

In the previous month, however (March 12), a Black marlin, *Makaira (Tetrapturus) mazara*, Jordan and Snyder, had been caught, of the roes of which I have samples. This fish, weighing 436 lb., had roes containing ova of about the same size as those previously mentioned, but departed from all Black marlin previously caught in that it possessed a black dorsal band extending downwards for about six inches, the remainder of the sides and belly being silvery. Black marlin usually seen in this locality are of a dark, blackish-purple colour, fading gradually to a white ventral line.

Russell,
New Zealand.
Aug. 10.

V. W. LINDAUER.

Cleopatra's Temple at Armant

THERE existed at Armant until the year 1861 an extremely interesting temple built by Cleopatra the Great in honour of the birth of her son Caesarion. This was completely demolished between the years 1861 and 1863 and the materials were taken and

used in the construction of a sugar factory; but, prior to that date, it had been visited and described by many travellers and fortunately, a number of drawings, plans and photographs of it were taken by them. We are engaged upon a reconstruction of this temple for publication and we should be very grateful for any help which readers of NATURE may be able to give us to make this as complete as possible. Any information about unpublished descriptions, plans, drawings or photographs of it would be of the greatest value.

A large number of travellers toured this part of Egypt in the eighteenth and nineteenth centuries, when the diary habit was strong, the standard of draughtsmanship high, and towards the end of the temple's existence, photography was just becoming popular. We believe that there may well remain important records in private collections which would be of great assistance in making some restitution for the vandalism of the last century.

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Points from Foregoing Letters

DR. U. R. EVANS illustrates an experimental arrangement which enables him to investigate the electric currents flowing over an iron surface in contact with bicarbonate solution during the process of rusting. The results obtained show intense anodic action immediately around a scratch where rusting is rapid, while the cathodic areas are free from attack.

Measurements by Dr. W. V. Mayneord and J. E. Roberts of the absorption of short wave-length X-rays (59 X.U.) indicate for elements of low atomic weight good agreement with the theoretical predictions of Klein and Nishina. For heavier elements the photo-electric absorption per atom is proportional to the fourth power of the atomic number. Owing to its large electronic content per unit mass, hydrogen has a larger absorption coefficient than other light elements. Deuterium proves, however, to be, from this point of view, the 'normal' light element.

A new technique for obtaining X-ray powder photographs from flat specimens is described by R. A. Stephen and R. J. Barnes. The principle also finds an application in obtaining an intense beam of monochromatic polarised X-rays.

Khastgir, Chandhuri and Sen Gupta have recently confirmed the negative attenuation of wireless waves, first described by Ratcliffe and Barnett. J. A. Ratcliffe and F. W. G. White point out, however, that upon further investigation they have found that the original results were due to the use of a Moullin voltmeter, which vitiated the experiments. They inquire, therefore, whether the results obtained by the Indian experimenters may not be similarly explained, and further suggest that more points might suitably be obtained by them on the rising part of the curve.

Dr. J. Weiss directs attention to a possible analogy between the reversible photochemical reaction involved in the bleaching of dyestuffs such as methylene blue by visible light in the presence of ferrous ions, and processes taking place in the retina; also between the production of hydrogen under the same conditions, atoms from water (in spite of the high

energy needed) and the assimilatory process in green plants. In addition to these sensitised reactions in which the potential and binding energy of the heavy particles play a part, J. Weiss states that he has detected the *unsensitised* photochemical process by irradiating an acid solution of ferrous sulphate with ultra-violet light from a mercury lamp.

By placing a solution of the optically active and strongly polar compound 2-*l*-menthyl-3-nitro-hydrogen phthalate in benzene or toluene, in an electric field, Prof. J. Kunz and A. McLean have observed changes in the optical rotatory power. The change in rotation reaches a maximum when the strength of the field is 4,000 absolute units, which distinguishes the phenomenon from the Kerr effect. The authors ascribe the effect to the electric moment induced in a solvent by the electric field. Anomalous effects were observed with 2-ethyl-3-nitrohydrogen phthalate.

Taking advantage of the fact that ultra-violet light of wave-length 2537 excites and oxidises mercury atoms of mass 200 and 202 but not those of mass 198, 199, 201 and 204, Dr. K. Zuber has succeeded in producing a partial separation of ordinary mercury into fractions richer in those two groups of isotopes. The presence of nitrogen assists in their separation.

The structure of the fourth positive group of bands in the spectrum of carbon monoxide provides, according to F. Brons, definite confirmation that the dissociation energy of carbon monoxide is 8.41 volts, as has previously been suggested by Coster and Brons.

The amount of ascorbic acid (vitamin C) found in Darjeeling cabbage after boiling for ten minutes is greater (as in the case of other vegetables) than the amount obtained by extraction in the cold with 20 per cent trichloroacetic acid. This, B. Ahmad considers, supports the view of McHenry and Graham, who ascribe the increase to the setting free of ascorbic acid from an ester compound, as against van Eekelen's opinion that the increase is only apparent and is due to the destruction of an oxidase ferment.