work on water motors having been brought out shortly before his death.

In appearance Professor Wood was a striking figure. His large, erect frame and his energetic manner at once commanded attention and respect. Socially he was a most genial and kindly man, full of patience and encouragement, especially for young men. He was of a somewhat retiring and domestic disposition, however, and mingled less with men of the world than might have been expected. Though honored by election to office in the scientific societies to which he belonged, he never sought personal advancement. He was content with his chosen work in the class-room, and the remarkable success he attained in that work amply justifies the singular fidelity with which he devoted his life to it.

R. S. W.

CURRENT NOTES ON PHYSIOGRAPHY.

THE LABRADOR PENINSULA.

Much interesting information about Labrador is to be found in an article by Low in the Annual Report of the Geological Survey of Canada for 1895 (Ottawa, 1897). The fiords of the Atlantic coast are described as valleys of denudation of very ancient origin, eroded when the elevation of the peninsula was greater than now. "Their remote antiquity is established by the deposition in their lower levels of undisturbed sandstones of Cambrian age." A similar explanation is given to the greater river valleys. The 'banks' for some fifteen miles off the coast are shallower than many of the fiords; they are explained as a terminal moraine, somewhat flattened out by floating ice and currents. At least a fourth of the plateau area is occupied by lakes of small depth confined in shallow valleys by barriers of drift. Some of the larger and deeper lakes occupy ancient basins, floored with Cambrian strata. There is a lakeless plain of marine sands and clays carved by deep stream channels, extending inland for a hundred miles eastward from James bay. Much is told about Hamilton river, with its Grand Falls, and Bowdoin* Cañon below them, from which a clear picture of the plateau region may be gained. Erosion by ice is given a small measure; its chief result being to rub down hills and fill neighboring depressions, thus decreasing local relief. "There is no evidence to show that the glacier ever hollowed or scooped out deep depressions, as has been often stated to have occurred elsewhere." The till is frequently arranged in long low ridges, like drumlins, with nearly driftless tracts between them. Eskers are greatly developed, one having a length of nearly a hundred miles. They are ascribed to streams flowing on or below the ice when the glacial sheet had become practically stagnant.

It is difficult to reconcile the statements noted above as to the age of the fiords, the greater valleys and the deeper lakes, with the rates of denudation in resistant rocks elsewhere, unless it be supposed that for most of geological time the Labrador plateau has been covered by an inert ice sheet, protective of very ancient forms rather than productive of new forms; or unless it be supposed that the depressions were long ago made and filled and rather lately re-excavated. In any case, it is hardly possible that "the process of formation of these valleys has continued slowly from [Cambrian time] to the present day by the agency of falling water and of frost." Does the earth's surface exhibit any rocks resistant enough to retain significant slopes after so long an attack of the destructive subaërial forces?

THE CHICAGO AREA.

Leverett describes the Pleistocene features and deposits of the Chicago area

*Bowdoin is unfortunately misspelled *Bodwoin* in the report and on the accompanying map of Labrador.

(Bull. II., Geol. and Nat. Hist. Survey, Chicago Acad. Sciences, May, 1897), including the Valparaiso moraine, the channel cut by the former outlet of Lake Michigan through the moraine and down the Illinois river valley, and the beaches of the former lake. The moraine is concentric with the present lake shore; it is a hilly belt, about ten miles wide and a hundred or more feet higher at the 'crest' than at the borders; its mounds frequently enclose hollows and lakelets. The channel cut by the former lake outlet follows a drift-clogged valley of preglacial origin below Hennepin (where the Illinois river turns from west to south), but is of glacial or post-glacial origin above that point. It is from one to five miles wide, and from 20 to 70 feet deep; its marginal bluffs are steep, like a river bank, throughout the entire length of 300 miles, as if the lake outflow had great volume, filling the channel from bluff to bluff. Three beaches are described, marking the lake shore at the time of the westward outflow. It should here be remembered that the slight difference between the level of the old outlet and of the present lake is not due simply to a slight withdrawal of the waters, but is due to a strong rise of the waters after a strong fall, as has been well shown by several students of the glacial history of the Great Lakes; the fall resulting from the adoption of eastern outlets, and the rise resulting from an elevation of the land in the northeast. So close a return to the Illinois outlet is portentous of the future.

STUDIES IN INDIANA GEOGRAPHY.

SEVERAL papers on the geography of Indiana by various authors have been published in the *Inland Educator* during the past year, and some of them have been referred to in these notes. The whole series is now edited by C. R. Dryer, professor of geography in the Indiana State Normal School, and published in book form (Inland Publishing Co., Terre Haute, Ind., 1897). 'First series' appears on the title page, as if more essays are to follow; and it is to be hoped that such is the case, for much educational good must result from the careful use of such material by teachers. The book is notable in being the first of a kind that should have great extension over the country, as an encouragement and assistance in the study of home geography. There is to-day no similar series of essays even for States as prosperous and as important as Ohio and Pennsylvania. Indeed, it is a difficult matter for the inquiring teacher to find available geographical literature for her work. Professors of geography in other normal schools might well follow the example set by Dryer.

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CURRENT NOTES ON ANTHROPOLOGY.

ANTIQUITY OF MAN IN SWITZERLAND.

THE thirty-fifth volume of the Memoirs of the *Société Helvétique des Sciences Naturelles* is taken up with a thorough analysis of cave exploration near the Rhine, by Dr. Jacob Nuesch and his collaborators. The conclusions he reaches are the more noteworthy because they were obtained after the most exhaustive investigations and comparisons of the fauna, flora and human remains exhumed from the cave-floors. They may be briefly summed up as follows:

The oldest faunas found were sub-arctic and post-glacial. Man was contemporaneous with these, and at that time his industries were distinctly palæolithic. This period lasted about 8,000 years. A long period then elapsed, 8,000 to 12,000 years, during which the fauna changed to modern types, but man seems to have been absent. The neolithic and lake-dwelling period then