

some cases, different nuclei may give rise to separate tails; such would seem a possible explanation of Commander Sampson's observation of the comet of 1882 (Fig. 20).

J. NORMAN LOCKYER.

(To be continued.)

THE ANNIVERSARY MEETING OF THE ROYAL SOCIETY.

THE anniversary meeting of the Royal Society was held on Friday last, St. Andrew's Day. The President read the anniversary address—a copy of which has not yet reached us—and presented the medals. Prof. Huxley received the Copley Medal, and Mr. Crookes the Davy Medal in person. Prof. Osborne Reynolds was also present to receive one of the Royal Medals. The other Royal Medal was received on behalf of Baron von Mueller by Sir Graham Berry, Agent-General for Victoria, and the Rumford Medal, which had been awarded to Prof. Tacchini, was received on his behalf by the Chevalier Catalani, the *Chargé d'Affaires* at the Italian Embassy. The Society next proceeded to elect the officers and Council for the ensuing year. The selected names we have already published.

In the evening about 175 Fellows and guests dined together at Willis's Rooms. Among the guests were eminent representatives of the English Government, of foreign nations, and of art and literature. Sir Frederick Leighton, in proposing "The Royal Society," said:—

"A great honour is done to me in intrusting to my hands the toast which I have risen to propose, for it is the toast round which the chief sympathies of those who sit at this table are centred, be they hosts or be they guests—namely, prosperity to that ancient and honoured body, the Royal Society. It is, indeed, a toast favoured in this—that no inadequacy of presentment could rob it of your warm reception, but it is one, also, which, in one sense, the individual now before you is so little fitted to propose that I could almost suspect you, Sir, of a little prompting of humour in your selection. I do not mean because the bodies with which you and I have respectively the honour to be connected are now, in Piccadilly, as they were in former days in Somerset House, next-door neighbours, and because it is not habitually to one's next-door neighbour that one looks in life for a kind word; but on this other and more cogent ground—that the subject on which you bid me speak is one in regard to which I am entirely ignorant, and that my attitude is therefore not free from ludicrous aspects in the face of a body to which grasp and accuracy of knowledge is the one thing needful, and precision of statement the first duty of man; and this, Sir, certainly not least in the day of your headship. And yet, on closer view, it is not knowledge, perhaps, that you require of the proposer of this toast so much as respectful sympathy; and that you find in me to the full. No, gentlemen, you do not demand in me knowledge beyond that of the average ignoramus who watches you in wonder as you sound with divining eyes the realms of the heavens above and of the earth beneath and of the water under the earth, and lay bare before us the very beat of the life-pulse of Nature. You demand in me, I say, rather, some sympathetic sense of your magnificent missions, some adhesion to the faith that you profess, and for these you do not look to me in vain. It happens to me, Mr. President, from time to time to have to acknowledge words of recognition of the services of the great institution to which I am bound in a like capacity with your own; and, knowing how earnestly that body is bent on the worthy discharge of an arduous task, such words are deeply grateful to me; but in every such case I see in my inner mind, behind and above the institution which I serve, the sweet and serene countenance of our divine mistress—of Art herself; and so, also, in offering this toast to the acclamation of your guests and to the acceptance of your flock, I am thinking less of the noble services of your renowned Society, less of the many names which are its high adornment at this time and our country's pride, than of your mistress beneficent and supreme, the scatterer of darkness—Science. All of us walk in the daylight of her illumination, the humblest layman can bear witness to her, and the most ignorant concerning the paths she treads may yet not unbecomingly declare his gratitude to her ministers, and express, as I now express, the hope that they and their successors may in the bond of this constituted brotherhood long continue to tend the flame and feed the increasing splendour of her sacred inextinguishable lamp."

The President of the Royal Society responded in a short speech, in which he compared the Royal Society to a wave of light moving onward through space, conveying intelligence from one portion of the universe to another far-distant portion. The molecules which it set in motion had but a brief existence, but the wave moved ever onward.

SCIENTIFIC SERIALS.

THE *Journal of Botany* is still largely occupied with the discussion of points connected with botanical nomenclature, in which English, American, and Geneva botanists take part. The October number contains also a description of a new genus of Berberidaceæ by the Japanese botanist Tokutaro Ito.—In the November number are papers on the genus *Carex*, by Mr. L. H. Bailey; on Ferns from West Borneo, by Mr. J. G. Baker; on South Derbyshire plants, by Rev. W. R. Linton; and on the Desmids of Maine, by Mr. W. West. Mr. W. H. Beeby records the interesting fact that of the two very nearly allied species of valerian, *Valeriana Mikani* and *sambucifolia*, one is very attractive to cats, while to the other they are quite indifferent.

In the *Botanical Gazette* for September, Mr. C. Robertson completes his essay on zygomorphy and its causes, summing up the results of his observations. The remainder of the number is largely occupied by abstracts of botanical papers read at the Cleveland meeting of the American Association for the Advancement of Science.—In the October number are two important anatomical papers, by Miss Emily L. Gregory on the development of cork-wings on certain trees, and an illustrated one by Mr. W. H. Evans on the stem of Ephedra. Mr. G. Vasey contributes an interesting article on the characteristic vegetation of the North American desert.

THE number of the *Nuovo Giornale Botanico Italiano* for October 1888 is entirely occupied by reports of the papers read before the annual meeting of the Botanical Society of Italy held at Florence in September, many of which are of considerable interest.—Sig. C. Massolongo describes the germination of the spores of three new species of Sphærosporidae—*Phyllosticta Bizzozzeriana*, *P. Aristolochie* and *Phoma Orobanchie*. He maintains that the only difference between pycnidia and spermatogonia is that the sporules (stylospores) contained in the former are capable of germinating directly, while those formed in the latter (spermatia) have no such power.—Sig. A. N. Berlese adds to the very numerous fungus-parasites of the vine two new ones, *Greenaria fuliginosa*, S. et V., and *Aeschylia rufomaculans*, Berk.—Sig. G. Gasperini has investigated the nature of the organisms which bring about the fermentation of the palm-wine known to the Arabs under the name of "legibi." He finds it to be due to *Saccharomyces cerevisiae*, which is always accompanied by *Bacillus subtilis*. On the surface is also commonly found a pellicle of *Saccharomyces Mycoderma*.—Prof. A. Borzi describes a new species and genus of Ascomycetes—*Eremobotium Cymbalaria*, found on half-ripe capsules of *Linaria Cymbalaria*.—The little-known germination of the seeds of the water-lily, *Euryale ferox*, is described by Sig. G. Arcangeli, the chief peculiarity being the almost entire suppression of the elongation of the radicle.—Prof. L. Macchiati claims to have discovered an entirely new substance, which he calls *xanthophyllin*, as a constituent of the green colouring-matter of plants. It is crystallizable, and altogether distinct from xanthophyll and from the pigment of yellow petals.—Prof. A. Borzi describes the mode in which *Xerotrapsium* displays itself in some ferns—*Ceterach officinarum*, *Notochloa Marantæ*, *Asplenium Trichomanis*, and several species of *Cheilanthes*; understanding by this term the mechanical contrivances by which an organ protects itself against excessive desiccation.

SOCIETIES AND ACADEMIES.

LONDON.

Royal Society, November 22.—"The Waves on a rotating Liquid Spheroid of finite Ellipticity." By G. H. Bryan, B.A. Communicated by Prof. G. H. Darwin.

The hydrodynamical problem of finding the waves or oscillations on a gravitating mass of liquid which when undisturbed is rotating as if rigid with finite angular velocity in the form of an ellipsoid or spheroid, was first successfully attacked by M. Poincaré in 1885.