gether with the changes these curves undergo as the more common atmospheric processes, such as vertical displacement, occur. Definite statements are given as to how the slope of the curve indicates the stability of the layer in question; e. g., "If the equivalent-potential temperature increases with elevation, the state is one of stability with respect to dry or saturated air, and no adiabatic process performed upon the layer will render it unstable."

Articles follow on frontal structure, one on warm fronts and another on cold fronts. Diagrams show cross-sections of the fronts, and the distribution of the meteorological elements in their neighborhood.

Cyclonic structure receives consideration in the succeeding article; and with the aid of diagrams, Namias explains the formation and appearance of various fronts and frontal systems. Included in this article is a table giving the average changes in pressure, temperature, relative humidity, specific humidity, clouds, precipitation, visibility, and wind which occur with the passage of warm, cold, or occluded fronts.

Tephigrams are taken up in the next article, and the principles of this type of chart explained and discussed.

Four general types of thunderstorms, i. e., air-mass, frontal, orographic, and those occurring in horizontally converging air currents, are considered in the last article; the various aspects and characteristics of each are discussed, together with the relation of the tephigram, particularly as regards forecasting, to each.

An appendix presents Willett's "Characteristic Properties of North American Air Masses." It includes sections on the general classification of air masses, and on the significance of the properties of the principal air mass types in summer and winter. This discussion includes the results of recent investigations of the tropical air masses, especially the so-called Ts or S air.

A large selection of references for further reading in English, and a few in foreign languages, are given. Also, there is a glossary of technical terms used in the paper.—*Verne D. Steves.*

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[RICHMOND T. ZOCH, *in Charge of Library*]

By AMY D. PUTNAM

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