

basis, which is quite different from the one to be used in judging a translation of a recent research paper.

The book covers the composition and broad structure of the atmosphere; atmospheric thermodynamics; radiation; heat and moisture regimes; physics of cloud, precipitation, fog and visibility; atmospheric optics, electricity and acoustics; ionosphere. Dynamical meteorology has, deliberately, only one small chapter. References are given to more detailed Russian books on such subjects as scattering of radiation. There is no index.

As a book of its specific scope for Russian students, the original is good, the best part being the chapter on radiation. I boggled at the unqualified statement that the height interval in decametres between two isobaric surfaces is almost exactly twice the mean absolute virtual temperature between them, which is true only if the ratio of the pressures at top and bottom is 1:2, but not at much more.

The translation does not seem to have been critically examined by a meteorologist. The terminology is in places odd or merely a literal translation. Thus "meteorological booth" appears for "instrument screen" and "relative topography" for "thickness". Under some diagrams and in places in the text, Russian abbreviations have been transliterated instead of being entered in the accepted English form. It is essential for a book for students to use the terminology generally accepted in their own language. Two gross errors of translation were noted: (a) "under continental conditions the daytime rise of relative humidity is particularly marked in summer", instead of the correct "fall" which appears in the original—the reason for this is indeed explained in the next sentence; and (b) "drafts" instead of "droughts". The text describes an aerological diagram contained in a cover pocket in the original but not reproduced in the translation. The references to more specialized Russian books are translated, but no effort is made to direct the student to similar sources in English. The reproductions of cloud and aurora photographs are even worse than in the original. It is true the book covers a range not to be found within the covers of any recent book in English—Humphreys's *Physics of the Air* is the nearest in scope but much less up to date—but I cannot recommend it, especially at such a high price, to the English or American student. The original Russian book cost the equivalent of about 15s.

It is stated that Pogosyan's book has been written for a wide circle of readers. It is entirely non-mathematical but does require an elementary knowledge of physics. The book is generally sound but rather dull and in need of more and better diagrams and photographs to arouse interest. Thus there is a chapter on local forecasting illustrated with only one, and that very poor, cloud photograph which is of cirrus. The chapters on radiation and possible and not-possible effects on weather and climate of artificial influences and human activities are particularly good. The discussion, in this translation at least, of the relation between wind and pressure is not good, geostrophic and gradient wind being treated as synonymous.

The translation is not good and contains some odd terminology. Thus the Russian word for "cirrus" can also mean "fleece", hence the words "fleece-stratus cloud" in this translation. Some Russian terms, for example "sukhovei" (a hot dry east wind in South Russia), are merely transliterated and not translated or explained. The general reader, like the student, requires the accepted terminology. The meteorological examples, such as temperatures, refer to the Soviet Union. The diagrams have been very poorly copied from the original. I cannot recommend this translation to the British or American general reader.

It is doubtful if it is worth translating complete students' textbooks or books for the general reader from Russian for sale at such high cost in western countries. G. A. BULL

## University News:

### Glasgow

THE following have been appointed to chairs: Professor D. W. A. Sharp, professor of inorganic chemistry in the University of Strathclyde, to the new Ramsay chair of chemistry; Dr Alexander C. Forrester, reader in anaesthetics (Royal Infirmary), to the new chair of anaesthetics; Dr D. K. Mason, senior lecturer in dental surgery and pathology and in preventive dentistry at the University's Dental School, to the new chair of oral medicine.

### London

THE title of professor has been conferred on the following: Dr T. C. N. Gibbens, forensic psychiatry, in respect of his post at the Institute of Psychiatry; Dr T. V. Glenister, embryology, in respect of his post at Charing Cross Hospital Medical School; Dr I. Macdonald, applied physiology, in respect of his post at Guy's Hospital Medical School; Dr I. MacIntyre, endocrine chemistry, in respect of his post at the Royal Postgraduate Medical School; Dr F. W. O'Grady, bacteriology, in respect of his post at St. Bartholomew's Hospital Medical College; Dr E. A. Power, mathematics, in respect of his post at University College.

## Appointments

DR D. E. R. GODFREY, at present head of the Department of Mathematics at Woolwich Polytechnic and part-time vice-principal, has been appointed principal of the polytechnic on the retirement of Dr H. Heywood. Dr Heywood has accepted a post as senior research fellow at Loughborough University of Technology.

**CORRIGENDUM.** The price of the book entitled *Chemical Equilibrium* by Allen J. Bard (*Nature*, 214, 1170; 1967) is 25s.

# CORRESPONDENCE

## Education for Change

SIR,—Dr Davies's remarks (*Nature*, 214, 1079; 1967) on the kind of graduate which industry will require in the 1970s and beyond deserve close attention from heads of university departments and from headmasters. We should like to reinforce his argument with information gathered from the schools, from university undergraduate courses and from graduates of some years standing both in Great Britain and abroad.

It is, we think, generally agreed that among sixth formers there is a trend away from the rigorous science discipline of mathematics, physics and chemistry. This has recently been the basis of Dr Dainton's remarks. What many sixth formers seem to want, however, is not so much arts subjects instead of science, but the possibility of combining the two. Our own experience over the past three years, during which we have visited very many schools as examiners and lecturers, is that there is in schools increasingly the possibility of a sixth former taking (say) mathematics at A and S level together with a language or history. Of twenty applications for one of our combined courses, thirteen were offering science and language subjects at advanced level.

It was a realization of this which prompted this Institute to introduce combined studies courses three years ago. Here a science or technology (mathematics, an electrical engineering topic or textile technology, for example) occupies roughly half the syllabus, the remainder being either European studies with a modern language or management sciences. We have not found applicants for these courses to be those who feel they might have difficulty in securing admission to an arts department for languages or to an engineering or mathematics depart-