

as the dissected remains of a group of Tertiary volcanoes. Seen from the surrounding plains, the mountains have a serrate outline, highest near the center of an oval area, 20 by 40 miles in diameter. Seen in plan, they exhibit a well defined system of radial valleys. The interstream peaks and ridges consist of volcanic tuffs, breccias, and flows, lying on Cretaceous strata, around a central district of laccolitic cores, dikes and bosses. The Cretaceous strata are somewhat upturned and baked around the largest laccolitic mass, and the 'contact ring' stands in bold relief, forming ridges around the igneous center.

In the absence of detailed surveys of this region, a somewhat similar type may be studied on the topographical and geological maps of the great dissected volcano, known as the Cantal, on the central plateau of France.

#### LAURENTIAN HIGHLANDS OF CANADA.

A REPORT by Professor F. D. Adams on the geology of a portion of the Laurentian area (Geol. Surv. Canada, VIII., 1896, pt. J) includes a brief account of the physical features of an area lying northwest of Montreal. Leaving the drift-covered valley of the St. Lawrence, underlain by paleozoic strata, the Archæan highlands rise abruptly in a line of hills, which constitute the edge or southerly limit of a great uneven plateau, gradually rising to the northwest. Its surface is undulating or mammilated; the depressions being generally filled in with drift, forming extensive flats, studded with numerous lakes, great and small. Rounded, ice-worn bosses or hills protrude through the drift, seldom rising more than three or four hundred feet above the general level, and presenting, especially when burnt over, great faces or whole summits of bare rock. The lake outlets have carved terraces in the drift-clogged valleys. Settlements are scattered

over the drift plains, avoiding the rocky hills.

The date of origin of the undulating plateau is not considered; but Lawson's supposition that it is a pre-paleozoic land surface, long preserved by burial, and lately revealed by the erosion of its cover—a geographical fossil, as it were—seems to be contradicted by the well defined line of bluffs in which the Archæan rises from the St. Lawrence valley, unless this line is determined by an unmentioned fault.

#### MAPS OF MT. DESERT.

MESSRS. Bates, Rand and Jaques have rendered a service to the summer residents of Mt. Desert by publishing several good maps of the island; one on a scale of 1:40,000 (in a single sheet or folded in cover), another on a scale of 1:25,000 in two large sheets, and a third of Bar Harbor, on a still larger scale. All have contour lines, the first two printed in brown with the culture in the black and the water in blue. A special map of the eastern part of the island shows the mountain paths in red. All the maps are based on the Coast Survey sheets; but the names are carefully revised to accord more closely with local usage, the revision and republication being the outcome of a careful work on the Flora of Mt. Desert by Mr. E. L. Rand and collaborators. Any of the maps can be had of Mr. Waldron Bates, 40 Water street, Boston. To the more observant of the island residents, winter or summer, these maps would serve as a good base for detailed record of the supposed high-level shore lines, described by Shaler.

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#### CURRENT NOTES ON ANTHROPOLOGY.

##### THE PROGRESS OF ANTHROPOLOGY.

THE President of the Anthropological Institute of Great Britain, Mr. E. W. Brabrook, in his annual address in January last, re-

viewed the advance of the science during the past year. He pointed out the constantly accumulating evidence to the continuity of human culture from the earliest period, and the growing certainty that the progress of the race has been constant. The importance of establishing an ethnographic bureau for the United Kingdom, analogous to our Bureau of Ethnology, was strongly emphasized, and the progress of the Ethnographic Survey was mentioned in complimentary terms. His closing remarks on 'The Problem of Transmission' are as follows:

"It has appeared to me that there is, in the minds of anthropologists, a growing tendency to discountenance inquiries into transmission, and to consider phenomena related to a particular stage of civilization arrived at by the operation of general laws, rather than as arising from communication between the people."

There is no doubt of this.

#### THE LUMBAR CURVE.

THE study of the lumbar curve as a point in comparative ethnic anatomy has received some attention from somatologists, but the first examination of it among the native American tribes is that by Dr. George A. Dorsey, in the *Bulletin of the Essex Institute*, Vol. XXVII. His specimens were drawn from tribes of the northwest coast, the Iroquois, the Ohio mounds and Peru. His conclusions are that the index of the curve is an important means of determining sex and that "it bids fair to become one of the most valuable ethnic tests known in determining the physical superiority or inferiority of any tribe or race."

Dr. Dorsey's tables and measurements are most carefully presented, and the subject is set forth with great clearness. It would appear, however, from the remarks of Cunningham which he quotes (p. 59) that these variations are due largely to

habits of life, and if so this index could be only a secondary ethnic test, as such habits vary so widely in the same community.

#### NATIVE AMERICAN MYSTICISM.

A SYMPATHETIC but far from exhaustive study of this subject has lately appeared from the pen of Dr. L. Kühlenbeck (*Der Occultismus der nord-amerikanischen Indianer*, pp. 60, Leipzig, W. Friedrich). He points out, with entire correctness, that not only the religious observances, but the actions of the social and individual life among the Indians are constantly guided by spiritual agencies or occult forces. He compares their mental position in this respect with that of Goethe, who, in his conversations with Eckermann, so often referred to the 'demonic' powers which control events—surely an honorable comparison.

The author analyzes the mental experiences of the 'medicine men,' and quotes a number of instances of their strange powers and the processes by which these are acquired. Though the essay is lacking in the critical caution desirable in treating so obscure a subject, it is suggestive and composed in an appreciative spirit.

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#### SCIENTIFIC NOTES AND NEWS.

PROFESSOR J. WILLARD GIBBS, professor of mathematical physics at Yale University, has been elected a foreign member of the Royal Society.

M. BONNIER has been elected member of the section of botany of the Paris Academy of Sciences in the room of the late M. Trécul, receiving 42 votes of the 57 cast.

THE portrait of Lord Lister, painted by Mr. W. W. Oules, was presented to the Royal College of Surgeons on March 29th.

It is proposed to celebrate the sixtieth anniversary of Sir George Stokes' connection with the University of Cambridge by the presenta-