

its bureau to take in regard to this subject the measures that appear necessary. In particular, it leaves to each of its members entire freedom, considering alone as essential that the Society, on this important occasion, may be assured of having the place due it."

Professor Vasiliev expects that the inauguration of the Lobachèvsky monument at Kasan will take place in August or September, 1896, and counts on having there a large number of eminent mathematicians, and will profit by the occasion to propose definitely the organization of the International Congress, and then official calls will be issued to meet for the purpose of final organization in 1897 at a city of Belgium or Switzerland.

GEORGE BRUCE HALSTED.

AUSTIN, TEXAS.

CURRENT NOTES ON PHYSIOGRAPHY (V.).

THE EXTINCT LAKE PASSAIC.

THE annual report of the Geological Survey of New Jersey for 1893 contains a long report on surface geology, in which there is an interesting chapter on Lake Passaic, an extinct glacial lake, by R. D. Salisbury and H. B. Kümmel. First mentioned by Professor Cook in his annual report for 1880, Lake Passaic is now carefully traced by its shore lines and the deltas built in it by streams. Its basin was limited on the west by the slope of the crystalline highlands; on the south and east by one of the curved trap ridges of the Watchung or Orange mountains; while on the north it was enclosed by ice. Most remarkable of all the shore deposits in the lake waters is the great morainic embankment that was built across the basin from Morristown to Madison during the furthest advance of the ice sheet into the lake waters; the lobate front of this bank standing up with great distinctness north of a marshy plain, which now represents part of the lake bottom.

The outlet of the lake was, for a time at least, by a notch in the trap ridge near its southern end, at a height of 331 feet above sea level. Twenty-five miles to the north, the records of the lake level now stand sixty-seven feet above the lowest shore line at the southern end of the basin. Many details of interest are considered in the report; none more surprising than the depth of the drift-filling in the notch of one of the trap ridges at Summit (where the Morris and Essex Railroad crosses the ridge), from which a preglacial discharge of the inner valley at this point is fairly inferred. An excellent map accompanies the report.

LOCAL DISPLACEMENT OF THE MISSISSIPPI.

THE annual report of the Iowa geological survey for 1893, just issued, contains a chapter by C. H. Gordon on a former channel of the Mississippi, now filled with drift. The modern river has cut a narrow rock-bound gorge, five miles to the east of the former valley, and about ten miles long; its lower end being at Keokuk, where the Des Moines river comes in from the west. A general study of the surface and the records of a deep well indicate that the earlier valley was about three times as broad and twice as deep as the new gorge. The gorge being hardly more than in its youth, the earlier valley was certainly not advanced beyond its early adolescence. It therefore clearly indicates that during only a comparatively short preglacial time did the region stand as high as or a little higher than now; most of its preglacial history must have been passed at a less elevation above baselevel. To speak of the preglacial channel as a 'measure of vast denudation' (p. 250) therefore seems somewhat inappropriate; it was only the beginning of a denudation that could in a geographical sense be called vast. The vast denudation is more really shown in the stripping of an unknown thickness of strata

from the region, thus preparing the general surface in which the adolescent preglacial valley was eroded.

The relation of displacements of this kind to the location of settlements along the river and to the choice of places for bridge-building across it, would furnish material for an interesting physiographical essay, extending the well-known report by Gen. Warren. The outline map on which the old and new courses of the river are represented, is unfortunately without names, making the careful reading of the chapter a difficult matter for those unacquainted with such places as Fort Madison and Sand Prairie.

W. M. DAVIS.

HARVARD UNIVERSITY.

CURRENT NOTES ON ANTHROPOLOGY (VII).
RUNIC INSCRIPTIONS IN EASTERN AMERICA.

It is well known that venturous Norwegian navigators in the eleventh century visited at divers times the eastern coast of North America. The ancient sagas of Iceland which narrate the events of these voyages are provokingly meager and obscure; so that it has been quite impossible to decide how often such voyages were made, or how far south the explorers advanced. Of course, it is to be supposed that of some such expeditions we have no account whatever.

The late Professor E. N. Horsford persistently maintained that positive evidence of a pre-Columbian European settlement on the Charles river, Mass., had been discovered by him. The testimony he presented did not convince many, and his daughter, Miss Cornelia Horsford, has done well to pursue and extend the lines of investigation which her father began. The results are said to be confirmatory of his theory, but the only one which has as yet been made public is a neatly illustrated, privately printed pamphlet, of 22 pages, entitled 'An Inscribed

Stone,' By Cornelia Horsford (Cambridge, 1895).

The stone referred to was discovered at Weston, Mass., in an uncultivated field, and came under Miss Horsford's notice merely by accident. One of its sides bore a partly obliterated series of lines which Mr. J. B. Woodsworth, of the U. S. Geological Survey, pronounces to be of artificial origin. They are arranged after the manner of a runic futhorc, and simulate certain forms of such writing. Miss Horsford does not offer an interpretation.

A second inscribed stone near New York city is depicted, the runes on which Miss Horsford both transliterates and provisionally translates as referring to a census of the inhabitants by the church officials.

On a loose sheet a large number of runic and ogham inscriptions from Great Britain, the north of Europe and Greenland are given for the purpose of comparison.

The publication is one well worthy the attention of historians.

WHERE WAS THE GARDEN OF EDEN?

WE have not yet done with seeking on the earthly plane the pristine Paradise, Eden, 'the land of joy'.

The latest explorer of its whereabouts is the distinguished Professor Paul Haupt, of the Johns Hopkins University, in an article, 'Wo Lag das Paradies?' in the 'Ueber Land und Meer,' No. 15, 1895. He differs from Friedrich Delitsch, who, in his work with the same title, asserted that the description of the locality in Genesis applied directly to the canal and river system of Babylonia; he differs from himself in his opinion as expressed in a paper published last year in the proceedings of the American Oriental Society, and concludes that the four rivers mentioned in the Hebrew record, the Pison, the Gihon, the Hiddekel and the Euphrates, are, reversing the order, the Euphrates, the Tigris, the Karun and the