ROYAL SOCIETY.

MARCH, 1872.

The first evening meeting of the Society, for the present session was held on Tuesday, the 12th March, M. Allport, Esq., V.P., in the chair.

Among the Fellows present were Dr. Agnew (Hon. Secretary), Dr. E. S. Hall, Messrs. Justin Browne, T. Stephens, J. M. Clarke, J. Macfarlane, John Macfarlane, A. G. Webster, L. R. Castray, L. Susman, C. Belstead, F. Abbott, jun., J. Rule, G. R. Napier, J. Barnard, F. Abbott, sen., &c.

Mr. Frederick George Howell, who had been previously nominated by the Council, was, after a ballot, declared duly elected as a Fellow of the Society.

The SECRETARY submitted the following monthly returns :—

1. Visitors to Museum during January, 1,506 ; during February, 1,252.
2. Ditto to gardens ditto, 3,180 ; ditto, 2,089.
3. Time of leafing, flowering, and fruiting of a few standard plants in Society's Gardens during February.
4. Books and periodicals received.
5. Presentations to Museum.

Meteorological Returns.

1. Hobart Town, from F. Abbott, Esq.—Tables, &c., for January and February.
2. Port Arthur, from A. H. Boyd, Esq.—Ditto.
3. Swansea, from Dr. Story.—Ditto.
4. Westbury, from C. Belstead, Esq.—Ditto.
5. Lighthouses and other stations on Tasmanian coast, from the Hobart Town Marine Board.—Monthly tables from July, 1870, to December, 1871.
6. Sydney, New South Wales, from the Government Observer.—Printed tables for October and November, 1871.

The SECRETARY read an analysis of the Meteorological observations for Hobart Town, with a health report for the month, by Dr. E. S. Hall.

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

1. From Miss Burgess.—Skin of a large Bengal Tiger *(Felis tigris)*, killed by the Hon. R. H. Drummond, Commissioner of Bareily, and Captain Burgess in 1851.
2. From Captain Williams.—Shells from East Coast of Tasmania.
3. From Mr. Montgomery.—A Belgian Canary, prepared and mounted.
4. From Mr. P. Allen.—An almond tumbler Pigeon, prepared and mounted.
5. From Mr. W. Legrand.—A large sponge from Recherche Bay.
6. From Hon. J. Maclanachan, Esq.—A Hen Pheasant.
7. From Master E. Hood.—Three Eggs, probably of a species of Petrel, from Bird Island.
8. From Mr. J. W. Kellaway.—Two hair balls from the stomach of a calf.
9. From Mr. Williamson.—A boulder taken from the solid rock at Anderson's Quarry.
10. From Mr. R. J. Ross.—Two specimens of the Indian Boa *(Python tigris)* from Ceylon.

11. From Mr. Rayner.—A Hawk with unusually coloured plumage shot at River Styx.
12. From Mrs. T. Giblin.—Two green operculæ of shells *(Turbo sp.)* from Fiji.
13. From Master Allport.—An Irish farthing, George III., 1806.
14. From Master Hull.—Nest of the White Eye *(Zesterops dorsalis.)*
15. From the Rev. H. D. Atkinson.—Rock specimens from Trial Bay. One specimen of Carboniferous Limestone, with fossils, from Arch Head, mouth of Huon River; sample of Iron Ore from Three Hut Point.
16. From J. Meredith, Esq.—Skin of a Musk Duck *(Biziura lobata.)*
17. From Mr. H. Owen.—A Japanese Coin.
18. From Mr. W. Blythe, Honeywood.—Skin of Black Snake (*Hoplocephalus curtus*).

The Secretary directed the attention of the meeting to a large and valuable donation of books lately received from the Government of the United States, and from the Smithsonian and other scientific institutions in America. He also informed the meeting that, in consideration of the very liberal presents which have on various occasions been received from America, it had been determined, at a late meeting of the Council, to have a case set apart in the Library, and appropriately labelled, for their reception.

The following valuable publications presented by the Royal Astronomical Society of London, in continuation of a former donation, were also brought under notice :—

Monthly Notices of Royal Astronomical Society, vols. 28 to 31 inclusive (1867 to 1871), with Index to first 29 vols. (1827 to 1863).

Memoirs of Royal Astronomical Society, vols. 35 to 39 inclusive (1865 to 1871).—Index to first 38 vols.

As to the specimens sent by the Rev. H. D. Atkinson *(Presentation No. 15)*, Mr. Allport remarked that they were of great interest as giving some reason for believing that the mineral bearing Silurian Rocks are to be found six miles nearer Hobart Town than heretofore supposed. The felspathic rock was apparently identical with that found at Port Cygnet, and which seems to be there associated with the small quantity of gold, and traces of copper found in the neighbourhood. The dark coloured sedimentary rock which comes from the same place had not yet yielded any fossils, but Mr. Atkinson was fully aware of the importance of searching for them as they alone could positively determine the geological age of the formation in which the felspathic porphyry occurs. He had hoped Mr. Atkinson would have been present at the meeting, but in his absence begged to call attention to the following extracts from a letter received from him on the subject :—

"I write to say that the rock of which I brought up specimens is much more extensively distributed than I expected. I have traced it up two creeks at Oyster Cove, and have seen some boulders excavated from a shaft fifteen feet deep. I am of opinion that it is Felspar Porphyry, and I believe the rocks at Oyster Cove, &c., are of the same formation as the Port Cygnet specimen.

"The Felspar Porphyry (if it be so) underlies the carboniferous series at Oyster Cove, Little Oyster Cove, and Trial Bay; the rock immediately overlying it is a sort of clay slate (vide specimen) about 200 feet thick. In several places the Porphyry (?) seems to merge into *Trap* which is the characteristic igneous rock of the neighbourhood."

Mr. Stephens fully endorsed the remarks made by Mr. Allport as to the interesting character of the rock specimens from Oyster Cove, one of which closely resembled the felspar porphyry of Port Cygnet, but from atmospheric exposure had undergone partial decomposition. As

to sedimentary rocks, it was necessary to use great caution in expressing an opinion upon the age of any rocks in which no fossils have been discovered, but the characteristic flexures of stratification, and direction of strike would often help to distinguish between rocks of upper and lower Palæozoic age. In the older rocks it was often very difficult to detect any fossils, although some, especially the limestones, were fully charged with the remains of teeming organic life. In such cases the indications of shells, corals, and other bodies embedded in the rocks, had been obliterated by a partial metamorphism. One might examine for hours the freshly broken surface of such rocks without finding a trace of any fossils, and there would be little chance of success except in those portions which exhibited a weathered surface. Here the traces of the embedded organisms might often be detected standing out in low relief, the result of atmospheric disintegration. As an instance of this Mr. Stephens exhibited a weathered fragment of limestone recently obtained from the Black River, Circular Head.

In reference to presentation No. 18, Mr. Stephens observed that it was interesting, as it showed in a very marked manner the appendages (? rudimentary extremities) near the vent, which some writers have supposed to be confined to the Pythonidæ and other harmless snakes. Fatal mistakes might be committed were this supposition acted on as correct, as probably no more deadly snake than our black one *(Hoplocephalus curtus)* is found in these colonies.

Mr. Allport remarked that these appendages were very common in our black snakes.

A fine specimen of flax grown at the Huon, and an enormous sunflower, in reference to which a paragraph appeared in *The Mercury* a few days ago, were brought under the notice of the meeting.

Mr. M. Allport read a letter from the Secretary of the Royal Museum of Natural History of Belgium, returning thanks for our "Papers and Proceedings," and specimens of Natural History, forwarded by the Society and by Mr. Allport himself. The Secretary referred to other Societies in Belgium which would be happy to make interchanges with us.

Mr. F. Abbott, senr., read some notes on the Results of five years' Meteorological Observations, made at his private observatory, Hobart Town. With these were included the twenty-five years' Results already published, the whole being a series of observations extending over a period of thirty consecutive years, and terminating at the end of 1870.

Dr. Hall, read a very elaborate and carefully drawn up paper on the Climate and Vital Statistics of Tasmania for fifteen years, 1857—71. Introducing the subject the author observed that the Royal Society of Tasmania might well be proud of its Meteorological publications, as he could state that they were greatly commended by the highest authorities on the subject at home. The abstracts now before the meeting embraced an uninterrupted series of observations far beyond that possessed by any other British Colony. They show incontestably that although the climate of Tasmania has always been recognised as being salubrious it is so in reality to a higher degree than we have hitherto supposed. Its advantages to invalids and others have indeed been underrated, and it would be conducive to the bests interests of the colony if this fact were made more generally known. Accurate statistics of all kinds were valuable, but none were of such personal interest to each of us as Vital Statistics, bearing as they do on the probabilities of human life at all ages; with the influences, favorable or unfavorable, exerted upon it by surrounding circumstances. The intelligent recognition of these influences, with their mode of action, was of the first importance to the Sanitarian, whose object was the promotion of the

public health. Without this great boon of health, even wealth and position were but of little avail to their possessor, or, to go further, "What," as has been facetiously remarked, "is the whole world to a man whose wife is a widow?" (A laugh.) He (Dr. Hall) was glad to take the present opportunity of heartily thanking the officers of the Registration Department for the great courtesy he had invariably received from them, and he would especially name Mr. Seager, who had on all occasions afforded him the most willing and valuable assistance in searching the records of the office.

Mr. BARNARD moved a vote of thanks to the donors of presentations, with special thanks to Mr. Abbott and Dr. Hall. Dr. Hall's communication, he observed, was one which concerned our most vital interests, and was of such a nature—involving as it did such long and elaborate calculations and comparisons—that nothing but the fact that it was a labour of love could have enabled him to carry it on to completion. We were much indebted to him for the proofs that our climate is the finest of that of all the Australian colonies, and the most conducive to long life. To have this generally established must be of benefit to the colony, and it would redound to the credit of the Royal Society to be the means of propagating such information. With the names of Dr. Hall and Mr. Abbott he would associate that of the Curator of the Museum, Mr. Roblin, the value of whose assistance in making the innumerable calculations and reductions required for these returns, was only known to those who were engaged on the subject.

The motion was supported by Mr. GIBLIN and others, and carried unanimously.

The Secretary having intimated that the Microscopical Meeting had been, unavoidably, postponed till the month of May, the proceedings terminated.