

ities of the somatic cells are curtailed by some special cytological mechanism, which, be it marked, has not hitherto been described by any one in the Vertebrata.

The nearest approach to such a mechanism is the chromatin-diminution process in *Miastor*, an insect in which all but the germ cell nuclei are deprived of part of their chromatin. Nowadays, however, few zoologists wish to repeat the mistake of Weismann in deducing too much from the peculiar cytology of the holometabolous Hexapoda, which develop under special conditions.

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June 9.

#### Origin of certain Filamentous Forms from Eocene Beds.

A PAPER by Prof. T. D. A. Cockerell has just appeared entitled "The Supposed Plumage of the Eocene Bird *Diatryma*" (*Amer. Mus. Novitates*, No. 62, 1923), describing certain filamentous bodies from Eocene (Green River) beds of Colorado.

Prof. Cockerell states that the specimens "are not vegetable fibres, nor are they mammalian hairs," but resemble the simple feathers of birds like the cassowary, and he refers them (with a query) to a new species of *Diatryma* because this is the only known Eocene bird from which they could have come.

Prof. Cockerell has been good enough to give the original of his Fig. 1B to the Geological Department of the British Museum (Natural History), and an examination of this specimen has failed to convince me that it is not of vegetable origin. Similar strands of filaments occur in Upper Eocene rocks of Haering, Tyrol, for example, and are derived from decayed leaves of palms (*Sabal major*, Ung.), into undecayed portions of which they are sometimes seen to pass. These fibres in specimens from Haering are absolutely indistinguishable from those in the original of Prof. Cockerell's Fig. 1B, and, though it is difficult to arrive at any definite conclusion from such fragmentary material, it seems quite possible that the supposed feathers may be only fibres from a decayed monocotyledonous leaf.

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#### Hafnium and Cesium.

IT is with great interest that I have read the communications of Dr. Coster and Prof. Hevesy in *NATURE* on the new element, hafnium. Under the title "Correlation of Atomic Structure and Spectra" (*Journal American Chemical Society*, xlv, p. 328, 1922) I discussed the properties of the unknown elements from the point of view of Bury's theory of atomic structure, and stated: "No. 72 possibly is Urbain's cesium. But Bury's arrangement gives the electron structure 2. 8. 18. 32. 8. 4 for this element, which is consequently tetravalent, while Urbain describes cesium as being intermediate in chemical character between Lu and Sc, both trivalent elements. A further investigation of the chemical properties and the X-ray spectrum of cesium is therefore desirable." This article was received by the editors of the *Journal*, November 22, 1921, and, I believe, is the first published suggestion that the chemical properties of cesium as given by Urbain do not agree with theoretical considerations of atomic structure.

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#### Distribution of *Limnæa pereger* and *L. truncatula*.

SOME recent observations on a subject lately discussed in the columns of *NATURE* may be of interest.

The freshwater snails, *Limnæa pereger* and *L. truncatula* are widely distributed over this district, where *Distomum hepaticum* is a serious pest: the two molluscan species occur in almost every body of fresh water where the topographical conditions are suitable, excepting only such as are seriously polluted by the effluents from old lead-workings. The hydrogen ion concentration of the fresh waters varies generally from about  $P_H$  6.4 to  $P_H$  6.9.

While studying a neighbouring area, a portion of the Plynlimmon plateau, about 12 to 15 miles from Aberystwyth, I was struck by the almost complete absence of freshwater molluscan species. Two only were found: *L. pereger* and *Ancylus fluviatilis*, the latter in a single locality only, the former in this and one other locality. The hydrogen ion concentrations of the waters in these two localities were  $P_H$  6.4 and  $P_H$  6.5 respectively: both are exceptional figures for the area, where the  $P_H$  values as a rule range from 5.8 to 6.2. (Peat bogs abound in the district.)

Laboratory experiments show that *L. pereger* invariably dies within 2 to 3 hours after being placed in water of  $P_H$  value 5.6. (Distilled water which had been exposed to the air was used for these experiments; also tap water, which has here about the same  $P_H$  value.) A characteristic reaction is given, the first phase of which is the nearly complete extension of the body beyond the shell, with violent twisting movements. Eventually the animal dies in retraction, with much exudation and coagulation of mucus. I intend before long to carry out similar experiments with *L. truncatula*. Several other freshwater species show a similar reaction, the coagulation of the mucus being especially noticeable.

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#### Scientific Names of Greek Derivation.

IN the course of the interesting notice of Stille's "Die Schrumpfung der Erde" in *NATURE* of June 2, reference is made to "What G. K. Gilbert styled 'epirogenic' (now written 'epirogenetic')." The latter termination is no doubt more correct, but the spelling of the second syllable involves a more debatable question. Some of us are by no means reconciled to the system of the Latinisation of Greek names, now widely followed, especially on the other side of the Atlantic. It is a distinct misfortune that Greek should reach the nomenclature of science by way of a language poorer in both vowel and consonantal sounds. To write "dinosaur" for "deinosaur" is to obscure the derivation of the word. So long as most of our scientific terms are derived from Greek, it is obviously desirable that they should be written in English in a form as closely similar as possible to the original, so that a student can look them up in a lexicon even if he knows but little more of the language than the letters.

I am glad, however, to see that your reviewer, when he is at liberty to follow his own predilections, prefers to adhere as far as he can to the Greek spelling. Does he not speak of "Okeanos, lord of the great outer seas"?

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