Le Radium: Interprétation et Enseignement de la Radioactivité. Par Prof. Fr. Soddy. Traduit de l'Anglais par A. Lepape. (Nouvelle Collection scientifique.) Pp. iii+375. (Paris: Félix Alcan, 1919.) Price 4.90 francs.

The third edition of Prof. Soddy's book, "The Interpretation of Radium," which was reviewed in Nature for February 20, 1913, is the original from which this translation was made. The translator has added an appendix in which the work of the period 1914–19 is described, and consequent modifications of theory are indicated.

Grasses and Rushes and How to Identify Them.
By J. H. Crabtree. Pp. 64. (London: The
Epworth Press, n.d.) Price 1s. 9d. net.

This little book is a catalogue of all the grasses and rushes of the English countryside. A brief description, accompanied by an illustration, is given of each plant mentioned. The book should be of value to both farmers and students.

Experiments with Plants. A First School-book of Science. By J. B. Philip. Pp. 205. (Oxford: At the Clarendon Press, 1919.) Price 3s. net.

Most of this book is devoted to the experimental study of the elementary physiology of seeds and plants. An account of the reproductive process is included, and the elementary physics and chemistry of soils are briefly indicated. In the appendices a sketch is given of the scientific principles which are necessary to a study of botany. An index would have been a useful addition to the book.

Aluminium: Its Manufacture, Manipulation, and Marketing. By G. Mortimer. (Pitman's Common Commodities and Industries.) Pp. viii + 152. (London: Sir Isaac Pitman and Sons, Ltd., n.d.) Price 2s. 6d. net.

This interesting book gives a particularly good account of the numerous applications which aluminium now finds in modern industry. The technical processes for the extraction of aluminium and its adaptation, both in the pure state and in the form of alloys, to industry are carefully and fully described. The book is well illustrated, and cannot fail to be of interest to chemists, engineers, and the general reader.

Chemical Theory and Calculations: An Elementary Text-Book. By Prof. F. J. Wilson and Prof. I. M. Heilbron. Second edition. Pp. vii + 144. (London: Constable and Co., Ltd., 1920.) Price 4s. 6d. net.

This is an admirable collection of problems covering a wide range, and including many of an advanced character. A pleasing feature is the brief but lucid account of chemical theory, including a short section on atomic numbers. The book should prove of great service to teachers and to students preparing for degree examinations. It is distinctly better than most books on chemical arithmetic, since it aims at a higher standard.

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## Letters to the Editor.

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## University Grants.

I am glad to see that the very urgent necessity for the provision of increased University grants which was so ably stated in your leading article of August 5 has led to the position in Leeds and Birmingham being brought torward so clearly by Sir Michael Sadler and Principal Grant Robertson in Nature of August 12 and 19. There can be no doubt that every university in the country is feeling the need of largely increased financial assistance, without which it will be impossible to carry on efficiently, if at all, departments such as those of science, which must always be a source of large expenditure and financial loss to any university.

It is probably generally true that the higher the efficiency of a department, the greater is its cost of maintenance, and, consequently, the greater the financial loss to the university. Therefore, so long as reasonable economy in administration is practised, the expenditure of money on a successful department should be welcomed and encouraged, and every effort made to provide funds so that its work may have free scope and not be hampered in any way. Only under conditions of proper equipment as regards both staff and material and freedom from financial worry can a department be expected to develop to its fullest extent and to produce knowledge.

In the *Times* of August 18 Prof. Soddy and I directed attention to the critical condition of science at Oxford, and pointed out that there is actually no proper accommodation here even for the teaching of physical and inorganic chemistry. The antiquated buildings which are now used for the purpose are quite out of date, besides being far too small to cope with the large number of students who are presenting themselves for the honours degree.

The case of organic chemistry is also very serious because, although the laboratory which was built four years ago, largely owing to the generosity of Dr. C. W. Dyson Perrins, is modern and well-equipped, it is far too small.

A new extension is in course of construction, but the funds necessary to pay for it are not available, and must be borrowed, and there is, moreover, no adequate endowment to provide for upkeep when the buildings are completed. A similar state of things is to be found in connection with the new chair of biochemistry recently endowed through the generosity of Mr. Edward Whitley. There are no laboratories associated with this chair, and in the meantime accommodation must be provided in the already overcrowded physiological laboratories. A careful estimate of the cost of urgently required new buildings shows that at least 250,000l, as well as an endowment bringing in 10,000l. per annum, must be forthcoming if the study of chemistry is to be placed on a firm basis in this University.

I have dealt more particularly with chemistry because it is generally admitted that the most pressing need in this University is that chemistry shall be placed on such a footing that teaching and research may be done under conditions very different from those which prevail at the present time. But the other branches of physical science are also urgently in need of financial assistance, partly for new build-