

phonetic nomenclature. Thirty-six vowel sounds are developed by labial modifications of sounds produced with definite positions of the tongue and certain size of the cavity of the mouth. The cause of the differences between vowels and consonants is explained, and the mechanism of distinct utterance is expounded. Teachers of languages and elocution may find the book of service for instructing their pupils how to arrange the tongue and lips in order to speak with correct accent.

LETTERS TO THE EDITOR.

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Bipedal Locomotion among Existing Reptiles.

I COMMUNICATED to NATURE of February 27, 1896, and elsewhere, details with accompanying figures concerning the bipedal locomotion of the North Australian Frilled Lizard *Chlamydosaurus Kingi*, and which, with reference to such method of progression, apparently occupied a unique position among existing reptilia. As the result of a more recent investigation, I have discovered that a corresponding bipedal gait is assumed under favourable conditions—i.e. when running across a wide expanse of smooth and level ground—by the handsome Australian water lizard, *Physignathus Lesseuri*, such method of progress being most conspicuously manifested by the young and slender individuals. I have also ascertained that a similar mode of locomotion is adopted under like conditions by *Amphibolurus muricatus*, and I am inclined to anticipate that it will be found to obtain among many other of the Australian, and possibly African, Agamoid lizards that share with the foregoing species a relatively excessive development of the hinder limbs.

A like bipedal formula of locomotion has been hinted at, though not yet demonstrated, in the case of the Mexican Iguanoid, *Corythophanes Hernandezyi*, and will possibly be found to be shared by many allied members of the same family that present in common with it a corresponding superficial structural parallelism with the typical Australian Agamidae. The discovery here recorded is submitted with the main object of indicating that the bipedal locomotion of *Chlamydosaurus* can no longer be regarded as a mere specific idiosyncrasy. The fact of its being shared by other widely differing members of the same Agamoid group, together with the circumstance of, as in the case of *Physignathus*, its being most prominently manifested in young individuals, would appear to indicate that the habit has been inherited from a race that possessed yet more essentially bipedal progressing proclivities. Reserving fuller details for a future communication.

W. SAVILLE-KENT.

Wallington, Surrey, July 18.

Sensitiveness of the Retina to X-Rays.

Is it not possible that the persistence of an image on the retina is due to phosphorescence? This would at once explain the sensitiveness of the retina to X-rays.

The curious phenomenon of the image moving in the opposite direction, observed by Mr. Harrison (p. 248), is no doubt due to the rays passing through the lens without being refracted; the effect of the image becoming larger, is also the result of the same cause. All objects to become visible must, therefore, be smaller than the retina.

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Sample-Post for Natural History Specimens.

IN the issue of NATURE for June 17 (p. 159) it is stated that, at the recent Postal Congress held at Washington, it was decided that natural history specimens, not sent for commercial purposes, were to be permitted to pass by Sample Post between the countries of the Postal Union.

Permit me to mention that I have been informed by the Secretary to the Post Office, that the Convention giving effect to that decision does not come into operation until January 1, 1899.

WALTER F. H. BLANDFORD.

July 15.

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AUSTRALIAN NATURAL HISTORY.<sup>1</sup>

WHETHER designed or accidental, it is a fortunate circumstance that this sumptuous volume—a real *édition de luxe*—makes its appearance at a time when the most remote portions of the British Empire are being brought into closer connection with the mother country. At such a time everything that tends to promote a more intimate knowledge of the natural products of our colonial dependencies deserves a hearty welcome at the hands of all interested in the expansion and unification of the greatest empire the world has ever seen. On these grounds, to say nothing of others, Mr. Saville-Kent and his enterprising publishers are to be congratulated on the appearance of the work before us. As an attractive volume for the drawing-room table, it would be hard to equal anywhere; the beauty of its illustrations, whether in the form of coloured plates or of collotypes, being above praise, and calculated to arrest the attention of many of those who have hitherto cared little or nothing for the products of tropical and subtropical nature. Indeed, the two chromos of coral-reefs at low water, one of which forms the frontispiece, while the other illustrates the chapter on Houtman's Abrolhos, may well make every reader long for the opportunity of beholding scenes of such transcendent loveliness.

For the production of such a work the author is fortunately gifted with endowments denied to many of his fellow naturalists, for, as we learn from the legends to the chromos, he is not only an accomplished artist with the brush and pencil, but diligent practice has made him no less successful with the camera. And as a consequence of this, one of the striking features of the work is a series of life-like portraits of many Australian animals in attitudes as unlike those given in ordinary natural history books as it is possible to conceive; the one being nature, while the others are but too often death caricatured. What, for instance, can be better than the picture of Spinous Lizards with the curious expansions on the neck on p. 84, reproduced on the next page, by the courtesy of the publishers? (Fig. 1). It is, however, not only with animate nature that Mr. Kent has been successful, his views of scenery, especially where the wonderful termite mounds are concerned, being admirable works of art, interesting alike to the lover of strange landscapes, and to the naturalist.

As may be gathered from his preface, the design of the author was not to produce a systematic work on the fauna and flora of Australia—of which we have plenty—but “to present to the English reading public a few glimpses” of its natural products, with special attention to the habits of some of the more interesting animals. In this laudable object he has, on the whole, succeeded admirably; and although his primary object has not been to attract the professed naturalist, many of his observations—notably those on the use of the leg-spur of the Duckbill—are of the highest importance to all students of natural history.

Not that Mr. Kent treats many parts of his subjects in a superficial, or even what may be termed a purely popular manner. We have, for example, in the introductory chapter a long dissertation on the relation of Australasia to other countries of the southern hemisphere, which may possibly be above the heads of some of his readers. In this we note that he adopts the view that Australasia, Africa, and South America have been in mutual connection at no very remote epoch; but in giving his adhesion to the theory that such connection took place solely by means of an Antarctic continent completely cut off from more northern lands, he has evidently not studied some of the more recent literature on this fascinating but difficult subject. And we should

<sup>1</sup> “The Naturalist in Australia.” By W. Saville-Kent. 4to. Pp. xv + 302. (London: Chapman and Hall, Ltd., 1897.)