

*Meteorology for Masters and Mates.* By Charles H. Brown. Seventh edition. Pp. ix+234. (Glasgow: Brown, Son and Ferguson, Ltd., 1933.) 7s. 6d. net.

THE object of this book appears to be mainly to assist those taking the master's and mate's examination to answer questions in meteorology which demand a greater knowledge than seems to be required according to regulations. It should, however, also help to stimulate interest in the subject, and assist in producing a generation of seamen able to take full advantage of the help in navigation that can be obtained from the exchange by wireless of weather information between ships at sea and shore stations. The author goes more into the physical causes underlying meteorological phenomena than he did in the earlier editions of the same work. From the point of view of the examinee, the arrangement of the subject matter appears excellent; the syllabus for the first mate's as well as for the master's examination is given at the beginning, and examination papers are set at the end, with references to the parts of the work dealing with the subject matter of each question.

Under "Velocity of Gales" (p. 86) it is stated that "It is to be understood that the direction and force of the wind depends on the part of the depression that the observer is situated in, but that the speed of a gale is really the rate of travel of the system", which has the implication that a gale never occurs in a stationary depression. On the same page there is the further statement that "the force and frequency of the squalls of wind depend not on the gradient alone but also on the distance from the centre of low pressure". It would be interesting to know what evidence there is in support of this statement. E. V. N.

*Santiago de los Caballeros de Guatemala.* By Dorothy H. Popenoe. Pp. xvi+74+7 plates. (Cambridge, Mass.: Harvard University Press; London: Oxford University Press, 1933.) 6s. 6d. net.

THE Spanish city well described and illustrated in this volume was begun towards the middle of the sixteenth century as the third capital of the colony of Guatemala, after the second one, Almolonga, built by Alvarado, had been destroyed by earthquake. Much of the city known to-day as Antigua Guatemala still stands, but it lies in a volcanic area and suffered repeated earthquake shocks until in 1773 it was so badly devastated that Spain ordered its abandonment and the removal of the capital to a new site, the modern Nueva Guatemala. Mrs. Popenoe had made a wide study of Central American archaeology and written this book shortly before her untimely death. She has succeeded in reconstructing the life of the city and much of the beautiful architecture of the early Renaissance which characterised the first buildings. The work is based on old documentary records.

*Kohlensäure und Kalk: Einführung in das Verständnis ihres Verhaltens in den Binnengewässern.* Von Prof. Dr. Julius Pia. (Die Binnengewässer: Einzeldarstellungen aus der Limnologie und ihren Nachbargebieten, herausgegeben von Prof. Dr. August Thienemann, Band 13.) Pp. vii+183+3 plates. (Stuttgart: E. Schweizerbart'sche Verlagsbuchhandlung (Erwin Nägele) G.m.b.H., 1933.) 21 gold marks.

THE present volume of "Die Binnengewässer" is a treatise on carbonic acid and chalk in fresh waters. It is a comprehensive work and, like all the previous parts, covers much ground, and the subject is considered from many different aspects. The three parts into which it is divided deal respectively with chemical constants and theories of solubility, inorganic and organic precipitation, and the most important chalk deposits. Compared with the condition in the sea, the part played by living organisms in connexion with the precipitation of chalk is small; the various chemical and physical factors are much more important in fresh waters. The research of the various specialists in these subjects is fully described, and there is a bibliography of 26 pages, making this volume a most satisfactory work of reference.

*La France méditerranéenne.* Par Prof. Jules Sion. (Collection Armand Colin: Section de géographie, No. 164.) Pp. 222. (Paris: Armand Colin, 1934.) 10.50 francs.

PROBABLY no region of France has more distinctive physical conditions and human characteristics than the Mediterranean border. The difficulty in discussing this region lies in fixing its limits. Prof. Sion has wisely confined his attention to the plains, the delta of the Rhone and the coastal ranges of hills. After briefly explaining the structure he goes on to discuss human relationships, historical, economic and demographic, tracing with a sure knowledge the reasons for the various changes that the region has undergone, of which none is more interesting than the decline of wheat and the development of viticulture, and the rise of the various seaports. No student of geography can afford to miss this important though small work on the geography of France. R. N. R. B.

*Plant Life Through the Ages: a Geological and Botanical Retrospect.* By Prof. A. C. Seward. Second edition. Pp. xxi+603. (Cambridge: At the University Press, 1933.) 30s. net.

IT is unnecessary to emphasise the authoritative nature of this geological and botanical retrospect; the name of the author, who is professor of botany in the University of Cambridge, carries sufficient guarantee. The fact that within two years a second edition of a specialised work has been called for speaks well for its success. The first edition was reviewed at length in NATURE of October 3, 1931, p. 559. A few alterations and corrections have been made and more references added in the present edition.