MEDICINE AND THE PEOPLE:

A REVIEW OF SOME LATTER-DAY TRACTS.

BY

SIR T. CLIFFORD ALLBUTT, K.C.B., M.D., F.R.S.,

REGIUS PROFESSOR OF PHYSIC IN THE UNIVERSITY OF CAMBRIDGE;
PRESIDENT OF THE BRITISH MEDICAL ASSOCIATION.

THE Report of Mr. Flexner upon *Medical Education in Europe*, 1912, a remarkable document for a while eclipsed by the Great War, and the two impressive Reports of Sir George Newman¹ not only mark a cardinal period in the history of Medicine but also, by showing us where we stand, contribute no little to its advance. As we issue from the mist these observers take our bearings on a new horizon, reveal to us our new positions and scenes, and determine our future course. Happily we are not far out of our reckoning, and are well on the way to our more immediate ends. Far indeed, it is true, from the summit of our climb, a summit after the manner of peaks, continually receding as we rise, we have reached nevertheless a shoulder of the hill whence the landscape is spread out before our eyes. We have journeyed thus far by half-conscious instincts, now henceforth for a while we can go forward in the light and direction of reason. At present Sir George Newman's latter Report, on Preventive Medicine, is occupying our attention; but, as the author himself insists, preventive and curative medicine are but the silver and gold of the two sides of the one shield; and "Education" in them is not only the instruction of the apprentice but also the nourishment of the practitioner and the equipment of the pioneer.

The Width of the Problem of Disease.

We are rather too prone to regard disease exclusively from the point of view of the organism—or rather, in our neglect and ignorance of comparative medicine, from the point of view of the human body only; a narrow outlook. However, whether in man, animal, or plant life, we are too introspective; or in the other extreme of late years too ready to cast back our gaze upon the *milieu* alone (a term unfortunately without an English equivalent): but the play of life, the physiological drama, lies not in either organism or *milieu* severally; it is an interplay, a halo about their common edges; in health a dynamic equipoise. Five hundred years before Christ physicians of the school of Croton (such as Alcmaeon) began to regard normal life as consisting in this "isonomy," this balance and reciprocation of inward and outward. And, if we see life as in this loom of woof and web, we shall understand better one of Sir George Newman's main themes, that—as, for example, in the phenomena of immunity—preventive and curative medicine, if for the limits of the human mind they must be studied in some severalty, are notwithstanding but different aspects of the same subject matter. Preventive medicine, as Sir George says, is by no means external sanitation only.

Disease then is some failure, or some discord in this interplay; some actor in the drama, on the one side or the other, has missed his cue, or struck the wrong note; or some foreign actor has thrust himself upon the stage. The result is that the interplay, the dynamic balance, attained in the continuity of readjustments over many ages, is disordered or upset. In spite of the great Ionian thinkers, and in the following of imaginary spirits and witchcraft, the notion that disease is an entity has reigned for hundreds of generations, and over realms of space, to the present day, when even considerable medical writers still continue to talk of diseases as "entities." Thus for our forefathers heat, for instance, was an entity, electricity a "fluid." Against this "daemonic" notion of disease Sir George Newman fights directly and indirectly.

The Body's Margin of Safety.

It is true therefore, as he himself and Sir James Mackenzie likewise earnestly contend, that one leading adventure of medicine must be to investigate the beginnings of diseases; that is, the first faint discords

in the reciprocal interplay. Whether Sir James Mackenzie be right in shifting our point of search altogether or chiefly from the larger disturbances to those minor and incipient variations, wherein diseases begin, is another question. That this view must ultimately be taken there is no doubt; but probably at more advanced stages of pathology, not at the beginnings or earlier ways of research. If we read the stories of intrepid explorers, of pioneers who have discovered the sources of great rivers and the distributions of the streams of watersheds, we shall see that the method of following the several rivers up stream has been more successful than the endeavour to ascertain at the sources how to identify and describe the various and occult fountains of these greater rivers of the plain. To the present writer it seems that on this method, by tracking back from the main reaches of diseases, noting their various stages and branches, unravelling their complications, and comparing their features and directions in men, animals, and plants, we shall map out their several origins more quickly than by studying only or chiefly the areas where they are less differentiated. A cell may perhaps be ill in all ways at once; but a congeries of cells moulded into a system of various co-ordinate functions must in its disorders swing this way or that or the other according to the several lines of the lay out of its parts. With differentiation of structures must come a corresponding differentiation of lapses.

Another difficulty of study when directed mainly to incipient stages of disease and working down from these, is the large "margin of safety" with which our organs are, each and all of them, endowed. They all hold a store against extraordinary needs or assaults. It is a matter of familiar experience that a part or system of the body in man may on its own reserves have undergone no little deterioration or disadvantage before, on some larger demand, its failure becomes manifest. Moreover we know well how compensation in one department for default in another may mask the oncomings of disease. However let not our reconnoitring parties neglect any opening, occasion, or source for investigation.

While considering early or late deviations from the normal equipoise, we shall not allow ourselves to be entangled in terms; in terms such as diathesis, soil, susceptibility, and so on. For instance, to speak of the organism as a "soil" misleads teacher as well as disciple. That is an odd kind of "soil" which is rather the fed than the feeder; the warrior against insown germs rather than their nurse. Besides, by such phrases we are liable to get lost in the abstract, that continual peril of the student. May not individual vulnerability lie as often in some local peculiarity as in a vague and general proclivity; in the malformation, let us say, of a bronchiole or of a diverticulum, creating, or favouring, the accumulation of a local culture medium; or of a blood vessel, shutting off the nutrition of a part; or in the lack of a biochemical element, such as calcium? There is no inconsiderable field open here for the minuter anatomist, and for the student of beginnings.

The Allies of Clinical Medicine.

Anatomy is far from completion; physiology still offers an extensive unknown or unexploited field; pathology, great as are its recent achievements, leaves much yet to be done; still for Clinical Medicine—and Sir George Newman does well to beat in the claims of Clinical Medicine as the main purpose and end to which our efforts are to be directed, and as the key to social regenerations, material and spiritual—for Clinical Medicine these sciences have already done much and carried us far. But we must not forget that there are other ancillary sciences no less effectual, to which as yet we have scarcely betaken ourselves. The bearings of biophysics and biochemistry upon Clinical Medicine are not yet come into full view. Hopkins, Bayliss, Moore, and many others are calling to us from their remoter thrones, telling us what biophysics and biochemistry can do for Medicine; how we might push on would we but summon their young prophets to the bedsides of our patients. Yet our colleagues, and especially perhaps our surgeons whose great feats are our daily admiration, assure us that these views are "speculative," remote, and "academic"! The truth is quite utterly otherwise: it is since the present writer, after twenty or more years of lecturing on Medicine, had, from the outbreak of the war to the present time, again to undertake

¹ *Some Notes on Medical Education in England*, 1918 (Cd. 9121), 3d. net.; and *An Outline of the Practice of Preventive Medicine*, 1919 (Cmd. 365), 6d. net. H.M. Stationery Office: to be obtained through any bookseller.

full personal responsibility for the treatment of hospital patients, that he has perceived the close limits of our knowledge and the bright promise of these "academic" studies of applied physiology, pathology, and now emphatically of biophysics and biochemistry. Arrangements have accordingly been made for the co-operation of a biochemist also with the clinical staff of the Addenbrooke's Hospital. How can we be satisfied with empirical routine when we find ourselves face to face with the intimate working of colloids and their syntheses with crystalloids that, in health and disease, governs those very movements of fluids and solids throughout the body, with which we are incessantly concerned, that governs normal secretion and excretion, and in disorder the retention or discharge of morbid excrements? Or, again, when we are face to face with the changes of viscous fluids to and from more rigid forms; with the vast range of catalytic action, as of the ubiquitous enzymes, normal and hostile, of vitamins; and of those balances of chemical equilibrium within the corporeal system which the researches of Professor Starling, Professor Schafer and others have shown to us, shall we not try to learn their physical and chemical paths? And this outlook is far from being even a sketch of what might already be revealed from this point of view, the point of view, or one of them, from which Sir George Newman has appealed to us; that we should take, and give to our pupils, the "university quality" of learning, that we should lift medicine—preventive and clinical alike—out of the ruts of mere cleverness, adroitness in detail, handbook learning, empirical rules, into a larger and steadier atmosphere. Not that these qualities of handiness, dexterity, quick sight, versatility, are valueless, indeed they are precious; but they are gems which ought to be set in a far larger design.

The Risk of a Rootless Tree.

Conversely, the scientist has much to learn from the artist. Of middle-men who shall join the discoveries of the scientist to the practice of Medicine we are lamentably in need. Sir George Newman has insisted again upon this urgent need, as for "Clinical units" in our city and university hospitals. But, although such leaders and such "teams" are to forge ahead, instructing and inspiring their followers, yet much of the advance depends also upon the rank and file. How then are the practitioners, the artists of Medicine, to aid in maintaining and developing this larger design? Such is the question that Sir George Newman anxiously reiterates, that physicians and the public have now to consider. Meanwhile he urges, as many others of us have pointed out, that a contrary and mischievous tendency is at work to shake the whole structure of British Medicine by undermining its foundation, the foundation of the "general practitioner." When the midwives are in possession of births, the infants under maternity nurses, the tuberculous and venereally infected gathered away under their several wings, the fevers moved off to isolation, the preventive methods—which penetrate the curative—handed over to officers of health, and even the cases of minor surgery collected in Hospitals or "Homes," what is to become of General Practice? It must descend to the sweeping up of trifles outside the orbits of these constellations of specialists! The tree, all top and no roots, must wither. Now let us think of this, when we learn that in 1918 ninety-two thousand fresh cases of tuberculosis were notified; and six thousand five hundred of ophthalmia neonatorum; and that rheumatic fever is probably not far behind.

Roots and Branches Both.

How this peril to family practice is apprehended, and how it should be provided against, Sir George Newman forcibly and critically declares in these constructive essays. Gladly we learn that one large edition after another of both Reports is being rapidly absorbed. The seed is falling on good ground. The Author repeats that the family physician must, by revised education and provision of the means, be enabled to work on these larger lines. That by education he is becoming year by year more fit to accept and to develop the sciences of Clinical Medicine the present writer has ample evidence. It may be forgotten that the Budget, which unhappily was suffocated in 1914 by the War, contained such a provision—a

substantial grant towards the provision of a comprehensive laboratory in every health area of England, whether affiliation to a university were available or not; but in any case linking up to the local hospital as the medical centre of the area. So far as the present writer is aware, only one such laboratory has come into existence apart from a university—namely, in Wolverhampton. This excellent Institute, sadly deranged as it has been by the War, is now again in full work, under Dr. S. G. Billington; and practitioners in the district, on the restoration of home work, are making more and more use of its aids and incentives.

Did space permit, some fuller reference might be made to the very promising movement in the United States for the formation of medical groups, or large partnerships. A certain number of the general medical practitioners in a district combine to provide central offices, where provision is made for scientific diagnosis, and for treatment medical and surgical. The members in turn are encouraged to give especial attention to this or that department of practice, and so are released for occasional attendance at special university clinics, both at home and abroad; and holidays are mutually arranged in like manner. This thoroughness of the diagnostic methods makes the scheme popular with the public, and lessens domiciliary rounds. The revenue is said to be larger than the sum of the independent practices.

After all this introduction much, indeed the chief part, of Sir George Newman's Reports must be left to the readers of them. We want, as he says, to instil new "health habits and health conscience." Our readers will recall *Punch's* recent picture of the soldier son, home on leave, tubbing himself vigorously in the back kitchen to the wonder of his slovenly old parents at the fireside, "He gives way to it, Mary, that's where it is." Sir George looks forward to yet larger federations of workers, from professors to health visitors and mothercraft; to more and better playgrounds, open-air schools, and summer camps; to better housing; to eugenics; to dietetics; to more personal cleanliness, especially of the teeth and mouth; to the reform of infirmaries, and their alliance with the voluntary hospitals; to a reconstruction of psychiatry; to reforms of industrial conditions, to extension of health and unemployment insurance and to other such efforts for the banishment not only of overt maladies but also of "all the crippling morbidity and invalidism" which sap the vitality of the nation, and "impair intellectual and moral fibre." Moreover the amenities of life make for health as well as happiness.*

Comparative Medicine.

We look forward to further reports from Sir George Newman, and would welcome from his hand a judgement on the importance of Comparative Medicine, a study, as we have said, unaccountably neglected. What the comparative method has done for anatomy and embryology, for ethnology, for philology, for sociology, for religions, and so forth, we know and prize; yet for Medicine, a study no less needful of this method, we have no systematic organization of workers or plants. Whatever little is done in this way is fragmentary and incidental. *A hiatus valde deflendus.*

The Guardian of the Tabernacle.

It is strange that not until the present generation did we recognize the "masses of the people." Even the vast imagination of Shakespeare himself failed to see in the people more than a malignant and turbulent herd. The "churches" are said to have "failed"; if in the past ecclesiastics have failed, Christianity has at length revealed our brethren the people to our hearts, and opened to them our sympathy. And it is in this spirit, in his intense humanity, that Sir George Newman represents his epoch and kindles in us a new hope, leading us to a wider vision, to a more unselfish devotion to the public good, to a liberal sympathy with all men in town, village, and field; to co-operation with the highest aspirations of the individual and of the national mind. He proclaims to us that the human body is the tabernacle of the spirit of Man, and that if the instrument be out of tune the music is discordant and dies.

* In respect of the amenities, in addition to sanitation, as a great part of hygiene, public and private, see the interesting reports of the work done under the Carnegie bequest at Dunfermline.