influence of a strong president. Fortunately for the subsequent developments of the Council's activities, such a president was found in Sir Donald MacAlister, whose term of office (1904-31), by far the longest of any President, must be accounted that which has had the greatest influence on the Council's history. Nobody to-day would claim that the Council is our "Medical Parliament." By the press and the public it is chiefly regarded as "our High Court." But that it has become a model of organization for other professions and other countries is sufficient tribute to its success in achieving two aims which the framers of the 1858 Act may have regarded as incompatible—the serving of the public interest and the advancement of the medical profession.

Many other books and articles, apart from those mentioned in the References, have also been consulted, but I am especially indebted for help and advice to Mr. Walter Pyke-Lees, Registrar of the Council, whose own booklet, *The Centenary of the General Medical Council*, is to be published by the Council on November 23, 1958.

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THE INFLUENCE OF THE GENERAL MEDICAL COUNCIL ON EDUCATION

BY

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The General Council of Medical Education and Registration was established by an Act of Parliament in 1858. Its principal purpose was to improve the education of doctors and create some semblance of order from contemporary chaos.

Nineteenth-century Background

At the beginning of the nineteenth century, as Dr. Charles Newman (1957) has pointed out in an admirable book, orthodox medicine in this country had reached a stable state in three orders—the physicians, the surgeons, and the apothecaries—and the chaos was largely but not entirely due to the fact that there was a fourth estate of unorthodox or empirical practitioners. How many totally untrained people practised as doctors before 1858 will never be known; early in the nineteenth century they were certainly numerous, and investigation in one English county reached the alarming conclusion that they outnumbered the qualified by nine to one. This county, however, was probably exceptional, because estimates based on the Census returns of 1841 suggested that only 5,000 of the 15,000 persons then practising in England were unqualified. In 1813 a Bill had been introduced in the House of Commons to put down empirical practice but failed to gain support—presumably because there was then no possible substitute for the numerous quacks.

The position may have improved somewhat with the establishment of private medical schools linked with the hospitals, but the committee appointed in 1834 to inquire into the state of the medical profession revealed a very unsatisfactory state of affairs when it published its evidence in the following year. Not only were the evils of quackery manifest, but also the inadequacy of

the training of many of the "qualified." Men, for instance, could take a degree in Arts, walk a hospital from three to six months, and immediately be licensed to practise as physicians. The academic course in medicine at the older universities must at that time have afforded ample opportunity for the use of leisure. Candidates had to be present at two dissections, "keep an act," and attend the lectures of the regius professor during three terms. It was found on inquiry, however, that in one university no regius professor had lectured for a hundred years, but degrees in medicine were nevertheless conferred. In Scotland, where the traditions of Boerhaave and Leyden were preserved, things were very much better.

Surgeons and apothecaries often served long apprenticeships and were probably more usefully equipped than physicians for the work they were to do—particularly when the apprentice was able to supplement his vocational training by a course at a private medical school. The conditions (and cost) of apprenticeships, however, were determined by negotiation between the parties concerned, and often the student might be little more than a menial servant.

Another factor that contributed to the general confusion was the number and diversity of the licensing bodies that had the right to confer professional titles. Before 1858 there were 21 such bodies (if the Archbishop of Canterbury be included), and the titles of most of them were valid in specific areas only (Heseltine, 1949): an Edinburgh licence, for instance, conferred no right to practise in London, and certainly none in Glasgow. As these bodies relied for their financial support on the fees they could extract from students, they at times embarked on dubious commercial competition: students, they found, could be tempted to enlist under the banner of an authority that would offer a cheaper licence and less severe examination.

Early Years

It is against this background that the influence of the General Medical Council must be judged a hundred years later. In its early years in the field of education the powers of the Council were very limited. It could require licensing bodies to supply it with particulars of their courses of study and examination; it could send visitors to examinations; and it could report to the Privy Council that in its judgment the courses and examinations were insufficient and should not confer a right to registration. Strangely enough, the Council had no power to insist on examinations in clinical subjects; neither could it refuse admission to the register to a candidate who had passed only a partial examination—in other words, a man could practise as a qualified and registered doctor if he had satisfied examiners either in medicine or in surgery. Twenty-eight years later this was remedied by the Medical Act of 1886, and the Council was enabled to secure the maintenance at final or qualifying examinations of a standard of proficiency "such as guarantees the possession of the knowledge and skill requisite for the efficient practice of Medicine, Surgery and Midwifery." It is a tribute to the influence of the Council that all licensing bodies had established clinical examinations many years before the Act of 1886 gave the Council power to insist on them (Pyke-Lees, 1958). Not until 1950 did the Council become entitled to inspect medical schools in order to determine whether the instruction given to students was satisfactory.

At its meetings in 1858 the Council decided there was urgent need for the improvement of the general education of students. That is not surprising. England has been dilatory in measures to provide general education for her young.

Prussia insisted on primary education for all children in 1717 at a nominal fee; a national system of free education followed in 1807. Elementary schools were established throughout France soon after the Revolution, and education was fostered by the Founding Fathers of American Independence. England waited until 1880 before she made elementary education compulsory, and secondary education was not recognized as a public responsibility until this century.

In 1858 few of the licensing bodies insisted on any standard of general education as a condition of admission to their examinations, and the Council must have been in considerable difficulty. The expected decline in quackery after the issue of the *Medical Register* called for an immediate increase in the number of qualified doctors, and if the required standard of general education were suddenly raised in a country in which schooling was the privilege of the well-to-do there was a risk that the candidates for training would be fewer. It says something for the courage of the Council that it ventured to press this matter on the licensing bodies so early.

Problem of the Curriculum

Some of the minutes of the Council soon after it came into existence have a strangely modern ring. The most striking of them are quoted in the Introduction to the current Recommendations (1957). In 1863 they noted, with concern, a tendency towards an "overloading of the curriculum . . . followed by results injurious to the student."

In 1869 similar fears were expressed, and the Council adopted a resolution that "some limit must be assigned to the amount of knowledge which can be fitly exacted." To help the licensing bodies and medical schools it endeavoured to define precisely the minimum standards that would be acceptable.

By 1885 the problem of the congested curriculum was still acute, but the fifth President of the Council, Sir Henry Acland, pointed the way to the right solution in truly prophetic words:

"Whereas the tendency was, and rightly, some years since to issue Recommendations in more and more detail the last revision, by common consent, and after the most careful consideration, has reduced them to a few general Regulations resting on broad educational principles. . . . The several subjects . . . have become so vast in the eyes of most specializing experts that selection and abridgement must be made. It must be made, within limits, by the responsible teachers and the responsible examiners connected with the several Licensing Bodies, subject to the general supervision by this the court of appeal for all."

It is altogether fitting and proper that Sir Henry Acland's words should be reprinted, for they reflect the general opinion of the Council 70 years later. His liberal policy was in agreement with that of the Medical Acts Commission of 1881:

"It would be a mistake to introduce absolute uniformity into medical education. One great merit of the present system, so far as teaching is concerned, lies in the elasticity which is produced by the variety and the number of educating Bodies. Being anxious not in any way to diminish the interest which the teaching Bodies now take in medical education, or to lessen their responsibility in that respect, we desire to leave to them as much initiative as possible. In certain matters of general importance, such as the duration of study and the age at which a student should be permitted to practise, common regulations, ought, we think, to be laid down; but we wish to record our opinion that nothing should be done to weaken the individuality of the Universities and Corporations, or to check emulation between the teaching institutions of the country."

Despite the authority of these statements there is no doubt that the medical curriculum became increasingly congested and fragmentary as the years passed, and in 1944 the Good-

enough Committee called on the General Medical Council to undertake its drastic overhaul as an urgent necessity. The Committee recorded its opinion that "in deciding the importance that should be attached to the various subjects and the type of instruction that should be given the bias should be towards the needs of the future general practitioner," and in the same paragraph called for instruction in a number of subjects which "did not receive the attention they should at the present time." The final result of the Goodenough proposals was a curriculum even more congested than it had ever been, for the Council expanded its Recommendations in 1947 to include some of the additional subjects that the Committee asserted were necessary to the training of a general practitioner.

Right of Registration

The truth is that ever since its birth in 1858 the General Medical Council has faced a wellnigh insoluble problem. The appropriate Medical Acts require that the right of registration in the *Medical Register* shall not be conceded to any persons unless the Council is satisfied that such persons have followed courses of study and passed examinations which ensure the possession of the requisite knowledge and skill for efficient practice. Until a few years ago it was possible for anyone to proceed to independent practice immediately after registration, and as the Council came into existence for the protection of the public it was almost inevitable that its published Recommendations concerning the curriculum should place considerable emphasis on vocational training and include a large number of subjects for which a plausible case could be made in argument that some knowledge of them was essential to independent clinical work. But the rapid and continuous advance of knowledge in clinical subjects and the basic sciences on which they rest has made anything more than a superficial acquaintance with all of them quite impossible for the average student at the time of the qualifying examination.

The attempt to include everything conceivably necessary for efficient practice made many courses of instruction at medical schools grim exercises in memorizing factual data in preparation for examinations, and often led to neglect of the critical study of principles and independent thought. Although the General Medical Council is invariably blamed for this unfortunate result, the fault does not lie exclusively or indeed mainly with it. Repeatedly it has said in the introduction to its Recommendations that it wishes a liberal view to be taken of them and it was prepared to welcome experiment in education and diversity of method. Frequently it has pointed out that its duty was the maintenance of a minimum standard for registration and not the definition of an ideal system of education for a medical school. By ignoring these exhortations, however, and by implying that suggestions in the Recommendations had the force of law, heads of departments in medical schools could, if they were so disposed, insist like Shylock on their pound of flesh—that is, on a certain quota of the student's time, which, in some curious way, was considered to be an index of departmental prestige and significance. And there is little doubt that departmental pressure of this kind led to the situation in 1944 which induced the Goodenough Committee to demand a drastic revision of the curriculum.

It has been suggested that a courageous and enlightened Council might have taken the initiative earlier and requested a revision of the Acts by which it was bound in order to introduce reforms in education. That it might, for instance, have recommended a single portal of entry to the *Register* by means of a State examination under its control and permitted the schools to shape their curricula as they wished. This policy, at the instigation of Sir John Simon, was discussed by the Council and approved, but it did not receive the sanction of Parliament in 1886. Opposition would have been intense from licensing bodies like the Royal Colleges, who were concerned particularly with examinations, and the decision of Parliament was wise and fortunate.

Attitude towards Reforms

It has been urged, too, in some quarters that the Council might well surrender its right of inspection of examinations and visitation of schools and be guided by the verdict of the University Grants Committee, which inspects schools thoroughly every five years. But the authority of the University Grants Committee does not extend beyond university courses and examinations, and it would probably not wish for any addition to its labour. Eire, in any event, is not within its jurisdiction.

It is extremely unlikely, therefore, that agreement could have been reached on any reform, because there is no doubt that controversy about the right type of training still persists and in some quarters is bitter. There are those who believe that the medical student should be mainly taught the techniques of a practical art, while others hold that his training should be shaped by the academic ideal of a sound training in basic and clinical science in the hope that he will emerge with a critical mind which enables him to take advantage of the experience that will come to him in practice. Reasonable people agree that both types of training are necessary, though opinions differ over the emphasis to be accorded to each of them. The General Medical Council was wise not to enter any of the fields of conflict. It realized that many of the provincial medical schools had been absorbed by civic universities and that these young and vigorous institutions, jealous of their autonomy and independence, were unlikely to accept readily precise directions on the curricula of their faculties and that the idea of reasonable diversity in educational matters would be sooner achieved if it left the responsibility of experiment to the individual schools and was content to maintain an adequate minimum standard which was the duty imposed on it by Act of Parliament.

The liberal character of the current Recommendations which set the schools almost entirely free to plan their own curricula is not due to an abdication of responsibility on the part of the Council; the change is a sensible recognition of a new situation. The medical schools are now mature, and in Great Britain and Northern Ireland they are free from the poverty that crippled them less than twenty years ago.

The compulsory pre-registration year of hospital practice under supervision, the establishment of the consultant service, and the fact that a period of assistantship almost invariably precedes independent general practice make it extremely unlikely that the public will suffer at the hands of an insufficiently trained doctor. In such circumstances the Council felt able to give more freedom to the schools.

The great achievements of the General Medical Council in education belong to the first fifty years of its existence; its influence was paramount in raising medical practice from the status of a dubious trade to that of a learned profession. The following fifty years were a period of consolidation rather than activity. The Council was content to wait on the development of the schools and finally to place on them the responsibility for experiment and further advance. That policy, in view of all the difficulties, the future will probably justify.

Work Overseas

The educational work of the Council is not restricted to these islands: in the immediate past it has done as much for medical education in the Colonies as its predecessors accomplished in England in the early years. No one who has visited medical schools in the Colonies or in countries like India, which have since become independent, can have failed to notice the immense prestige of the Council overseas. To obtain recognition of their training and degrees as qualifying for admission to the English Register has been and still is the ambition of many of them.

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**THE HISTORY AND DEVELOPMENT
OF THE "BRITISH PHARMACOPOEIA"**

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Descriptive catalogues of drugs claimed to be useful in the practice of medicine have been compiled since the night of time, and a bibliography of them published in Germany in 1784 includes such classic names as Celsus, Pliny, Galen, Dioscorides, Avicenna, and Paracelsus. The first work of this nature, however, with the imprint of authority was probably the *Dispensatorium Pharmacorum Omnium* issued in 1546 with the sanction of the Senate of Nuremberg. The title "pharmacopoeia" is said to have been applied for the first time to a book published in Basle in 1561.

In England the importance of ensuring the purity of drugs was officially recognized as long ago as 1518. In that year the Letters Patent constituting the College of Physicians granted by Henry VIII provided for the election of four persons appointed by the College to have the supervision and scrutiny of every kind of medicine and the prescription thereof by physicians practising within a radius of seven miles of the City of London. A subsequent Act of 1540 gave such persons power to enter the premises of all apothecaries and to destroy any defective drugs found there. The first *London Pharmacopoeia*, dedicated to James I, was published by the College in 1618, a century after its foundation. It included no fewer than 1,028 drugs and 932 compounds, often of a bizarre and even revolting character. Subsequent editions appeared regularly, the tenth and last *London Pharmacopoeia* being published in 1851. From the beginning the book had authoritative countenance and proceedings were authorized against those compounding medicines in any other form than therein directed.

In Scotland the President and Censors of the College of Physicians of Edinburgh, which received its Charter from Charles II in 1681, were likewise empowered to inspect drugs and medicaments offered for sale within the city and suburbs and to throw into the street or destroy those found to be insufficient or corrupt. Similar activities were undertaken in Glasgow by the Faculty of Physicians and Surgeons. The Edinburgh College published its first *Pharmacopoeia*, dedicated to William III, in 1699, and subsequent editions were issued at intervals till 1841, when the fourteenth and last *Edinburgh Pharmacopoeia* appeared.

The Censors of the College of Physicians in Ireland, founded by Charles II in 1667 and reincorporated by William and Mary in 1692, were similarly ordered to inspect medicines within the City of Dublin and its environs and to destroy those which were defective. It was not, however, till 1807 that the first *Dublin Pharmacopoeia* appeared, and a revised edition was published in 1826. The third and last *Dublin Pharmacopoeia* was issued in 1850.