by tending to make practitioners commercial rivals rather than professional brethren. Where such occurs everything possible must be done to overcome such influence.

The widely scattered doctors of the less-well-developed territories are also a problem. It so happens that in the last two years I have travelled nearly 40,000 miles in three long medical tours in British Africa, mostly equatorial Africa, so that I might learn something of the outlook of doctors there and perhaps give them something of my outlook. The circumstances of these lands present formidable difficulties, but I will close by quoting the motto of my University of Birmingham, "Per ardua ad alta."

CONCLUSIONS AND RESULTS OF THE FIRST WORLD CONFERENCE ON MEDICAL EDUCATION*

BY

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I have circularized the 400 medical teachers who attended the First World Conference on Medical Education, and received about 100 answers. About 20 of my correspondents replied that they had learned nothing anew at the Conference, and the Conference had consequently had no effect on their teaching methods or on the medical curriculum in their medical schools.

Appreciation of the Conference

The great majority of the answers, however, expressed very strong appreciation of the Conference itself, and the value of the opportunity of informal conversation with delegates from other medical schools and other countries was frequently stressed. It must be confessed that a majority of the correspondents could not single out any particular alteration in method of teaching or in content of medical course, but a majority believed that the Conference was responsible for a freshening revival of educational ideals. Most delegates do seem to have been stimulated to renew their own positive thinking about educational aims and methods.

On the positive side, it is quite clear that the published *Proceedings* of the First Conference were of very great value to those responsible for new medical schools that have been brought to birth in the last few years. Delegates from six important countries have been able to report that the *Proceedings* have been closely studied by the authorities responsible for drawing up the curricula in new universities. In two other countries, Germany and Chile, the curriculum of medical schools has been recently reviewed, and the delegates from these countries to the Conference have reported that due and detailed consideration was given by the replanning authorities to the *Proceedings* of the First World Conference. In Britain the General Medical Council has recently brought forward recommendations for improvement in the curricula of medical schools, and a

study of these recommendations shows that many ideas expressed in these recommendations are in close parallel with deliberations at the First World Conference. It seems clear that the *Proceedings* of the First World Conference are likely for some considerable time to exercise an important influence on the intellectual architects of new medical schools.

In general the ancient medical schools of wealthier highly industrialized countries have been disinclined to alter their established curricula and teaching methods. Delegates from these medical schools, reporting their conservatism, have reacted to the conservatism in different ways. Some of the delegates have been convinced by the Conference that the methods of their own school cannot be bettered, and in a great many instances one is forced to concur with this view. Some other delegates from such schools, however, have returned home after the Conference with a fervid ambition to make important alterations in teaching programmes and methods, but have failed to enlist the support of those colleagues who had not attended the Conference. It seems probable that the Conference in fact attracted men who already felt that the medical course in their own schools, as in other schools, was still imperfect.

The Conference does seem to have been most appreciated by delegates from less wealthy and less highly industrialized countries, and the effect seems to have been greatest in the medical schools of these countries. Even so, however, delegates from these countries are those who in writing to me have shown the greatest frustration. Returning to their countries imbued with new ideas from the Conference, they have been balked in their ambitions and in their enthusiasm by the poverty of their countries' educational budgets. A very striking antithesis has emerged in this correspondence between the inertia of intellectual self-satisfaction that has assailed delegates returning from the First Conference to old medical schools in highly industrialized countries, and the economic inertia which has balked candidates returning to less highly industrialized countries.

Frequent praise is directed, however, to the success which the Conference had in a restatement of the aims and ideals of medical education, and it is clear that most delegates returned from it spiritually refreshed.

The Curriculum

Some delegates took back to their universities the agreement of the Conference that, in a consideration of requirements for entry, due weight be attached to a broad general education and adequate consideration be given for some knowledge of such liberal subjects as Greek, Latin, history, philosophy, the arts, and music, tempered by the opinion of the Conference that science was not inferior to the humanities as an educational exercise. The Conference can perhaps hardly take credit for the proposal of Oxford and Cambridge to remove Latin from the compulsory entrance subjects, but certainly it is only since the Conference that this measure of educational freedom has been instituted. It appears that as a direct result of the Conference some medical schools have adopted new educational devices for assessing the character and intelligence of entrants to the medical profession.

In respect of the aim and content of the curriculum, Sir Richard Livingstone's advice that our aim be a

*An address given to the Second World Conference on Medical Education, Chicago, 1959.

"basic doctor with the philosophy of the first-rate" has made a striking impact on most delegates, and it must have echoed and re-echoed literally hundreds of times these last five years in university planning committees all over the world. In this field striking results have in fact been reported, and the delegates from a majority of medical schools record improvements or at least changes, though only a minority ascribe these changes directly to the Conference.

Anatomy and physiology have in many places been integrated, though in some newer universities in less industrialized countries there is a lack of teachers in these subjects. An introductory or basic course of clinical medicine has been very widely introduced, sometimes by the direct machinations of a delegate to the Conference, and in a good many places surgery and medicine have themselves been integrated with anatomy, physiology, pharmacology, and pathology.

A few schools have actually managed to call a halt to expansion of the curriculum, and some show a new restraint in the teaching of the narrower specialties.

Psychological medicine is in some places now covered by a broad general course, with the implied recognition that clinicians in their general teaching of medicine and surgery must accept responsibility for instruction in psychological aspects of their clinical work. In a good many countries the teaching of detailed obstetrics is contracted, with a compulsory increase in the teaching of antenatal and post-natal care.

The Conference attracted additional publicity, if that were possible, to the important experiment at Western Reserve, and that medical school must have been embarrassed by the number of visitors which their Conference delegates attracted. One refreshing result of the Conference that is unmistakably on the positive side is the international visiting which has resulted from new acquaintances made in London five years ago.

The section on technique and methods has come in for a good deal of praise and some criticism. The practice of reducing attendance of students in operating theatres to an absolute minimum has become much wider since the First Conference. In many places the medical students now visit patients in their own homes. Polyclinics for the use of students in out-patient departments have proved to be very popular, and the Singapore experiment of providing laboratories, x-ray apparatus, endoscopic facilities, and electrography in the polyclinic has been followed in some other places. Reactions to the various lectures and demonstrations on visual aids have been less uniformly popular. Expense seems here to have prevented ideals from being attained.

Medical Films and Libraries

I have explored the suggestion made at the First Conference that a central museum, based on the Wellcome principle, should be established for the collection and distribution of demonstration material, but this seems to be quite impracticable. More possible is the preparation of an index of medical films. Dr. J. M. Mackintosh, of the World Health Organization, has given me advice in this matter. He informs me that the preparation of an index of these films would offer the greatest possible difficulties. Thousands of medical films exist of a quality varying from excellent to useless. At a recent conference on accidents in the home over 50 films were produced on this subject alone, and a

W.H.O. seminar had the greatest difficulty in distinguishing the good from the bad. There are also many lists of films extant, none of them complete, few of them evaluated, and most of them out of date. It seems probable that only a limited scheme could be attempted with any prospect of success. Some countries already have a centralized film service, such as the Medical Committee of the British Scientific Film Association, the British Medical Association, the British Council, the Canadian Government, and the American College of Surgeons, and the Film Reference Guide for Medicine and Allied Sciences of the U.S.P.H.S. A multiple index comprising the individual indexes of such organizations, kept fully up to date and strictly selective by high-level national appraisal, would seem easily possible and might be very profitable.

In many centres the data produced at the First Conference on medical school libraries have been responsible for local improvements. The report that in the United States medical school libraries varied between 3,000 and 375,000 volumes shows how much still remains to be done in this field. As a result of the Conference, a good many medical centres are now giving their students instruction in the use of the library.

No one seems to have changed his view, whatever that was before the Conference, about the superiority of the internal or the external examination, but multiple-question examinations have been brought into use much more widely than I for one would have imagined.

Little has been reported by my correspondents on changes in the teaching of preventive and social medicine, but several medical schools have recognized as a result of the First Conference that special departments are necessary for the teaching of these subjects. Note has been taken widely of the need for the student to realize the importance of a full industrial history, and in one centre tape recordings of social interviews have been introduced for student instruction. In a few places students have been encouraged to undertake family supervision.

Conclusion

It would thus appear that there have been wide repercussions from the First World Conference even though some individuals have been disappointed, only a few of them in the Conference itself, many of them in what they have been able to achieve as a result of the Conference by direct action in their own medical schools. The Conference does, however, seem to have more than justified the communal expense and the time expended. It should be said that at the start of this Conference many of my correspondents expressed some dissatisfaction at the actual form which the First Conference took. Many were disappointed that the greater part of the time was taken up by the delivery of previously prepared papers. They would have preferred open discussion, possibly by panel groups, and a less rigid presentation of unrelated or repetitive facts and opinions.

In closing I must express my very great gratitude for the trouble so many busy medical teachers have taken in replying to my inquiries in detail. To have mentioned them all would have been impossible, and I therefore have avoided the mention of any. I hope my correspondents will accept this very deep expression of acknowledgment and gratitude.