INTERNATIONAL NATURAL HISTORY

The Birth of an Opportunity

R. J. F. H. PINSENT, M.D.
Birmingham

THAT science and medicine know no frontiers is more or less true. The spoken word, the typescript, the medical journal and the printed page are in continual circulation among research workers in laboratories, institutes, research centres and hospitals. Travellers have for many years spread knowledge and news of advances in medical science soon after they have been made by the application of the experimental method in institutes, many of world repute.

One science has played no part in this, for until quite recently no means existed for the dissemination of knowledge of advances in general practice. It is true that those who came to sit at the feet of James Mackenzie were not from his own country, but from overseas, and that further back in history the brief flowering of co-ordinated observational research of the 1880s spread from London to the Continent, but there has been no major movement of the ideas of general practitioners until the last decade.

First the idea of a College—in 1952 this concept spread from Britain, and, though they could then have had little idea of what it was all about, many practitioners in the commonwealth and beyond performed the act of faith which made them receivers of the *Research Newsletter* and later the *Journal* of the College which it soon became. In the early days few of us really appreciated the extent to which the college *Journal* travelled to members and associates. Some will remember a study of Pink disease—a truly British disorder—carried out by means of a pink questionnaire interleaved between journal pages. Returns came in for months. They came in from the Continent and the antipodes, the New World and the old, from the Faroes and the Falklands.

Thus, almost by mistake, occurred the College's first venture into international research. Not long afterwards, however, overseas

councils of our own College and the newly independent Australian College developed research committees on the model of our own and there began an exchange of ideas and problems with slim blue airletters as the current means of exchange. Air mail made a hope a reality, namely that Australians and New Zealanders might be co-opted to the Research Committee of Council, serving on it in everything but presence at meetings and taking a fully constructive part in the system of consolidated comment. An international network was beginning to form, still for the most part unrecognized and unacknowledged.

Next, another thread in the fabric came from the college Recording Service. Applications for the loan of discs or tapes began to come from abroad and the spoken word of general practice was heard overseas. More than this, however, the use of magnetic tape and the device of discussion circuits to which contributions were serially added, enabled a vivid and lively exchange of ideas to begin. The College must never underestimate the value of the work of the Drs Graves in creating a service perhaps only matched in range by that of the B.B.C.

Hospital and laboratory workers had for long enjoyed facilities whereby they were enabled to visit other centres in other lands, to lecture and to listen, to absorb atmosphere, sense trends of progress and leave something of themselves and their experience behind. The horizon of the general practitioner remained the most distant patient on his list with the occasional excursion to a medical meeting at the nearest centre. These excursions were more frequent—the College saw to that—and for a few there were journeys to London to committees where ideas were sharpened by discussion and the implications of the present for the future began to be properly understood.

By the setting up of an experimental series of Nuffield Travelling Fellowships, the Nuffield Foundation at once transformed the situation, enabling British practitioners to travel extensively and commonwealth practitioners to be made welcome to our shores. The frontiers separating practitioners from one another had been breached in principle and the potential universality of medicine came nearer to reality.

I am not going to try to assay the value and return which will follow the continuing operation of the Nuffield scheme, the implications of which go far beyond research. Instead I would like to explore with you some of the possibilities which this unfettered

exchange of general-practitioner thinking release. I have been fortunate to have visited Australia and New Zealand last autumn and the International Conference of General Practitioners in Montreal this spring. This may be a fair basis on which to rest some forecasts for the future.

During the past years the College's efforts have been directed towards the development of methods of co-ordinating research in general practice, the discovery of means of measurement first of morbidity as a whole, next of its several causes. Some successes followed failures. Some achievements resulted from much effort by many general practitioners whose only reward was the knowledge that they were pioneers in a new research field. Definitions were made, procedures were tested, and a new research tool—morbidity recording—was born.

Those who had worked on this were general practitioners practising in the British National Health Service and it remained to be determined whether methods derived from this would be applicable in other countries where the types of practice were different. It was hoped that the methods would fit into the practice patterns of others as indeed they did. Accounts of our methods, ledgers, record sheets and advice were sent to practitioners in many countries, some of whom are at work on them today. The first ' E ' books went overseas to Holland, next to Natal, then larger stocks to Australia and New Zealand. The postage bills at the Records Unit in Birmingham began to mount, as did the Unit's collection of foreign stamps.

It was after time had elapsed in which the methods could be tried out that I was able to visit colleagues overseas and discuss their work with them. From discussions in Hong Kong it was clear that the method would work there, and in Australia pilot ' E ' books had been operated without difficulty for some time. In New Zealand experience of the method was even more advanced, over 40 ledgers being in use in both islands. One slight difficulty in both countries was in the construction of age-sex registers, for in areas of private practice the ' list ' relationship between doctor and patient is less precise.

One or two ' E ' books had been under trial in Canada and the United States for some time, in the latter country in the Department of Epidemiology and Community Medicine in Burlington, Vermont. Demonstrations of the method at the International Conference in Montreal suggested that on the American continent too the measurement of morbidity through general practice may be undertaken more

extensively than before. The conference agreed and recommended that this work should be stimulated and encouraged in all countries where academic bodies representing general practice were to be found. It was informally suggested that W.H.O. might have a co-ordinating part to play in the future.

These discussions and the ideas behind them are of great concern to our College, for it appears that we are the only nation to have an organizational centre which can at present undertake the co-ordination of these far-flung developments. The Records and Statistical Unit is, of course, responsible for the analysis of material from our New Zealand Council just as it would handle work done in Scotland or Ireland. Australia, however, would like us to handle its material also, at least until a national centre is set up by the Australian College. Other countries too will look to us for help, in the early stages at least, and we must not disappoint them. Though the Records Unit is small its morale is high and, with help, we will undertake this task.

Accurate co-ordinated information from many countries will be valuable in itself, for though much is known about mortality the preceding illnesses are less completely documented. If our work were to end with the compilation of public health statistics we would be doing good work. Columns of figures, however, are but the beginning, the baseline from which we, and others, have a long way to travel in observational research.

A first characteristic of the general practitioner is his continuing intimate relationship with the environment in which disease begins, and where its early stages first come under his scrutiny. He, above all other observers, can relate what he observes to what he knows, or can learn from others, about the patients' surroundings and even in these small islands there are wide differences in geography, climate, social custom and other fields in which measurement can be made, relatable to and linked with the observations of non-medical sciences. We can begin to see where science and medicine begin to fit together. The idea is not new, the idea is James Mackenzie's, but the opportunity is new and it is ours.

If environments differ in Britain how much more do they vary throughout the world. Standard recording methods can now be employed in a wide variety of environments and we can already see ways in which the pattern may form.

In two practices in Hong Kong measurements of the way in

which illness presents will contrast with those here in very many ways. One practitioner is studying the occurrence of sore throats in relation to other diseases, another relating the pattern of tropical diseases to that with which we are familiar at home. In Australia work has been going on for some years and the results of the National Morbidity Survey, comparable in many ways to our own, will be coming from Canberra soon. Both in New South Wales and Victoria there are experienced users of the 'E' book method. Modifications of the classification sheets—but not of the classification itself—are being made so that ledgers normally obtainable in Australia can be used. In the Australian version there will be 20 diagnostic headings to a page.

Future studies in Australia may be related even more closely to variables in the environment. A group practice in Queensland and an agricultural research station within the area of the practice will, it is hoped, undertake a combined investigation. In South Australia an opportunity exists for study of the distribution of multiple sclerosis in relation to mineralization at Broken Hill and Port Pirie. The Tasmanian faculty of the Australian College has a fascinating problem, the elimination of hydatid disease by health education. Here the environmental hazard has been clearly identified.

By and large the geological background in Australia is one of mineral deficiency rather than excess, and deficiency may be an equally potent factor in determining the pattern of illness. Man recognizes deficiencies and seeks to correct them. In some areas of copper deficiency in West Australia chemical fertilizers containing pulverized copper ore have been applied, together with impurities such as manganese. It is now suspected that copper deficiencies may be over-corrected and that manganese may be present in an artefactual excess. By planned studies the College may be able to uncover effects of these changes even though the human population of the areas concerned is sparse.

The mineral background in New Zealand, too, is one of deficiency. Mineral fertilizers and additives are used on grazing pastures and horticultural land, one of the most important deficiencies to be corrected being selenium. In the veterinary world it is well known that selenium deficiency is a cause of "white muscle disease" in lambs. "Selenium responsive disease" of connective tissue occurs in other animals and birds also and indeed the vets are themselves puzzled that so far no comparable pathology has been demonstrated in man. Does an equivalent condition exist unrecognized? The

morbidity studies being and to be undertaken in New Zealand by the four faculties of our College may give the answer. In South Island Lincoln College, the Agricultural Department of Christchurch University, hopes to secure funds for a broad study of nutritional factors in the environment and their effect on animal life. The College, through its observer network may be able to play a useful part in this enterprise.

All this is natural history, it is the study of phenomena as they occur or as they may inadvertently be affected by the activities of man. No elaborate experimental organization is required in the first instance. The stage of experimental confirmation or refutation of ideas and conclusions based on observational studies comes later and will be the responsibility of the experimental worker. This is not to say, however, that the pure scientist has no part in our natural history studies. His part is vital. The measurement of the environmental factors to which we may relate our observations.

The kind of research which I have described answers few questions though its conduct poses many. In a sense it is a reaction from the pre-occupation with the experimental method in medicine which began with the Hunterian era, and it is high time that medicine turned again to the first principles from which in ultimate all its problems derive. This work cannot be done except by general practitioners whose work may even, in the coming years, exceed in importance and value that of their experimentalist colleagues. Our College has a responsibility to our many faculties overseas, and to academic bodies in other lands who may look to us for help and guidance, which we must not ever under-estimate.

Ethical and Legal Obligations of the Medical Profession. ANNIS GILLIE, *O.B.E.* M.B., F.R.C.P. *Brit. med. J.* 1964. **2**, 113.

In this B.M.A. student lecture, Dr Gillie makes a plea for a more positive and constructive attitude towards our ethical and legal obligations, which are but an expression of our relationship towards our patients, our colleagues and society as a whole. She describes the main types of problem which arise under these headings in practice, and how they may be best resolved. Of ethical relationships between colleagues she says " Tolerance and goodwill are better than pages of rules ".