

made to the general meeting on the 19th of May last the Council had already recorded their deep sense of the services rendered to the Society by the late Mr. Bartlett during the long period for which he had held his post, and of their full appreciation of the skill, energy and faithfulness with which he had discharged the multifarious and difficult duties of his office. On the present occasion the Council could do no more than repeat the sentiments expressed at that meeting, which they were sure would be fully concurred in by all the Fellows of the Society. The vacancy thus caused had been filled by the appointment, as Superintendent, of Mr. Bartlett's second son, Mr. Clarence Bartlett, who had been in the Society's service for 36 years as his father's assistant.

The number of visitors to the Gardens in 1897 had been 717,755, being 52,751 more than the corresponding number in 1896.

The number of animals on the 31st of December last had been 2,585, of which 792 were mammals, 1,362 birds, 431 reptiles and batrachians.

Amongst the additions made during the past year, 17 were specially commented upon as being of remarkable interest and in most cases new to the Society's collection.

The report concluded with a long list of donations to the Menagerie received in 1897.

A vote of thanks to the Council for their report was then moved by Sir John Lubbock, Bt., F.R.S., seconded by Mr. R. Lydekker, F.R.S., and carried unanimously.

The meeting then proceeded to elect the new members of the Council and the officers for the ensuing year. The usual ballot having been taken, it was announced that Frank E. Beddard, Esq., F.R.S.; William T. Blanford, Esq., L.L.D., F.R.S.; Richard Lydekker, Esq., F.R.S.; Howard Saunders, Esq., and Charles S. Tomes, Esq., F.R.S., had been elected into the Council in the

place of the retiring members, and that Sir William H. Flower, K.C.B., F.R.S., had been re-elected President; Charles Drummond, Esq., Treasurer, and Philip Lutley Selater, Esq., M.A., Ph.D., F.R.S., as Secretary to the Society for the ensuing year.

CURRENT NOTES ON ANTHROPOLOGY.

PRIMITIVE MUSICAL INSTRUMENTS.

THE study of musical instruments begins with two sticks which are rubbed together, or hit one against the other, to make a noise. Such are found among the Australians and the Pueblo Indians. In Louisiana the jawbone of a mule is scratched rapidly with a stick to elicit folk-lore music. The study of this art in early conditions is the theme of an excellent article by Dr. Walaschek in the Proceedings of the Anthropological Society of Vienna for February. He inserts a number of illustrations from specimens in the Ethnographic Museum of Vienna.

In this connection, I would suggest that the human bones, with incisions crosswise, which are described by Drs. Lumholtz and Hrdlicka in Vol. 10 of The Bulletin of the American Museum of Natural History, and which they are at a loss to explain, were intended for just such primitive musical instruments. Several similar specimens were exhibited in the Mexican department of the Columbian Exposition at Madrid. (See my 'Report,' p. 27.)

PRE-COLUMBIAN LEPROSY IN AMERICA.

THE question of the existence of leprosy in America before Columbus occupied the Berlin Society of Anthropology at several of its meetings last year. The inquiry was started by the investigations of Dr. A. S. Ashmead, of New York City. He had noted on old Peruvian pottery deformations of the face and extremities, resembling those produced by that disease.

The discussion in Berlin was shared by

several members. Some doubted the antiquity of the pottery; others said the representations were from a patient suffering under a local disease called *llaga*. In summing up, Professor Virchow concluded that the pottery was authentic and that the lesions shown were pathological, but that whether from leprosy or some other disease must be left for further investigation.

THE THROWING-STICK IN AMERICA.

At the last meeting of the French Association for the Advancement of Science Mr. Henri Michel brought sufficient evidence from new finds to show that the throwing-stick was in use in some parts of Peru. He calls attention to the Eskimo throwing-stick described by the traveler Pinart as in use in the Kadiak Archipelago, and also that found in very ancient deposits in France.

It is gratifying to see that, instead of arguing that Peruvians, Eskimo and Cave-men borrowed one from the other, he pointed out that these are examples of independent invention. Evidently, it is not surprising to come across it again in the old village sites of Florida (Cushing), and it is equally needless on this recurrence to found any theory of the affinities of the ancient key-dwellers.

I may add that Mr. Michel is not the first to observe the presence of the *atlatl* in Peru.

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NOTES ON INORGANIC CHEMISTRY.

THE large quantities of compounds of the rare earths accumulated by the Welsbach Light Company, at Gloucester, New Jersey, under the direction of Mr. Waldron Shapleigh has been alluded to in *SCIENCE*. Of these earths none are rarer than neodymium and praseodymium, the two elements into which Auer von Welsbach separated what had been previously considered the

element didymium. It is pleasing to chronicle that Mr. Shapleigh has put generous quantities of salts of each of these elements in the hands of Professor Harry C. Jones, of Johns Hopkins University, for atomic weight determinations, and the results are published in the last *American Chemical Journal*. More than two kilograms of the ammonium neodymium nitrate, and nearly as much praseodymium, were used as the basis of a careful series of purifications. Twelve determinations were made with each metal, and the atomic weight results are praseodymium = 140.45 and neodymium = 143.6. It is curious that these results are almost the reverse of those found by the discoverer, von Welsbach, 143.6 and 140.8, and almost suggests a question as to whether the discrepancy does not arise from a typographical error in von Welsbach's work. From the fact that the stable oxids are Pr_2O_3 and Nd_2O_3 , the higher weight might be anticipated for neodymium, but the placing of these elements in the periodic system is yet a problem.

In a recent voyage from the Cape of Good Hope to England samples of water were drawn daily from the ocean and analyzed. The results are published by C. J. S. Makin in the *Chemical News*, and compared with the results from the *Challenger* expedition. The average total solids was 36.31 grams per thousand, the quantity being slightly greater in the North Atlantic than in the South, as was found in the *Challenger* samples. In general the results correspond to those of the *Challenger*, but the amount of sodium chlorid was found slightly less (76.9 as against 77.76 parts per hundred of total salts), while the amount of magnesium chlorid (11.4 to 10.88) and calcium sulfate (4.23 to 4.07) was slightly greater. Free ammonia was found 0.19 milligrams per liter; ammonium salts 0.36, and albumenoid ammonia 0.56.

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