

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.

D. G. BRINTON.

UNIVERSITY OF PENNSYLVANIA.

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-

tions of potassium carbonate. In such solutions the salt seems to act as a potassium salt of the radical KCO_3 and forms with salts of certain metals double carbonates. When, for example, salts of copper, manganese, calcium, cobalt, etc., are added to a concentrated solution of potassium carbonate, double carbonates are formed, which crystallize out on standing, but which are decomposed on diluting the solutions. The formulæ of these salts are $\text{CuK}_2(\text{CO}_3)_2$, $\text{MnK}_2(\text{CO}_3)_2$, $\text{CaK}_2(\text{CO}_3)_2$, $\text{CoK}_2(\text{CO}_3)_2$, etc., which might be looked upon as $\text{Cu}(\text{KCO}_3)_2$, etc.

J. L. H.

SCIENTIFIC NOTES AND NEWS.

THE National Academy of Sciences will hold its annual stated session at Washington on April 19th, 20th and 21st.

THE third regular meeting of the Chicago Section of the American Mathematical Society will be held at the University of Chicago, on Saturday, April 9, 1898, the first session opening at 10 o'clock a. m., in Ryerson Physical Laboratory.

THE bequests made by the late Professor Cope to the University of Pennsylvania are now being placed in the Library and in the Biological Hall. The bequests, as we have already stated, fall under five heads: First, the scientific library; second, the Wheatley collection of fresh water mollusca; third, the Wheatley collection of minerals; fourth, the Hyrtl collection of the osteology of fishes; fifth, Professor Cope's collection of the osteology of vertebrates. The scientific library contains many valuable sets of scientific journals, monographs and books of reference. Professor Cope purchased the Hyrtl collection of the osteology of fishes for \$8,000, and the osteological collections made by Professor Cope himself are of great value.

THE French Minister of Commerce has issued a decree instituting twelve congresses to be held during the Paris Exposition of 1900 as follows: 1. Education; 2. Fine Arts; 3. Mathematical Sciences; 4. Physical Sciences and

their Applications; 5. Natural Sciences; 6. Medical Sciences; 7. Engineering and Transportation; 8. Agriculture; 9. Political Economy and Statistics; 10. Social Sciences, including Hygiene; 11. Geography, and 12. Industry and Commerce. The Minister of Commerce will appoint twelve committees who will report to a commission that will have charge of the arrangements. M. Gariel, of the University of Paris, and Secretary of the French Association for the Advancement of Science, is in charge of the organization of the congresses, and a special building will be erected in the Exposition grounds for the meetings.

DR. TARLETON H. BEAN, who, as we reported last week, was asked by the President of the Park Board to resign the superintendency of the Aquarium, refused to do this, as no grounds were given for the request. The office has now been abolished, but it is understood that Dr. Bean will contest this subterfuge in the Courts.

ONE of the first appointments to the University Table at Naples is that of Dr. J. P. Halsey, who graduated at the College of Physicians and Surgeons in 1893, and since July, 1895, has been studying organic and physiological chemistry in Germany. He worked in Freiburg under Baumann until the latter's death, and since then in Strassburg under Hofmeister. He has just finished an investigation upon Tyrosin, and his plan at Naples is to experiment upon some of the lower organisms, which may throw light upon the origin of urea.

SURGEON-MAJOR DAVID PRAIN has been appointed Superintendent of the Royal Botanical Garden at Calcutta.

THE following appropriations were made during 1897, from the Bache fund, Natural Academy of Sciences:

March 18: To Professor A. S. Packard, for an investigation of the transformations of North American bombycine moths.....	\$100
March 29: To Professor R. H. Chittenden, for an investigation of the poisonous fungi or toadstools of the country.....	500
April 29: To Professor Albert A. Michelson, for the construction of a new harmonic analyzer and integrator.....	400