

grammes; the range of the latter extended, as before, to 1,600 or 1,800 metres; that of the little bell was small, it exceeded one kilometre, however. M. Lucas concludes from the experiments that the range of sound in a river, even in the direction of motion of the water, is much less than that of sound in a lake; and that by increasing considerably both the intensity and the gravity of the sound, the range is but little increased, and may even be diminished. It further appears that, with equal intensity, the range of sound in a river will increase with its acuteness. If so, a considerable range ought to be obtained, he thinks, with a blast of compressed air for the sonorous source. A. B. M.

SCIENTIFIC SERIALS

THE *Geological Magazines*, Nos. 97-99 (July to September 1872).—One of the most important contributions contained in these three numbers is a translation of Prof. Nordenskiöld's account of his expedition to Greenland, which runs through the whole of them, and is not yet completed. With a good deal of general matter, this paper includes a vast amount of interesting geological information, and it must be welcome to English geologists, few of whom could make much out of it in its original Swedish dress. This translation is illustrated with the original plates, maps, and woodcuts.—Another highly important memoir, which appears in two parts in the July and August numbers, is Dr. H. B. Holl's essay on those most puzzling objects, the fossil sponges.—In the August number Prof. Allman gives us a note on a fossil *Hydractinia* from the Coralline Crag, the *Cellepora echinata* of Michelin.—Mr. S. V. Wood, jun., has some further remarks on Mr. Geikie's correlation of the glacial deposits; and Mr. J. Lucas a paper on the Permian Beds in Yorkshire, one portion of which calls forth a note by Mr. J. Clifton Ward, on rock-staining, in the September number.—The latter further contains a notice of the occurrence of the genus *Cupressocrinus* in the English Devonian, near King's Teignton, the first part of a paper, by Mr. Alfred Tylor, on the formation of Deltas, and some other papers, among which we may mention especially Mr. Woodward's description of a new species of Phalangiform Arachnide (*Architarbus subovalis*) from the Lancashire Coal Measures, which is especially interesting from its generic identity with a North American form.

THE *Memoirs of the Natural History Society of Bremen* for 1872 (Abhandlungen herausgegeben vom naturwissenschaftlichen Vereine zu Bremen, Band iii. Heft 1) contain some exceedingly valuable papers for the study of zoological and botanical geology. In the former department we have Dr. O. Finsch's contribution to the ornithology of North-western America, from which inhospitable region the author records about 120 species of birds, many of them possessing a very wide geographical range. Singularly enough the author does not describe a single new species, but of some variable forms detailed descriptions are given, and with regard to many others we find valuable synonymic and descriptive remarks.—The flora of high northern latitudes receives a contribution in the shape of a list of the vascular plants of Spitzbergen and Bear Island, by Dr. T. M. Fries.—The student of the geographical distribution of European plants will find most valuable information in M. C. Nöldeke's Flora of the East Frisian Islands (including Wangeroog) which treats of the vascular plants in a most exhaustive fashion, and is supplemented by a short notice of the mosses of the islands, by M. C. E. Eiben.—From Drs. Buchenau and Focke we have an important paper on the *Salicornia* of the Baltic coasts of Germany, which includes a discussion of the views of previous authors on the species of that genus.—Dr. Buchenau has also a paper on the variation of the curious bracts of the lime tree.

SOCIETIES AND ACADEMIES

SAN FRANCISCO

Academy of Sciences, May 20.—Dr. Blake, on presenting some stone implements that had been found in stratified rock, at an elevation of 1,700 feet, observed there can be no doubt that up to the present time the earliest traces of man's existence on the earth have been found in this country. The skull found in the Pliocene deposits in Table Mountain is certainly the oldest human skull that has yet been discovered. Many stone mortars have also been taken out from the same deposits. I have examined the spot where one of these mortars was taken out ten feet beneath the surface of the Pliocene gravels on the Sierras and as this was some six hundred feet above the valley and near the top of a rolling hill, there was no possibility of the strata

having been disturbed. The objects I now have to present to the Academy furnish important evidence on this point. They are two implements cut in serpentine, and evidently fashioned by the hand of man, or of some animal capable of using its anterior extremities so as to fashion objects to meet its wants, and apparently possessed of sufficient intelligence to use lines or nets for catching fish, as it would seem that the instruments must have been used as sinkers. They are cut in serpentine, the surface of which is slightly weathered to the depth of about  $\frac{1}{16}$  of an inch. One is pear-shaped,  $\frac{3}{4}$  in. long, and  $5\frac{1}{2}$  in. in circumference at its largest part; near the smaller end is a hole passing through it, and immediately above this is a notch passing across the end. The other instrument is cylindrical, thicker in the middle than at the ends; it is  $5\frac{1}{2}$  in. long, and  $3\frac{1}{2}$  in. in circumference at its thickest part. There is a hole through it at about an inch from one end, and above the hole is a notch passing across the end. The spot where they were found is on a rolling hill within a few feet of the summit of the coast range, and at an elevation of about 1,700 feet. They were met with in digging away the side of the hill, at about eight feet from the surface, four feet being alluvium, and four feet argillaceous shales, in which they were found embedded. These, and four other instruments of the same form, were found in a space of about two square feet. A great deal of alluvial soil had been removed whilst levelling the ground for a house, but no instruments had been found until the shales were dug into. In company with Prof. Whitney I visited the spot, and we have not the slightest doubt but that they were taken out at the place indicated. As to the geological age of the rock in which they were embedded, this is to a certain extent undetermined. It certainly cannot be later than the Pliocene, and Prof. Whitney is of opinion that it is still older. Dr. Blake then made some remarks as to the absence of anything like a rim to the Great Basin, north of the Puebla Mountains. In going north from the valley of the Humboldt near Mill City to the Puebla Valley, the highest elevation crossed between the Rattlesnake and Vicksburg ranges did not exceed three hundred feet, whilst the country to the east of this, between the Rattlesnake and Umsham ranges, is at a still lower level. North of the Puebla Buttes nothing but some low ranges are found until we reach the head waters of the Owhyee, a tributary of the Columbia, so that there can be no doubt but that the larger part of the waters of the Great Basin must have escaped through the valley of the Columbia. The quantity that was left for evaporation did not probably exceed from 100 to 150 feet, as he had not found concretionary deposits at a greater height than 100 feet above the present level of the Humboldt.

BOOKS RECEIVED.

ENGLISH.—The Vegetable World L. Figuiet, English edition (Casse! and Co.).—A Manual of Microscopic Mounting: J. H. Martin (Churchill). FOREIGN.—(Through Williams and Norgate).—Thesaurus Ornithologicæ, 1<sup>er</sup> Band, 2<sup>te</sup> Heft: Dr. C. G. Giebel.

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