MAY, 1875.

The monthly evening meeting was held on Tuesday, the 11th May, M. Allport, Esq., V.P., in the chair.

Joseph Broughton, Esq., of New Town, who had previously been nominated by the Council, was ballotted for, and declared duly elected, as a Fellow of the Society.

The SECRETARY brought under notice the following returns for the month of April :—

1. Visitors to Museum, 1163.
2. Ditto to Gardens, 2522.
3. Seeds received at Gardens—From Messrs. Macfarlane Bros., 10 packets seeds from Japan. From A. Simpson, Esq., Queensland Ferns.
4. Plants sent from Gardens—To Monsieur A. Verschaffelt, Ghent, Belgium, 12 Tree Ferns.
5. Time of leafing, &c., of a few standard plants in the Botanic Gardens during April.
6. Books and Periodicals received.
7. Presentations to Museum.

Meteorological Returns—

1. Hobart Town, from F. Abbott, Esq.—Table for April.
2. Port Arthur, from J. Coverdale, Esq.—Ditto.
3. New Norfolk, from W. E. Shoobridge, Esq.—Summary of observations taken during 1874.
4. Mount Nelson, from Marine Board.—Table for April.
5. Melbourne, from the Government Observatory.—Printed tables for September, October, and November, 1874.
6. From the Meteorological Office, London.—Hourly readings of self-registering instruments, at seven observatories, during October, 1874 (one sheet)

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

1. From Mr. C. Allen, Port Cygnet.—An Opossum *(Phalangista fuliginosa).*
2. From E. D. Swan, Esq.—Nest and egg of Reed Warbler *(Calamoherpe Australis).*
3. From Mr. W. Peacock, Sorell.—A Nankeen Kestrel *(Tinnunculus cenchroides),* shot in that locality.
4. From J. K. Clark, Esq.—Specimens of Quartz, with penetrating crystals of rutile, from New South Wales.
5. From A. K. Chapman, Esq.—Specimens of a species of Fluke, taken from a large diamond snake.
6. From J. W. Graves, Esq.—Fossil Wood from Risdon.
7. From Mr. J. Bidencope.—Samples of Felt in various stages of preparation for hat making.

[This material is the first of the kind which has been produced in the colony. The various stages of its preparation, from the unwashed wool to the perfect article, are well shown in the presentation.]

8. From the author, Dr. J. Barnard Davis, F.R.S.—An illustrated treatise on the osteology and peculiarities of the Tasmanian aborigines.

[The SECRETARY requested the special attention of the Fellows to this treatise. The illustrations were admirably executed, and as a record of a race which has virtually just passed away from amongst us, it was of peculiar interest to the Society.]

9. From the India Office, London.—Part 3 of "The Flora of British India," by J. D. Hooker, C.B., M.D., F.R.S., &c., &c.
10. From Mr. S. H. Wintle.—The following specimens, obtained by qualitative assays :—Bismuth and Copper, Mt. Ramsay, from Sulphide. Bismuth freed from Copper, Mt. Ramsay. Copper from Mt. Nicholas coal. Ditto, from Ferro-cuprcous Pyrites in New Town coal.

In reference to this presentation the secretary read the following note addressed to him by the donor :—

"11th May, 1875.

"Dear Sir,—The samples of metal on the card accompanying this are the result of qualitative analysis only. The copper from such a source, *i.e.*, coal is invested with interest. The gold I obtained by employing the iodine process, which is quite modern, *vide* 'Crooke's Select Methods in Chemical Analysis,' p. 271. Neither Gold or Copper exist in sufficient quantity to have a commercial value. The crude sulphide of Bismuth contains about 15 per cent. of copper.

"I remain, etc., etc.,

"S. H. WINTLE."

Presentations Nos. 2 and 3 were examined with much interest, and in connection with them the CHAIRMAN offered the following remarks :— About the middle last month Mr. Wm. Peacock, of Sorell, presented to the Museum the beautiful specimen of the Nankeen Kestrel (*Tinnunculus cenchroides*) now before you. Tasmania is not given as a habitat of this charming hawk by Gould, and this is probably the first instance of its presence here being publicly recorded, though I find another specimen in the Museum labelled from Clarence Plains, and presented by Mr. Luckman in April, 1873. These specimens are unquestionably a great addition to the Museum, but it should be borne in mind by farmers and gardeners that this bird, like its European congener, preys far more on insects than on any other food, and is therefore not only a source of attraction when wheeling in circles far over head, or poised for minutes together apparently motionless, but is also earning our gratitude by destroying heaps of grasshoppers and other insect pests. Mr. Edward Swan has presented the Museum with the nest and one egg of the Reed Warbler (*Calamoherpe Australis*) obtained by him in Victoria, and has written me from Launceston, recording the presence of the bird in Tasmania as follows :—

"St. Leonards, 21st April, 1875."

"My Dear Allport,—During the past summer I observed a pair of Reed Warblers *(Calamoherpe Australis)* that had taken up their quarters among a bed of reeds on the banks of the North Esk, near Launceston. They arrived there in September, remained till March, and then disappeared. As the Reed Warbler is not allowed by Gould to inhabit Tasmania, and has not, so far as I am aware, been previously noticed in this colony, knowing the interest you take in all matters ornithological, I have much pleasure in informing you of its appearance among us, in order that you may add another to your list of Tasmanian birds. I did not find their nest, though I knew from the actions of the old birds that they had either eggs or young near at hand; but I readily obtained several nests in Victoria along the river Yarra, and in other localities. These were, for the most part, supported by three or four reeds, or suspended from the branches of willows overhanging the water, so that they could not be reached from land. In one case the nest was built at a greater height than usual, on a tree growing some distance from the water. The Reed Warbler is a late breeder; the nest, which with an egg is forwarded you, was not finished till near the end of January, nor the eggs laid till February. It is probable there are two broods, for the young had left some of the nests found a month earlier. As a songster, it is a success, its only rival here being the striated Reed Lark *(Calamanthus striatus)*, with which and the little Grass-bird *(Sphenœacus gramineus)* it may have been confounded, or, I think, it would have been oftener noticed, as it most likely occurs in other parts of the colony similar to the one indicated. The Melbourne bird-stuffers did not possess any skins of this kind, else I would have procured

specimens. Gould's is a good illustration, and to him I refer you for description of plumage.

"Yours sincerely,
"EDWARD D. SWAN."

A letter from Mr. A. K. Chapman, addressed to the secretary, was read. The following is an extract :—

"Sir,—I have the honour to bring under the notice of the Royal Society the desirability of some steps being taken to restore the rapidly diminishing stock of our most valuable timber tree, the blue gum *(Eucalyptus globulus)*.

"The blue gum is so eagerly sought after by shipbuilders that most of the available timber has been cleared from the accessible spots in the Huon district and other localities where blue gum formerly abounded. Hundreds of young trees, of little present value as timber, but inestimably valuable in a few years time if allowed to grow, are annually felled merely for the sake of the seed, which is exported in large quantities to countries, the inhabitants of which have more forethought than ourselves. "In France, Spain, Algeria, Egypt, California, the Mauritius, and, coming nearer home, in the colonies of Victoria and New Zealand, the Tasmanian blue gum is now being grown in large quantities, and is highly esteemed, not only as an ornamental and useful timber tree, but for the protection afforded by its shade, and for the valuable medicinal qualities of its leaves.

"Even in the cold climate of England an attempt is being made by certain enterprising perfumers to grow blue gum trees extensively for the sake of distilling the aromatic oil contained in their foliage. While so much is being done to encourage the growth of this valuable tree elsewhere, we in Tasmania seem to be doing our best to render it extinct, and it is with a view to reverse this very undesirable proceeding that I now address your society.

I would recommend that the society should direct its attention to the question of preserving the blue gum from extinction, and would suggest that the Government be requested to reserve a portion of the Crown land in the vicinity of Port Arthur as a state forest and nursery for young trees. Much of the land on Tasman's Peninsula is practically valueless except for the purpose of growing timber, but with care and attention I believe this land could be made a source of public wealth if devoted to the purposes I have indicated."

Discussion ensued, but the generally expressed feeling was, that considering the enormous extent of country covered with the tree referred to, it was scarcely necessary to take any immediate action towards its preservation.

The SECRETARY, after reminding the meeting that the Society on a former occasion had addressed the Government on the subject of the improvement of the Domain, mentioned that Mr. P. T. Smith had recently taken a warm interest in the matter and had lately requested a visitor to the colony, who was versed in matters of the kind, to inspect the Domain with a view to giving such hints towards possible improvements as he might think necessary. This he was kind enough to do, and subsequently addressed the letter to Mr. Smith which he (Dr. Agnew) would now proceed to read to the meeting :—

"24th April 1875.

"P. T. Smith, Esq., Macquarie-street.

"My dear Sir,—Since I had the pleasure of the drive through a portion of the Queen's Domain with yourself and Dr. Agnew, my opinion respecting that reserve for the purpose mentioned by you, is, that although unrivalled as a site for an ornamental park, not only for the very exquisite views it commands, but from the natural conformation of the surface,

yet from the extreme shallowness of the soil overlying a generally impervious rock of considerable depth, it is quite unsuitable, without enormous cost, for the successful culture of trees of large growth ; and the stunted appearance of the existing trees, is abundantly confirmatory of this opinion. There may, nevertheless be isolated spots, of more or less extent, possessing a greater depth of soil; but as these will probably exist only in the lowest depressions, their existence to the landscape gardener would be nearly valueless ; indeed the probabilty is that the entire area is quite unsuitable, without a very large amount of labour, for the permanent growth of the kinds of trees necessary for the adornment of a public park ; for instance, out of the large order *coniferæ*, which contains some of the most beautiful, as well as some of the grandest trees in the world, few would be found, without the special treatment hereafter described, to attain to other than very miserable specimens, totally unlike their natural character.

"Notwithstanding this serious drawback, I consider that much may be done, at a moderate cost, to render this large area of ground more attractive than it is at present. In the first place I would recommend the entire removal, by grubbing, of all the dead and decaying trees, the holes being afterwards filled up, and the ground levelled.

"So far the work could, of course, be done without a plan, but it would be indispensable before proceeding to lay out paths, to form vistas, open out views, or to plant trees, that a design be carefully prepared for the laying out of the entire ground. It is obvious that no new work could be performed without such plan ; and with one, a great deal of labour, otherwise useless, might be saved.

"After a design is adopted, the thinning out of some of the trees, the selection of others to be left more closely together in groups, the opening out of views, the formation of paths, and the erection of seats could all be proceeded with, at a very trifling cost, under proper supervision. The sowing of English grasses on some of the more prominent open glades would also be one of the lesser expensive matters.

"The more costly work of planting new trees might follow these preliminary operations, but in order that this may be done economically, I would recommend that some of the more prominent positions for groups of trees and shrubs should be planted first, the ground for such groups to be deeply trenched for the entire area of each group, rather than the formation of isolated holes for each individual tree—the worst of all modes of planting. This preparation of the ground, in comparatively large areas, is advisable at all times, but it is especially needful here, where, in consequence of an almost impermeable subsoil, the surface soil becomes so soon arid after the cessation of rains. Some of the avenue trees might also be planted early, and in a similar manner, *i.e.* avoiding detached holes for each tree.

"Probably the portion that it may be desirable to plant first would be the comparatively narrow strip lying between the railway and the drive on the northern side of the Domain.

"If these brief notes are of any value, as showing how the work of laying out the Domain may be economically effected, and in a progressive manner, they are quite at your service to use in any way you may think proper ; and I shall be only too glad, in my periodical visits to your lovely island, where Nature has done so much, to mark the progress of substantial improvements in that eminently beautiful locality, the Queen's Domain.

"I am, my dear sir,
"Yours very sincerely,
"J. Sayce."

Mr. Grant considered that the letter contained some valuable sug-

gestions. He thought the Domain was left in its present state for fear of the cost of improving it, but in reality very little outlay was required to effect a great amount of good. The gum and wattle trees in the Domain were generally very poor, they would be well out of the way, and the really beautiful trees of other countries planted in their stead. Trenching on a large scale would of course be expensive, but in many localities the English oak, ash and elm, might be planted without the great expense of trenching, and by the richness and depth of their foliage would be highly ornamental. The American rock maple, again, with all the splendour of its autumnal leaves, would be a grand addition to the beauty of the locality, and all these and other trees could be gradually introduced at very little cost.

Mr. SMITH thought that no great outlay was proposed, but rather that everything from the beginning should be done according to some settled plan. The dead and dying wattle trees were quite an eyesore. He would have them all grubbed out forthwith, and the dead wood would pretty nearly pay the expense. By this means alone many fine views, now lost, would be opened up. It might be worthy of consideration if a public subscription to a small amount, say £200 might not be attempted. A good deal could be done with this, and Government might fairly be appealed to afterwards to carry on and complete the work. He would like to ask how it was that a large portion of the Domain was granted to be fenced off for the new cricket ground? He hoped this alienation would be only temporary, as he had a great objection to see this public pleasure ground cut into. It was a disgrace that any portion of it should have been sold, and a few wretched cottages, which were anything but an ornament, built upon it. If Government labour was all that was wanted, surely if it could be obtained for a race-course, it might also be available for the Queen's Domain.

Mr. BARNARD highly approved of the proposed grubbing out of all diseased and unsightly trees, and thought the sale of the wood would repay the cost. He deprecated any idea, however, of making the Domain too artificial in its features. He would like it kept as a natural forest. He confesssd he liked the gum tree, still he would be glad to see some of our old English trees also,—not in such numbers, however, as to overshadow the native trees, as the characteristic foliage of the Colony ought to be carefully conserved.

Mr. STEPHENS remarked that the preliminary operations, such as the clearing out of the old trees and opening out vistas, should be entered upon with great care and judgment. These should indeed be supervised by a Committee of Taste. Government was probably afraid of the expense, but if the Royal Society were simply authorised to carry out the work according to a definite plan, he had no doubt it could be done at a very small expense. He did not agree with a suggestion which had been thrown out as to planting isolated trees here and there, without much preparation of the ground. If the ground were not thoroughly trenched, the trees would grow small, stunted, and the reverse of ornamental. Even if English grass seed were to be sown over the Domain, the ground should be properly prepared for its reception.

Mr. RULE doubted if any more carriage drives were necessary, and did not think the people generally would care to subscribe, as had been suggested, for these. If any were to be made, he thought those who would make use of them should construct them. He quite agreed with Mr. Barnard in thinking that our native and distinctive trees and foliage should be carefully preserved, and that the ground generally

should be kept as nearly as possible in a state of nature, and not reduced to the condition of an artificial park or garden.

Mr. GRANT suggested if Government was asked for permission to allow the Superintendent of the Society's Gardens to undertake the work, it would be granted at once. Private subscriptions might be got up for the expense of fencing, and the whole might be under the direction of a committee chosen from the Council.

Mr. RULE thought the suggestion might be acted on, and proposed that Mr. P. T. Smith, Mr. M. Allport, Mr. Stephens, and Dr. Agnew be appointed as the committee.

The motion was put from the chair and carried.

A vote of thanks to the donors of presentations closed the proceedings.