

MAY, 1876,

The monthly evening meeting was held on Tuesday, the 9th May, His Excellency the Governor, President, in the chair.

The following gentlemen, who had previously been nominated by the Council, were balloted for and declared duly elected as Fellows of the Society, viz. :—Right Revd. Bishop Murphy, the Rev. J. H. Brooke Bailey; Messrs. George Gilmore, T. M. Evans, Richard W. Lord, and Dr. E. L. Crowther.

The Secretary laid on table the following returns for the month of April :

1. Visitors to Museum, 1350.
2. Ditto to Gardens, 3907.
3. Plants and seeds received at and sent from Gardens.
4. Time of leafing, flowering, and fruiting of a few standard plants in Botanic Gardens during April.
5. Books and Periodicals received.
6. Presentations to Museum and Library.

Meteorological Returns.—

1. Hobart Town, from F. Abbott, Esq., Table for April.
2. Port Arthur, from J. Coverdale, Esq., M.D., Ditto.
3. New Norfolk, from W. E. Shoobridge, Esq., Ditto.
4. From the Marine Board, Table from Mount Nelson, April; Bruny Island, ditto, February and March; Goose Island, ditto, for March.
5. Sydney, from Government Observatory, printed tables for December, 1875.
6. New Zealand, from Dr. J. Hector, Printed tables, 1874.

The Presentations to the Museum were as follows :—

1. From E. L. Crowther, Esq., M.D.—A large collection of specimens of Tin Ore from lode, stream tin, &c., from various claims, Gould's Country.
2. From Mr. J. J. Martin—Spherical boulder of limestone (*Septarium*) 13 inches in diameter, from Moeraki Beach, New Zealand.—A portion of the stem of a Tree Fern, prepared for picture frame making.
3. From Mr. W. F. Hardy, St. Mary's—Specimens of eggs of Leech.
4. From Mr. A. Jackson, Hamilton—An albino variety of the Wattle Bird (*Anthochaera inauris*).
5. From Mr. R. Lord—Singular growth, resembling an oat, on an ear of wheat.
6. From Dr. Valentine, Campbell Town—A specimen of the Pouched Lamprey (*Geotria allporti*), from the South Esk.
7. From Mrs. Meredith—A valuable, named and classified, collection of Algae from Orford, Prosser's Bay, Tasmania. Collected and mounted by the donor.
8. From Maurice Weston, Esq.—Skeleton of Australian Crane (*Grus australasianus*).
9. From Mr. W. F. Petterd—18 specimens of Land Shells from Yule Island, New Guinea.

[The SECRETARY mentioned that the donor of these specimens was the writer of those interesting letters on New Guinea which have recently appeared in the local press.]

10. From Mr. W. L. Boyes—Two immense Earth Worms from Gould's Country. (These worms, although much shrunk by immersion in spirits, measure about fourteen inches in length with a diameter of fully three-quarters of an inch). Two freshwater Crayfish from same locality.
11. From Mr. J. W. Graves—A Water Crake (*Porzana tabuensis*).
12. From Mr. T. Stephens—Specimens of Wood and Foliage of *Athrotaxis selaginoides* and *A. cupressiformis*.

[In reference to this presentation, Mr. STEPHENS observed that there had hitherto been some doubt as to the species of *Athrotaxis* which furnished the timber known on the North Coast under the name of "pencil cedar," as distinguished from other "red pine," but it now appeared tolerably certain that it was obtained from *A. cupressiformis*, the smaller of the two trees. The logs from which these specimens were cut were from the neighbourhood of Middlesex Plains, and both trees are sparingly distributed in other parts of the North at an elevation of from 1,000 to 3,000 feet. Mr. Ronald Gunn had kindly furnished specimens of the foliage of both species. The red pine of Port Davey had been shown by Mr. J. R. Scott to be *Athrotaxis selaginoides*.]

13. From the Rev. J. E. Tenison Woods, F.L.S.—Specimens of Crabs from Bruni Island.

14. From R. C. Gunn, Esq., F.R.S., F.L.S.—An extensive Herbarium, principally Tasmanian.

[The meeting was informed by the SECRETARY that this great Herbarium, the result of forty years collecting by Mr. R. C. Gunn, was presented to the Museum by the owner with the sole proviso that duplicates should be returned to him. The labour of arranging, re-papering, and classifying such a vast collection would be enormous; but the Rev. W. W. Spicer and Mr. J. R. Scott had kindly undertaken it, and were engaged daily on the task. When this was finished, the presentation, in its perfect state, would again be brought under the notice of the Fellows. Mr. Grant, in the most liberal manner, had brought the several large cases containing the collection, free of cost, from Launceston by the railway. (Applause.)]

His EXCELLENCY remarked that the collection of Algæ (presentation No. 7) by Mrs. Meredith was an exact illustration of a subject he had referred to in his inaugural address, to wit the aid which may be rendered to science by careful collectors. Mrs. Meredith had lately informed him that she had no special knowledge of Algæ, and yet the first scientist in this branch in Europe acknowledges the great obligations he is under to her for new specimens.

The presentations to the Library were as follows :—

1. From the Surgeon General, United States Army, "Report of Cholera Epidemic of 1873, in United States."—1 Vol. 4to, pp. 1025.
2. From C. M. Maxwell, Esq.—First part of a work on the Australian Orchids, published for the Government of New South Wales.
3. From the Linnean Society of New South Wales—Proceedings of the Society, vol. I., part 1.
4. From Dr. Agnew—Publications of the Historical and Archæological Association of Ireland, 1874-5.
5. From Government of Victoria—"Index of Victorian Patents and Patentees" vol. 8.
6. From His Excellency the Governor—A copy of a work entitled "Natural History of Insects, Serpents, and Dragons." By John Johnston, M.D., Frankfort, 1652.

Also a "Brief account of Bushman Folk-lore, and other texts," By W. H. J. Bleek, Ph.D. Presented to the House of Parliament, Cape of Good Hope.

HIS EXCELLENCY, the President, in reference to observations made by him in the inaugural address he had delivered at last meeting, desired to state that Mr. Abbott had been so good as to point out to him that he had been mistaken in supposing that the seeds of inferior varieties of Eucalypti were likely to be passed off on seedsmen or buyers as the seeds of the Blue Gum, *Eucalyptus globulus*. Mr. Abbott had thoroughly investigated the matter, and had convinced him he had spoken under a misapprehension. At the same time he had not spoken either without authority or without seemingly good grounds. It was only on that morning Sir James Wilson

had authorised him to say that, without imputing blame to anybody, he had been so unfortunate as not to have obtained true blue gum seed when he was sending seed to Italy. Therefore it was not, perhaps, to be regretted that the attention of dealers and the public had been called to the matter. It had, however, been made plain, as Mr. Abbott would show, that mistakes could not easily arise in the seed of Tasmanian species; and he hoped that the press would give the same publicity that they had given to his first statement, to the avowal he made that he was now convinced that seed obtained from respectable seedsimen might be relied upon as true to sort, and that he was mistaken in two instances he had adduced. It would appear that the young plants raised at Government House as an experiment must really be blue gum, though strangely altered by culture, soil, heat, or some other cause, not only in the colour but also in the shape of the leaf. He was happy to be able to make this statement, and Mr. Abbott deserved great credit for the trouble he has taken in the matter. It had been further represented to him that he had been mistaken in believing that the destruction of timber and ferns on the sides of Mount Wellington was unauthorised; but that was not the point at all that he had raised; he did not stop to enquire whether the waste and destruction were authorised or not, or even whether some of it might not be on private property or not. Of course all rights should be respected, but any difficulty that might at present be incurred in dealing with private rights would be increased tenfold as years went by, whilst the injury already done was incalculable, and was going on from day to day. It was already the eleventh hour so far as saving the ferns and vegetation of the undergrowth; a great proportion of the larger trees was already gone. What he desired to do was to impress upon them the necessity of taking steps to secure for the people of this city, and for its visitors, a noble space for amusement, for the study of nature, and for health. He begged of those who had the power whilst there was yet time, to consider the interest not only of themselves but of their children and their children's children. He would ask them to look at the efforts which are being now made in England in this direction, and at the enormous sums that such efforts absorb; at the American nation, that, with a wise foresight whilst yet there is time, sets aside and reserves a tract of land the size of a county as a recreation ground and field for the study of nature for the American people. That some similar step should be taken here was the point to which he had endeavoured to attract attention, and if the public would interest themselves in the matter it rested with them to benefit not only themselves, but to confer an incalculable benefit on future generations of Tasmanians. He would now ask Mr. Abbott to read his paper.

Before Mr. Abbott proceeded to comply with the request of the President,

The SECRETARY begged to refer to a resolution passed at the previous meeting, to the effect that a communication should be addressed to the Corporation, pointing out the mischief that was being done by the destruction of the fern trees, etc., on Mount Wellington, and suggesting that steps should be taken for preventing such destruction in future in localities over which the City Council exercised any right. In accordance with this resolution, a letter had been addressed by him to the Mayor (letter read).

Mr. F. ABBOTT, jun., then read the following remarks:—

“Notes on *Eucalyptus globulus* (Blue Gum of Tasmania), compiled for the purpose of showing the improbability of spurious seed being supplied from Tasmania.

“Though I was present at the last meeting of this Society, and heard His Excellency's remarks in reference to the adulteration of blue gum seed, I was not then prepared to offer any explanation in the matter, as I did not at the moment know the circumstances that had led to the state-

ment; but, believing that a mistake had arisen, I regarded it as a matter of duty to institute such enquiries as would remove any doubt existing on the subject.

"It is well known that the blue gum has of late been very extensively planted in various parts of the world. In Algeria and California it is planted by hundreds of thousands, and in the latter place companies have been formed for its extended cultivation. It therefore becomes a matter of some importance to cultivators to ascertain whether it is possible they have been supplied with spurious seed, and are cultivating the wrong plant or not.

"So far as seed obtained from Tasmania is concerned, I cannot believe that any but the true *Eucalyptus globulus* has been supplied. In the first place, the capsule and seed of this species is so distinct from any other known Tasmanian kind, that seedsmen or merchants once having seen them could not be imposed upon by the substitution of any other species; and, again, it is the only indigenous kind producing fertile seed sufficiently large to enable collectors to separate it from the abortive. As a rule, all the other Tasmanian species are sold as they shed from the capsule—that is, the fertile and abortive seed mixed together.

"His Excellency's remarks appear to have originated from the circumstance of his attention having been called to some fallen trees of *Eucalyptus* a short distance above the Springs on Mount Wellington, which were said to have been felled for the sake of their seed, together with the fact that the produce of some seed which he had purchased in Hobart Town as that of the *Eucalyptus globulus* did not appear to him to be the true blue gum.

"With reference to the particular patch of trees referred to, I have not the slightest doubt that they were felled for their seed, which was collected and exported under its proper name (*Eucalyptus urnigera*). There is, in fact, a limited demand for these alpine species of *Eucalypti*, which are required for cultivation in places that have proved too cold for the blue gum. I hold in my hand an order from a French house, Mons. Vilmorin, Andrieux et Cie., which enumerates no less than 64 species of *Eucalypti* of which they require seeds. Included in these 64 species are a few indigenous to Tasmania, three of which are alpine, viz., *Eucalyptus gunnii*, *Eucalyptus urnigera* and *Eucalyptus coccifera*. These forms are found on the mountains, and all are met with on Mount Wellington, from the Springs upwards. *Eucalyptus gunnii* is also common to the Lake district, where it has received the name of 'Cider tree.'

"Though previously aware that these three species had been collected on Mount Wellington by the Brothers Gulliver, I thought it advisable to write to Mr. B. Gulliver for full particulars. His answer I will give in his own words:—

"In reply to your request it affords me much pleasure to furnish you with what particulars I can respecting the collection of *Eucalyptus* seeds. I have collected the following seeds on Mount Wellington, and have purchased the same three species from Mr. Woods, who lives there, namely, *Eucalyptus gunnii*, *Eucalyptus urnigera*, and *Eucalyptus coccifera*. These species I have found only on the mountains of Tasmania. I introduced them into Europe about four years ago, and highly recommended them for cultivation in colder parts of the continent. Since then the demand for the alpine species has increased, owing to their success in resisting heavy frosts, which have destroyed many other *Eucalypti*.

"The following is a list of the quantities exported by me since 1874:—

"10 lbs. *Eucalyptus gunnii*, at 30s. per lb.

"10 lbs. *Eucalyptus coccifera*, at 30s. per lb.

"2 lbs. *Eucalyptus urnigera*, at 30s. per lb.

"The trees of *gunnii* and *urnigera* are felled for their seeds. *Coccifera* can be collected without cutting down the trees.'

"From the foregoing it would appear that there has not been more than 25 lbs. weight exported of these alpine species up to the present time. I believe the Messrs. Gulliver to have been the largest if not the only exporters of these kinds. Mr. F. Lipscombe, of this town, is the only seedsman who has these alpine species in stock, and he has not sold more than a few ounces of them.

"It will also be seen that the market value of the alpine species is 30s. per lb., while pure seed of blue gum is obtainable at from 7s. to 10s. per lb. Even supposing therefore that a similarity existed in the seed, it is highly improbable that the more expensive kinds would be used to adulterate that of less commercial value.

"As regards the plants produced from the seed supplied to His Excellency, whatever appearance they may have put on in their infantile state, I have not the slightest doubt that they will in time take the glaucous hue so peculiar to the young state of the blue gum. The absence of this glaucous appearance in these particular seedlings is only to be accounted for by the fact that they have been raised under artificial circumstances, or, in other words, too much coddled. I have had an opportunity of seeing a portion of the seed in question, and do not hesitate to pronounce it to be the genuine blue gum, or *Eucalyptus globulus*, and I am informed that a portion of the same seed had been previously supplied for sowing at the Cornelian Bay Cemetery, and that in consequence of its having germinated there so freely, it was selected for the Government House Grounds. I now produce seedlings from both places, and it must be admitted that, by an ordinary observer, not taking into consideration the different treatment the plants have received, they might be taken for distinct species, but there is nothing in their appearance which may not be accounted for by difference of culture.

"At the Cornelian Bay Cemetery the seed was sown in patches at intervals about the boundary fences, and left to chance. The result is, many thousands of seedlings, in various stages of growth, but all sturdy, and having the glaucous hue highly developed. At the Government House Grounds, on the other hand, the seed appears to have been sown in boxes and raised in frames, or otherwise shaded and protected. This treatment would necessitate frequent waterings over the leaves, which, in addition to the exclusion of the full influence of the sun would produce the difference in the appearance of the plants.

"I have been informed by His Excellency that when in New Zealand he had frequently heard it stated that spurious or inferior seed had been supplied as genuine blue gum. The difference of treatment to which the seedlings may have been subjected might perhaps be sufficient to account for this impression, but if, in reality, such was the case, I cannot think that the seed had been obtained from Tasmania. I have before stated that the seed of *Eucalyptus globulus* is so readily distinguishable from any other Tasmanian species, as to prevent the possibility of fraud, even supposing any inducement existed for it.

"I am not sufficiently acquainted with the numerous Australian forms of *Eucalypti* (about 140) to say whether there are any the seeds of which could be substituted for that of *Eucalyptus globulus*. Certain it is that several species have locally obtained the name of 'blue gum,' which are not identical with that of Tasmania, but I cannot say that they have ever been substituted for it.

"These notes have been made with the view of showing the improbability of the seed of any of the eleven known species of Tasmanian *Eucalypti* being substituted for that of *Eucalyptus globulus*, and if they have succeeded in doing so their object will have been attained."

The Rev. J. E. TENISON WOODS, after a few prefatory remarks as to the importance of the collections of tertiary fossils made by Mr. R. M.

Johnston, read a paper on the anatomy and physiology of some Tasmanian Patellidæ. The paper was illustrated by many microscopical specimens and preparations.

The BISHOP OF TASMANIA proposed a vote of thanks to the donors of presentations with special reference to the great gift of Mr. R. C. Gunn. His Lordship also moved a special vote to the Rev. Julian Woods for the very valuable paper they had just listened to, and in alluding to the greatly increased attendance of Fellows, attributed it in a great degree to the attraction which the able and original papers by the same learned author always exerted, and also to the warm and personal interest which His Excellency, both by his presence at the meetings and by his contributions, manifested in their proceedings. The vote having been cordially passed, the President left the chair.