

ART. XLIV.—*Terraces and Beaches about Lake Ontario*: by J. W. SPENCER, B.A.Sc., Ph.D., F.G.S., State University of Missouri, Columbia, Mo. (Late Vice-President of King's College, Windsor, Nova Scotia). With Plates VI and VII.

[Read before the Montreal Meeting of the American Association for the Advancement of Science.]

THE extreme western end of Lake Ontario is separated by Burlington Beach from the open waters of the lake, and forms Burlington Bay, having a length of about five miles, and a width of four miles at the eastern end, from which place it gradually narrows to less than half a mile, at the western end. This triangular bay is bounded on two sides by the Niagara escarpment rising from four to five hundred feet above the lake. At a short distance westward of the bay, the two faces of the escarpment suddenly approach to within about two miles of each other, and thence extend parallel to each other for several miles, having formed the boundaries of a grand ancient river valley, through which the waters of the Lake Erie basin flowed,—receiving, as a tributary, the Grand River, which drained the principal portion of the high lands of the peninsula of western Ontario,—in Pre-glacial times. This ancient valley is deeply filled with drift deposits, as described in a former paper read before the Association. Interglacial and modern streams have excavated deep valleys in the soft drift deposits producing a very broken country throughout the whole Dundas valley, as represented on Plate VI. Along the sides of the escarpments,