

by supplying long appendices on the design of Siemens furnaces, hot-blast stoves, and boiler settings, in which the author's principles are applied to a large number of concrete cases, with an abundance of numerical data. Tables of thermal data and curves giving the heat capacity and calorific intensity of some of the most typical gaseous and liquid fuels complete a book which should exert a great influence. C. H. D.

Our Bookshelf.

Periodicals of Medicine and the Allied Sciences in British Libraries. By Prof. R. T. Leiper; with the collaboration of H. M. Williams and G. Z. L. Le Bas. Pp. vi+193. (London: British Medical Association, n.d.) 10s. 6d.

THE provision of Union Lists of Periodicals filed in our University centres is now recognised to be an indispensable aid to research. Such Lists should be authoritative. They should be issued at frequent intervals and on a uniform basis of compilation. Their type should be kept standing with the view of reducing the labours of their compilers and the cost of successive editions to their buyers. Something has already been accomplished in this direction; but the ground is not yet adequately covered.

Union Lists of Periodicals, however, representing specific branches of knowledge, stand upon a less secure footing. Dr. Leiper's "Periodicals of Medicine and the Allied Sciences in British Libraries" illustrates the difficulties which beset the path of the untrained compiler of these sectional lists in the absence of a printed National Union List covering the whole range of periodical literature. Judged by the "standards which guide professional librarians" (we are quoting from Dr. Leiper's preface), the work before us cannot be regarded as satisfactory, in more than one respect. Wales, for example, is not represented in the List; the Scottish libraries are not represented by the Advocates' Library in Edinburgh, or the London libraries by the Library of the Patent Office. These are serious omissions. We do not, however, propose to justify our criticism further, for to some extent the defects in the List are admitted in the preface. We prefer to meet Dr. Leiper on his own ground. The compiler and his collaborators have grappled manfully with a very difficult task, and have succeeded in producing a work which will be serviceable to students in the field of medical research, provided that they do not lean too heavily upon its bibliographical sufficiency and accuracy. Further, we trust that its publication will serve to promote a higher co-ordination of work among professional librarians—in respect of which, as Dr. Leiper suggests, there is still great room for improvement.

Nickel Ores. By W. G. Rumbold. (Imperial Institute: Monographs on Mineral Resources, with special reference to the British Empire.) Pp. ix+81. (London: John Murray, 1923.) 5s. net.

THIS little volume is written in the same way and upon the same lines as its predecessors in the series of Imperial Institute monographs on mineral resources;

that is to say, it commences with a brief account of the mode of occurrence and the character of nickel ores, the metallurgy of nickel, and the uses to which this metal is put industrially, followed by a description of the occurrences of nickel ores within the British Empire, and finally of the foreign sources of supply of this metal. The task is in so far rendered an easy one because the author had at hand the well-known report of the Royal Ontario Nickel Commission published in 1917, in which the whole subject is most exhaustively dealt with. This great report is, however, too voluminous for the ordinary seeker after general information, and the present monograph fulfils a useful object in presenting the subject matter in a more convenient and more readily accessible form. It should be added that Mr. Rumbold has done his work very well. The section on the applications of nickel, although brief, is tolerably comprehensive, although more attention might perhaps have been given to nickel-plating, which is becoming of very great industrial importance. In other respects the author appears to have covered the ground very thoroughly; he scarcely does full justice to the important part that Norway has played in nickel production in the past, and, to judge by the bibliography attached, does not seem to have consulted the tolerably extensive Norwegian literature on the subject. Upon the whole, it may fairly be said that the work carries out very well the intention of the series, namely, "to give a general account of the occurrences and commercial utilisation of the more important minerals."

Proceedings of the Aristotelian Society. New Series, Vol. 23: Containing the Papers read before the Society during the Forty-fourth Session, 1922-1923. Pp. ii+289. (London: Williams and Norgate, 1923.) 25s. net.

PHILOSOPHY takes account of the meaning of things. At the present time, it is partly occupied with new conceptions of the structure of the material universe, or matter, in terms of theoretical physics. Among the papers in the current issue of the Proceedings of the Aristotelian Society—mainly devoted to dialectical discussions of classical themes or the re-statement of old problems—attention may be directed to three. The Rev. Leslie Walker's "New Theory of Matter"—new, in the sense of its being pre-Aristotelian—is (he says) an attempt to deduce from relatively simple first principles the laws of co-existence and sequence which have been found experimentally to hold good between observed changes in the sphere both of quantity and quality. He finds that the essence of a thing lies in the fundamental structure or ratio—*forma substantialis*—which holds between the potentialities themselves.

Dr. E. S. Russell's "Psychobiology" is a monadistic conception—opposed to the mechanistic or vitalistic view—in which living things appear to show a persistent and enduring individuality of action unparalleled in the inorganic realm: structure and function, he maintains, must be treated as one and inseparable.

Prof. Sellars, in a thoughtful paper on the "Double-Knowledge Approach to the Mind-Body Problem," demands a deepening of our metaphysical categories: there exists, indeed, in Nature a level of causality,