PROCEEDINGS.

APRIL, 1881.

A monthly evening meeting of the Society, the first of the present session, was held on Tuesday, the 12th April, His Excellency Sir John Henry Lefroy, K.C.M.G., F.R.S., the President, in the chair.

Mr. Bernard Shaw, who had previously been nominated by the Council, was balloted for, and declared duly elected as a Fellow of the Society.

The Honorary Secretary (Mr. BARNARD) brought forward the usual returns, viz.:—

1. Number of visitors to Museum during March—On Sundays, 558 ; on week days, 940 ; total, 1,498.
2. Ditto to Gardens, total 4,293.
3. Plants and seeds received at Gardens, March.
4. Books and Periodicals received.
5. Presentations to Museum.

Meteorological Returns.

1. From the Hobart Marine Board. Tables from Bruni Island Lighthouse for January, February, and March ; Swan Island for ditto ; Goose Island for January ; King's Island for ditto ; and Kent's Group for ditto.
2. From Mr. D. C. Purdy, observations taken at Macquarie Harbour during January and February.
3. From Mr. Roblin. Tables of Results of Meteorological Observations taken at the Lighthouses, etc., on Tasmanian Coasts during 1880, compiled from monthly returns furnished by the Hobart Marine Board.

Time of leafing, flowering, and fruiting of a few standard plants in the Botanic Gardens during January, February, and March :—

January 10. Veronica angustifolia in full flower.
,, 12. Jargonelle Pear ripe.
,, 14. Moore Park Apricot ripe.
,, 22. Grevillea robusta in full flower.
,, 28. Black Mulberry commencing to ripen.
February 8. Kerry pippin Apple commencing to ripen.
,, 14. Windsor Pear do. do.
,, 17. Bon Chretien Pear do. do.
,, 18. Greengage Plum do. do.
,, 27. Ash commencing to shed seed.
,, 28. Sycamore do.
March 6. Seckle Pear commencing to ripen.
,, 8. Tips of Hornbeam turning brown.
,, 10. Coe's Golden Drop Plum ripe.
,, 16. Tips of Elm turning yellow.
,, 18. Horsechestnut leaves turning brown.
,, 24. Ash leaves commencing to fall.
,, 27. Oak leaves do. do.

The presentations to the Museum were as follow :—

1. From Mr. A. K. Johnston, Townsville, North Queensland. Specimen of Sponge from the Great Barrier Reef. Two bottles containing Lizards, Centipedes, etc., from Etheridge River. Shell of Freshwater Tortoise. Two Boomerangs made by natives of North Queensland.

2. From Mr. Robert Henry. Skeleton of a Wombat from a sand-bank near Low Heads.

   [These bones were exposed by the action of the wind cutting through the sandbank, which must have been at least 25ft. high where it covered them.]

3. From Mr. Wm. Tarleton. Bones of recent Marsupial Animals, etc., from a calcareous deposit on Kent's Group, Bass' Straits.

   [The bones were found in a cavity 50ft. in depth, washed out by floods, and situated 600ft. above sea level.] Specimens of *Helix Simsoniana* from the same locality.

4. From Mr. J. Moore. Fragments of bone, teeth, etc., from a Tertiary deposit, exposed by blasting at the Alexandra Battery, One-Tree Point. [These specimens are referred to in Mr. Johnston's paper, on the condition of the Estuary of the Derwent during the tertiary period, read at the same meeting.]

5. From Mr. H. Wright, Glenorchy. Head of Pelican *(Pelecanus conspicillatus)* from George's Bay.

6. From His Excellency Sir F. A. Weld, K.C.M.G. A collection of Bird Skins (14), and three nests of Weaver Bird *(Ploceus baya)* from Singapore.

7. From Captain Boon, barque Mary Blair. Fragment of an earthen vessel from the ruins of the Castle of Henry IV., at Dieppe, France. Specimen of Granite broken from Cleopatra's Needle.

8. From Mr. Finlayson. A Modern Greek Copper Coin.

9. From Mr. G. A. Power, Ross. Specimen of "Native Bread" *(Mylitta Australis)*, which, when fresh, weighed 25lbs.

10. From Mr. Ormond FitzGerald. A White Hawk *(Leucospiza Novæ Hollandiæ)*.

11. A collection of British Birds' Eggs, from Mr. W. R. Stephens.

[Mr. E. D. Swan drew attention to this valuable donation. The collection contains more than 500 eggs and about 150 species, many of them of rare occurrence in the British Isles. As they were all procured by Mr. Stephens himself, the various specimens can be properly identified. Should, as has often been proposed, the introduction of many of the English birds into this colony be carried out, some legislation for their protection, especially during the breeding season, would be necessary. This collection would then be of very great use in making the eggs of the protected birds familiar.]

12. From Mr. S. H. Wintle. A sample of the so-called Mineral Wax *(Zietrisikite*, Dana) from Utah, America. Section of Pepper Tree *(Drimys aromatica)* from George's Bay. Specimens of Sandstone and Slate in contact with Granite, from George's Bay.

[In reference to this presentation, Mr. Wintle remarks :—"For a long time the question of the age of the granite so extensively developed in the stanniferous districts of the North-east Coast of this island has been one of much interest for me. My efforts to obtain a clue to that age had been unrewarded till about three years ago, when, near the head of the Scamander River, I picked up a specimen of slate in contact with granite. (See specimen No. 1.) Not succeeding in finding the parent rocks in contact, I had to be content to wait till I could obtain further evidence of what I conceived to be the facts of the case, viz., that the granite of this region was eruptive, and consequently of more recent age than the associated sedimentary rocks of older palæozoic date. The missing link in the geological chain was supplied about six months ago, through blasting operations being carried on in the creek of the Saxelby tin claim, seven miles from George's Bay. Here, then, was brought to light the further evidence required to support the conclusions at which I had arrived from an examination of No. 1 specimen,

in obtaining the granite in contact with sandstone transmuted more or less at the point of contact. (See specimen No. 2.) In No. 1 specimen it will be seen that the slate has been altered to no small extent by the granite, and that there has been an interchange of particles as though the slate had been rendered soft or plastic by the heat of the eruptive rock under great pressure; while in No. 2 specimens the sandstone has been changed at the point of contact into quartzite by fusion of the silicious particles, the result of the same agency. In the Ringarooma district, I have since found examples of the same character, *i e.*, granite with altered sandstone attached. Here, then, is to be seen good evidence of the granite being of later origin than the stratified formations associated with it. But there is no evidence, that I have seen, of the precise geologic age during which the granite made its appearance, nor have I succeeded in discovering any palæontological remains in the sedimentary rocks of the districts in question that would enable the geologist to decide whether they were either upper or lower Silurian or still older Cambrian systems. In New South Wales there are Devonian granites, according to the late Rev. W. B. Clarke, if I quote that geologist correctly, and as there is much in common with the Tasmanian formations, it is not unlikely the granite under consideration may be referable to the same epoch. This granite having burst through and displaced the older palæozoic strata, has in turn been erupted by the greenstone and basalt. Striking examples of this are to be seen in the Fingal district, where greenstone caps the granite, while in most of the higher hills in the vicinity of Thomas' Plains basalt is the capping rock of the granite. Precisely the same conditions obtain at Mount Bischoff of the granite erupting, displacing, and altering at point of contact the older palæozoic sedimentary formations; and when other analogous conditions are taken into consideration, it is quite possible that the granitoid formations of that part of the island owe their origin to the same period as these of the East Coast."]

13. From the Rev. George Brown, Sydney. Two carved wooden Masks, worn by the Natives of New Ireland in their dances.
14. *a* From Mr. James Barnard. A miniature Silver Medal, struck at the Mint in commemoration of the Melbourne Exhibition, having the words "Melbourne International Exhibition, MDCCCLXXX," encircling the Queen's Head, and on the obverse the motto "Vitam excoluere per artes."
    b Sample of Victorian Coal from Cape Patterson, 80 miles from Melbourne, taken from the "Queen Seam," 4ft. thick. Distant 18 miles from the shipping place. With a printed description and opinions of the Press. From Mr. J. S. Butters, Melbourne.
    c Coloured view of the Island of Ovalau and the Town of Levuka, Fiji. From the same gentleman.
    d Sample of Alluvial Tin, from Aberfoyle, Avoca, received from Mr. F. A. Padfield, Campbell Town.
    e Sample of Tin Stone from the lode of the Great Extended Pieman River Co. From the same gentleman.
15. From Mrs. W. Murray. Specimen of the Indian Minah *(Acridotheres tristis)*, prepared and mounted.
16. From Mr. E. D. Swan. Specimen of Shell *(Cassis rufa)*, with cameo cutting.
17. From Mr. James Simpson. Four Granite boulders, remarkable for their almost perfectly spherical form, from Thomas' Plains.
18. From Mr. Wm. Exton, Oatlands. Specimen of the Grey Flying Opossum *(Belideus sciurus)*.
19. From Dr. Macfarlane, New Norfolk. Specimen of the Australian Crane *(Grus Australasianus)*.
20. From Mr. W. H. Burgess, M.H.A. Specimens of Auriferous

Quartz from the "New Chum," "West Chum," and "Golden Era" companies claims, Lefroy; and Tasmania Co., Beaconsfield. Tin ore from Cumberland Co., West Coast; and from Ben Lomond Co., Ben Lomond.

21. From Mr. C. C. Nairn. Specimen of Fossil Wood, from railway cutting, Jerusalem.
22. From Masters G. Stewart and B. Edwards. Nests and Eggs of Tasmanian Birds.
23. From Mr. R. B. Sheridan, Maryborough, Queensland. Specimen of the peculiar fish, *Ceratodus Forsteri*, from the Burnett River.
24. From Mr. Terry, Lachlan, New Norfolk. A Cormorant *(Phalacrocorax carboides)*, unusually marked.
25. From His Excellency Lieut.-General Sir J. H. Lefroy, C.B., K.C.M.G., F.R.S. A handsomely framed portrait of Admiral Sir James Ross, R.N. Also, a specimen of a fossil *(Sanquinolites Etheridgei?)* from the excavation at the New Battery, Kangaroo Point.
27. From Mr. T. Stephens. Specimen of *Eucalyptus cordata*.

[In reference to specimens of *Eucalyptus cordata*, which had been forwarded to the Museum by Mr. Richard Hill, of Hospital Bay, and were on the table for the inspection of the Fellows, Mr. STEPHENS remarked that this interesting tree, discovered and described long ago, had been lost to sight for more than forty years. It was originally reported as a denizen of Recherche Bay by the French expedition under Labillardière; and long afterwards, in Sir John Franklin's time, it was found by Sir Joseph Hooker and the late Mr. Ronald Gunn "in the Huon district," no precise locality having been recorded. From that time to the present it appears to have eluded the search of botanists; and it was only in October last that, in answer to repeated enquiries, specimens were at last obtained from Recherche Bay, but without flower or fruit. A few weeks later it was found by Mr. Hill, on the Huon road, probably on the same spot where it was last seen.] Shortly after the date of this communication *Eucalyptus cordata* was found by Mr. Stephens and Mr. Abbott on the foot hills of Mount Wellington near the Huon road, within five miles of Hobart.

28. From Mr. C. E. Beddome. Specimens of two new Marine Shells *(Delphinula Johnstoni, and Leda Lefroyi)*, dredged off Three Hut Point, D'Entrecasteaux Channel, with descriptive notes.

Mr. STEPHENS said that the Royal Society could not meet for the first time since the death of the late Mr. Ronald Gunn without paying a passing tribute (a more formal record being reserved for a future occasion) to the memory of one whose name was intimately associated with its earliest history. From the time of his arrival Mr. Gunn's name appears associated with every early attempt to cultivate a knowledge of the natural products and resources of the colony: in the department of Botany he was one of the first pioneers, and for many years stood almost alone. As a genial and kindly companion and friend, ready at all times to place his stores of general and special information at the service of any one interested in his favourite studies, he would long be remembered by those who had, if only for a brief period, the advantage of his acquaintance; while as an explorer of some of the wildest parts of Tasmania, at a time when settlement in the north-western and western districts had not yet begun, he had rendered important service to the colony, and had had few to rival him since for indomitable energy and fertility of resources. As one of the founders of the Royal Society his name would always be held in honour in this place.

His EXCELLENCY, the President, then read the opening address.

Mr. R. M. JOHNSTON, F.L.S., read an elaborate and carefully prepared

paper, illustrated by coloured diagrams and a map, entitled "Notes showing that the existing Estuary of the Derwent was occupied by a Fresh-water Lake during the Tertiary Period."

The PRESIDENT having invited an expression of opinion on the subject of Mr. Johnston's paper, Mr. STEPHENS said that if there appeared to be any hesitation on the part of members present in volunteering remarks, it was not caused by any want of appreciation of the admirable paper which had just been read, but rather by the evident impossibility of properly discussing the numerous questions of interest which had been brought forward. The formation so fully described by the author of the paper had frequently been brought under the notice of the Fellows in former years, and, among others by one whose presence at their meetings would long be missed, the late Mr. Morton Allport, who was intimately acquainted with the surrounding district ; but these had been chiefly conversational discussions, of which no record had been preserved, and the Society was greatly indebted to Mr. Johnston for having presented in a concrete form so much interesting matter for future study and consideration. He (Mr. Stephens) was inclined to regard the tertiary deposits in the lower part of the Derwent basin rather as of estuarine and fluviatile origin, with land springs, which he thought were the chief agents in the formation of the beds of travertin at Risdon, and in the suburbs of Hobart, and by the process which is still going on in the formation of similar deposits in various parts of the island. Of the existence of a series of lakes in past times, far up the valley of the Derwent, which had been successively drained by erosion, and had exposed the remains of tertiary beds in the ancient valleys, there could be no doubt. These lakes indeed belonged to a later age, but there was nothing at present known which could invalidate the general conclusion so carefully stated by Mr. Johnston.

A vote of thanks to His Excellency for his opening address, and to the authors of the papers read, as well as to the various contributors to the Museum, closed the proceedings of the meeting.

MAY, 1881.

The monthly evening meeting of the Society was held on Tuesday, the 10th May, Mr. Justin Browne in the chair.

Mr. BARNARD (Hon. Sec.) laid on the table the usual returns for the past month, viz.:—

1. Number of Visitors to Museum, on Sundays 356; on week days 685 ; total, 1,041.
2. Ditto to Gardens, 4,385.
3. Books and Periodicals received.
4. Presentations to Museum.
5. Time of leafing, flowering, and fruiting of a few Standard Plants in the Botanic Gardens during April :—
   12th. Common Elm, leaves commencing to fall.
   14th. Coe's late red Plum ripe.
   15th. Chinese Chrysanthemums commencing to flower.
   24th. Mountain Ash leaves commencing to fall.
   28th. Seeds of Hornbeam ripe.
   30th. Black Mulberry leaves falling.
6. Meteorological Returns.—From the Marine Board, tables for April, from Bruni Island, Swan Island, and Mount Nelson ; Goose Island for February and March.

The presentations to the Museum and Library were as follows :—

1. From Mr. A. Wilkins, Hobart. An albino variety of the Brush Kangaroo *(Halmaturus Bennettii)*, from Spring Bay.