

into the branchiae, along the ordinary passages, by the flow of water the crab urges through them; it must there have become entangled in the feathery branches, and lived in this unwonted habitat long enough to have grown to its present size, having its food carried to it by the same water that served to oxygenate the lungs of its host.

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### The Pasteur Institute.

IN the article in NATURE under the above title the writer says (p. 74):—"The probability of rabies following the bite of a rabid dog is now definitely ascertained to be from 15 to 16 per cent. of those attacked." It would greatly assist all who desire to form an impartial estimate of the value of Pasteur's researches on rabies as far as they are deducible from a comparison of statistics, if the writer would state the facts and figures on which the above computation of 15 to 16 per cent. rests. The statement is repeatedly made, but the proof is never given along with it. It is obvious that, unless this percentage is proved beyond dispute, the statistical argument will be lacking in cogency and force, and leaves a loophole for attack by those who are ever ready to depreciate and oppose the brilliant investigations of M. Pasteur.

ERNEST ALBERT PARKYER.

Blackburn, December 3.

### The Zodiacal Light.

IN your issue of October 25 (vol. xxxviii. p. 618), Dr. Muirhead quotes a remark of Cassini's in contradistinction to the relation indicated in your issue of the previous week (October 18, p. 594). The remark has not escaped notice, but is, I think, directed to a variation of shorter period, abundantly exemplified in Weber's observations, and in no wise invalidating the relation in the note of October 18. As far as Cassini's numerical observations go, the relation of the 18th is fairly exemplified, as will be shown by the following figures:—

Year.	Number of Observations.	Mean Elongation, referring to March.
1683	4	51° 3'
1684	2	67° 10'
1685 (max.)	33	52° 35'
1686	26	56° 28'
1687	16	68° 82'
1688	2	51° 53'

There are also observations indicating that the appearance did not pass away in 1688. Missionaries report brilliant appearances in 1690.

Any statement beyond the existence of this shorter variation would be at present premature.

The number of observations do not permit of a sufficiently sharp determination of the critical epoch to assert the amount of lag. The best determination which I am at present able to make is as follows. The sun-spot maxima of 1848, 1860, 1871, and 1883, follow the minima of the zodiacal light by +1, -1.5, -1.5, +1.5 years respectively. The sun-spot minima of 1856, 1867, and 1878, follow the maxima of the zodiacal light by +1, -1, +2.5 years respectively.

As to the working hypothesis, the suggestions put forward by Huggins in the Bakerian Lecture for 1885 seem in slightly varied form to meet all the facts which I am at present able to bring to bear upon the subject. There is evidence in the variation in the light of Encke's comet, as well as in the disturbance of its motion, that approaching the time of sun-spot maximum it meets matter moving towards the sun which it does not meet at the time of sun-spot minimum. Whence this matter comes may perhaps be questioned.

Observations seem to have been very nearly dropped since Weber's death in 1883. I am sure Dr. Muirhead will join with me in calling the attention of observers to this subject, and in asking that those observatories favourably situated would give us continuous records both as regards place, spectrum, and polarization.

O. T. SHERMAN.

Baltimore, Md., November 15.

### The "Tamarao" of the Philippine Islands.

DANS le numéro d'"August 16" (vol. xxxviii. p. 363), vous donnez une lettre du Dr. P. L. Sc'ater au sujet du *Tamarao* de

Mindoro. Je crois que le Musée de Dresde s'en est déjà occupé; mais, sans avoir eu connaissance de ce travail, j'ai publié une note dans le tome ii. de nos Mémoires (Trübner, London) concernant l'histoire naturelle de l'Empire Chinois (p. 90), sur le *Tamarao*. J'y constate que c'est un buffle, et je propose de le nommer *Bubalus mindorensis*. Il n'a rien de commun avec l'*Anoa* des Célèbes, au moins en ce qui concerne les dents.

Je suis curieux de voir dans le prochain numéro des P.Z.S. une opinion contraire à celle de 1878. En dix ans on fait du chemin.

Je vous serais reconnaissant, Monsieur le Directeur, d'insérer ce petit mot dans votre correspondance.

P.-M. HEUDE, S.J.

Musée de Zikawei, près Shanghai, 15 Octobre.

### THE EARLIEST RACIAL PORTRAITS.

THE earliest representations of races that are preserved to us have been strangely neglected hitherto. On the Egyptian monuments are carefully sculptured and coloured figures of the various races that fell from time to time within the reach of conquest, or that entered into relations with Egypt, dating from the third millenium B.C.; yet till last year no attempt had been made to secure copies of these, free from the inevitable errors of mere drawings. At the desire of the British Association I took up this work, and made a series of casts of 280 heads from the sculptures, besides noting the colours of all paintings of races that I could find. These casts I then photographed, and the prints of the photographs can be obtained at cost price of printing.<sup>1</sup> These photographs are the source of the blocks (prepared by Messrs. Harper and Brothers) used in this paper, which, therefore, are perfectly automatic copies of the original sculptures.

In a recent article (NATURE, August 2, p. 321) Prof. Sayce has already noticed some of the conclusions to be drawn regarding a fair race in Palestine, so that it is needless here to repeat his statements; the actual portraits will, however, enforce his conclusions. The Amorites, who occupied the whole of Palestine, are seen (Fig. 1) to have fine though powerful features, quite different from the Jewish-Assyrian or the Egyptian types, with dolichocephalic heads; a type of face quite in accord with the light complexion and red-brown hair which they appear with in a painting of about 1500 B.C. They differ thoroughly from the features of the surrounding races of Hittites, Philistines, and Bedawin, as sculptured by the same artists, so that we are clear of the influence of mere conventionality. The Thahennu of Northern Africa, the Kabyles of modern times, show (Fig. 2) closely the same features, with only a slightly different beard and the long lock of side hair characteristic of the peoples of that region. Of the very few other portraits of Aryans that appear in Egypt, one of the most interesting (Fig. 3) is the primitive Greek woman, one of the captive Hanebu, or "lords of the north" (1400 B.C.). This has a very expressive and intelligent face, and the wavy sidelock and back hair recall the archaic Greek sculptures and vase-paintings. The stone has been unfortunately injured, but this precious proto-Greek is the only one remaining of the group.

In considering the origin of the Egyptians themselves, we are met with the difficulty that they are unlike any of the well-known neighbouring races. On the monuments we find, however, the Punites, or people of the southern shores of the Red Sea; and the resemblance between their features and those of the Egyptians is strikingly close. This noble of Pun (Fig. 4), has so precisely the face of Seti II., that either might be intended for the other. The evidence of relationship is not only in feature; the Egyptians coloured themselves as the red race, in contrast to the yellow Libyan, the brown Asiatic, and the black Negro in the four great divisions of mankind: they also colour the

<sup>1</sup> Apply to Mr. Harman, 75 High Street, Bromley, Kent.