the end phases of the equilibrium diagrams and the phases which occur in between. The concluding section of the book is concerned with the imperfections of crystals, a matter of supreme importance to the metallurgist, whose materials are all aggregates of crystals, which in normal circumstance are very far from perfect. It cannot be too strongly stressed, however, that the work is essentially scholarly, and although necessarily written with the needs of the metallographer chiefly in mind, contains matter of the most direct importance to the physicist, the physical chemist and the crystallographer. For many readers the general account given will probably be adequate, but for those who desire to study the subject matter of this monograph still further, the long lists of references to original work will be of first-rate value.

It is inevitable that almost every metallographer will find certain aspects of the work with which complete acquiescence is impossible—to the present writer, for example, there appears to be an inadequate appreciation of the solidity of the structure built up on the basis of what may perhaps be termed classical methods—but there can be no doubt that the author has performed the task assigned to him in a most praiseworthy fashion. Both to him and to the Institute of Metals most sincere congratulations must be offered for the publication, at a price within the reach of all, and at a time when it is perhaps most needed, of a really authoritative account of pioneer work which may well initiate an entirely new era in fundamental, theoretical metallography.

F. C. T.

Alpine Studies

The Structure of the Alps

By Prof. Leon W. Collet. Second edition. Pp. xvi + 304 + 12 plates. (London: Edward Arnold and Co., 1935.) 20*s*. net.

IN a review of the first edition of Prof. Collet's fascinating account of the building of the Alps (NATURE, **121**, 412; 1928), the appeal of his work to mountaineers and holiday-seekers, as well as geologists, was emphasised. That the book should have gone out of print and a revised edition be required is a tribute to its value and interest; also to the rapid progress of Alpine studies. Indeed, as the author states in his preface to this second edition, "a brilliant international gathering of geologists has been engaged in following the Alpine structure in the Western, as well as in the Eastern, Mediterranean regions, and new ideas of the structure of the Alpine Range have been presented". Prof. Collet has therefore added a new Part 6, consisting of six short chapters dealing with the Apennines, the mountain-arcs of Corsica, Sardinia and Elba, the Alpine Chain of southern Spain and the Balearic Islands. As many of these areas are becoming increasingly popular as tourist resorts (and for residence), Prof. Collet's descriptions of the rock-structures and their effects on the scenery will be highly appreciated.

The increase in length of the book thus necessitated has been to some extent offset by a reduction of detail in some of the chapters, such as that on the Jura Mountains. In this regard, the author's policy will doubtless be welcomed by the non-technical reader, especially as opportunity has been taken to clarify parts of the text of other chapters, to add new diagrams, and to rewrite the chapters on Mont Blanc and the Aiguilles Ranges (to the knowledge of which Prof. Collet has himself made noteworthy contributions).

Some of the minor blemishes of the first edition have been removed. Students are no longer told (without supporting evidence) that the higher Pre-Alps represent a small part of Africa resting on Europe. Indeed, the new edition of the book conveys the impression of being less extremist in the matter of belief in the long-distance travel of overthrust sheets (*nappes*) of the earth's crust. An approach to the more moderate views of the Austrian geologists is shown by the attribution of the East Alpine sheets to Kober's *Zwischengebirge* (or *Zwischenmassiv*). It is perhaps unfortunate that the author introduces the inelegant term "Betwixt Mountains" for these masses; for, although it is a literal translation of one of Kober's expressions, the areas involved are not always mountainous (as witness, the country within the Carpathian arcs). A better English equivalent, "median mass", has been in use for some years. It is a pity also that the termination *-ides* has been retained in such words as Metamorphides, Dinarides (*G. Dinariden*). Astronomers do not write "Leonides", or cause confusion by trying to pronounce the word!

But, whether or not we agree about these matters of detail, or about the views of the extremists of the Nappe theory school, Prof. Collet's volume is unquestionably of great value.

P. G. H. B.