also to Mme. Vassy, for this act of devotion to his memory, which ensures that this *chef d'œuvre*, as Dr. Cabannes rightly calls it, is made available to the world.

The book begins with an admirable historical chapter; then the properties, production and chemical determination of ozone are described. The next three chapters deal with its optical properties of absorption, and their use in its analysis and measurement; they are affected by the density, the temperature and the presence of other gases. Despite subsequent technical advances, these chapters will be very helpful to later workers on atmospheric ozone, for their beautiful exposition of the principles involved and of the present considerable range of proved experimental and observational data.

Then follow two chapters on the general geophysical aspects of ozone (its distribution over the earth, at different heights, its seasonal and 'weather' variations, its temperature) and its biological influences. The concluding chapter, dealing with the theoretical side of the subject, is the weakest part of the book.

The bibliography seems to contain no reference later than 1942; but, with the reservation just implied, the book is an excellent record and guide to the state of our knowledge of atmospheric ozone up to that date.

theorem-examples, which are standard results, following directly from the preceding work. The student is informed that the conscientious solution of these examples is an essential part of the reading of the book. Short hints have been added to remove any likely difficulty. At the end of each of the first five chapters there are easy examples of the usual kind, while all chapters except the last have sets of miscellaneous examples which are much harder, many taken from Part 2 of the Cambridge Mathematical Tripos. The book concludes with a set of twenty-three hard general examples, answers to the examples, and an index. H. T. H. PIAGGIO

STATISTICS FOR CLASSES AND MASSES

Introduction to Statistical Method

By B. C. Brookes and W. F. L. Dick. Parts 1 and 2. Pp. viii+288. (London: William Heinemann, Ltd., 1951.) 21s. net.

Facts from Figures

By M. J. Moroney. (Pelican Books, A.236.) Pp. viii+472. (Harmondsworth: Penguin Books, Ltd., 1951.) 5s.

HOMOGENEOUS CO-ORDINATES

General Homogeneous Coordinates in Space of Three Dimensions

By E. A. Maxwell. Pp. xiv+169. (Cambridge: At the University Press, 1951.) 15s. net.

THERE are many books on analytical geometry of three dimensions; but few deal with it from the projective point of view, and these few are only suitable for advanced students. Dr. E. A. Maxwell provides a short and comparatively simple introduction to the subject, suitable for second-year undergraduates who in their first year have read the author's "The Methods of Plane Projective Geometry based on the use of General Homogeneous Coordinates".

The first six chapters are exclusively projective, and do not use the ideas of length or angle. Chapter 1 deals with the point, straight line and plane. Chapter 2 deals with the quadric surface, and Chapter 3 with its generators. Chapter 4 introduces line geometry, including the linear complex and congruence, the regulus, and the tetrahedral complex. Chapter 5 gives the principal properties of the twisted cubic, omitting the somewhat tedious detail which would be required in a complete treatment. Chapter 6 deals with systems of quadrics in the cases which arise most frequently. Chapter 7 links up the projective ideas of the preceding chapters with Euclidean geometry by means of the 'plane at infinity' and the 'absolute conic' in this plane. The metrical properties discussed from this point of view include those of confocal quadrics and normals to quadric. Finally, Chapter 8 gives a lucid and useful short introduction to matrices, intelligible to those with no previous knowledge of them, and gives also some of their geometrical applications, including several results on line co-ordinates which simplify previous treatments.

One distinctive feature of this valuable book is that the text includes a fairly large number of

ALMOST simultaneously with the Royal Statistical Society's report on "The Teaching of Statistics in Schools" is published the first text-book of modern statistics planned for and suitable for school use. In an "Introduction to Statistical Method" B. C. Brookes and W. F. L. Dick have succeeded well in a difficult task, though in places they do not emphasize sufficiently the manner in which the interpretation of data must be governed by the source and the method of collection. Their first six chapters (which are available separately) provide a course adequate for most of the statistics papers now set for the General Certificate in Education; the remaining five would give a more advanced pupil an excellent foundation for eventual university specialization in statistics, yet without demanding much mathematical knowledge. Much more important than this examination or vocational training, however, is the presentation of statistics as a branch of scientific method that can assist many other school studies. The examples used are especially valuable in showing statistical science at work and in suggesting 'live' practical exercises connected with both laboratory sciences and everyday affairs.

M. J. Moroney in "Facts from Figures", which is published in a series that has established a remarkable reputation for large sales in spite of titles that suggest very limited popular appeal, has made an even more ambitious attempt to improve the public consciousness of the function of statistics. He states that his intention is "to take the reader on a conducted tour of the statistician's workshop" so that "after watching the craftsman for a while, he may try for himself". At times Mr. Moroney's enthusiasm may seem to leave the reader machine-minding when he might more profitably admire the view from the window: the chapters on quality control, for example, contain an excessive amount of detail of technique, more suited to a manual of instruction than to a conducted tour, and the discussion of sampling is somewhat narrowly confined to industrial applications. Nevertheless, this enthusiasm has produced a