

"9h. 13.5m. G.M.T. The broadening of the east ansa near its end is probably due to Tethys and Enceladus being on opposite sides of it near its east end. 9h. 22m. The east ansa seemed a little longer than the west, perhaps due to Tethys now following it. Dione was seen close to the east end."

With the other observations and remarks of M. Bigourdan I quite agree. The straightening of the northern edge of both ansæ has frequently been noticed by me both before and after May 20. So lately as June 3 both ansæ seemed broadest at a distance of three-fifths of their length from the ball, and the following ansa was almost detached from the ball, partly by the shadow thrown by the ball on it, and partly by the more elevated part of the middle ring concealing all within it in the neighbourhood of the ball.

A. FREEMAN.

Murston Rectory, Sittingbourne, June 6.

Aurora.

THE aurora of May 18 was seen here. I first noticed it at 11 p.m. (Dublin time), and watched it until 1 a.m., though I did not see either the beginning or the ending. It extended from west-north-west to north-north-east, and had a general altitude of 30°, though occasional streamers reached beyond Polaris. It was moderately bright, but certainly not brilliant, and showed no colour. About 12 o'clock horizontal streamers began to show themselves like electric search-lights, and continued for some time, their appearance being accompanied by a lengthening upwards of the radial streamers. The air was slightly hazy, and there was much stratus about, with detached masses of cumulo-stratus coming up from the west. Wind-force 3 of Beaufort's scale; barometer 30.05, stationary.

JAMES PORTER.

Crawford Observatory, Queen's College, Cork, May 31.

The Atomic Weight of Oxygen.

I NOTICE that Lord Rayleigh gives the following summary of results on the atomic weight of oxygen:—

Dumas	1842	15.96
Regnault	1845	15.96
Rayleigh	1889	15.89
"	1892	15.882

showing the remarkable fact that the atomic weight has been steadily decreasing for the last fifty years. I would suggest, as the explanation of this, that the increased population of the world, together with the great consumption of coal, have caused great wear and tear of these atoms, so that they are now mostly deficient in weight. It would seem, in fact, desirable that a Congress of chemists should be called to consider the question of providing for the renovation of the oxygen supply, and issuing trustworthy atoms of the standard weight, 16, as sealed patterns.

ROBT. LEHFELDT.

Firth College, Sheffield, June 3.

The Nitric Organisms.

I AM most reluctant to occupy any of your space with a claim to priority. A statement made on p. 137 of your last issue can hardly, however, be allowed to pass without notice. Dr. P. F. Frankland states in his lecture at the Royal Institution that the possibility of the existence of a nitric organism was foreshadowed by himself, and that this hypothesis has recently been confirmed by Winogradsky. He then describes the method adopted by Winogradsky for separating the nitric from the nitrous organism, and the chemical properties of the former. The fact that the existence of a nitric organism was proved in the first instance by myself, its separation from the nitrous organism effected, and its chemical behaviour studied, before any publication on the subject by Winogradsky, is *entirely omitted!* Frankland's statement of the case is the more remarkable as Winogradsky frankly admits in his paper that our results were nearly the same, and that his were published subsequently to my own.

R. WARINGTON.

Harpenden, June 10.

NO. 1181, VOL. 46]

Carnivorous Caterpillars.

EVERY experienced breeder of Lepidoptera knows to his, or her, cost that many caterpillars are either habitually, or casually, carnivorous and cannibalistic.

Useful hints on this subject are given in Dr. Knaggs' "Lepidopterist's Guide" (Gurney and Jackson).

Lewisham, June 13.

R. MCLACHLAN.

The Cuckoo in the East.

IN May 1887 I wrote to you that I had heard the cuckoo at Mussoorie. This year, on coming up here, I heard it at Doneira (about 2000 feet) and at Mamul (4000 feet). I have been here five days and have not heard it at all. There has been a deficiency of rain here, and it has been unusually hot. Both notes were very clear and distinct.

Dalhousie, May 22.

F. C. CONSTABLE.

THE NEW LONDON UNIVERSITY.

WE have received for publication from the Association for Promoting a Professorial University for London the following proposals, adopted by the Association at a meeting held on Tuesday last:—

(1) It is desirable that there should, if possible, be one University in London.

(2) The objects of the University should be to organize and improve higher education and also to promote the advancement of science and learning.

It is desirable that the University be constituted on the following lines:—

(3) Subject to Clauses (9) and (12) the University to be governed by a Senate which shall ultimately consist of the Professors and a certain number of Crown nominees.

(4) The Professors to be nominated in the first instance by some independent authority, such as the Crown or the Commission contemplated in Clause (14), afterwards in such manner as the Senate may determine.

(5) The University to have power to absorb institutions of academic rank in London, which may be willing to be absorbed, due provision being made for protecting the interests of the teachers in such institutions, and for preserving the character of special trust-funds.

(6) The University to have the power of appointing Readers and Lecturers, either to supplement the teaching of the Professors, or to deliver graduation or other courses of lectures within the metropolitan area at such places as may be determined by the Senate.¹

(7) The University to have power to grant degrees and to institute degree examinations. These examinations may, if found necessary, be different for those who have followed prescribed courses and for those who have not. Each Professor of the University to be *ex officio* an Examiner in the subject of his chair, but not necessarily to take part in every examination in that subject. Examiners, who shall not be Professors in the University, to be appointed by the Senate to take part in all degree examinations.

(8) The Professors, Readers, Lecturers, and other Teachers of the University to be grouped into Faculties, which shall have such consultative and administrative powers as shall be determined by the Senate.

¹ This side of the University work would probably include teaching of the following kinds:—

(a) Teaching, conducted in the University Buildings, supplementary to that of the Professors.

(b) Courses of instruction of a special or advanced character recognized by the University, e.g. of the type given by the German *Privat-Dozenten*.

(c) Teaching of a more or less academic character conducted by lecturers appointed by the University at Institutions and Colleges, the objects or the standing of which render complete absorption into the University undesirable.

(d) Lectures at various local centres of the type known as "University Extension" lectures.

(e) Courses of lectures or occasional lectures by members of the University staff, or by other persons recognized by the University, for which a convenient centre might, with the co-operation of the Corporation of London and of the Mercers' Company, be found at Gresham College.