

idea of a local, and, eventually, a national work for the benefit of the whole community. Mr. Gano retained to the last his position as a delegate from Cincinnati to the annual meeting, at Washington, of the National Board of Trade, and it is but a few weeks since he was here to congratulate us on the extended usefulness of the Weather Bureau.

CLEVELAND ABBE.

WASHINGTON, January 17, 1898.

#### *CURRENT NOTES ON PHYSIOGRAPHY.*

##### TRANSVERSE ALPINE VALLEYS.

E. RITTER, of Geneva, assistant on the Geological Survey of France and author of special studies on the region of Mt. Blanc, presents the results of his researches on the origin of the location of water-courses, with special reference to the transverse rivers of the western Alps (*Le Globe* (Geneva), XXXVI., 1897). He discards the theory of an origin along faults, as advocated by Daubrée on the basis of experiments but without local confirmation, and announces a close relation between the transverse valleys and a number of 'orthogonal synclines' or transverse sags in the axes of the folds into which the strata of the region have been compressed. The depression of the sags amounts to 1,000 meters in some instances, as determined by measures of the altitudes of geological horizons. The Arc, Isère, Arve and Rhone are said by Ritter to be examples of transverse rivers thus located; these rivers would, therefore, be classed as transverse consequents. They gather many longitudinal branches from within the mountains, some of these being on synclines (longitudinal consequents), some on monoclines (longitudinal subsequents), and some on anticlines. For the latter it is suggested that a shallow syncline on the crest of the anticline may have served as of temporary guide, the stream having now cut down so deep that nothing

but anticlinal structure is visible. Such an explanation hardly recognizes the generality of the problems involved. A river thus perched on an arch would soon be cut to pieces by the branches of its neighbors in the troughs, unless the core of the arch were weak enough to allow it to cut down its valley very rapidly; and in the latter case a valley would be spontaneously developed along the axis of the arch even if no shallow syncline had ever been formed on its crest. The anticlinal streams are, therefore, probably longitudinal subsequents, and the drainage as a whole is partly consequent upon surface deformation, partly adjusted to the internal structure.

##### PHYSICAL GEOGRAPHY OF NEW YORK.

THE second article under this heading, by R. S. Tarr, discusses the mountains of the State (*Bull. Amer. Geogr. Soc.*, XXIX., 1897, 16-40), and brings clearly to light the strong contrasts of the several mountain groups there included. Especial attention is given to geological structure as affording explanation for differences of form, as such as prevail between the even-topped Highlands, the massive Adirondacks, the linear Alleghenies and the benched Catskills. It is to be feared that, from brevity of form, misapprehension may follow from the statement that, while the Himalayas and Alps are like the Appalachians in origin and rock structure, they are 'not sufficiently mature' to be like them in form; but 'given time, they will become so.' The reader can hardly avoid inferring from this statement that the simple continuation of destructive processes will, in time, transform the other mountain ranges into an Appalachian topography. Only by re-reading other parts of the article can it be understood that the Alps and Himalayas must pass to old age and then by elevation (and not by time alone) enter a new cycle,

in whose maturity their ridges may have even crests, like those of the Alleghenies. So a statement in an earlier paragraph, 'The Adirondacks rose as an insular land area in the earliest Paleozoic sea,' may unfortunately confirm the prevailing error that the Adirondacks were lifted out of water in the earliest Paleozoic sea, in spite of the preceding clause to the effect that they were first elevated in Archean time. The conclusion that the Adirondacks sank as an insular land in the Paleozoic sea is not presented.

#### PLATEAUS, TABLELANDS AND BASINS.

AN article on the Topography of Mexico, by H. M. Wilson, with a hypsometric map (Bull. Amer. Geogr. Soc., XXIX., 1897, 249-260), presents an account of the desert plains of the interior, including the following statement: "According to common belief, Central Mexico consists of a vast plateau. In fact, it is a great basin or depression, ribbed with many irregularly disposed or disconnected mountain ranges, buttes and isolated ridges, which are separated by broad valleys and plains. Many of these plains are the beds of ancient lakes, like those of Salt lake or Humboldt valley in Utah and Nevada, and have no drainage outlet to the sea" (p. 252). The objection here implied to the use of the term, plateau' is not valid, if a comparatively even surface at a considerable elevation is all that is required to make a plateau; for Mexico has plenty of that sort of surface; nor is the discontinuity of the plains a sufficient reason for placing them outside of the class of plateaus, inasmuch as many accepted plateaus are discontinuous, either from the addition of volcanic cones, the survival of residual mountains, or the excavation of canyons and valleys. Tableland or table mountain is an inappropriate name for an elevated region with still higher borders, although fitting for

such great cliff-edged plateaus as those trenched by the Colorado canyon, or for such huge plateau remnants as Roraima and Kukenam, in Guiana. Mesa is limited to smaller examples of uplands with precipitous borders on one or all sides. Basin is already used too indefinitely; being applied to ocean basins, river basins and lake basins, as well as to these arid depressions, floored over with accumulating waste from their higher rims. Penck has lately introduced the German word *Wannen* to replace the indefinite *Becken*, for depressed areas with centripetal drainage. *Bolson* is a Spanish-American term quoted by Hill as locally applied to the intermont depressions of the Mexican region. The curious thing in all this is that English-speaking geographers have no simple name with which to designate this well characterized class of land forms.

W. M. DAVIS.

#### CURRENT NOTES ON ANTHROPOLOGY.

##### THE BLACK RACE.

A SUCCINCT exposition of the ethnography of the black race is given by Professor Hamy in *l'Anthropologie*, Vol. VIII., p. 257, sq.

It embraces one-tenth of the human species (about 150,000,000); and of this, one-tenth again (1,500,000) has existed outside of Africa, in Melanesia, etc., from a period when those numerous islands were part of the Asiatic continent.

In Africa, within five degrees north and south of the equator, is the territory of the dwarfs, probably once stretching nearly across the continent. North of this, on both sides of Lat. 15° north, and from the Nile to the Atlantic, are the groups of pure blacks, of average stature, nearly all agricultural, and with a knowledge of iron from a remote date. South of the dwarfs are the Bantu peoples, extending from ocean to ocean, with notable physical differences,