wrong book. But this criticism does not apply generally.

The layout and printing are of excellent quality, and the binding is pleasing in appearance and made for hard use. The price is in line with that of any first-class text-book of to-day; if it saves a laboratory a total of five days of research-worker time or one hour of computer time it will have yielded a handsome profit. A. R. STOKES

THOUGHTS ON COMMUNICATION

The British Association Granada Lectures

Science and Communication. By Sir Edward Appleton. Television and Politics. By Edward R. Murrow. Dons or Crooners? By Sir Eric Ashby. (Three Lectures given in Guildhall, London, in October 1959, on the subject of "Communication in the Modern World".) Pp. 111. (London : Granada TV Network, Ltd., 1959.) 3s. 6d.

THESE three lectures were organized by the British Association and sponsored by Granada TV Network, Ltd. They were delivered in Guildhall, telecast later in a considerably shortened form, and now appear in print. This immediately presents one with the problem of how to treat them: as lectures, television or essays ? Not having seen them on television, I will ignore this aspect.

The general title of the three lectures is "Communication in the Modern World". None of the lectures conflicts with this title, but they are related only formally.

The first lecture, by Sir Edward Appleton on "Science and Communication", gives a lucid account of modern communications, but says little that is new. One expects a few original ideas in a 'prestige' lecture of this sort. He might well have extended the section where he speculated about future developments. From a man so eminent in the field of communications, this would have been far more interesting than a summary of our present knowledge, as already several good ones exist.

Dr. Edward R. Murrow gave the second lecture on "Television and Politics". He throws out ideas, wittily recounts numerous telepolitical anecdotes and very wisely draws the final conclusion : "In the area of political television we are all ignorant". Another point he makes, rather more tentatively, is that it is personalities that come across, not ideas. For example, Vice-President Nixon during his election campaign was accused of accepting too many presents. He appeared on television and won overwhelming support from the public by refusing to give up the one present he admitted to receiving-a little dogbecause "the kids love that dog". Similarly, Dr. Murrow ascribes McCarthy's rise largely to his flair for publicity on television, and he suggests that Stevenson would have done better in a non-television election where he was not up against Eisenhower's homely personality. But-"It is a limited medium ... it can arouse curiosity ... entertain ... sell goods. But it can't reason . . .

Sir Eric Ashby, in his lecture "Dons or Crooners?", is the only one really to put forward a thesis. It is this: The ordinary man does not feel that he really belongs to society, as he did, say, in the Middle Ages. This is because he is unable to understand the science on which it is based. Therefore, he must be given

some understanding of science, and this should be done by emphasizing the importance of technique in science, for the ordinary man is a craftsman and he appreciates craftsmanship. This is an excellent plan so long as it is not regarded as the only one. But Sir Eric is very patronizing about the ordinary man. He is called Ron Blossom and he lives in Doris Grove, Birmingham. His response to a dramatic scientific discovery is to say "Cripes". One thing no one can afford to do if he wants to put an idea across without antagonizing the recipient is to patronize him. Sur-prisingly for the author of "Technology and the Academics", Sir Eric says : "The interpretation of science to the likes of you is no problem. You have the Third Programme and Pelicans . . ."; 'you' in this case being a "Third Programme audience". Now it is only true that the interpretation of science to highly intelligent people presents no problems if the people are interested. The trouble is that a great many of them are not. Where there is a will there may be a way. But it does not follow that where there is a way there is a will. B. SILCOCK

DESCRIPTIVE ASTRONOMY

Elementary Astronomy

By Prof. Otto Struve, Beverly Lynds and Helen Pillans. Pp. vii+396. (London and New York: Oxford University Press, 1959.) 55s. net.

HIS is a text-book based on a new approach to the study of astronomy. Many elementary texts have considered primarily the historical and purely factual descriptive aspects of astronomy. Recently, there has been felt a growing need for a course emphasizing the physical basis of astronomy, using at most the simplest mathematics to perform calculations illustrative of the physical principles involved, but still including enough descriptive material to give the student a basic knowledge of modern astronomy. This book aims at meeting this need, and it fulfils its intentions admirably. The subjects are treated in more or less conventional order, starting with the Earth, Moon and planets, followed by the Sun, the stars and star clusters, and ending (apart from a chapter on instruments) with galaxies, but the book has quite a different tone compared to older texts. Rarely has a volume intended for serious students been so profusely illustrated, excelling most of the avowedly popular books. Still more rarely has any general text-book contained so many illustrations from the recent periodical literature. The senior author has in the past attained a reputation for his descriptive articles no less than for his research work, and this book fully maintains this reputation.

Astronomy, in common with all other sciences, is developing very rapidly, and no one can be an expert in all its branches. Yet the whole of this book is surprisingly up to date, a feature which will commend it to teachers of astronomy. Most of the book will be intelligible to amateur astronomers, and it should find a place on the shelves of every general library with an astronomy section. The authors state in the preface that their book is not intended to replace the many excellent text-books of descriptive astronomy now in use. The reviewer is confident that it will indeed become the leading introductory text on its subject.

R. H. GARSTANG