MEDICAL EDUCATION IN ENGLAND.

THE OVERLOADED CURRICULUM AND THE INCUBUS OF
THE EXAMINATION SYSTEM.

BY

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SIR CLIFFORD ALLBUTT, in the *BRITISH MEDICAL JOURNAL* of August 3rd (p. 113), gave a general indication of the scope of the memorandum on medical education in England addressed to the President of the Board of Education by Sir George Newman, but the memorandum contains so much matter and raises so many important questions that it affords material for discussion from many points of view. I propose to deal only with two.

Let me, however, as a preliminary say that the note of hopefulness which pervades this report is distinctly encouraging to those who, after years of endeavour, are inclined to regard the position of medical education in London as irremediable. As the author points out, the last few years have been marked by a growing sense of the importance of medical education to the State, and a growing recognition by public and Parliament of their dependence on the medical profession in all measures affecting the health and social welfare of the community. But hitherto one of the main obstacles to reform of medical education has been the lack of interest, or even the fatuous self-satisfaction in things as they are, displayed by all grades of the profession. Each medical man has been interested only in his patients, and the point of view even of the leaders of the profession has rarely extended beyond the walls of their own medical school. Three-quarters of the medical teachers in London are probably of the opinion that all would be well in medical education if only their particular school could receive larger grants in aid of its educational work.

But in the concentrated activity of the community which is characteristic of the state of war, medical men have learned to regard themselves not merely as purveyors of advice and physic to a limited section of the public, but as integral parts of a great organization for conserving the health and fitness of the community. They have come in contact with conditions which to them were previously unknown, and have learned to expect from science, from organized research, the solution of their difficulties and the provision of means by which to prevent and combat disease. Failure of medical measures in the army is at once translated into incapacity, and appears in its numerical magnitude in the army returns. Both practitioner and consultant have learned to know their ignorance as well as their powers when co-operating in the employment of scientific method for the maintenance of our fighting forces. They will thus be ready for the strenuous times of social development, if not revolution, which must immediately succeed the end of the war.

We may hope that the able commentary on the sick body of medical education in England, which we have here from Sir George Newman, will be read, marked, and digested by the medical profession. If we take its lessons to heart, we may show ourselves as capable of striking out new lines in this important aspect of human activity as we have in the multifarious inventions of war. He rightly points out that medicine has become a quasi-public profession, in the character and equipment of which the State is deeply concerned. Thus medical education is a problem of national concern. This being the case, it will be necessary for medical men to face the problem of a root-and-branch reform of our education system, if such a reform is not to be imposed on them by the State of which they are the servants.

The teachers of medical students are at present confronted by a dilemma, which they are attempting to solve by the use of worn-out machinery invented at a time when medicine was little more than a craft entrusted to a guild jealous of its privileges and its perquisites. The ever-widening scope of knowledge demanded from the medical man in the struggle against disease has brought about an

enormous increase in the number of subjects which have to be crowded into the all too short five years' curriculum. On every hand one hears of the overloading of the curriculum, and yet it is impossible to say that any of the subjects which have been introduced are unimportant to the medical man. And withal we do not attain in the qualified practitioner, as turned out from our schools, the broad culture, the acquaintance with scientific principles, and the facility for the acquisition of new ideas which are necessary if he is to play his part in the ever-changing front of medicine.

Sir George Newman points out two fundamental conditions which must be realized before we can hope to adjust medical education to the needs of the present day. In the first place he says, "It is clear that the Commonwealth does not require two standards of medical men, one having received an inferior form of training and the other a superior form. All medical education should be fundamentally one and the same in regard to basis, technique, and spirit. All practitioners require a minimum of comprehensive training, the same elements of scientific method, a similar scientific inspiration." This can be achieved only by a university education in medicine for every medical man, "and the foundation of such an education is science." The passage which he quotes from Leonardo da Vinci is a word to the leaders of our profession as much as it is to the Army Council. "Those who are enamoured of practice without science are like a pilot who comes into a ship without rudder or compass and never has any certainty where he is going."

The memorandum abstains from entering on the thorny question of university reform, though in London the whole question of medical education is intimately bound up with the provision of a real university or universities. It is to be hoped that the wider outlook gained by all of us through these years of war will enable us to avoid repeating the mistake of trying to confine all the university activities of London within the meshes of a monstrous machine, which would continue to have the same paralyzing influence on higher education as it has had during the last fifty years, and would perpetuate in this country the conditions brought about in France by the establishment of the "University of France," conditions from which the French universities were only just beginning to recover before the war. Greater London with its ten million inhabitants could and should support half a dozen universities. While our university institutions continue to be bound to the examining body which has been called the London University for so long, the progress of medicine and of medical education must remain suspended; for it is the examination system which has been the curse of medicine, as of all higher education in this country, destructive to the university spirit, stunting to the development of the student, and a dreary prison house to the teacher. Sir George Newman points out that many of the difficulties and shortcomings of the past have been due "partly to an attempt to turn out merely an adept technician, and partly to overloading the professional curriculum in regard to information to be acquired to the detriment of real training in science and the scientific spirit; yet it is this and not an encyclopaedic store of information which is a desideratum."

The whole examination system is at variance with the spirit of university teaching; the latter has as its object the enlargement of the mental content of the individual, the broadening of his point of view, the training of his power to deal with new situations, and his familiarization with the avenues of knowledge. An examination tests merely the student's power of acquisition; it determines whether he can retain for a few weeks or months a certain number of facts. It is a training and preparation not for the physician but for the advocate, who has in a few days to get up the salient features of a case, laying stress not on the truth, but on such verbal presentment as will appeal to the jury so that he may win the case for his client. Thereafter he dismisses all he has learnt, if such can be called learning, from his mind. How many men could present themselves for an examination with any chance of success six months after they had passed it?

But it is not the forgetting of what they have known that matters, it is that, during their time of preparation, they have stifled, perforce, their spirit of curiosity, in order to confine their whole attention to such facts as can be verbally presented in an examination. The proper

* *Some Notes on Medical Education in England.* A memorandum addressed to the President of the Board by Sir George Newman, K.C.B., M.D., F.R.C.P., Chief Medical Officer, and a Principal Assistant Secretary of the Board of Education, and Medical Assessor of the Universities Branch of the Board. H.M. Stationery Office, 1918. (8vo, pp. 129. To be obtained through any bookseller. Price 9d.)

training for an examination, as ordinarily conducted, is not a university course but a cramming class. Every teacher at present must feel that he is not giving what his student is desirous of receiving. The student has to pass an examination before proceeding with his career. The good teacher, instead of training him for this particular type of hurdle race, endeavours to give him some of the spirit of the subject and to lay a foundation for the student's future work. Thus, the teacher gives at the same time too much and too little. The curriculum is overloaded and yet not full enough for the training of the medical man. The evil is intensified by the fact that almost all the examinations are conducted in part or in whole by men who have had nothing to do with the training of the student. Thus the teacher has a divided aim: not only must he prepare the student as seems to him best for the aims that he has in view, but he must take care that the student is prepared to face the tests applied by other teachers with different ideals and methods. After quoting Huxley's saying that "examination, like fire, is a good servant but a bad master," the author of the memorandum proceeds: "In medicine at the present time it cannot be said that examinations are subsidiary, or that they do not injure education. Their influence is omnipresent, and not seldom dominant; and in many cases they prescribe, restrict, and even nullify the course of education, bringing in their train all the pernicious influences and evils of the cramming system." While he accepts the need of some test for efficiency, he claims that such a test, "instead of being momentary, unequal and hazardous, should be prolonged, equitable, and relatively certain in its application; a test comprising as its chief factor the whole training and record of the student throughout his course, the form and content of the curriculum, the work done, the hospital cases clerked and dressed, the practical examinations of the class, and so forth." He concludes that such a reform in examination depends on a new spirit in teaching. But how if every new spirit in teaching is smothered at its birth by the prevailing system of examination and tests? Especially is the malign effect of examinations felt in the case of the preliminary and intermediate subjects of the medical curriculum. We do not want the medical man or student entering the wards to have at the tip of his tongue the properties and atomic weights of all the elements, or to be prepared to give a historical account of the views concerning the origin of the heart beat. We do want, however, that the student shall have dipped so deeply into the sciences of chemistry and physiology that he has become imbued with the scientific spirit, and that he knows where to turn to refresh his knowledge on any matter germane to the problems which concern him in the wards.

And here is the only use of examinations—namely, as a means of testing the progress of his student, when conducted by the teacher during his course. The examination system should therefore be continuous—part and parcel of the education, and not its soulless despot. The relegation to the teacher himself of the testing of the fitness of the student to pass to his subsequent studies would not only lighten the burden of the student, but would enable the curriculum to be broadened and extended as required by the continual advance of medical science.

But this question brings us back once more to the provision of university teaching for medical students. While the scientific teachers are the servants of associations of practising physicians and surgeons, whose professional success depends upon the number of students they can attract to their schools, it is hardly possible to entrust the testing of the student to his own teacher. This is only possible when the teacher is part of a learned corporation, of a university whose sole object is the advancement and diffusion of learning, and whose credit depends upon the quality of the men it turns out into the world. No doubt the State will always require some external test to be imposed before it allows the student to undertake the practice of medicine, but this test should be confined to the minimum requirements for the safety of the public, and would properly be held by bodies of practising physicians and surgeons similar to those who at present conduct the final examinations.

It really does not matter whether the State assumes the direct responsibility for such a qualifying examination, or delegates it to the various associations of practitioners which are in existence in different parts of the country. The universities would achieve freedom by relinquishing

their licensing powers. They would be able to develop their training in the directions best qualified to bring out the mental powers of their students and to advance the science of medicine, without having their activities continually frustrated by the necessity of conforming to the regulations of an external qualifying authority and their spirit mutilated in the procrustean bed of the present examination system.

I have only touched upon two points in Sir George Newman's report. There is, however, hardly a page which does not furnish food for reflection and which does not present many texts for commentary. Thus he discusses with much fairness and acumen the question of whole-time professors for medicine, the part which preliminary science should play in the training of the medical student, and the relation between physiology and clinical medicine. Of especial value is his masterly treatment of the meaning and needs of preventive medicine, and the part which the medical man will be expected to play in relation to the State. If the changes which must follow the war are to be based and guided by an informed medical opinion, no better means to this end can be imagined than a careful study of Sir George Newman's report by all the members of the medical profession.

THE EDUCATION ACT AND THE MEDICAL PROFESSION.

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THE Education Act, 1918, adds to the duties and powers of local education authorities with regard to the health of children and young persons, and thereby in some respects materially affects the interests and the position of members of the profession in this connexion. For the past ten years it has been the duty of every education authority to arrange for the medical inspection of every child attending the public elementary schools, and it has been within the power of such authorities to provide medical and surgical treatment for any such children as were found to need it. In spite of considerable pressure from the Board of Education, the majority of local education authorities have not exercised this power, though a larger number, without themselves arranging for medical treatment, have established services ancillary to medical inspection in the direction of keeping children under observation to see that treatment is obtained and assisting towards it. The new Act extends these medical services for public elementary schools in two ways: In the first place, the provision of medical treatment, instead of being optional, will be compulsory; the power of the authority to provide it is converted into a duty. In the second place, the number of children concerned will be immensely increased. Hitherto a considerable proportion of children have left the elementary school at thirteen or even at twelve years of age. Henceforth no child may leave before the end of the term in which it reaches fourteen years of age; the local authority may require it to continue till fifteen years of age, and may, with the consent of the Board of Education, permit it to remain in the elementary school till an even later age than this. All these children will have to be medically inspected, and provision will have to be made by the education authority for their treatment.

More important even than this in its effect on the profession is the fact that the new Act extends medical inspection and treatment to schools other than elementary, and to children and young persons of a social class and of an age for whom no public provision has hitherto been made. Every local authority for higher education *must* make provision for the medical inspection of pupils in attendance at its secondary schools, at its continuation schools, and at certain other educational institutions, even though they be under private control and management; and *may* arrange for the medical treatment of such pupils at the cost of the education rate. These duties and powers are of a very far-reaching character, inasmuch as all young persons up to sixteen years of age are to be compelled to attend such schools and, after the lapse of seven years from the day on which the clause comes into operation, the age of compulsion is to be raised to eighteen years except in the case of those who have been