

Several species of American marsupials are figured by seventeenth-century writers, such as J. E. Nieremberg (1635), George Marcgrav (1648), César de Rochefort (1658), and others. An illustration given by the last-named author is here reproduced (Fig. 1).

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#### Differential Antiseptic Action of Organic Dyes.

AN important property of certain organic dyes is their differential antiseptic action. Thus, varieties of *B. coli* commonly met with in the intestine are more susceptible to the inhibitory action of the tetraethyl-diamidodiphenylmethane derivative, "brilliant green," than are typhoid or paratyphoid bacilli. The use of a fluid culture medium containing this dye (along with telluric acid) facilitates greatly the isolation of scanty typhoid and paratyphoid bacilli from fæces, since the growth of the various members of the *coli* group can be restrained, while the organisms in question proliferate actively. The detection of cases of typhoid infection, e.g. in "carriers," which is frequently a difficult bacteriological problem, can be materially simplified by this procedure. But our supplies of brilliant green have hitherto been derived from Germany, and I shall be indebted to your readers for information as to whether this dye is prepared in a fairly pure state by anyone in this country.

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#### The Physical Properties of Isotopes.

DR. LINDEMANN (NATURE, March 4) deduces that the vapour pressure of lead from radio-active origin, or of radium D, should be very considerably different from ordinary lead at comparatively low temperatures. It would be no easy matter to test this at such a low temperature as 100° C. However, it is being found possible to make measurements of the vapour pressure of cadmium down to 10<sup>-6</sup> mm., and the method should be applicable to the point in question.

It is interesting to note in connection with the last paragraph of Dr. Lindemann's letter that the arc spectra of lead of radio-active origin and of ordinary lead show no difference, as Mr. T. R. Merton has recently found, further confirming the view that the external electrons are responsible both for the spectra and the individual chemical properties of elements.

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#### A Misprint in Halphen's "Fonctions Elliptiques."

HAVING recently had to use Halphen's multiplication formulæ for the special cases of the lemniscate functions ( $g_3=0$ ), I have convinced myself that there is a rather serious misprint in his expression for  $\psi_4$  (vol. i., p. 96), namely, instead of  $+\frac{1}{32}g_2^2$  in the last term, we should read  $-\frac{1}{32}g_2^2$ . Thus with  $g_2=4$ , and this correction, we have

$$\begin{aligned}\psi_4 &= \wp'(-2\wp^4 + 10\wp^2 - 2) \\ &= -2\wp'(\wp^2 + 1)(\wp^4 - 6\wp^2 + 1)\end{aligned}$$

where the factor  $(\wp^2 + 1)$  can be foreseen from the theory. With the other sign we have no such resolution.

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#### Early References to Musical Sands.

AN allusion to musical sands may be found in one of the tales from the "Arabian Nights"—"The Story of the Two Sisters who were jealous of their Younger

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Sister." Prince Bahman, who was journeying in search of rarities and treasures, reaches the foot of a mountain, and while ascending "was assailed with the most hideous sounds," while others who followed him heard "groans, shouts, and all sorts of insulting epithets." One of the wonders they were in search of was the "Singing Tree," which "commenced to issue a series of exquisite strains of music" as soon as the Princess Parizadé saw it.

CECIL CARUS-WILSON.

March 21.

#### TWO CHINESE TOURS.<sup>1</sup>

A SOMEWHAT unexpected sequel to the mission which Sir Francis Younghusband led to Lhasa in 1903-4 was the appreciation by Chinese officials of the fact that the trade in Indian opium, which has at times been held up as a reproach to England, was in reality due to the demand of China for the drug. It is interesting to reflect that the truth should first have dawned upon a Chinese envoy who had been educated in the United States. The novel idea took root and engendered a movement which spread in China with such rapidity that in 1906 an imperial edict dealing with the opium question was promulgated. This rescript embodied elaborate provisions for the immediate curtailment and the gradual extinction of the use of the drug. Necessarily, therefore, it took account not only of the enormous Chinese out-turn of opium, but of the smaller, though still important amount imported from India. Proposals and counter-proposals were accordingly formulated in 1907 by the Governments of China and Britain, and certain regulations, to remain effective for three years, were agreed upon by the high contracting parties and became operative in 1908.

Meanwhile the Government of the United States thought fit to initiate a movement of an international character which culminated in the assembly at Shanghai in 1908 of an opium commission, the findings of which reflect a desire to aid the Chinese authorities in their crusade against the opium habit; while, before the preliminary period of three years had expired, negotiations for a new agreement between China and the United Kingdom were set on foot. As a preliminary to the ratification of this agreement it was desirable that his Majesty's Government should know what had been the actual effect in China of the restrictive measures adopted there in response to the imperial injunctions of 1906. The officer to whom the important duty of reporting upon this feature of the case was Sir Alexander Hosie. No one better fitted for the duty of traversing the six provinces of China, known to have been the chief opium-producing areas in that empire, could have been selected. Sir Alexander had already travelled extensively, and in some cases, as an officer of the Chinese Consular Service, had resided in the provinces

<sup>1</sup> "On the Trail of the Opium Poppy. A Narrative of Travel in the Chief Opium-producing Provinces of China." By Sir Alexander Hosie. 2 vols. Vol. i., pp. viii+300. Vol. ii., pp. 308. (London: G. Philip and Son, Ltd., 1914.) Price 25s. net 2 volumes.