
Physical Meteorology

As the title indicates, in the book under review consideration is devoted primarily to the various physical aspects of meteorology and to the operation of those physical laws and principles producing or explaining the phenomena grouped under the general term "weather." In so far as such a treatment of the subject matter was the goal of the author he has been successful but, as will be evident from examples cited below, less success attended his efforts to provide mathematical justification for certain of the formulas and results appearing in the text.

In addition to a well written discussion of the standard subject matter of meteorology, the book contains particularly good popular accounts of the dynamics of motions in the atmosphere and of the theory and classification of extratropical cyclones. Here the author has written with an interest and enthusiasm which can scarcely fail to be shared by the reader; although the latter may deprecate the use of the outmoded law of Stokes rather than the corrected form of this law due to Cunningham and Millikan in the treatment of the settling of dust through the air, or the appearance of the statement made on page 194 in regard to the condition for convection to be initiated.

In this book, as in all modern physical texts, the importance of mathematical formulation of physical situations is clearly recognized and, as a result, the book cannot be read in its entirety without an understanding of at least the elements of differential and integral calculus. However, the mathematical portions of the text, are, to a considerable extent, additions to an otherwise complete treatment and, as such mathematical addenda are almost always printed in fine type, it is possible for the non-mathematical reader to avoid embarrassment. The device of printing mathematical discussions in small type has the further advantage of setting off those sections which appear to have been prepared with less care than the remainder of the book. For example, in the discussion of the escape of planetary atmospheres (page 14) the correct formula for the work done in removing a particle from the surface of a planet to infinity is obtained only by a fortunate combination of errors. In this connection, it seems worth while to note, on the one hand, that the recent papers of E. A. Milne and J. E. Jones have shown that the problem of escape of atmospheres is far too delicate to be solved by the argument presented in the text and, on the other hand, that there are excellent reasons for doubting the moon to be "quite devoid of any atmosphere."—*L. LaPaz.*

Physical Meteorology, by John G. Albright. xxvii+392 pp. New York, Prentice-Hall, Inc., 1938. \$5.35.