A fiftieth anniversary card will be sent to each member entitled to it. A list of all paying in advance will be printed for the opening day of the Boston meeting. This list will indicate whether a member is to be present or absent. Such a list will greatly facilitate the arrangements for the meeting, and all members are requested to give this new feature their earliest attention. Associate members (wives and daughters, and sons under twenty-one years of age) will also be provided with the anniversary cards, and will have their names entered on the list upon receipt of the associate fee of three dollars.

It is hoped that one of the results of this anniversary meeting will be an increase of the research fund of the Association. To this end members are reminded that they can commute their assessments for life by the remittance of fifty dollars. All money thus received is invested and the income is used for the encouragement of research. This fund now amounts to about $6,000, which has accumulated during the past twenty years.

The Sectional Committees of each Section will prepare programs for the Sections in advance of the meeting, and notice of papers offered should be sent to the respective Secretaries at an early date.

It is hoped that all the surviving founders of the Association will be present at the Boston meeting, and I shall be much indebted to anyone who will send me the full name and address of any survivor of the meeting of 1848.

It is now twenty-five years that I have had the pleasure of serving the Association as its Permanent Secretary. During all this time I have held the firm belief that the mental stimulus and broadening influence, afforded by such annual gatherings of persons interested in the various departments of science are of vital importance to every professional scientist. Such reunions not only promote good fellowship among scientists and lovers of science, but also serve to prevent the specialist from becoming so exclusively absorbed in his own particular life work as to forget that it is his duty to unite with his fellow workers in securing results which make a scientific career worthy of special respect—the advancement and diffusion of knowledge and the amelioration of mankind.

CURRENT NOTES ON PHYSIOGRAPHY.

WATERFALL LAKES IN CENTRAL NEW YORK.

IN continuation of the brief suggestion by Gilbert a year ago, Professor E. C. Quereau, of Syracuse, describes the 'Topography and History of Jamesville Lake' (Bull. Geol. Soc. Amer., IX., 1898, 173–182), which furnishes another illustration of exceptional forms in a dissected plateau, thus appropriately following the example of isolated hill groups in the dissected uplands of Missouri, as described by Marbut (SCIENCE, VII., 273). Jamesville lake, a few miles southeast of Syracuse, occupies a cavity in a north-sloping arm of the Allegheny plateau, which is here normally divided into digitate spurs by many obsequent streams and their insequent branches. The lake and the gorge by which it is drained eastward into Butternut creek (obsequent) are the work of a temporary glacial river, which ran eastward between the northward land slope and the southward slope of the retreating ice sheet. A large current of water thus guided crossed several of the plateau spurs, carving channels of greater or less depth, and in a number of cases forming waterfalls on the sill of the Corniferous limestone; the falls retreating and pools being formed beneath their plunge in a fashion normal enough to the glacial river, but entirely abnormal to the ordinary drainage of the plateau. Jamesville lake is one of these

pools. It is about 500 feet in diameter and 60 feet deep, its surface lying 160 feet beneath the adjacent upland. Steep cliffs rise on three sides, while the gorge opens eastward to Butternut valley. All the features of a dry Niagara are here disclosed in great detail. Several excellent illustrations accompany the paper.

ESKERS IN IRELAND.

'A MAP to show the distribution of eskers in Ireland,' by W. J. Sollas (Sci. Trans. Roy. Dublin Soc., V., 1896, 785–822, maps), is a serviceable summary, based chiefly on the work of the official Geological Survey, with personal observations in certain districts. Although predisposed in favor of the marine origin of askers, the author concludes that nothing is so competent to explain their various features as the action of streams in subglacial tunnels. Their height is 50–60 feet; their elevation above sea-level seldom reaches 400 feet. The convergence of branch eskers towards a trunk is properly regarded as one of the most indisputable signs of stream origin. Three notably fine esker systems deserve mention; the Midlands system, on the central plain, half way from Dublin to the west coast, where three distinct and many subordinate eskers converge eastward; the Ballyhaunis system, with three distinct branches converging northward against the general slope of the country between the headwaters of the south-flowing rivers Suck and Clare; and the Portumna system, having three branches converging eastward with the general slope of the country from Slieve Aughty into the valley of the Shannon above Lough Derg, but crossing the subordinate valley of the Ardultagh on the way. One member of the Midlands system near Athlone is illustrated by a special map, showing it to be of exceptional irregularity of form, a confused network of ridges with disordered structure, instead of a long narrow ridge; here, if anywhere, an origin in a super- or englacial stream might be inferred. A useful summary of previous writings is included in the essay.

DESERT CONDITIONS IN BRITAIN.

THE interpretation of the past through the present is a canon of orthodox geology. Under its guidance, the existing oceans and rivers have been carefully studied; but the deserts of to-day have until recently received little consideration as the representatives of ancient conditions. An opportune article on 'Desert Conditions in Britain,' by J. G. Goodchild, (Trans. Edinburgh Geol. Soc., VII., 1899, 203–222), calls attention, first, to the characteristic features of existing deserts, by which their former occurrence may be recognized; second, to the probability that the British Isles have more than once had a desert climate in the remote past. Various details are given concerning the composition and structure of the deposits of deserts. For example, comparison of desert and seashore sands shows that any sandstone largely composed of well-rounded grains was probably formed under arid conditions on a land surface. The British deposits of Triassic, Devonian and Torridonian times are thought to have been formed under inland, desert, continental conditions.

The change thus implied in continental outlines needs consideration along with the arguments commonly quoted in support of the permanence of continents. Great Britain must have had much land or a high mountain range to the windward when the desert sandstones and saline deposits of Cheshire resembled the 'salinas' of modern deserts. Otherwise the earth's axis must have shifted; for the low western border of a continent in mid-temperate latitudes is the last place in the world where salinas and desert sandstones can form.

THE NEW ZEALAND VOLCANIC ZONE.

H. M. CADELL describes a visit to the New Zealand Volcanic Zone (Trans. Edinburgh Geol. Soc., VII., 1897, 183–200), with particular references to the changes caused by the eruption of 1886, when the famous Rotomahana terraces were destroyed. A peculiar result followed the shower of fine ashes which coated the region for miles around, and which, when wet with rain, formed an impervious, clay-like cloak. Before the eruption the region was covered with vegetation, and rainfall was slowly discharged. After the ash-cloak was laid on, the surface became water-tight, 'like the slated roof of a house,' and shed the rainfall in streams which united in fierce torrents and excavated deep gorges in the valley floors. Two new lakes, replacing Rotomahana, had a joint area of 25 acres in 1886, shortly after the eruption; in 1893 the water had risen over 400 feet, the two lakes had united, and their area exceeded 5,600 acres. A further rise of about 100 feet will be needed for overflow. The great fissure along which numerous explosive craters were formed in 1886 is briefly described.

W. M. DAVIS.

CURRENT NOTES ON ANTHROPOLOGY.

ONTARIO ARCHÆOLOGICAL REPORT.

MR. DAVID BOYLE'S annual archæological report to the Minister of Education, Ontario, is, as usual, rich with descriptions of interesting additions to the museum, and information attractive to students of local antiquities (pp. 87, Toronto, 1898, Pub. Doc.). All the material was removed and rearranged during the year, and it is now installed to much better advantage. The report is illustrated with over fifty figures in the text, representing stone and metal remains, village sites, textile work, engraved shells, bone implements, etc. Some ancient maps are reproduced from early explorers, and Mr. A. F. Hunter adds a useful bibliography of the archæology of Ontario.

THE PUEBLO OF TAOS.

IN the form of an inaugural dissertation, Mr. Merton Leland Miller has issued from the press of the University of Chicago a pleasant description of the Pueblo of Taos, New Mexico. In 1896 he passed three months in this ancient settlement of the Tiguas Indians, and noted the peculiarities of their lives and environment. These he sets forth in a clear style, and discusses the questions of origin and affinities from the view-point of the practical observer. He is inclined to adopt the conclusion that these and most of the pueblo-dwellers are a mixed population, the Shoshonean blood predominating.

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NOTES ON INORGANIC CHEMISTRY

IN the last *Proceedings* of the Chemical Society (London) a new method of making hydrocyanic acid is described by John Wade and L. C. Panting. A cold mixture of equal volumes of concentrated sulfuric acid and water is allowed to drop on 98% 'lump' potassium cyanid. The prussic acid evolved is almost theoretical in amount, and is nearly anhydrous, and may be readily collected in quantity by suitable condensing apparatus. This method offers great advantages over that usually employed. When, in the place of a diluted acid, concentrated sulfuric acid is allowed to drop in the potassium cyanid, nearly pure carbon monoxid is evolved, and this also in nearly theoretical quantities, traces only of hydrocyanic acid being present. In this reaction the sulfuric acid plays at the same time the part of both hydrolysing and dehydrating agent.

THE same *Proceedings* contains a paper by W. C. Reynolds on concentrated solu-