SOCIETIES AND ACADEMIES.

MANCHESTER.

Literary and Philosophical Society, October 1.—Mr. Charles Bailey, president, in the chair.—Mr. W. E. Hoyle exhibited two ethnological specimens from Demerara, formerly in the possession of the Manchester Natural History Society, under the name of "fish-arrows." They are about 4 feet long, slender, and apparently made from the wall of some hollow reed, with nodes at regular intervals. At one end is a barbed point of wrought iron, the other end being stained a dark brown for about four inches. The use of these weapons is somewhat difficult to determine; they are too thin and flexible either to shoot from a bow or to throw with true aim. Instruments of a similar kind have, however, been used for catching fish by baiting the barbed end and sticking the other end into the bed of the stream among the reeds.—Mr. Cecil P. Hurst sent specimens of *Diotis candidissima*, Desf., a disappearing British plant, which he collected recently on the sandy bars separating two inland lakes from the sea on the south-eastern coast of county Wexford, Ireland. He described its habitat on the shores of Lady's Island Lake and Tacumsin Lake, and on the coast from Carnsore Point westward, and referred to its recorded occurrence in nine of the comital areas in the South of England, from all of which, including the Channel Islands, it has disappeared. It was found very sparingly on the south-western coast of Anglesey in the years 1894 and 1896.

PARIS.

Academy of Sciences, October 14.—M. Bouquet de la Grye in the chair.—New series of experiments relating to the action of hydrogen peroxide solution upon silver oxide, by M. Berthelot. A thermochemical comparison of the action of acids upon oxide of silver before and after the action of hydrogen peroxide. The results are regarded as proving conclusively that a peroxide of silver is formed in this reaction, and that the evolution of oxygen is due to the decomposition of this compound.—On the variation of races and species, by M. Armand Gautier. Experiments by Molliard, and by Charabot and Ebray, on the influence exerted by the attack of certain insects on the development of certain plants, and the researches of Daniel on grafting, are held by the author to prove that the Darwinian principles of the influence of medium, of adaptation and of natural selection are insufficient to explain the profound and rapid modifications which have here taken place.—Two new hæmogregarians of fishes, by MM. A. Laveran and F. Mesnil. A detailed description of two new parasites of the sole and blenny, to which the names *Haemogregarina bigemina* and *Haemogregarina Simondi* are given. The paper is illustrated with seventeen drawings of the parasites in various stages of development.—The influence of variations of temperature on the evolution of experimental tuberculosis, by MM. Lannelongue, Achard and Gaillard. Neither a moderate degree of cold nor slight variations of temperature have any marked influence upon the development of experimental tuberculosis in guinea-pigs. On the other hand, brusque variations of temperature, although compatible with the life of healthy guinea-pigs, have accelerated in a remarkable manner the course of the disease.—On waves which may persist in a viscous fluid, by M. P. Duhem.—The elliptic element of the comet 1900*c*, by M. Perrotin. Measurements of the position of this comet, which was discovered by Giacobini on February 11, have been made in the observatories of Nice, Lick, Besancon, Algiers, Heidelburg and Strasburg, and show that it belongs to the curious group of periodic comets supposed to have been captured by Jupiter. The return of this comet may be expected in about seven years.—On the periodic integrals of binomial differential equations, by M. A. Davidoglou.—On the points of inversion of solutions, by M. Albert Colson. It is known that the specific heat of a solution is not the mean of the specific heat of its constituents, and hence it follows that the heat of solution and the heat of combination are variable, and at a fixed temperature some heats of solution change their sign. For solutions of common salt this point of inversion is found to be at 52° C.—The action of urea upon pyruvic acid. Homoallantoic acid and pyruvil, by M. L. J. Simon. It is shown that in this reaction, which has been previously studied by Grimaux, there is an intermediate compound formed, homoallantoic acid, and that the formation of pyruvil is due to an internal condensation of this compound.—The nitro-derivative of pentaerythrite, by MM. Leo Vignon and F. Gerin. The pentaerythrite, $C(CH_2OH)_4$, was prepared by the interaction of aldehyde, formaldehyde and lime water, and was found to possess no reducing power towards Fehling's reagent. The nitric ester was prepared and found to be the tetra-derivative; it was devoid of reducing power, and hence it is probable that the nitric esters which do possess reducing power have a constitution which is different from that usually ascribed to them.—On the free phase of the evolutive cycle of the orthonectides, by MM. F. Caullery and F. Mesnil.—Marine poisons and the burrowing habit, by M. G. Bohn. It has been found that sea-water in which certain red algæ have been growing is very poisonous, but that it loses this poisonous property on filtering through sand. Burrowing animals have thus the double advantage of mechanical and chemical protection.—On the eruptive rocks of Tilai-Kamen (Ural), by MM. L. Duparc and F. Pearce.—On a green colouring matter extracted from the blood of animals poisoned by phenylhydrazine, by M. Louis Lewin. The green substance, for which the name of hemoverdine is proposed, is not apparently a phenylhydrazine derivative, but a product of metamorphosis of hæmoglobin.—The spectrum of this substance is absolutely different from that of hæmoglobin or of any of its known transformation products.—The microphyte of the Piedra, by M. P. S. de Magalhaes.—On the mechanism of the formation of fine pearls in *Mytilus edulis*, by M. Raphael Dubois.

DIARY OF SOCIETIES.

SATURDAY, OCTOBER 26.

ESSEX FIELD CLUB (Essex Museum of Natural History, Stratford), at 6.30. Mimetic Insects: Prof. R. Meldola, F.R.S. (Illustrated by Natural Colour Photographs.)

THURSDAY, OCTOBER 31.

CHEMICAL SOCIETY, at 8.30.—The Frankland Memorial Lecture: Prof. H. E. Armstrong, F.R.S.

FRIDAY, NOVEMBER 1.

GEOLOGISTS' ASSOCIATION, at 8.—A Conversazione in the Library of University College, Gower Street.

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