

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.

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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

Kercha. The two latter are small streams flowing, one into the Persian Gulf, and one into the Schott el Arab, near the ancient mouth of the Tigris, both east of it.

Though Professor Haupt supports his opinion with his customary depth of erudition, I doubt if it will be adopted. That part of Genesis was written by the Hebrew author about 650 B. C., and at that period he certainly knew what he was talking about when he mentioned the Gihon and identified it with the river Nile. Professor Haupt's former theory, which recognized this, seems much more plausible.

But all such theories do not touch the kernel of the question. The myth of the Paradise, watered by its four streams, is found in native American mythologies as prominently as in those of the Old World; and no explanation is valid which does not apply to both continents.

The true interpretation is that the four streams refer to the four cardinal points and the four winds, the rain bringers. They are the cosmic and celestial causes of the weather and its changes, and hence of fertility and growth. It were easy to prove this by abundant examples. The Hebrew realist merely endeavored to transport the ancient myth into terrestrial geography.

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JAMES D. DANA.

WE cannot pay a tribute to the memory of Dana more appropriate than the letter addressed to him by a number of his older colleagues on his eightieth birthday and communicated by Prof. George P. Fisher to the *Evening Post*.

NEW HAVEN, February 12, 1893.

DEAR PROF. DANA: Having had the privilege for many years, of being associated with you as colleagues at Yale, we wish to bring you our cordial congratulations on the occasion of your eightieth birthday.

It gives great pleasure to your friends that after so extended a period of incessant and most faithful activity you are still able with unimpaired mental vigor to carry forward the studies which have contributed so much to the advancement of science and have conferred so great distinction, not on yourself alone, but equally on the University and on the country.

We recall the circumstance that it was only four years after your graduation, in 1833, that the first edition of your work on mineralogy, a work which has remained a classic to this day, was issued. Two years later you embarked on the voyage of discovery, undertaken under the auspices of the government by the American Exploring Expedition, and during four industrious years collected the materials for the subsequent reports on geology, mineralogy, corals and crustacea, which established your reputation at home and abroad as a scientific man of distinguished ability.

It is now well-nigh half a century since you entered upon your labors as an editor of the *American Journal of Science*, your name having first appeared on the title-page of the journal in 1846. The long series of volumes of this periodical are a noble monument of the extent and thoroughness of your labors as a naturalist.

It is in truth surprising that in connection with this continuous employment and with your work as professor you have been able to send forth from the press, in successive editions, the elaborate text-books and other writings, the solid excellence of which is everywhere recognized.

We cannot revert without admiration to the universally broad field of scientific investigation in which you have maintained your place as an acknowledged master.

It would be a signal achievement for any man to hold this position as regards geology, and the branches of zoölogy connected with it; but when, as in your case, the sci-