

Australian tribes reported to have numeral words up to 15 or 20. But the point raised is well worth attention. The statement as to tribes in various districts having no distinct numeral words above three, and only struggling on to four and five by saying "two-two," &c., rests on the authority of Europeans who have studied the native languages, sometimes well enough to write grammars of them. Are we to think that the natives generally had words for large numbers, and yet the Europeans failed to discover them? Or, rather, is it not easy to suppose that some tribes raised themselves (possibly since contact with the white man) above this low level of arithmetic, making, out of their counting on the fingers, numeral words even as high as the words here given for 100? It would be interesting if it could be shown etymologically that the terms here given for 20 and 100 had originally a material meaning, like the word for 5, which still means "hand."

One of the greatest difficulties in studying savages is to know how far to trust or distrust their assurances that what they tell is really their own, and not picked up from foreigners. From this point of view it is worth while to look closely at the story of the lost Pleiad, which here appears among the native myths of the "black-fellows." The author's friends naturally doubted its genuineness, but on further inquiry it was found to be widely known. The tradition is that the Pleiades were a chiefess called Gneecangar and her six attendants; Waa, the Crow (the star Canopus), fell in love with her, and finding that she and her women were going in search of white grubs, he turned himself into one, and bored into the trunk of a tree, where they were sure to find him. The women, one after another, poked their little wooden hooks into his hole, but he broke the points, till at last his love put in her beautiful bone hook, and he let her draw him out, whereupon he turned into a giant and ran away with her; since then only six Pleiads—the serving-women—have been left. Now between this story and our classical myths there is a difference. Ovid's version seems to carry its origin on its face, agreeing with the fact that only six of the stars in the cluster are bright and plain to common eyes, so the myth tells of a hidden or faint seventh. She is Merope hiding herself for shame at marrying a mortal, or Electra putting her hand before her eyes, not to see the ruin of Troy. But in the Australian tale the vanished star, being the queen, ought of course to be the brightest; so that there is little sense in the story, unless Mr. Dawson is prepared to maintain that the Australians remember a time when there was a Pleiad brighter than the rest, which has now vanished. It would be easier, if more commonplace, to guess that the natives got the idea of a lost Pleiad from some Englishman who had heard the story at home, but missed the point of it.

The anthropological work done by Mr. Dawson and Mrs. Taylor hardly needs praising. It is enough to point out how carefully, not relying on books, they have made their own inquiries on every subject, and recorded them as scientific material. It is to be hoped that they will not cease their researches, for there must still be much valuable evidence to be gleaned in their district, if it is done without delay.

EDWARD B. TYLOR

OUR BOOK SHELF

A Dictionary of Chemistry and Allied Sciences. By H. Watts, F.R.S. Third Supplement. Part II. (London: Longmans, 1881.)

WE have no publication in English strictly corresponding to *Liebig's Annalen* or the *Annales de Chimie et Physique*, and were it not for this now gigantic dictionary of chemistry by Mr. Watts many, both advanced and elementary students of our science, would find their labours considerably increased by the necessity of having to hunt up a great number of facts and records of work done in foreign journals. The chemical record in this volume includes discoveries made in 1880, and in addition a number of exhaustive articles by Professors Armstrong, on Isomerism; G. C. Foster, on Thermodynamics; Schuster, on the Spectrum; Thorpe, on Specific Volumes; and others. This part commences with G, the first large articles being Gallium and Gases, the latter being very complete and up to date. A long section is devoted to Heat, which, with the article on Thermodynamics, is very valuable. In the portion on Isomerism we are very glad to notice a slight but still important definition, or rather restriction of the term isomeric. That is, bodies should only be classed as isomeric when their reactions indicate that they are of the same type of structure. This article is of some length, and contains the main points of the hypotheses brought forward by Van P'Hoff and Le Bel and others. We thoroughly agree with the concluding paragraph of the article, and venture to add that probably when we do know a little about the loss or gain in energy in the case of reacting molecules the terms saturated and unsaturated atoms will cease to be employed. The article dovetails into the one on Light, and together they form an important fraction of the book. The greater part of the volume is of course taken up by "organic" and physical chemistry, a considerable number of mineral substances being however described, the section on the metals allied to yttrium being very interesting. The references to the original papers attached to each article render the work even more valuable to those chemists and physicists to whom a few languages is no difficulty. Although a dictionary, it is very thick, and probably an index would facilitate the search after any particular description; but the want is a minor one.

W. R. H.

LETTERS TO THE EDITOR

[The Editor does not hold himself responsible for opinions expressed by his correspondents. Neither can he undertake to return, or to correspond with the writers of, rejected manuscripts. No notice is taken of anonymous communications.]

[The Editor urgently requests correspondents to keep their letters as short as possible. The pressure on his space is so great that it is impossible otherwise to ensure the appearance even of communications containing interesting and novel facts.]

The Madeira Earth-electric Cloud again

WHAT a valuable paper, Mr. Editor, you have published this week from Mr. J. B. N. Hennessey, with its diagram of the new set of sun-spots which broke out suddenly near the centre of the sun's disk, between 4h. and 5h. p.m., on July 25, as recorded by the photo-heliograph of the Indian Trigonometrical Survey, under his able charge, at Dehra.

His enthusiasm at having localised the appearance of the phenomenon in time, as well as space, is unexceptionable; and his long experience as an observer gives his opinion commanding weight, when he further holds forth on the rarity of such an occurrence, on such a scale and so centrally situated on the sun's disk—whence its probable vast importance for the physics of the earth and the foundations of a new science. All that is admirably true and suggestive for the future; but meanwhile I desire to claim the first fruits of the case as the very thing I have been expecting ever since I left Madeira at midnight on July 29.

And why should I have been expecting such an announcement, do you ask? Well, do you remember my letter to you from