influence of early education brought out in Mr. Trenaman's study. The most powerful influence in effective communication is the full-time education received in childhood and early youth; and alike in resisting the detrimental or anti-social influences of broadcasting or in realizing the potentialities of these new media for adult education this is the decisive factor. It far outweighs the importance of technical improvements in the use of television or sound broadcasting for educational purposes, and though Mr. Greene's address at first sight seems to bear only indirectly on the American inquiry, it should be clear that any attempt to improve the use of the mass media to disseminate scientific information and advance the public understanding of science could well fail if it did not take account of this factor, and if it ignored the consequences of political and sectional pressure debasing the media.

Mr. Greene does not ignore the beneficial results which a public service broadcasting system can bring and he points out that B.B.C. television has, contrary to expectation, had in England a favourable effect on reading habits rather than otherwise. The use of radio and television in schools, however, is quite a separate issue. What needs to be emphasized first is the crucial importance of an adequate system of education in the schools if the level of public understanding of science is to be raised. That comes first, and no improvements in the techniques of presentation and of using the mass media can compensate for shortcomings there. Further, with the realization of the opportunities which television and also sound broadcasting should increasingly offer, if wisely used, for communicating scientific information, there should be a keen appreciation of the irreparable damage that can be done both to the reputation and effectiveness of the medium and to public intelligence if these media are rashly and irresponsibly used.

EGYPT AND GREECE IN MEDICAL HISTORY

Ancient Egyptian and Cnidian Medicine

The Relationship of Their Aetiological Concepts of Disease. By Robert O. Steuer and J. B. de C. M. Saunders. Pp. xii+90. (Berkeley and Los Angeles: University of California Press; London: Cambridge University Press, 1959.) 22*s*. 6*d*. net.

THE authors of this interesting and constructive, though highly specialized, book introduce the problem which they seek to expound by the statement that "throughout the history of medicine the physician has searched for a theory of disease through which he might organize a diversity of data and thus justify his practice by establishing a scientific system". This is an elaborate way of saying that for centuries doctors have been looking for an easy way of practising by rule-of-thumb. Even in ancient Egypt this search had begun, although many medical historians have regarded the contribution of Egypt to modern medicine as negligible, because it was magico-religious, and entirely devoid of any rational approach. The recent re-examination of the existing medical papyri has placed Egyptian medicine in quite a different category, and has confirmed the view, previously advanced with little supporting evidence, that the Greeks, acknowledged to be the first to base their medical practice upon observation rather than upon theory, drew many of their ideas from the Egyptians. The first to profit from the Egyptian impact was the pre-Hippocratic School of Cnidos (on the mainland opposite the island of Cos). Cnidian medicine, however, was apt to confuse symptoms with diseases, and it was not until Hippocrates of Cos insisted upon the need for observation, and upon the importance of prognosis rather than diagnosis, that the great era of Greek medicine was inaugurated.

The present work deals with the link between Egypt and Cnidos. Both were preoccupied with the idea of putrefaction as a cause of disease, and with the means of preventing it. The prevention of corruption had been carried to a fine art by those who embalmed the human body after death, and this process of mummification was based upon the principle which was followed also by those who sought to heal the living body by getting rid of putrefaction within it. It was alleged that disease was caused by the *materia peccans* in the fæcal content of the bowel. It logically followed that treatment must consist of eliminating the noxious agent or putrefying matter by purgatives or enemata.

The writers of the book under review give many examples of this etiological concept, culled from various papyri, especially the "Papyrus Anonymous Londinensis", besides a number of Greek writings. Although the Cnidian notions appear to have been supplanted by the idea of the humours, favoured by Hippocrates and the Coan School, the two opinions were to some extent united when it was admitted that even the humours might be corrupt or putrefying. This idea paved the way for the doctrine of the ethereal 'miasma' as a cause of disease, an idea which held the field for centuries in various guises until at length the pathogenic nature of bacteria was demonstrated. The relationship between the ideas of Egypt and those of Greece is a significant chapter in the history of medicine, and Dr. Steuer and Prof. Saunders are to be congratulated on their careful and well-documented study of the putrefactive principle in ancient writings. Besides the 55 pages of text, there are an appendix expounding the views of Galen on the matter, and another, suggesting that air-borne disease may have been envisaged even in ancient Egypt. There are twelve pages of informative notes and a bibliography, as well as an adequate index.

DOUGLAS GUTHRIE

THE MOVING FRONT OF CARBOHYDRATES

Advances in Carbohydrate Chemistry, Vol. 13

Edited by Melville L. Wolfrom in association with R. Stuart Tipson. Pp. xi+387. (New York: Academic Press, Inc.; London: Academic Books, Ltd., 1958.) 88*s*.

VOL. 13 of "Advances in Carbohydrate Chemistry" presents ten reviews on specialized topics of carbohydrate chemistry. Trends of present-day sugar chemistry are reflected in the titles of some contributions and are interwoven in the text of others. Interest in amino-sugars has grown considerably over the past two decades with the recognition that