value. His remaining chapters deal briefly with schemes of afforestation, financial returns, trees for planting, the use of the unemployed in forestry work, the transport of timber, etc. There is nothing novel, and a good deal that is debatable, in his treatment of these subjects.

(4) Dr. Rankin's "Manual of Tree Diseases" is the first American text-book on the subject. Injuries caused by insects or other animals are not included. The first four chapters treat of general diseases, such as many species are liable to, and those affecting seedlings, leaves, stem and branches, and roots are successively dealt with. The main part of the book describes the diseases which attack various groups of trees, beginning with alders and ending with willows. Chapters on tree surgery and on spraying conclude the volume, which is fairly well illustrated. Exact and copious references to the literature of the subject are a useful feature. This manual will be of considerable use in Great Britain, although the diseases occurring here and in America are often different. The account (p. 90) of *Keithia thujina,* a dangerous fungus which has recently appeared in England and Ireland on the valuable forest tree, *Thuya gigantea,* is of considerable interest. In America it is essentially a disease of seedlings, often killing large numbers of those less than four years old. Preliminary experiments indicate that soap-Bordeaux mixture applied every ten days in autumn will greatly reduce the infection.

(5)–(8) These four maps are attractive in appearance, and will prove useful to merchants and teachers, as they show approximately the districts which yield the more important commercial timbers. Their scientific value is impaired by the fact that in a considerable number of species the areas of distribution are incorrect, and the names erroneous or confusing. For example, the small map of Old World larch is incorrect. European larch does not occur, as depicted, in the Pyrenees, Apennines, Serbia, Bulgaria, etc. The Siberian larch is wrongly styled *Larix dahurica,* whereas it is *L. sibirica* which occupies northern Russia and Siberia west of Lake Baikal. *L. leptolepis,* which is restricted to Hondo, in Japan, is represented as existing on Hokkaido, where there is no larch, and in Manchuria and Korea, where the finest *L. dahurica* grows. The small maps might readily convey more information. On the one showing Sequoia and Taxodium it would be easy to add the distribution of important timber trees like Lawson cypress, *Thuya gigantea,* and Western larch.

The author has not tried to explain by notes in the margin the peculiarities of popular nomenclature, such as the use of the term "boxwood" for the Venezuelan *Casearia praecox* (see *Kew Bulletin,* 1914, p. 214); and the application of the word "cedar" to trees so different as Cedrus, Cedrela, and Juniperus. One must acknowledge that the construction of correct maps of distribution is very difficult, as accurate information on some of the tropical woods is difficult to obtain.

Our Bookshelf.

The Natural Wealth of Britain: Its Origin and Exploitation. By S. J. Duly. (The New Teaching Series.) Pp. x+319. (London: Hodder and Stoughton, 1919.) Price 6*s.* net.

THE general scheme of this little book is decidedly good; it is intended to teach young people how the industries and commerce of Great Britain are conditioned by the geology of our island, both because the geological structure determines the sources from which we derive the materials upon which our national existence depends, and because it has produced the surface contours and configuration that have decided the lines along which our streams of commerce flow to-day. The first portion of the book gives an outline of the main principles of structural geology; then follows a section on the fundamental industries based on geological structure; and the third part deals with the geographical and geological relations of some of our most important industrial districts.

In view of the evident educational value of the plan of the book, it is all the more to be regretted that its execution is so defective. The first requisite in a text-book for young people is accuracy, and in this respect the author fails lamentably. A few random examples will illustrate the slipshod nature of the work. Thus the author, in describing granite, states that it consists of three constituents quartz, felspar, and "the third constituent of granite comprises all the various metallic compounds." Again, a few pages further on, he tells his readers that "sapphire, ruby, aquamarine, and topaz are crystalline forms of clay."

The chapters devoted to mining are by far the worst, and it is not too much to say that there is scarcely a page that is not disfigured by some inaccuracy of more or less importance. It is impossible to imagine anyone with any real knowledge of mining writing that "the *foot-wall* beneath the coal seam is cut away . . . by *pick-axe*" (the italics are the reviewer's), or that pillars of coal "are sometimes left to support the roof." Were it not for the numerous inaccuracies of the kind indicated, this would be a most useful text-book for the general reader, but, as it is, it is greatly to be feared that he is as likely to pick up totally false impressions as to obtain useful information from its pages.

H. L.