

contain, and assigns definite working stresses for each grade, as shown in Table xv. of this book.

Air seasoning and kiln drying are dealt with in two chapters. The latter process is becoming more and more employed; and when done properly it shortens the time required and turns out a better product than ordinary air drying. We recommend this book to foresters and to all interested in improved methods of utilising timber and eliminating waste.

*Ethnographie von Makedonien.* Geschichtlich-nationaler, sprachlich-statischer Teil. Mit einem Trachtenbild. Von Prof. Dr. Gustav Weigand. Pp. iv + 104. (Leipzig: Brandstetter, 1924.) 3 marks.

PROF. WEIGAND is well qualified for his task, and has written an extremely interesting work. He brings out one theory which will be novel to most readers, that the Albanians are not the descendants of the ancient Illyrians, but of the Bessi, a tribe of Thracians referred to by several chroniclers. He considers the former a maritime people, whose centre was in the north and west of the Balkans, where they may be traced in the Morlacchi of Zara, Cici of Istria, where the Latin speech still lingers on, and Venetians, all of whom are connected with the authors of the Messapian inscriptions of southern Italy. He thus makes Albanian the modern representative of the old Thracian language, which occupied a position intermediate between the Slavonic and Iranian groups. He considers that the ancient Thracians became thoroughly Romanised, and, with the exception of the Bessi, forgot their tongue; the fact that Bulgarian, Rumanian, and Albanian, although in no way related, all have a postfixed definite article, unknown in any other Latin or Slavonic tongue, he attributes to the influence of the old Thracian language, and adduces a whole series of analogous occurrences; numerous names of places and of plants are explained as survivors of the old tongue. As an example, we may quote Plovdiv as a Bulgarian corruption of the Thracian Pulpidava.

When dealing with the relations between the Bulgarian, Macedonian, and Serbian languages we feel that the learned author has been influenced, in spite of his disclaimers, by his political sympathies. When, for example, on p. 73 he gives a list of Macedonian words which he states are *never* used in Serbian, he is certainly influenced by his greater familiarity with Bulgarian: all the words he quotes may be heard commonly in Yugoslavia, even in the north and west.

*Electrical Design of Overhead Power Transmission Lines: a Systematic Treatment of Technical and Commercial Factors; with Special Reference to Pressures up to 60,000 Volts, and Distances up to 100 Miles.* By William T. Taylor and R. E. Neale. Pp. vii + 266. (London: Chapman and Hall, Ltd., 1924.) 21s. net.

THE transmission of electric power in bulk over considerable distances has brought into prominence many almost purely mathematical and physical problems, the solution of which is necessary for economical design. Except in the case of abnormal working, the transmission lines are not traversed by high frequency currents or "surges" of electrical energy. It is necessary, however, to know how the resistance and inductance are affected in these cases, and there is a demand, therefore, for mathematical knowledge to simplify and

evaluate the requisite formulæ. Considerations of economy also make it necessary to use a very high voltage. But at very high voltages the lines are surrounded with brush discharges which engineers dignify by the name of the "corona" effect. It is essential to know at what pressures these effects begin, and also the power expended in maintaining a corona on transmission lines. It is therefore necessary to know the physics of the phenomenon.

The authors have limited the scope of this volume to the consideration of lines up to 100 miles in length and to working pressures not exceeding 60,000 volts. The introduction of hyperbolic trigonometry is therefore rendered unnecessary. As power systems in Great Britain are included within these limits, at least at present, this book will prove of use in practice. The authors have wisely adopted international notation, and have laid stress on the standards adopted by the British Engineering Standards Association. They give references to practically all the useful literature of the subject.

*Air Ministry: Meteorological Office. British Meteorological and Magnetic Year Book, 1916.* Part 5: Réseau Mondial, 1916. Monthly and Annual Summaries of Pressure, Temperature and Precipitation at Land Stations, generally Two for each Ten-degree Square of Latitude and Longitude. (M.O. No. 227g, Tables.) Pp. xiii + 115. (London: H.M. Stationery Office, 1924.) 22s. 6d. net.

THESE results are now available for seven consecutive years, 1910-1916, and with the publication of each additional year the data are becoming of increased value for meteorological and physical inquiries. All the information refers to land stations, no data over the sea being as yet directly obtainable. Observations are given for 440 stations, and most of these are under the control of government meteorological services. The results show that the highest mean pressure for the year, at mean sea-level, is 30.19 in. at Barnaul and Minoussinsk in 53° 54' N. 83° 93' E., the lowest mean pressure 29.45 in. is at S. Georgia in 54° S. 37° W. The highest mean temperature was 85° 5 F. at Berbera, Somaliland, in 10° N. 45° E., the lowest 10° 6 F. at Markovo-sur-Anadyr in 65° N. 171° E. The largest rainfall for the year was 486 inches at Cherrapunji in 25° N. 92° E., which is 76.3 in. more than the average, followed by 269 inches at Akyab, 77.6 in. more than the average. No rain was measured during the year at Puerto de Arica or at Iquique, at both of which stations the average annual fall is 1 mm. The only rain expected at Puerto de Arica is 0.04 in. on the average in January, and at Iquique 0.04 in. in July. Notes are given for each month on the state of the ice in the Arctic Seas and in the North Atlantic.

*Historical Atlas of the British Empire.* Pp. 20. (London: Macmillan and Co., Ltd., 1924.) 1s.

A USEFUL cheap atlas with thirty-nine black and white maps of the British Empire. Most are only in outline, but a few show orographical features. The text consists solely of a chronological list of events bearing on the history of the British Empire from 55 B.C. to the present day. A great many facts have been crowded into twenty pages, but the maps are the best part of the book.