CURRENT NOTES ON ANTHROPOLOGY.

INITIATION CEREMONIES IN AUSTRALIA.

THE *bora* is the ceremony in many Australian hordes by which the boy is introduced into manhood. It has been described many times, by no one more sympathetically than by Mr. A. B. Howitt, who inherited the literary talent of his distinguished parents, William and Mary Howitt.

No description of it, however, has heretofore been offered of its ceremonial as practiced on the table land of New South Wales and that neighborhood. This is presented by Mr. R. H. Mathews in the *Proceedings* of the American Philosophical Society for July, 1898 (No. 157). It there bears the name *bŭrbŭng*. He explains the ritual with much minuteness, and adds a map on which is defined the boundaries of the several districts within which each type of ceremony is in force. He adds an appendix on the *nguttan*, an abbreviated initiation rite practiced by some tribes.

THE TARASCAN LANGUAGE.

THE language known as Tarascan is spoken by the natives of the State of Michoacan. Its words are long, vocalic and sonorous. Previous to the Conquest the Tarascans were a semi-civilized people, city-builders, agricultural and peacefully inclined.

An 'Arte' of their tongue written by Father Gilberti was printed in Mexico in 1558, and now belongs among the rarest of Americana. Dr. Nicolas Leon, formerly Director of the Michoacan Museum, has accomplished an acceptable work to students of such subjects by editing a nearly facsimile edition of it (Mexico, 1898, pp. 344). He deserves the greatest credit for its accuracy. A limited number of copies have been placed on sale with the house of Hiersemann, Leipzig.

ANTHROPOLOGICAL PESSIMISM.

THERE has been a curious tendency during the last decade among European anthropologists toward scientific pessimism. Numerous writers, such as Le Bon, Lapouge, Ribot, Nordau, Vierkandt, Nadaillac, etc., have deplored the traits of modern culture and seen in many of them signs of degeneration. The white race is to be overwhelmed, Europe is to lose its prestige, modern society is to go to the bad. The Latin race is to fall before the Teutonic, the Teutonic before the Slavic, and so on. M. Novicou, in a book reviewed in the *Centralblatt für Anthropologie*, calls a halt to these lamentations. He argues that when racial, national and social jealousies cease, the species will be much better off; and what these scientific 'calamity howlers' are grieving about is precisely this advancement. (*L'avenir de la race blanche*, Paris, 1897.)

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NOTES ON INORGANIC CHEMISTRY.

A RECENT number of the *Zeitschrift für physikalische Chemie* contains two interesting investigations. The influence of various vapors on the luminosity of phosphorus has been long known; as that it is non-luminous in pure oxygen unless the pressure is reduced, that turpentine destroys the luminosity, etc. Herr Centnerszwer has experimented with a large number of substances. In the case of organic compounds he finds that in homologous series the influence increases with the number of carbon atoms, and is approximately the same for isomers. It increases with double linking of carbon atoms; is little affected by replacement of hydrogen by chlorin or bromin, but largely affected by iodin substitution. No clue is suggested to the cause of the phenomena.

THE second article is by M. Tanatar on the perborates. These are formed by the electrolysis of a concentrated solution of

sodium orthroborate, and also by treating the latter salt with hydrogen peroxid. The sodium salt, $NaBO_3$, $4H_2O$, and the ammonium salt, NH_4BO_3, H_2O were formed and while powerful oxidizing agents are quite stable. These are the only compounds of quintivalent boron known, though from the second method of formation the possibility of their constitution being NH_4 BO_2, H_2O_2, and $NaBO_2$, H_2O_2, $3H_2O$ would seem not to be excluded.

MUCH discussion has been occasioned by the announcement of the discovery of new gases in the atmosphere. Professor Berthelot calls attention in the *Comptes Rendus* to the fact that the green line of krypton almost exactly coincides with the green line of the aurora spectrum, and suggests that the element should, therefore, be called eosium. Dr. Arthur Schuster in *Nature* shows the spectrum of metargon to resemble closely that of carbon plus that of cyanogen. In replying, Professor Ramsay recognizes the great similarity, but produces evidence which seems to render it very improbable that any form of carbon could be present, as the metargon spectrum remains the same in spite of every effort to remove any possible carbon present either as an element or a compound.

THE element calcium has generally been described in text-books as a yellow metal. This color is evidently due to impurities, as M. Moissan has recently obtained pure calcium, in the form of brilliant white hexagonal crystals. The crystals were obtained by dissolving the metal in liquid sodium at a low red heat and removing the sodium by means of the cautious use of absolute alcohol. Calcium can also be obtained by the electrolysis of fused calcium iodid. Each of these methods yields a metal over ninety-nine per cent. pure.

IN the *Comptes Rendus* Moissan also shows that the metal calcium burns strongly in hydrogen forming a hydrid CaH_2, which is transparent, cystalline and stable. It is decomposed by water with great violence, hydrogen being evolved. It is not, like the the corresponding hydrid of lithium, decomposed by being heated in nitrogen. In order to distil pure lithium the metal must be kept in an indifferent gas, and for this purpose hydrogen or nitrogen will not serve, as lithium combines directly with both. The only gases which would be really indifferent would be argon and helium.

ACCORDING to *Nature* the latest statistics show a total of 6,144 chemical works in Germany, employing over 125,000 persons. In the Hamburg district 4,000 are employed, as compared with 1,300 ten years ago. This shows the rapid growth of these industries in Germany in the last few years, a fact which is attracting the attention of England and other countries as well.

J. L. H.

SCIENTIFIC NOTES AND NEWS.

COLOR-VISION.

MR. T. C. PORTER has given a communication to the Royal Society (presented by Lord Rayleigh and printed in the Proceedings, June 30) on the flicker phenomenon. He found, among other things, making use for this purpose of a cardboard disc half black and half white, viewed in the different colors of the spectrum of the second order of a Rowland's plane diffraction grating of 14,434 lines to an inch, that the greater the duration of the stimulation of the retina by the colored light the shorter the time during which it continued to be undiminished in amount, and that, with some exactness, one of these quantities is inversely proportional to the other. This inverse proportionality is known to hold between the brightness of the stimulus and its undiminished duration; it is now seen that when the brightness is constant a longer period of exposure plays the same part as a greater luminosity as regards its undiminished continuance.

IT has been shown by Professor Albertoni that there is a close relation, in the de-