselves of some of the fundamental things in medicine—simple and commonplace but none the less important—things that, whatever else happens, we must preserve. To do this we must have a sense of history. There are certain things that have been handed down to us from the remote past—we alter them at our peril. Our own individual lives are short—pitifully short in the light of history—but while we live we have the responsibility of guarding the treasures of our heritage and handing them on unsullied and untarnished to those who shall follow us.

Whether we practise in the free enterprise system or in the Welfare State there are certain obligations and responsibilities that we must accept as a profession. At a time when men tend to think only of their privileges and the claims they can make on the rest of the community it might be salutary to think for a brief time this morning of our duties and responsibilities. I have selected eight principles which I believe are some of the fundamental duties in Medicine.

A Service for the Sick

First of all we must provide a service for those who are sick. This statement is so obvious as to be platitudinous. In these days we are so occupied with the mechanisms of disease, with the niceties of laboratory and instrumental diagnosis, and with large-scale fundamental research. W.H.O. surveys the world health situation and sets up its expert committees. Health department officials sit behind their desks and plan new hospitals and work out all sorts of statistics about the cost per bed and per square foot, and they grade doctors and assess how many house-surgeons shall be engaged for so many patients. But the real issue is much simpler than all this. John Citizen says to his wife one evening, "I don't feel well"—in New Zealand parlance, "I feel crook"—"I think I'll go down the road and see the doctor." This function of the doctor has been going on since the dawn of history. He is like the village priest going to his church and performing the duties of his office. For generations before him his predecessors have done the same, often in the same church and in the same language. So it is with us, the sick and troubled man and the doctor. This is the heart of the matter.

How is this fundamental need to be met? Traditionally it has been met by the general practitioner—the parish priest of medicine. Such a doctor normally spent his whole lifetime in one village or one suburb of a city. He knew his patients intimately—often over several generations. In this country such men were often doctors of great ability who shared all the dangers and discomforts of pioneering days. It is well that we to-day should remember them and pay tribute to them. They are part of our colonial heritage.

But to-day where do we stand? The position of the general practitioner is being examined, questioned, and challenged. One dean of a well-known American medical school said to me: "The general practitioner is an anachronism—he has gone for good."

What are the objections that have been raised to the traditional general practitioner? It is argued that it is dangerous to put one's whole trust in one man who is often overworked and tired, sometimes ill, sometimes unavailable. In these days of such rapidly increasing knowledge some people feel that no one man can know enough of medicine, surgery, obstetrics, gynaecology, and the specialties to be on his own a reliable medical adviser, and that the circumstances of his life make it difficult or impossible to keep up with new advances.

On the other hand, in the British Commonwealth, in Europe, and in the United States there has recently been a resurgence of interest in general practice, and leaders of the profession have emphasized anew its fundamental and primary importance in the community. A vigorous College of General Practitioners has been formed to push the claims of general practice, improve its status, and provide for the continuing education of the family doctor.

Perhaps we can clarify the position by asking ourselves what the average patient expects and requires and hopes for from the doctor he consults.

1. He expects to be received with kindness and courtesy. Patients will forgive lack of knowledge and mistakes in diagnosis—they seldom forgive rudeness or discourtesy.

2. He expects his doctor to be interested in what he has to say about his illness and he expects him to be a good listener. One of the fundamental complaints all through the ages is, "He wouldn't listen to me and he never examined me properly."

3. The patient expects him to know his job. Whether he does or not is difficult for the patient to assess. We know that some doctors the public think highly of have not the same standing among their colleagues. So many factors enter into success in practice. Of one thing I am sure, and that is that patients to-day do *not* as in the past expect their doctor to know the answer to every problem. If after careful investigation the doctor says to his patient, "This is a difficult problem, and I think we had better have other advice," in 99 cases out of 100 the patient's opinion of the doctor will be enhanced.

Whether a doctor treats a patient himself or gets consultant help is a matter for his own conscience. He is in the position where he himself is the sole judge of his own competence and there is no auditor.

I have heard it said that a general practitioner can himself cope with 80% of his patients. That may well be true. The important thing is that once the patient has placed his confidence in his doctor the doctor has always felt that he had a total responsibility for that patient and he would stand by him in all circumstances.

Two other things a patient expects from his doctor. The first is that he should tell him the truth—in simple language that he can understand—and the second, which is of paramount importance, is that he will respect his confidence.

I have thought a lot about this problem, and I must say I see no alternative in our day to good general practice. The conditions the patient requires will never be found in any out-patient department of the State,

however efficiently run. Neither will they be found in a collection of specialists. It requires men of the highest calibre with at least two and preferably three years' postgraduate training after qualification. It is a challenge to medical educators—especially, in my view, those responsible for postgraduate education. I regard general practice as one form of specialized practice; the training for it should be no less onerous and its status in the community should be equal to that of other specialties.

Preserving Traditional Freedoms

The second duty I would draw your attention to is the necessity of preserving traditional freedoms. We must be careful that the time-honoured rights of the doctor and his patients are not slowly and insidiously whittled away. This inevitably raises the question of the relationship of the profession to the State.

The advent of the Welfare State completely changed the position and power of the Department of Health. Previously occupied with affairs such as pure food and water, epidemiology and quarantine, it now became responsible for administering the health services of the nation. Before this the average practitioner was only vaguely aware of the department's many activities; now at every turn he ran up against the machinery of the State. Previously he was responsible only for his patient; now he was responsible to the State not only for his livelihood but also for the expenditure of vast sums of public money.

Is it any wonder there have been clashes of opinion? On the one hand, the State must safeguard public money and expenditure; on the other hand, the doctor resents the loss of traditional freedoms both for himself and for his patient. It is almost inevitable that bureaucracy will raise its irritating head.

But doctors are like all citizens and must obey the law. There is a Divine instruction that we should render unto Caesar the things that are Caesar's. There are two difficulties we face as a profession:

The first is to find out who our particular Caesar is. Sometimes he is the Department of Health, sometimes the Director-General, sometimes a committee of the Health Department; on more controversial issues, the Minister or that elusive body, Treasury. If, however, Caesar wants to put on the Royal Purple and all his panoply we find it is "the Governor-General in Council."

The second difficulty is to decide what things belong to Caesar and what do not. I do not know how much in New Testament times had to be referred to Rome, or how long it took to get a reply, but I am sometimes surprised to find how little real authority local hospital boards seem to possess and how much has to be referred to Wellington for a decision. As one who is now employed by a university, I cannot help contrasting the flexibility and wide powers enjoyed by university councils with the restrictions apparently imposed on hospital boards.

However, I am not concerned here with the local situation but with principles. The Government, through its Department of Health, has a right to expect that the profession will co-operate in all schemes for the benefit of the people, but if doctors feel strongly that the policy pursued is against the best interests of the profession or their patients, they must retain the right to express their views independently to the Government with vigour and determination.

Basic Principles of Medical Teaching

The third matter I want to refer to is the responsibility of our profession to train our successors. I am sure as we grow older we look back with increasing affection on our old teachers—those who put up with our youthful exuberance and taught us our craft and our art. It is only as we ourselves teach that we realize the extent of their patience, charity, and good humour.

A mark of our time is the amazing upsurge of interest in medical education. In almost every medical school in the world there is heart-searching and intense self-criticism in the faculty regarding the curriculum and the methods of teaching. Although perhaps this process of inquiry started in the United States, it is not limited to the North American Continent, and during a recent visit I found that some of the oldest and traditionally most conservative schools in Great Britain were actively considering major alterations to their teaching programmes.

I wish I had time to discuss this important problem of medical education—a problem that now absorbs most of my thought and energies—unfortunately there is no time. But I know most of you are aware of the efforts being made to produce a doctor who is also an educated man, to reallocate time to various subjects in the curriculum, to try to integrate the teaching of various departments, to stress the importance of learning basic principles as opposed to the stuffing with facts, and to introduce the student to social and psychological factors in disease.

What I want to stress is that teaching is not only a matter for the staff of medical schools. Every doctor should be prepared to teach and instruct his younger colleagues both in hospital and in general practice. It is one of our lifelong responsibilities. There are no tricks in our profession which one keeps up one's sleeve. It is also a two-way channel. It is the duty of the young also to instruct the old—if possible with such charm that they are unaware of the process. Let those of us who are older find our greatest joy in watching the progress of our young colleagues, and when our time comes let us retire gracefully from the scene.

Unity of the Profession

I should like now to say something about the importance of retaining the unity of the profession. With the increasing growth of specialization there is a tendency for separate and distinct groups to arise. I should be the last to decry the great advances in all branches of medicine made by intensive study of certain subjects by people who devote their whole attention to some narrow fields. But as I listen to their rather militant approach to their specialties and the claims made by some of the newer colleges and other groups I am inclined to wonder if some of them do not lack some sense of proportion and if they have read enough history. Were things really so bad before they came into existence? and, taking a long view, Are the recent advances so terribly important after all?

The important thing is that we are all doctors, and we must remember that our profession could be disrupted from within as well as defeated by pressure from without. The increasing growth of specialization makes me feel more than ever the need for good general practitioners who can look at the whole man, and, if unable to treat the patient themselves, will at least know which consultant to send him to.

Research

It is the duty of each generation of doctors to hand on to succeeding generations a better concept of the cause and nature of disease and whatever therapeutic advances it has achieved. Research in medicine is a constant duty irrespective of the system under which we practise our profession. The rate of advance has varied from generation to generation. At some periods of medical history there seem to have been long stretches of barrenness and stagnation, to be followed by exciting times of spectacular advance. Never has there been such a fruitful period as the first sixty years of this century—the times in which we have lived.

It is, of course, not possible or I believe desirable for all members of the profession to attempt research. Many have neither the inclination, the essential basic training, the time, nor the aptitude. Research requires a certain attitude of mind. There is, however, an increasing amount of good research going on throughout this country at the present time, and as more and more young men come back with good overseas training the volume of work will increase.

It has been pointed out that in New Zealand the amount spent on medical research, although increased in recent years, is a small sum compared with the amount spent on curative medicine and substantially less in proportion to our national income than in most other civilized countries. Our hospitals have on the whole been well equipped and high standards of medical care have been possible. A hospital, however, is incomplete unless it serves also the purposes of medical education and medical research. So far hospital boards, however enlightened and however enthusiastic they may be, have not been allowed to spend money to further research in the institutions they control. It is impossible to separate good patient care from teaching and research. The Director-General, I know, is aware of this fact and is sympathetic to a reappraisal of the situation. The growth of local research foundations with lay support is an encouraging feature in this country.

International Aspects

When we look back on the history of our profession it is impossible for us to hold any narrow nationalistic views. We are the heirs of all the ages and debtors to all men—Greeks, Romans, Arabs, Egyptians, and indeed every country in the civilized world. Even some of our greatest Englishmen, such as Harvey and Linacre, received their medical education in Europe, at Padua and other famous mediaeval universities. Let us remember that medicine is international. When doctors travel the world they nearly always find a welcome in another doctor's home, whatever his language or the colour of his skin.

In this suspicious, bitter, war-weary world this brotherhood of medicine is of great significance and there is probably no profession in the world, even including the Church, which is doing more for peace and understanding between nations. This is one of the fundamental glories of our profession. Sir Arthur Porritt referred at length to this problem in his Presidential Oration, "Commonwealth and Common Health," and Sir Douglas Robb is going to deal with the Commonwealth and medicine in his Presidential Oration this evening.

It is our solemn duty to do what we can to help with the medical education of less privileged countries both

within and without the Commonwealth. At our own medical school we are doing our best and we hope to do more, but we are only touching the fringe of the problem.

Prevention of Disease

There is another responsibility of our profession, and that is to advise the nation and our fellow countrymen and patients on the prevention of disease and the preservation of health. Of course, departments of health will carry on with their accustomed roles of dealing with epidemic and environmental disease, but such diseases are now fairly well controlled. In spite of the great advances in our knowledge of the causation of many diseases there are still enormous gaps in our knowledge. Supposing a young man came to your surgery and said, "I want to live as long as I can and be as healthy as I can; what should I do?" The advice you could give him would be little different from what Hippocrates might have given him.

I imagine you would say something like this. "How long you live and what diseases you may acquire are to some extent genetically determined, and in the present state of our knowledge there is little or nothing we can do about this. Life is in any case uncertain, and in the world you live in accidental death is always possible and all mankind might disappear in one violent cataclysmic atomic explosion. In any case, mere prolongation of life by a few years is not necessarily very important. The quality of life is more important than its length."

What would you advise him? In the light of present knowledge you would certainly advise him not to smoke; you would give him some general advice on diet, with special stress on keeping his youthful weight throughout his lifetime; you would probably advise the cutting down of animal fats. You would certainly stress the importance of regular daily exercise and adequate vacations spent in the open air. You might well discuss with him the importance of an adequate philosophy of life. Stress and strain and worry are inseparable from life itself. Health is bound up with the way one reacts to life's difficulties and problems. The human body is not at its best when pampered and coddled. Finally, you will explain that, from now on, health is something that has to be earned by individual effort, self-discipline, and character, and cannot be bestowed by social security or an Act of Parliament. You prescribe no wonder drugs, no vitamin capsules, no magic hormones—and your young man, like Naaman the Syrian told to wash in the river Jordan, will go out into the night sorrowful and disappointed.

Medical Ethics

Finally, whatever the system of medical practice there will always be what we call medical ethics. From the time of Hippocrates with his famous Oath various codes of behaviour have been enjoined on members of the profession. I have not a great deal of faith in any particular set of rules. A man may never be brought before the ethical committee and yet his life and practice may not bring honour to our profession. The heart of the matter is that it is profoundly important what sort of a man practises medicine. In the early days of this country there were many men who often in isolated and lonely places displayed all the best characteristics of our profession.

I have just been on vacation at the central Otago town of Queenstown, set beside its lovely lake and surrounded

by its lofty hills and majestic mountain peaks. It is 101 years ago since Rees, the first settler, came to Queenstown—in February, 1860. In 1861 gold was first discovered in Otago at Gabriel's Gully, and the year following, 1862, there was a rich find near Queenstown, first of all in the Arrow River and later in the Shotover and its tributaries. By December, 1862, there were over 4,000 miners in the Queenstown area. Those of you who have visited this region can in imagination conjure up the scene. The gold was found in and on the banks of turbulent streams in deep rocky chasms with steep precipitous sides. It was impossible to construct roads round those towering cliffs of stone. In summer the miners were blistered by a pitiless sun and in winter they faced ice and snow and flood. They lived in thin calico tents or sod huts or in caves in the rock. Most of them were young and adventurous and tough. But you can imagine the insanitary surroundings, the insufficient and inadequate diet, the plagues of flies. Many died of disease, especially typhoid and diphtheria; many suffered from scurvy and frostbite; and many perished in the dreadful winter of 1863 with its terribly low temperatures and devastating floods. Accidents, many severe, were common and drunkenness was rife.

A hundred years later, as I walked over this country and thought about it, I could not help wondering if there had been any doctor there then. I made it my business to find out. There was, and I am indebted to the late Dr. Fulton for my information. A young Scottish doctor aged 25 arrived in Queenstown in 1862, just before the gold rush. There was at that time no hospital, and his consulting-room was a tent. In all weathers, by day and by night, he rode away into this dreadful mountainous country, tramped up these dark and sinister gorges—often taking his life in his hands, serving these tough adventurers. In the summer sun and in the bitterness of winter he stood beside them and served them. A lesser man would have joined them and become a miner—he knew many were making £200 a week. Some of his profession did. He never deviated from his duty. No doubt some grateful patients paid him handsomely, but it is equally certain that many never paid him at all. He was made a Justice of the Peace and had to combine his medical duties with attempts to preserve law and order in his unruly community.

In 1864 he was made first superintendent of the newly erected District Hospital and continued in that office till 1910. He died in 1911 at the age of 73. After the gold rush he became the principal doctor in the district and a public-spirited citizen. Besides being medical superintendent he was a member of the County Council, President of the Jockey Club, President of the Acclimatization Society, and a patron of the tennis and cricket clubs. His local paper said of him when he died: "During the whole of his professional career Dr. Douglas exercised the greatest medical and surgical skill and performed his duties with much assiduity. Many, many times has the old man ridden in the darkness of the night over the most dangerous and precipitous bridle tracks, into gullies and ravines amidst our gigantic mountains, in prosecution of his profession, knowing full well he would never receive a fee."

Such lives can, I know, be duplicated in the pioneering records of most countries. He would be amazed that I should think his life important enough to describe it to this audience. But in his life he exemplified

the enduring qualities of our profession—a living example of medical ethics. Of such men we in this country are justly proud. Those of you from the United Kingdom can also be proud because you sent him and many more like him to us. And those of you who come from Scotland can be proudest of all because, although born in England, he was of Scottish family and was trained in Glasgow. "By their fruits ye shall know them."

AETIOLOGY OF CENTRAL NERVOUS SYSTEM INFECTIONS DURING PREVALENCE OF POLIOVIRUS AND COXSACKIE VIRUS

SOME CLINICAL MANIFESTATIONS OF COXSACKIE VIRUS INFECTIONS*

BY

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Until recently polioviruses were held responsible for the majority of infections of the central nervous system. They are, however, part of the large enterovirus group which includes also the Coxsackie and Echo viruses, and most members of this group are now recognized as being capable of causing such infections. During 1959 and 1960 virological investigations were carried out on specimens submitted to this laboratory from cases diagnosed clinically as paralytic poliomyelitis, aseptic meningitis, and encephalitis or meningoencephalitis. The findings illustrate the multiplicity of causative agents concerned in these conditions. The commonest during 1959 was poliovirus type 1, whereas in 1960 there was a striking increase in the incidence of Coxsackie virus infection, in particular types B5 and B2. The Coxsackie group B viruses are established causes of epidemic pleurodynia, aseptic meningitis, and neonatal myocarditis, but their full clinical potentialities are still being elucidated. A number of unusual clinical features, including the occurrence of paralysis, are described.

Laboratory Investigations

Virus Isolation

Faecal specimens were obtained from all patients, usually during the first or second day after admission to hospital. These were dealt with at once or kept at -70°C . for 24 to 48 hours. A 20% suspension was prepared with Hanks's solution containing 500 units of penicillin, 200 μg . of streptomycin, and 50 μg . of nystatin per ml. This was centrifuged at 4,000 r.p.m. for 30 minutes. Six tubes, comprising 2 HeLa, 2 human primary amnion, and 2 rhesus-monkey-kidney-tissue cultures, were inoculated with 0.2 ml. each of the supernatant. These were incubated at 37°C . for two hours, and the fluid of each tube was then replaced with fresh medium. The tubes were examined microscopically for cytopathic changes daily for 14 days. In positive cases the fluid was removed and the virus identified by neutralization tests, carried out usually in the type of tissue culture in which it was isolated.

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