AUGUST, 1875.

The monthly evening meeting was held on Monday, the 9th August. His Excellency F. A. Weld, Esq., President, in the chair.

The Secretary brought under notice the usual monthly returns, viz.:—

1. Visitors to Museum during July, total 1375.
2. Ditto to Gardens ditto, total 2772.
3. Plants and seeds received at Gardens—From Botanic Gardens, Christchurch, New Zealand, 46 plants. From Mr. J. Latham, 9 packets seeds, 45 varieties, Anemone and Ranunculus.
4. Plants and seeds sent from Gardens—To Messrs. Vilmorin, Andrieux and Co., France, one ditto. To Messrs Fardey and Co., France, one ditto To Jules Cock and Sœurs, France, one ditto. To Mons. Huber, Hyeres, France, one ditto. To Shepherd and Co., Sydney, a small box of seeds. To the North China Branch Royal Asiatic Society, Shanghai, one package of seeds. To the Botanic Gardens, Queensland, one small box of plants and seeds.
5. Times of leafing, etc., of a few standard plants in Society's Gardens during July.
6. Books and periodicals received.
7. Presentations to Museum and Library.

Meteorological Returns.

1. Hobart Town—From F. Abbott, Esq, table for July.
2. New Norfolk—From W. E. Shoobridge, Esq., ditto.
3. Port Arthur—From J. Coverdale, Esq., ditto for June.
4. Kent's Group—From the Marine Board, tables for May, June, July.
5. Mount Nelson, from ditto.—Table for July.
6. Sydney, from the Government Observer.—Printed tables for April.

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

1. From Mr. Quinlan, Montpelier-street.—A Pouched Lamprey *(Geotria Allporti* Gthr.*)*
2. From Mr. Bealey.—A Pelican *(Pelecanus conspicillatus.)*
3. From J. R. Scott, Esq., M.H.A.—Specimens of the stone implements of the Tasmanian Aborigines. An explanatory letter from Mr. Scott accompanying the presentatation was read. The following is an extract:—

"It has long been desirable to fix upon a spot where the aborigines obtained their flint or stone implements. I am now able to fix upon two places, viz.—First, about ten chains immediately in front and to the north-east of the stone hut in Stocker's Bottom, County of Somerset, parish of Peel.

"The second is about one mile more to the south-west, on Lot 443, on a branch of Dismal Creek, running out of Stocker's Bottom.

"These two places are about six miles distant from the Macquarie River, where I found the stones forwarded some years since, known as the 'Mount Morriston' collection, and now in the Museum."

On the presentation of the Stone Implements, the Rev. Julian Woods called attention to the extraordinary similarity of one of them to a spear-head figured in the *Geological Society's Journal* some years previously. He observed that probably the arguments based on the antiquity of such relics might require modification, seeing that in this island the "stone age" and "flint implements" belong to the present century.

4. From F. Groom, Esq, Harefield, St. Mary's. An unusually fine specimen of the "Sharp-nosed Eel," measuring 2 feet 5 inches in length. [It is believed that this fish has not yet been scientifically named and described. A specimen, however, was last year forwarded by Mr. M. Allport to Dr. Günther, of the British Museum, from whom information relative to it will doubtless be received in due course.]

5. From Mr. Hissey. Four specimens of the young of the Bandicoot (*Perameles obesula*) from the pouch.
6. From His Excellency the Governor—Rock Specimens from the variegated ferruginous sandstones of Western Australia, and probably belonging to the lowest secondary formations. Egg of "Native Pheasant" *(Leipoa ocellata)*, and other eggs.
7. From W. Lovett, Esq.—A specimen of the "Sooty Oyster-catcher," or "Black Red Bill" *(Hæmatopus fuliginosus)*, shot at Kangaroo Bluff.
8. From J. W. Graves, Esq.—A Ring-tailed Opossum, *(Phalangista viverrina.)*
9. From the Ven. Archdeacon Davies—A fossil from a hill on Mr. Pitt's property, Hunting Grounds.

[In reference to this presentation, the Rev. J. E. T. Woods remarked that it was a very fine and unusually large specimen of the coral known as *Stenopora informis*, Lonsdale, with a shell of *Myacites curvata*, Lonsdale, adhering. The both belong to the Marine Devonian period, of which so many examples occur in Tasmania.]

Presentation to Library.

1. From Sir Robert Officer—Benthams "Flora Australiensis," six vols. bound.

[The Secretary requested special attention to this valuable presentation. Being the standard work on Australian botany, it was much wanted, but the council had never been able, from want of funds, to procure it. Other works, indeed, were still required, and as several of the Fellows had already shown their practical interest in the welfare of the society by making presentations, he hoped that others, whether resident in town or country, would be induced to follow their example. Good books could not be better placed than in a library, where they could be utilised by all comers. A list of such as are required could at all times be had from the curator.]

2. From Mr. T. Roblin—Tables of Affinities of the Classes of the Animal Kingdom, by Prof. J. Reay Greene; three sheets mounted on rollers.
3. From Baron F. von Mueller—Proceedings of the Zoological and Acclimatisation Society of Victoria, vol. 4, 1875.
4. From the Royal Society of New South Wales—Transactions, 1874.
5. From the Government of New Zealand—Census for 1874.
6. From the Malacological Society of Belgium—Proceedings for 1874.
7. From the Entomological Society of Belgium.—Proceedings for 1874.

The Rev. J. E. Tenison Woods, F.G.S., F.L.S., read a paper on the Freshwater shells of Tasmania, prefacing it by some remarks on the study of fresh water shells generally. "It must not be supposed," he said, "that such studies meant no more than merely naming certain specimens new to science. To the outside public it might seem no more, but to the man of science it was different. A name when applied to a new species thenceforth became not only a tally by which it might be known and referred to, but it meant all the details of observation in its description, and it was a centre around which a multitude of useful observations would be grouped. Thus *Scalaria Australis* is a name applied to a marine shell of a peculiar, and at one time, rare genus. Other naturalists had found that its habits were most interesting and various. Thenceforth the name was the repository in which those observations were collected, and they were conveyed to the mind of those familiar with them by the mere association of the name. Finally the same mollusc had been found to contain a beautiful purple dye, and this also became, if we may so speak, a property of the name. All natural science is more or less open to the reproach that it is a science of names, but this would also be strictly true of all human knowledge, since it is only by names or words that it can be

communicated. The fresh water shells did not present a very inviting field to the naturalist in the early history of science, but they were not long studied before they were found to possess features worthy of attention. A great impetus had been given to the study by Mons. Draparnaud, a young French surgeon, whose brilliant career was stopped all too soon by the insiduous ravages of consumption. His work forms a standard on the subject, as it is a model of accurate observation, careful delineation, and charming interest. It was owing to the knowledge thus given that the eminent osteologist Baron Cuvier was so much aided in his determination of the fossils of Montmartre, Paris. There bones were found associated with shells, and the bones might have been supposed to belong to marine drift, but an attentive consideration of the shells showed them to be fresh water, and of a kind whose habits of life were now known. This tended materially also to explain the conditions under which the extinct mammals of the bed existed. Much light had been thrown on the conditions of life in the coal formation from the freshwater and land shells found embedded in it. The reverend gentleman went on to describe generally the natural history of that order of Mollusca known as *Pulmo branchiata*, that is Molluscs with lungs and gills, breathing both air and water. Water is their natural element, but they can also live out of it. As they live in creeks and waterholes, which are liable to diminish or totally dry up in certain seasons, they must have means for withstanding a drought, or the order would soon perish. They are therefore provided with an apparatus which is part lung and part gill. The organ is a respiratory sac through which the blood flows, and is aerated in a network of minute vessels, and it is filled with branchial plates or lamellæ for the purpose of extracting the necessary oxygen from water. He called attention to the observation of Draparnaud, who said that if we consider the very small number of points by which the animal is attached to the shell, one is astonished to understand how so fragile a covering could withstand the action of external agents, and at the same time preserve its solidity, its colour, and its transparency, especially as upon the death of the animal it bleaches and exfoliates on slight exposure. We must then admit some sort of intercommunication between the shell and the animal which it encloses. We must admit also that it is animated with vitality, although it appears to our eyes, which are too feeble to unravel its interior structure, as if it were mere inert matter." The reverend gentleman then read the introduction to his paper.

The Governor observed that the remarks made by the Rev. Julian Woods, as to the stone implements, showed the care that should be taken not to allow preconceived theories to hurry our conclusions in matters of fact. He thought that it was very easy for even very able, honest, and painstaking men to miss facts that lay just to the right or left, or close behind them, whilst they were looking straight at their theory. The lapse of a very few years often was sufficient to cover up and bury facts or traditions that might be of great value. An instance of this had occurred in New Zealand. A very eminent scientific man there had argued, in a most interesting paper, that the race who made and used the stone knives and implements found in the kitchen mounds on the Rakaia together with moa bones were probably a race distinct from, and anterior to, the Maori, and of immense antiquity; that the moa (*Dinornis*) itself had been for ages an extinct bird; that there was no reliable evidence from Maori sources of the recent existence of the moa (*Dinornis*), still less any trace at all of any tradition of the newly-discovered *Harpagon Moorei*, the gigantic eagle, or bird of prey, whose bones had very recently been discovered at Glenmark. These general views had been combated by Dr. Hector, and also contradicted by Sir G. Grey and others whose testimony was of greater weight upon native evidence that even Sir George's.

For himself, he (the President) might say that having been one of the early settlers of New Zealand, he had opportunities of knowing the traditions of the New Zealanders, which were not available to scientific men who came to New Zealand at a later period, and who, generally inhabitants of towns, were less thrown amongst the natives. Now in the first place he could remark that the "stone age" of the New Zealander had not passed when the early settlers arrived; they were still making stone implements, and though in the northern island the tradition regarding the moa had assumed in some cases a wild and legendary form (of which he gave examples) yet when he first visited the Southern island the natives warned him when he explored the Kaikora inland country to be careful in attacking the moa, a huge bird that he would certainly meet, for if he approached it from behind it would "kick like a horse" and possibly break his leg, thus showing their acquaintance with the habits of a bird closely allied to the ostrich and emu family. In the Wairau also the natives had a quill said to be of the moa, and in the Wellington museum, a portion of the skin of the neck of one of these birds with feathers adhering is at present preserved, he himself had exhumed the skeleton of a moa lying on the clayey side of a hill, and only partially covered by a slight slip of a few inches of vegetable mould from a hillock above. The gristly rings of the windpipe of this bird were in a perfect state of perservation. It is yet more remarkable that when early in January 1851 he travelled on foot from Port Cooper, the present site of the Canterbury settlement to Warau, being the first European who had traversed that district, at Kaikora, under the mountains named by Cook, the "Lookers on," an old chief "Kaikora" "of that Ilk," told him that on the tops of those mountains an enormous bird of prey rufous in colour, built its nest, and that in their forefather's time it sometimes descended suddenly and was large enough to carry off a good sized boy or girl. Was not this a tradition of the Harpagon Moorei? This bird had not been seen for some generations, but though it was doubtful whether their fathers had seen the moa their grandfathers I have been assured certainly had, and natives doubted not but that it still existed in wild localities.

Mr. M. Allport had listened with the greatest pleasure not only to the admirable paper just read, but also to the highly interesting introductory remarks by its learned author, to whom he proposed a special vote of thanks should be accorded. (Applause.)

The Bishop of Tasmania, in rising to second the vote of thanks to the reader of the paper, wished to make a few observations upon the argument previously advanced upon the stone or so called flint implement before them. That implement was, as he was assured, the work of an Australian savage, and if so, a presumption was raised that the inferences drawn by Sir C. Lyell, and others, upon the antiquity of man have been rash. It is quite possible that hasty conclusions have been drawn, and that calculations will have to be corrected by some thousands or perhaps hundreds of thousand of years. But the main argument is not disturbed by that flint implement before them. Put by the side of another such weapon upon which Sir C. Lyall and others have reasoned, it plainly tells us that those savages who lived some untold periods ago, and those who till lately inhabited this island, are of the same human race, and with common instincts have fallen back in the same stage of civilisation, upon the same rude weapons suggested to them by the same flint material lying before their eyes. The flint was altogether in a scientific point of view different from another found associated with organic remains of animals that existed in an exceedingly remote period of time. Besides, there are other parallel lines of evidence, resting upon ethnological science, and the science of language, which supported the inference drawn by Sir C. Lyell. The flint implement before them, and the facts related by His

Excellency have an exceedingly interesting value of their own, but he could not accept them in the sense which had been sought to be put upon them. As to the paper which had been read subsequently, he had pleasure in seconding the vote of thanks for the gratification Father Woods had afforded him personally, the obligation he had again placed upon the Society, and the benefit conferred upon science. The prefatory remarks had also a valuable educational character, and he should rejoice if these remarks had the effect of introducing more largely the study of natural science in the curriculum of popular education. It was not the acquisition of shells that made the naturalist, or a cabinet of fossils the geologist; but the study of natural objects as a branch of Education developed first the observing faculties, then the classifying and then the inductive and reasoning faculties. The paper was an exceedingly interesting one, and he had much pleasure in adding his testimony to its value.

The vote having been put by the chair, was carried by acclamation.

Mr. Rule observed that the immense age of the flint implements of Europe was shown by the conditions in which they existed in the caves where they were found. They were covered by stalagmitic deposits of many feet in thickness, and other matters, and mixed up with the bones of extinct animals of pre-historic times. It was these surroundings which gave a guarantee as to the enormous antiquity of the implements.

His Excellency said that he had not understood that the Rev. Julian Woods meant to adduce the facts he had alluded to as proofs of a theory, but as instances of how a pre-conceived theory might unconsciously influence conclusions—for himself, in the few unpremeditated remarks he had made, his object had been simply to illustrate the desirability that collectors of facts should be very careful, in their statement of facts, not to allow their judgment to be influenced by pre-conceived opinions, or to jump too readily at conclusions from a partial view. He remembered talking in England to a late well-known naturalist, a gentleman respected not only for his personal efforts in the cause of science, and for his attainments and knowledge, but also for the honest zeal which he threw into whatever interested him—part of his creed was that cannibalism was only the result of want of animal food and hunger—never deliberate and systematic. Being appealed to as a resident of New Zealand he (the President) was obliged with much humility to express a contrary opinion, and to instance cases in which slave girls had been slain for feasts or the bodies of enemies killed in battle had been eaten, it being, moreover, supposed that the heart of a chief imparted his courage to the child who feasted on it—having eaten a former possessor was, moreover, a valid title to land—and it also appeared to him, for several reasons, that the "Kai Tapu," sacred food, was in some degree connected with an obsolete idea of sacrifice. These reasons, however, had no effect whatsoever, upon the gentleman to whom they were addressed. It was, vulgarly speaking, a case of so much the worse for the facts. He (the President) could only excuse this digression on the ground that he wished to point out the advantages of bringing calm criticism and a dispassionate mind to bear upon the registration and discussion of facts, and of viewing both sides of every question.

Mr Justin Browne, in proposing a vote of thanks to the donors of presentations, referred especially to the donation of books from Sir Robert Officer. He hoped the remarks made by the Secretary might induce some of our town or country members, or others, to consider if they could not do something towards our library. Some might contribute in money, which would be the preferable mode, but other might have recent works which they could spare, or recent editions of old works which we already possess.

The vote having been agreed to, the meeting terminated.