

1872.

ELLIOTT, GEO. H.—*Report on the Survey of the Cape Fear and Deep Rivers, North Carolina.* Report of the Chief of Engineers, 1872, pp. 741-749.

Gives a brief description of the region through which the Cape Fear River flows.

SHALER, N. S.—*On the Causes Which Have Led to the Production of Cape Hatteras.* Proc. Boston Soc. Nat. Hist., vol. 14, pp. 110-121, 1872. Abstract, Amer. Nat., vol. 5, pp. 178-181, 1871.

The view is expressed that the Cape Hatteras projection was caused by the operation of subterranean forces which resulted in the uplift of the region. In support of this view he states that there is evidence that a ridge once existed along a line passing north and south through Richmond, Va., and Weldon, N. C., which was produced by an upward folding of the rocks. This ridge was subsequently much eroded and finally covered by later deposits. This uplift probably occurred subsequent to the beginning of the Tertiary, or there may have been a succession of uplifts. Professor Shaler appears to have regarded Cape Hatteras as a southeasterly continuation of this ridge.

Brief descriptions of some of the Tertiary deposits of North Carolina are given. "Along the shore of the mainland from New Bern, N. C., to Washington, at the mouth of the Roanoke, the hard, shelly limestone of the Tertiary period, looking much like the shell bed which is found near Charleston, S. C., comes to the surface just above high-tide mark and seems to be the principal barrier to the encroachment of the sea" (p. 117).

1873.

KERR, W. C.—*Topography as Affected by the Rotation of the Earth.* Amer. Phil. Soc., Proc., vol. 13, 1873, pp. 190-192.

Notes the fact that the high bluffs of the North Carolina rivers are, in most cases, on the right side, and assigns as the cause the deflecting effect of the rotation of the earth on the courses of the streams.

KERR, W. C.—*Appendix to the Report of the Geological Survey of North Carolina, 1873*, being a brief abstract of that report and a general description of the State—geographical, geological, climatic, and agricultural. 24 pp., map. Raleigh, 1873.

"The Tertiary (and Quaternary) occupies the eastern champaign section, and consists mainly of beds of uncompacted clays, sands, and marls, belonging to the lower and middle divisions (Eocene and Miocene), which are everywhere filled with exuviae and bones of marine animals, constituting an inexhaustible resource of manurial matter" (p. 6).

"Marl is found only in the eastern region, but is very abundant in some 25 counties, occurring in extensive superficial beds, which contain all the elements of a complete and permanent fertilizer. * * * This is the most valuable mineral in the State, as it is easily accessible to more than half of the farming lands, and is applicable to all crops."