Committee for Mental Hygiene, 1790 Broadway, New York 19, N. Y.

IT is reported in *The Times*, London, that an official mission from the United States has recently arrived in Great Britain to discuss matters of common interest in connection with the control and production of timber and economy in its use. The mission, which was received by the Minister of Production and the Minister of Supply and officials of both Ministries, is visiting the headquarters of the Timber Control at Bristol to open discussions. Visits were also planned to the Home Timber Production Department, to timber control area offices in the provinces and to important centers of production and consumption.

Chemical and Engineering News reports that cinchona tree seeds obtained in the Philippines after the fall of Bataan provide the foundation for development of the quinine industry in the Western Hemisphere. Colonel Arthur F. Fischer, who spent many years in the Philippines raising the cinchona tree, making quinine and fighting malaria, brought 2,000,000 seeds back to the United States after his escape by plane from Mindanao. More than 100,000 seedlings, carefully nurtured by the Department of Agriculture in its experimental greenhouses, are ready for transplanting in Costa Rica. Representatives of Costa Rica and the United States have entered into an agreement under which 10,000 acres of the trees will be planted. A mission soon will leave for Costa Rica to select sites for the large-scale growing program.

DISCUSSION

CONTINENTAL DRIFT AND ANCIENT DUNES

IN 1939, von Huene proposed a method for proving or disproving the Wegener hypothesis.[1] In short, he suggested the fixing of climatic zones "for every possible stratigraphic level in every continent, if possible without gap, in order to see how they coincide." If these were to parallel the climatic zones of to-day they would argue against the drifting continent theory. If, on the other hand, the ancient climates showed an aberrant relationship to modern climatic zones, that would strengthen the Wegener hypothesis.

Von Huene suggests the distribution of gypsum as a criterion for the recognition of climatic zones. Does not the wide latitudinal range in which gypsum forms seriously lessen, if not completely eliminate, its use as such a criterion?

Evidence confined to narrow latitudinal limits is the most suitable. While engaged in field work in some of the eolian Jurassic deposits in the southwestern United States, it occurred to the writer that this type of sedimentary record, properly considered, might supply part of the evidence which, amassed in sufficient amounts, might either strongly support, or seriously question, continental drifting.

Examination of the system of planetary winds for an earth of homogeneous surface shows that under these ideal conditions six distinct wind belts are encountered in the distance between the poles. Of course, the actual wind conditions conform only in a general way to this idealized picture, because geomorphic aspects of the continents, land-sea distribution and ocean currents are not without their effects.

This general conformance of surface winds to the idealized arrangement should be reflected in the dunes formed in the larger deserts and semi-arid areas. The same should be true of ancient dune accumulations with relation to their contemporary wind belts. If the continents have always occupied their present positions and there have been no changes in the positions of the poles, then the direction of movement of ancient winds (as reflected in their deposits) should parallel in a general way the idealized wind direction arrangement. If these ancient winds are found to have blown in directions that largely disagree with the idealized wind direction arrangement as applied to the present positions of the continents, then they should conform in a general way with the earth wind system as applied to the ancient positions of the continents as suggested by Wegener and his supporters.

Cautions must be exercised in studies of this type. Only a general conformance can be looked for, and it is necessary to identify any strata used as definitely of eolian origin.

A limited amount of work has been done, though most of it deals with existing or Recent dune fields. Reiche's classic paper[2] on the Coconino sandstone of northern Arizona (of Permian age) is of a type that would prove very useful in the type of study here suggested. Among American papers dealing with more recent dune deposits, those of Hack[3] and Melton[4] should be mentioned. It is of interest to note that Reiche's and Hack's papers deal with the same general area (northern Arizona). Winds of Coconino (Permian) time blew from a roughly northerly direction. The winds producing the present dunes in this area are blowing from the southwest, and thus conform to the idealized arrangement of winds for a globe of homogeneous surface.

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[1] Friedrich von Huene, *Am. Jour. Sci.*, 237: 439, 1939.

[2] Parry Reiche, *Jour. Geol.*, 46: 905–932, 1938.

[3] John T. Hack, *Geog. Rev.*, 31: 240–263, 1941.

[4] Frank A. Melton, *Jour. Geol.*, 48: 113–174, 1940.