

this subject, the author here contrasts the advantages and defects of the old and new processes, showing how they are complementary one of the other, and should consequently be associated in all important anatomical researches.—On the duration of lightning, by M. Daniel Colladon. In connection with M. Trouvelot's recent note, the author claims priority of discovery, having shown nine years ago that in thunderstorms the flash cannot always be instantaneous, and must last perceptibly longer than the thousandth part of a second assigned to it by Wheatstone.—Presentation of a volume of the "Annales de l'Observatoire de Paris: Observations de 1883," by M. Mouchez. The delay in issuing this volume is mainly due to the greatly increased number of meridian observations which were required to complete the revision of Lalande's Catalogue. The volume for 1884 is already half printed.—Note accompanying the presentation of M. Ch. Ed. Guillaume's work entitled "Traité Pratique de la Thermométrie de Précision," by M. Cornu. In this work is embodied a summary account of the researches that have been undertaken by the International Bureau of Weights and Measures for the purpose of removing the defects in the mercury thermometer, and giving the required degree of accuracy to that instrument.—On a new apparatus for zoological and biological research at determined marine depths, by Prince Albert of Monaco. With a view to remedying the defects of the instruments used in the expeditions of the *Challenger*, the *Blake*, and the *Vettor Pisani*, the author has prepared the instrument here described and illustrated. It is constructed on entirely new principles, and may be let down closed to any desired depth, then opened for purposes of observation, and re-closed before being brought to the surface. With this appliance Prince Albert has operated with satisfactory results to a depth of 500 metres in the Madeira waters.—Influence of temperature on the mechanical properties of metals, by M. André Le Chatelier. The mechanical properties of the metals at the different temperatures to which they are exposed in the various industrial processes have hitherto been little studied. The author here describes a series of researches that he has undertaken chiefly for iron and steel, but also for copper, zinc, aluminium, silver, nickel, and sundry alloys of copper, iron, and nickel. The results of these researches show generally that the mechanical properties of these metals are gradually modified with increased temperature. The detailed results obtained for iron and steel are reserved for a future communication.—On the malonates of barium, by M. Massol. The neutral malonates $\text{CH}_2(\text{COO})_2\text{Ba} \cdot 2\text{H}_2\text{O}$ and H_2O , with their respective heats of solution and heats of formation, are described.—On the sardine fisheries on the coast of Brittany in 1888, by M. Georges Pouchet. The shoals were fully as abundant as in 1887; but for some unexplained reason there was a total suspension of the fisheries from about June 28 to July 20, during which period the sardines everywhere disappeared from the seaboard.—On the scales and calcareous epidermic glands of *Globularia* and *Selago*, by M. Edouard Heckel. During his general anatomical researches undertaken to establish a histotaxic classification of the *Globulariæ*, the author has detected in some species certain prominent anatomical characters, which appear to have escaped the notice of the numerous botanists who have occupied themselves with this family. They are described as calcareous epidermic glands of a scaly type, and are regarded by M. Heckel as condensed hairs clothing the outer surface with granular and crystalline calcareous concretions, instead of secreting an internal cystolith and localizing it in their unicellular chamber, as is the case with the *Urticæ*, *Verbenacæ*, and some other families.—On the occurrence of a granulite with riebeckite characters in Corsica, by M. Urbain Le Verrier. A microscopic study of this rock, which occurs in large masses about the middle of the west coast, shows that it is a hornblende of a special type, presenting the characters of the riebeckite recently described by M. Sauer.—On the leaves of *Lepidodendron*, by M. B. Renault. Since his last communication on this subject (*Comptes rendus*, November 28, 1887), the author has found a considerable number of leaves of *Lepidodendron* in the fossiliferous quartzes of Combres, de Lay, and Esnost near Autun. Some were still attached to the branches of *L. rhodunense* and *L. esnostense*, and the present paper is restricted to a description of the former species.—The Quaternary stations in the neighbourhood of Lorrez-le-Bocage, Seine-et-Marne, by M. Armand Viré. In these stations, numbering about ten, and distant 25 leagues from Paris, M. Viré has collected several thousand flint instruments and weapons of different types, besides a few fragments of a blackish unornamented pottery.

STOCKHOLM.

Royal Academy of Sciences, June 5.—On the heredity of exterior lesions and of acquired characters, by Prof. G. Retzius.—Prof. A. F. Smitt reported upon a paper, by Dr. Fr. Heincke, of Oldenburg, entitled "Researches on the Stickleback."—Baron Nordenskiöld exhibited some fine specimens of minerals from Norway, sent as a gift by Dr. Jellef Dahl.—Prof. Nilson reported upon an investigation by himself and Prof. O. Pettersson on the molecular weight of chlor-aluminium. They have found that it is expressed by the formula AlCl_3 and not by Al_2Cl_6 , as given by Friedel and Craft.—On some definite integrals, by Dr. Lindman.—Observations on the tidal waters at Polhun in Spitzbergen, by Prof. Wijkander.—On the ammoniacal combinations of iridium, by Herr W. Palmar.—On amidoximes and azoximes within the triazol and tetrazol series, by Dr. Bladin.—On the action of cyanium on *a*- and *b*-naphthylamin, by Herr O. Nordenskiöld.—On *a*- and *b*-monofluor-naphthalin, by Messrs. A. Ekbohm and R. Manselius.—Observations on the radiation of the sun, by Dr. K. Ångström.—Ornithological observations made during the year 1887 at Sandhamn and its neighbourhood, by Herr O. Ekbohm.

BOOKS, PAMPHLETS, and SERIALS RECEIVED.

Proceedings of the Society for Psychical Research, June (Trübner).—Proceedings of the Geologists' Association, November 1888 (Stanford).—Journal of the Royal Microscopical Society, June (Williams and Norgate).—Bulletin of the U.S. Geological Survey, No. 43 (Washington).—The Geological and Natural History Survey of Minnesota, Report for the Year 1887 (St. Paul).—Aus dem Archiv der Deutschen Seewarte, ix. Jahrg., 1886; x. Jahrg., 1887 (Hamburg).—Musical Instruments and their Homes; M. E. Brown and W. A. Brown (New York, Dodd).—The Second Report upon the Fauna of Liverpool Bay and the Neighbouring Seas; edited by Prof. Herdman (Liverpool).—The Chemistry of the Coal-tar Colours, 2nd edition; Dr. R. Benedikt; translated and edited by Dr. E. Knecht (Bell).—Contributions to the Tertiary Flora of Australia; Dr. Constantine (Sydney, Potter).—Hydraulic Motors; G. R. Bodmer (Whittaker).—Contributions to the Knowledge of Rhabdopleura and Amphioxus; E. Ray Lankester (Churchill).—Der Einfluss einer Schneedecke auf Boden, Klima und Wetter; A. Woelfel (Wien).—The Invertebrate Fauna of the Hawkesbury-Wianamatta Series of New South Wales; R. Etheridge, Jun. (Sydney, Potter).—Proceedings of the Geologists' Association, May (Stanford).—Mind, July (Williams and Norgate).

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