The Exeter Museum

THE paragraph in NATURE of the 23rd ult., respecting the Royal Albert Museum at Exeter, has excited my curiosity. Will you be so good as to mention an instance or two in proof that the museum "has done much towards attracting attention to the value of scientific knowledge in the West of England?"

It is difficult for a stranger to see how the case of the Plympton Grammar School can be ascribed to its influence.

Feb. 25 INQUIRER

Aurora Australis

[Extract from a letter received from Captain H. P. Wright, Ship *Gasfarth*]

Madras, Dec. 5.

I ENCLOSE you an account of the Aurora Australis as we saw it in the South, and I might also state that Mr. Pogson (Madras Observatory) says that the magnetic disturbance in these two days, 14th and 25th October, was so great that his instruments would not register the amount.

(Signed) H. P. WRIGHT

"October 24, 1870.—New moon at 6 P.M., lat. 42° S., long. 39° E.; at 7.30, as the twilight began to fade in the sky, we observed a bright rosy light at first resembling the reflection from a very red fire in the southern heavens. It extended from W. to E., and was visible from 8° to 50° high, being brightest at about 35° or 40°. Bright stars of the first and second magnitude shone through it. This cloud of crimson light had nearly all faded away by 9 P.M., first in the south-western direction, and so on gradually to the south-eastward. It may have been blown along by the wind, which was N.W. by W., but I did not think so. Other light clouds were passing; the sky below was its usual colour, and the stars shining very low down. As soon as this had passed away, there came a yellowish white, or milky white, light in the southern sky, and, as it were, taking the place of the crimson light. I should guess it to be about equal to ¼ of the moon s light, and showing a little bank of clouds of a dark-grey colour some 4° or 5° above the horizon underneath. This continued until 10.40 P.M., when it suddenly assumed a grander appearance. There was one long line of the brightest crimson some 8° or 9° broad, reaching up from south towards north, and some 70° high, fading into the normal colour of sky; this rose up a little to the west of the Southern Cross, on from this to the eastward was a great cloud or clouds of this bright crimson light, the bright star Canopus &c. showing through with a deep yellow light, and, passing over all, cumulus clouds carried somewhat quickly by the brisk breeze then blowing. To give, perhaps, a better estimate of the yellowish-white light, we could as long as it lasted only see the stars in the Southern Cross indistinctly. By midnight, or a little after, it all passed away, and we had lightning to the S.W. in the middle watch. The following night was very rainy, but the strong crimson and white light could still be discerned."

Aurora by Daylight

IN NATURE of Dec. 15, a correspondent asks the question, "Can Aurora be seen in daylight?" I answer, yes, beyond a doubt. In the autumn of last year (I cannot give the date nearer than that it was early in Ooctober) my eye was attracted by an unusual motion, in what at the first glance appeared to be a light fleecy cloud, but was in reality a broad ribbon of Aurora of a yellowish white colour, which changed its form and position with the peculiar streaming motion of the Aurora, sometimes almost fading entirely and again recovering its comparative distinctness.

It was about four o'clock in the afternoon when my attention was drawn to it, and I watched until late in the evening, and saw it as the dusk came on, supported by fainter streamers of light, which stole out as the darkness increased, and almost imperceptibly grew into one of those magnificent auroral displays so frequently seen here.

The Aurora, as I first saw it, was about N.W. by N., and I should say 30° above the horizon, and the sky was beautifully clear and free from clouds.

Will any of your correspondents inform me if the intensity of auroral light, as proved by its visibility in daylight, teaches us anything more than is at present known of the Aurora? And I should be much obliged to anyone who will inform me if the spectrum of lightning has ever been obtained, and if so, how it compares with the spectrum of the Aurora.

W. G. THOMPSON

Matapediac, Province of Quebec, Feb. 4

Tigers at Bay

IN NATURE for Feb. 2, p. 275, a doubt is expressed as to whether a tiger when in danger will ever take to a tree. An anecdote related in vol. 2, p. 112 of De Beauvoir's "Voyage Round the World," seems to settle the question:—"Attacked and conquered by the buffalo, the tiger bounded some thirty feet into the air into a cocoa-nut tree. Some twenty natives were in an elevated position amongst the branches of this tree; in one and the same moment they let themselves fall like ripe fruit from a tree that is shaken." G. E. D.

Furzewell House, Torquay

Dr. Donkin's Natural History of the Diatomaceæ

THE reviewer of the above-named work (see NATURE, vol. iii., p. 210) describes the plates as inferior to those in the Synopsis. With this opinion I fancy many will differ; as correct representations of the species described, they are far in advance of those in the Synopsis, for example, compare the figure of *Navicula tumens* in the latter work with *Navicula rostrata* in Dr. Donkin's; with the exception of the outline, the figure in the Synopsis does not resemble that species, and is inferior to Ehrenberg's in the Microgeologie. Also compare *N. Hebes*, *N. palpebralis*, *N. subsalina*, *N. latiuscula*, *N. alpina*, with the corresponding forms in the Synopsis, and I think the superior fidelity of Dr. Donkin's illustrations will be conceded.

Many of the forms in the Synopsis must have been drawn from memory, they are so glaringly inaccurate, *e.g.*, *Amphipleura pellucida* is represented with marginal punctæ, *Nitzschia bilobata* with indistinct distant striæ. The marginal dots on *A. pellucida* existed only in the delineator's imagination; and, as every student of the Diatomaceæ knows, *N. bilobata* has close but distinct striæ.

I agree with "W." that the synonymy might have been more extended. It is, however, next to impossible to identify from figures or descriptions the forms intended by the early observers.

The desirability of giving habitats in full is questionable; three or four localities are sufficient, as with very few exceptions the same species would be found (the localities being similar) in any part of the United Kingdom.

In conclusion, I would remark that the following species are not Ehrenberg's, as stated by "W.," but Gregory's:—*Navicula Smithii* var. *fusca*; *N. Smithii* var. *suborbicularis*; *N. Smithii* var. *nitescens*, and *N. latissima*.

I know the works of Ehrenberg, Kutzing, Rabenhorst, Grunow, and Greville, but who is Cleeve? K.

PROPOSED OBSERVATIONS OF VENUS

THE following circular has just been issued by the Observing Astronomical Society:—

The committee of the society have decided to undertake a series of systematic observations of the planet Venus, during one complete revolution, for the purpose of obtaining results that shall lead to our becoming better acquainted with the markings which are visible on her surface, and a correct knowledge of their form and permanency.

In common with other observers it has been to them a matter of regret that although this beautiful object approaches nearer to us than does any other member of the solar system (our satellite excepted), yet that our knowledge of its superficial condition should be far less than of those planets less favourably situate. In most astronomical works the information concerning Venus is very meagre, whilst the drawings of her appearance exhibit, in the majority of cases, merely a blank crescent.

Yet, in turning to the ancient observations made of this planet, the committee have been struck by the large number recorded, many exhibiting well-defined markings, and when they considered the numerous observations of