of science have been placed in contact with the social institutions to which they are naturally related. Thus, all bodies concerned with applied botany are controlled by the State Department of Agriculture. The thousand workers at botany work to one planned scheme. Unnecessary overlapping has been reduced by centralisation. Institutions conducting researches of industrial value receive their endowments from the Supreme Economic Council and they work in contact with the industry upon which the research directly bears.

With regard to emoluments it would appear that men of science are among the better paid workers and their conditions are still improving. Engineers are the best paid and the highest salary quoted is £3500 per annum. Nevertheless, even the lesser paid research workers concentrate upon their tasks and attain a high degree of skill and efficiency. There is still a shortage of trained investigators, especially in physics and engineering, and the author suggests that there is scope for young English graduates to gain valuable experience in posts available in the Soviet's numerous electrical works which are in course of construction and extension.

Among the work in progress Mr. Crowther mentions the speeding-up of tobacco fermentation, the isolation of sulphur from the dioxide obtained in roasting copper ores, the synthesis and preparation of drugs hitherto imported from abroad, petroleum refining, and improved technique in the preservation of wood. Apparently investigations of a purely academic nature are not countenanced, although the term 'applied science' is being interpreted very broadly. At the moment large electro-technical developments are being made as a part of the five years' industrialisation plan. Power plants and technical factories are being erected all over the Union, and it would seem that Russia is making notable contributions to the progress and development of science. Russia is a vast country with well above a hundred million inhabitants, and although Mr. Crowther has seen many scientific institutes in the two chief centres, Leningrad and Moscow, his tour was restricted to less than four weeks. Furthermore, without a knowledge of Russian he was dependent on his interpreters, so that the value of his impressions is limited. Nevertheless, the information concerning the condition of Russian men of science and the progress of their researches is at least of interest to their colleagues in the rest of the world. J. G. F. D.

Our Bookshelf.

Trattato di chimica generale ed applicata all' industria. Per Prof. Ettore Molinari. Vol. 2: *Chimica organica.* Parte seconda. Quarta edizione riveduta ed ampliata. Pp. xvi + 661-1567. (Milano: Ulrico Hoepli, 1930.) 80 lire.

THE death of Molinari nearly four years ago doubtless accounts for the delay in the completion of the new edition of his "Organic Chemistry", the first part of which appeared in 1927. The alterations necessary to bring the contents of this second part up-to-date are due to the author's three sons, working in conjunction with Profs. Bargellini and Contardi. The subjects dealt with in the present volume comprise oils, fats, and waxes, carbohydrates, ring compounds, textile fibres, and proteins. The general scheme of the book, with its inclusion of numerous data regarding production, importation and exportation of raw materials and manufactured products, must by this time be generally known to chemists. The only new feature requiring comment is the insertion of large-scale flow sheets of an olive-oil refinery and of a sugar factory. Similar sheets for other processes might with advantage be given in any future edition.

The volume now published contains 860 pages of text, much of it of small type, but in view of the multiplicity of subjects treated—some quite foreign to the ordinary text-book of pure, or even of applied, organic chemistry—certain of these are necessarily dealt with all too briefly. Thus, vitamins are dismissed in less than two pages, and although the general characteristics of these substances are indicated, important recent results in this field are entirely omitted.

The full index supplied covers the two parts of the "Organic Chemistry", and the price of the whole work amounts to 125 lire, which is modest enough. The book is one which may be recommended to all engaged in chemical industry.

The Use of Iodine and its Compounds in Veterinary Practice. By Lieut.-Col. H. A. Reid. Pp. 88. (London: De Gruchy and Co., Ltd., 1929.) 3*s.* 6*d.*

ALTHOUGH the essential rôle played by minerals in animal metabolism has been recognised for many years, it is only recently that the importance of iodine in the diet has been stressed. The requirement of animals for iodine compounds is only small; nevertheless, a deficiency of such compounds in the diet may lead to acute pathological conditions in animals and human beings. Iodine deficiency, for example, has been shown to be the fundamental cause of goitre, an ailment which is especially prevalent in districts where the soil and water are notably deficient in iodides. Such iodine-deficient conditions are found in parts of the northern half of the United States, in which localities it is now customary to iodise the public water supplies or to insist on the use of iodised table salt.

In the book under review, Col. Reid has gathered