

printing. I there stated that, on examination, I was unable to discover any connection between our tremors and lunar positions. This deduction accords with that of Professor Milne, both as conveyed to me verbally by himself and as intimated in his latest pamphlet."

Dr. AGNEW asked if any Fellow present had felt a shock of earthquake on Friday last in the forenoon.

Captain SHORTT, who was referred to, said he had not felt it.

Dr. AGNEW said some people in his house had felt a slight shock, but he had seen nothing about it in the newspapers.

Mr. BERNARD SHAW said one of the gentlemen in his office had felt a shock on Friday morning, and had gone in and asked him if he had not felt it also.

THE LONGFORD COAL DEPOSITS.

Mr. BRAIN, who is in charge of the coal mines at Longford, gave some information respecting them at the request of the Hon. Secretary. He said it was hardly fair to judge the mine yet, though, as far as he had been able to prove it up to the present time, it looked very well. The seam varied from 3ft. to 4ft. 6in. in width. It had a fine sandstone top and bottom, and the inclination or dip was from N.E. to S.W., and was very slight indeed. It would, he thought, be an excellent household coal, but not fit for steam purposes.

Dr. PERKINS said perhaps Mr. Brain would be able to send them some fossils.

Mr. BRAIN said he had some very fine leaf impressions which he would be glad to send. He had already forwarded some to Mr. Johnston, but would be glad to make a collection for the society.

The CHAIRMAN: They will be very acceptable.

VOTE OF THANKS.

On the motion of Dr. AGNEW, seconded by Mr. BELSTEAD, a vote of thanks was accorded by acclamation to donors of contributions and readers of papers.

After inspection of the microscopes the meeting terminated.

NOVEMBER, 1885.

The monthly meeting of the Royal Society of Tasmania, the last of the session of 1885, was held on Monday evening, Nov. 16, at the Museum, James Barnard, Esq., V.P., in the chair. The Bishop of Tasmania, several ladies, and a large number of Fellows were present.

RETURNS.

The HON. SECRETARY (Hon. J. W. Agnew, M.D.) brought forward the usual returns, viz. :—

Number of visitors to the Museum during the month of October :—
Week days, 1,557 ; Sundays, 550. Total, 2,107.

Number of visitors to Royal Society's Gardens during the month of October, 6,500.

Plants and seeds received at and sent from the Royal Society's Gardens during the month of October, 1885 :—

From Mr. Wm. Bull, new plant merchant, London. Case containing 103 new chrysanthemums.

From the Botanic Gardens, Christchurch, New Zealand. Case plants, various.

From Baron Ferd. Von Mueller. Bulbs of a new crinum, and package seeds.

- From the Horticultural Society, Madras. Seeds *Phoenix paludosa*.
 To Mr. C. F. Creswell. Plants, chrysanthemums, and dahlias.
 Time of leafing, flowering, and fruiting of a few standard plants in
 the Royal Society's Gardens during October, 1885 :—
 4th. *Carpinus octulus* commencing to break leaf.
 8th. *Ailanthus glandulosus* commencing to break.
 14th. *Tilea europæa* commencing to break leaf.
 14th. *Morus niger* commencing to break.
 18th. *Ulmus campestris* seeds commencing to fall.
 25th. *Melia azederach* commencing to break.

Meteorological Returns.

From the Government Observer, Captain Shortt, R.N., table of observations for October.

Additions to the Library during the month of October :—

Abhandlungen der Mathematisch. Physikalischen Classe der Königlich Bayerischen Akademie der Wissenschaften. Munchen, 1883—
 From the Society.

Almanach der Koeniglich Bayerischen, 1884.

Annual Report of the Board of Regents of the Smithsonian Institution, showing the Operations, Expenditures, and Condition of the Institution for the Year 1882.—From the Institution.

Annual Report of the Chief Signal Officer U.S. Army to the Secretary of War, for the fiscal Year ending June 30th, 1882, Parts I. and II.—
 From the Department.

Do. do. for 1883.

Annual Report of the Department of Mines, New South Wales, for the year 1884.—From the Mines Department.

Anales de la Oficina Meteorologica Argentina. Tome IV. By B. A. Gould.—From the Department.

Annals and Magazine of Natural History, London, September, 1885.

Archives du Musée Teyler, Série II. Quatrieme Partie.—From the Society.

Athenæum, *The*. August.

Australian Scientific Magazine, Vol. 1, No. 3; October, 1885, Melbourne.—From the Editor.

Bericht des vereines für naturkunde Zu Cassel über das Vereingsaha rom. 18, April, 1883 bis dahim, 1884. From the Society.

Bibliotheca hassiaca, by Dr. Karl Ackermann. From the Society.

Bestimmung der erdmagnetischen Inklination von Kassel, Von Dr. Karl Ackermann.

Bulletin of the Museum of Comparative Zoology at Harvard College, Cambridge, Mass. No. 2. The Felsites and their associated rocks north of Boston, by J. S. Diller. No. 3. On an occurrence of gold in Maine. No. 4. A microscopical study of the iron ore or Peridotite of Iron Mine Hill, Cumberland, Rhode Island, by M. E. Wadsworth. No. 5. Observations upon the physical geography and geology of Mount Ktaadn, and the adjacent district, by C. E. Hamlin. No. 6. Report on the recent additions of fossil plants to the Museum collection, by Léo Lesquereux. No. 7. The great dike at Hough's Neck, Quincy, Mass., by J. Elliott Wolff. No. 8. On some specimens of Permian fossil plants from Colorado, by Léo Lesquereux. Vol. 11, pt. 1. The Azoiic system and its proposed sub-divisions by J. D. Whitney and M. E. Wadsworth. From Alexander Agassiz.

Bulletin of the Buffalo Society of Natural Sciences, Vol. IV., No. 4.—
 From the Society.

Bulletin of International Meterology for 1882-3, Washington.—From the Department.

Catalogue de las Zonas, Zone Catalogue, mean positions for 1875, of the stars observed in the zones at the Argentine National Observatory. By B. A. Gould. Pts. 1 and 2.—From the Society.

Catalogue of the Library of the Statistical Society, with preface and regulations, 1884.—From the Society.

Den Norske Nordhavs, expedition 1876-8, XIV. Zoology, Crustacea. Plates. By Geo. O. Sars.

Gardeners' Chronicle.

Geological Magazine, September.

International Meteorological Observations, Washington, 1882.—From the Department.

Journal of Society of Arts, August 7, 14, 21, 28.

Journal of Society of Arts, Vol. XXXII., 1883-4 (bound).

Journal of the Society of Arts, Index to Vols. XXI. to XXX., 1872 to 1882.

Journal of Science, September.

Journal of the Statistical Society, London, Vol. XLVII., pts. 2, 3, 4, 1884; Vol. XLVIII., pt. 1, March, 1885.—From the Society.

Journal of the Linnean Society of London Botany, Nos. 134 to 137; Zoology, Nos. 103 to 108.—From the Society.

Journal of the Royal Historical and Archæological Association of Ireland, Vol. VI., 4th Series, January, April, and July, Nos. 57, 58, 59.; Vol. VII., 4th Series, January, 1885, No. 61.—From the Society.

Journal of the Royal Asiatic Society of Great Britain and Ireland, Vol. XVI., pt. 3, New Series, 1884; Vol. XVI., pt. 4, New Series, 1884; Vol. XVII., pts. 1 and 2, 1885, New Series.—From the Society.

Leeds Philosophical and Literary Society, the annual report for 1884-5. From the Society.

List of the Linnean Society of London, 1884-5. From the Society.

List of the Zoological Society of London, November 1, 1884. From the Society.

Memoirs of the Geological Survey of India *Palaontologica Indica*, being figures and descriptions of the organic remains procured during the progress of the Geological Survey of India. Ser. X. Indian Tertiary and Post Tertiary, Vertebrata, Vol. III. pt. 3. Rodents and new Ruminants from the Siwaliks and Synopsis of Mammalia, by R. Lydekker, B.A., etc., Vol. III., pt. 4. Siwalik Birds, by R. Lydekker, Vol. III., pt. 5. Mastodon teeth from Perim Island, Nos. 16, 17, by R. Lydekker, B.A., Vol. I., pt. 4. The Labrinthodont from the Bijori Group, by R. Lydekkerr. Tertiary and upper cretaceous fossils of Western Sind. Ser. XIV., Vols. I., III. The fossil Echinoidea Fas. IV., the fossil Echinoidea from the Nari series. The Oligocene formation of Western Sind, by P. Martin Duncan, M.B., W. Percy Sladen, F.L.S., etc. Series xiii. Saltrange Fossils, by W. A. A. Wagen, Ph. D., 1 Productus—Limestone fossils, iv. fas. 5 Brachiopoda lxxxii.—lxxxvi., Vol. xxi., part 3. Hughes' Southern coalfields of the Rewah Gondwana Basin. Vol. xxi., part 4. Mallet: The volcanoes of Barren Island and Narcondam, in the Bay of Bengal. From the Geological Survey Department of India.

Memoirs of the Literary and Philosophical Society of Manchester, vol. IX., a centenary of Science in Manchester, by R. Angus Smith, F.R.S., vol. VII., third series, 1882-3.—From the Society.

Memoirs of the Royal Astronomical Society, London, vol. 48, pt. 1, 1884.—From the Society.

Memoirs of the National Academy of Science, vol II., 1883, Washington.—From the Society.

Memoirs of the Museum of Comparative Zoology, at Harvard College, Cambridge, Mass., vol. VIII., No. 3; The Reptiles and Batrachians of North America, by Samuel Gorman, vol. X., No. 3;

Results of an Examination of Syrian Molluscan Fossils, chiefly from the range of Mount Lebanon, by Charles E. Hamlin, vol. XI., pt. 1, *Lithological Studies, a Description and Classification of the Rocks of the Cordilleras*, by M. E. Wadsworth; vol., XII., *The Water Birds of North America*; vol. I. and II., by S. F. Baird, T. M. Brewer, A. R. Ridgway.—From Alexander Agassiz.

Memoirs of the Boston Society of Natural History, vol. III., No. 7, on the development *Olecanthus Niveus* and its parasite *Teleas*, by H. Ayer. No. 9. Two new and diverse types of carboniferous myriapods, the species of *Mylacris*, a carboniferous genus of cockroaches. By S. H. Scudder. No. x. Notes on the Peeping Frog, *Hyla Pickeringii*, Leconte. By Mary H. Hinckley.—From the Society.

Meteorological Observation, February and March, 1885. Meteorological Office, India.

Monthly Weather Review, Washington, for 1884. From the department.

Monthly record of Meteorological observations, etc., during June, 1885, by R. L. J. Ellery, F.R.S.—From the Department.

Natural History of Victoria, Prodomus of the Zoology of Victoria, decade XI., by Prof. McCoy.—From the Government.

Observations and Researches made at the Hong Kong Observatory in the year 1884, by W. Dobeck.—From the Department.

Proceedings Manchester Literary and Philosophical Society, vols. XX., XXI., XXII., 1880-3.—From the Society.

Proceedings of the Royal Institution of Great Britain, vol. X., pt. 3, No. 77.—From the Society.

Proceedings of the Royal Colonial Institute, vol. XV., 1883-4. — From the Society.

Proceedings of the Boston Society of Natural History, Vol. 22, pt. 2, November, 1882, February, 1883; pt. 3, March, 1883, October, 1883.—From the Society.

Proceedings of the Canadian Institute, Toronto; Vol. II., Fas. No. 1, 2, 3; March, July, October, 1884.—From the Society.

Proceedings of the American Academy of Arts and Sciences, New Series, Vol. XI.; whole series, Vol. XIX., pt. 1, from May, 1883, to December, 1883; pt. 2, from May, 1883, to May, 1884.—From the Society.

Proceedings of the American Association for the Advancement of Science, Minneapolis meeting, Vol. 32, 1883.—From the Society.

Proceedings of the American Philosophical Society held at Philadelphia for promoting useful knowledge, Vol. XXI., April, 1883, to January 4, 1884, No. 114; No. 115; January 4 to May 16, 1884; No. 111, 1884.—From the Society.

Quarterly Journal of the Geographical Society, Vol. 40, pts. 3 and 4, Nos. 159, 160; Vol. 41, pts. 1 and 2, Nos. 161, 162.—From the Society.

Report of the British Association for the Advancement of Science, Montreal, August, 1884.—From the Society.

Report of the Superintendent of the U.S. Naval Observatory for the year ending October 30, 1884.—From the Observatory.

Report on the Meteorology of India in 1882. By H. F. Blandford, F.R.S.—From the Meteor. Department.

Report of the Board of Governors of the Public Library, Museum and Art Gallery of South Australia, with the reports of the Standing Committees for 1884-5.—From the Department.

Register of Papers published in the Transactions and Proceedings of the American Philosophical Society, compiled by H. Phillips, jun.—From the Society.

Resultados del Observatorio Nacional Argentio en [Cordoba, Vol. III., IV. By B. A. Gould.—From the Society.

Second Annual Report of Ethnology to the Secretary of the Smithsonian Institution, 1880-1. By J. W. Powell.—From the Institute.

Sitzungsberichte, Heft III., 1883; Heft I., 1884.—From the Society.

Statistics of the Colony of New Zealand for the year 1884, Pt. V., Law, Crime, and Education.—From the Government.

Third Annual Report of the U.S. Geological Survey to the Secretary of the Interior, 1881-2. By J. W. Powell. Plates. Washington, 1883.—From the Department.

Transactions of the Institution of Engineers and Shipbuilders in Scotland, Vol. 27, 1883-4.—From the Society.

Transactions of the National Association for the promotion of Social Science, Birmingham meeting, 1884.—From the Society.

United States Geological Survey, Clarence King, director, Geology of the Comstock lode and the Washoe district, with atlas, by G. F. Becker. Plates V. The Copper-bearing rocks of Lake Superior, by R. D. Irving. Plates. Washington, 1883. Mineral resources of the United States, by Albert Williams, jun. Washington, 1883. Atlas to accompany the Geology of the Comstock Lode and the Washoe district, by G. F. Becker.—From the Department.

Victorian Naturalist. The, Vol. 11, No. 7, November 1885.—From the Society.

Washington Astronomical and Meteorological Observations made during the year 1880.—From the Department.

PRESENTATIONS TO THE MUSEUM.

Mammals :

Tasmanian Porcupine (*Echidna setosa*), Master E. Hull.

Tasmanian Porcupine (*Echidna setosa*), Mr. C. H. Lindley.

Tasmanian Porcupine (*Echidna setosa*), Mr. Lovett.

Tasmanian Rat Kangaroo (*Hypsorymnus apicalis*), Mr. J. Bradshaw.

Two Opossum Mice (*Dormicia gliriformis*), Mr. W. H. Cole.

Birds :

Australian Bittern (*Botaurus australis*), Mr. Perkins.

Australian Goshawk (*Astur approximans*), Mr. W. Peacock.

Collared Sparrow-hawk (*Accipiter torquatus*), Mr. Flexmore.

Summer Bird (*Graucalus parvirostris*), Mr. Geo. Hinsby.

Magnificent Rifle Bird (*Ptilorhis alberti*), adult male, young male and female. Queen Victoria's Rifle Bird (*Ptilorhis victoriæ*), male and female. Rifle Bird (*Ptilorhis paradiseus*), male and female, the Trustees Brisbane Museum.

Birds' Eggs :

A Collection of American Birds' Eggs, Mr. Geo. Hinsby.

Fishes :

Velvet Fish (*Holoxenus cutaneus*), Mr. Bissett.

Young English Salmon (*Salmo salar*); young California Trout (*Salmo fontinalis*), the Salmon Commissioners.

Parascyllium variolatum, Mr. J. J. McCluskey.

Reptiles :

Lizard (*Grammatophora* sp.), Mr. E. D. Swan.

Three do. (*Grammatophora* sp.), Mr. C. H. Lindley.

One do. (*Hinulia whitei*), Mr. E. B. Gawne.

Ethnology :

A Japanese suit of armour, Mrs. J. C. Hadley.

EARTHQUAKE SHOCKS.

Captain J. SHORTT, R.N., Meteorological Observer, made a few remarks on a paper on Earthquake Shocks, by Mr. A. B. Biggs, Launceston, read at the last Society's meeting. He said he wished first to point out the inconsistencies of Mr. Biggs in his many letters to the Press on the earthquake shocks that have been experienced both in Tasmania and on the Continent of Australia since April, 1883. He (Mr. Biggs) has given the centre of disturbance as occurring in Bass' Straits, in New Zealand, also 500 and 1,000 miles to the eastward of Tasmania, and by his letter, read at the October meeting, he would wish to infer from the shock of September 11th the centre was nearer Hobart than the East Coast of Tasmania. After comparing the time of the shock, as given by different observers in Tasmania, the speaker found that Falmouth is the only station that would give him the grounds for the supposition that the centre is not at some place in a line north or south of the centre. He (Capt. Shortt) consistently considered it to be, as at about 90 miles to the eastward of the North-East Coast of Tasmania, sometimes farther north of it, which has been the case during the last year, the shocks having reached Gabo Island earlier than Tasmania; and the time of those noted there can be depended upon as more reliable than at country places either in Victoria or Tasmania. Mr. Biggs speaks of the shock experienced in Victoria on September 8 as coming from S.W. in the North-Eastern districts. It would be reasonable to infer that places on the Southern Coast of Victoria ought to feel them with greater severity. In the monthly record of shocks felt at Gabo, the direction is always given as from south to north. Gabo Island is nearly north of the slope where the sea bottom suddenly slopes to a depth of over 2,000 fathoms, which the speaker thought we should attribute to the region of the great physical line of fault, and the origin of the disturbance. Observers are very easily deceived in the direction of shocks, as numbers of reports have been received at the observatory from the islands in Bass' Straits, also in Tasmania, as proceeding from N. to S., N.W. to S.E., and West to East, and *vice versa*; Mr. Biggs has also published an account of a shock as recorded by a seismometer as coming from N.W., so it is easily seen how difficult it is to judge correctly, (more especially by an observer feeling the earlier sensations), from what direction they really proceed; in fact, from Goose Island they have always given the direction as from N.W. to S.E., when it should be the reverse. In his letter Mr. Biggs acknowledges Professor Milne, of Japan, holds a premier position in seismology. That gentleman, subsequent to his late visit to Tasmania and after obtaining all possible information as to earthquakes felt both in Victoria and Tasmania, has written an article on the earth movements in Australia in the Melbourne *Argus* of October 10, in which he fully coincides with the speaker that the disturbance probably originates near to the edge of the 2,000 fathom line off the N.E. coast of Tasmania.

PAPERS.

An interesting paper was read, entitled "The scientific treatment of waste material," by Mr. W. H. Charpentier. The paper dealt chiefly with the utilisation of waste material now lost very day. As local instances he referred to the waste of tar from the gas works, and of refuse from the slaughter-house, which were allowed to go into the river, and showed how the utilization of such

material became valuable industries in other countries. The paper led to an interesting discussion in which various members took part, particular mention being made of the destructive nature of the tar thus allowed to run to waste in destroying or tainting many of the fish in the wells of the fishermen's boats.

A paper by Mr. J. R. McClymont, M.A., Edin., entitled "Australian Topography: Edel's Land, De Witt's Land, and Carpentaria," was read by Mr. J. B. Walker. Mr. McClymont attempted to prove by references to Tasman's Letter of Instructions, 1644, and to early maps that the Land of Edel, on the west coast of Australia, was discovered in 1617, two years earlier than the date usually assigned to the discovery, and that 1619 is only the date of a second visit. The paper also showed that the name Carpentaria is not met with before 1663, although a river emptying into the gulf received the name of the president of the Dutch East India Co. in Tasman's map of 1644, and possibly at a still earlier period. In concluding his notes, Mr. McClymont expressed his thanks to Mr. Justin Browne and Mr. J. B. Walker for the loan of books but stated as his opinion that "private collections can never supply the place of a public collection of works relating to Australian discovery. That if Australians are to become familiar with the beginnings of Australian history, the means of studying the sources whence that history is drawn must be placed within their reach—an end to be attained by the gradual and persistent acquisition in each colony of the books, maps, and manuscripts bearing on its own history, until an Australian library shall be established, rich in all procurable rarities of colonial history and discovery."

The CHAIRMAN said that a great many years ago a collection was made of old historical books which were put into the Franklin Museum, and were subsequently handed over to trustees for the benefit of the then projected college. He thought that it would not be out of place for the society to enter into negotiations with the representatives of those trustees with the view of getting them deposited in the Society's Library.

Mr. J. B. WALKER said that the books referred to were now in Christ's College Library, and stored in one of the rooms of the Town Hall, under the care of the Warden of the College.

Mr. JUSTIN BROWNE exhibited a copy of Tasman's map showing Tasmania and Australia as one large island, which was examined with much interest.

Bishop SANDFORD moved,—“That it be remitted to the council of the Royal Society to consider during the recess that steps should be taken to further the collection and preservation of records, books, documents, maps, etc., which may serve to illustrate the history of the colony in all its particulars, and to throw light on all that concerns the discovery, geography, and development of the colony, and to report to an early meeting of the society at its next session.”

Mr. J. B. WALKER seconded, and the motion was unanimously passed.

Mr. T. STEPHENS, M.A., read a paper, entitled 'Notes on boring operations in search of coal in Tasmania, 1884' (continued).

In course of a short discussion that followed,

Mr. C. H. GRANT said that so recently as Saturday last he visited the coal district at Fingal, when it was brought under his notice that the coal at Mount Durham, situated at a distance of $2\frac{1}{2}$ miles, seemed to be a continuation of the Sft. seam now well exposed at Mount Nicholas. The value of the coal in that district seemed to be inconceivable, and he had no doubt that it would rival some of the coalfields of the Old World.

CLOSING ADDRESS.

The CHAIRMAN then said : Following the course which I adopted at the close of the session for 1884, I propose to detain you for a few moments while I pass under review the proceedings of the session which will terminate this evening. In the first place it is satisfactory to know that the number of Fellows on the roll of the Royal Society keeps steadily increasing, there having been an addition this year of 22 (of whom two, the Hon. W. Macleay, F.L.S., and E. Pierson Ramsay, F.R.S., E., F.L.S., of Sydney, were elected hon. members), while only two members have withdrawn. It may be fairly anticipated that, at no distant day, every person of education and culture living within the range of the society will seek to be included in its list of Fellows. The attendance at the evening meetings has also largely increased, and a deeper interest has been manifested in the proceedings, more especially when, by the kindness of various members, the aid of the microscope has been so freely given in the illustration of papers. The presentations to the Muscum have been numerous and valuable, comprising specimens in almost every department of Natural Science ; and there has also been, as usual, a large number of donations of a miscellaneous description. The contributions to the library have been many and valuable, in addition to the various sterling publications subscribed for by the Society ; and there has been lately received from London a case of rare and choice volumes of a strictly scientific character, chiefly relating to ichthyology, being the first instalment which has been purchased by means of the interest derived from the Morton-Allport Memorial Fund. These books have been placed on the table for inspection. A catalogue of the extensive collection of books and pamphlets in the library has been prepared by the librarian to meet a long-felt necessity. Mr. Morton has deservedly received the acknowledgments of the Fellows for the admirable manner in which this work was performed. With regard to the papers read at the evening meetings, it may, I think, be affirmed that the work of this session will bear favourable comparison with that of any which have preceded it, both in respect to the number and variety of the subjects brought forward, as well as to their scientific value and importance. I would instance the comprehensive sketch of the "Zoology of Australia," by that eminent naturalist, our recently elected honorary member, the Hon. William Macleay, F.L.S., of Sydney, written for publication in Germany, but which that gentleman consented, at the request of our illustrious friend, Baron Von Mueller, should first appear in its original English in our Transactions before its translation into a foreign language. The several contributions by Mr. R. M. Johnston, F.L.S.,—(1) On the Silurian fossils of the Gordon limestone ; (2) on new species of fossil leaves from the tertiary deposits of Mount Bischoff and elsewhere ; and (3) on the classification of the upper palæozoic and mesozoic rocks of Tasmania, together with its coal plants, will be especially appreciated by geologists, both in the colonies and in Europe. A complete table of the stratified rocks of Tasmania, compared with the arrangement of similar rocks of other countries, imparts additional value to this paper. I should here mention that a geological sketch map of Tasmania, prepared by Mr. Sprent, Deputy Surveyor-General, in conjunction with Mr. R. M. Johnston, and lithographed at the Lands and Works Office by permission of the Hon. Nicholas J. Brown, has been presented to the Royal Society, and is likely to prove of considerable advantage, as a guide on the one hand and a beacon on the other, in the prosecution of mining and other enterprises. The able and exhaustive paper by Mr. W. F. Ward, A.R.S.M., Government Analyst, on the impurities of water in relation to typhoid fever, should command, from its great

practical importance, the thoughtful consideration of the community, from its bearing and influence on the public health. Much gratification, again, has been afforded by the interesting account of the mosses of Tasmania by our zealous co-worker, Mr. R. A. Bastow, a study which he has succeeded, aided by the microscope, in rendering both attractive and fascinating. Notes on different branches of science have also been read by Mr. W. Saville-Kent, F.L.S., F.Z.S., and by Mr. C. J. Atkins, and rendered, in both cases, of increased interest by means of the microscope. In selecting the foregoing for special mention, it is with no desire to under-rate the merits of the other excellent papers that have been read before the Royal Society, and which will be contained in our forthcoming volume of Papers and Proceedings. This retrospect would be incomplete were I not to mention that the present year will be memorable for the receipt of a handsome legacy of money and land, bequeathed to the Royal Society by the late Joseph Milligan, F.L.S., formerly one of its warmest supporters. This bequest has already been placed on record in the proceedings, and a portrait of the generous benefactor has been framed and placed in the library of the Society. I digress here to acknowledge our debt of gratitude to *The Mercury* for its liberality in devoting so much space in reporting the proceedings of the Society, and presenting so promptly, at next morning's breakfast table such a full and accurate epitome of the previous evening's meeting. (Applause.) Fellows are aware that an important fundamental change has taken place in the constitution of the Royal Society, by the withdrawal of the Museum and Gardens from its sole control, and establishing them as two separate public institutions under the management of certain official trustees, together with six others elected from the Council of the Royal Society. No doubt this has involved a surrender of private rights to some extent, and one which did not at first sight commend itself to all the Fellows, especially to those who, like myself, had been associated with the Royal Society from its inception. Any scruples, however, which had been called forth when the change was first proposed, soon yielded to the manifest solid advantages which must accrue to the people of Tasmania by placing those institutions on a permanent and national basis. (Hear, hear.) As an example, it is fair to expect that more ample funds in their support will be available than has hitherto been the case; for Parliament, while not feeling justified, perhaps, in voting more than the barest sums in subsidising a private, or at most a quasi-public society, must realise the obligation of adequately providing for the efficient working of these in common with other public establishments. Accordingly, additional means are already provided in the Act for the support and growth of the Museum; but, more important still, the sum of £3,000 has been voted for the erection of another wing to the Museum, urgently required to secure more ample accommodation for the rapidly increasing number of presentations. The Botanical gardens will also be rendered more attractive in future by the superintendent being less stinted as regards the supply of labour and appliances. Occasion has also been taken to give space for an art gallery for the reception of pictures and works of art, which will be at once recognised as calculated to diffuse a highly salutary influence upon public taste. But this is not all. It is designed, besides, to connect with this building a laboratory for the Government Analyst, which will enable analyses of mineral specimens and samples presented to the Museum to be made, as it were, on the spot. Accommodation in a hall for the delivery of courses of lectures on scientific subjects is also contemplated, and must prove of great public utility. In conclusion, I would simply remark that encouragement for the future may be fairly deduced from the success of the past; and that, with united action together with individual effort on the part of Fellows, good hopes may

be entertained that the Royal Society will continue its long and prosperous career with undimmed lustre. (Applause).

Bishop SANDFORD moved,—“That the members record their warmest thanks to the vice-president for the address which he had just delivered.” He was very much afraid that they were trespassing a good deal on his consideration and kindness in regard to the change which had been carried on in connection with the Museum and Botanical Gardens, because they knew that those so long and so much interested in the society as the chairman had come to regard with dislike anything like a radical change in its constitution or management. Mr. Barnard, however, had shown that he could rise superior to such considerations, and had expressed warm appreciation of the advantages to be derived from the change. He proposed that they thank the chairman most cordially for the spirit and tone of his address; also that thanks be accorded to those who had read papers that night, and those who had forwarded presentations and donations.

Mr. C. J. ATKINS seconded, and the motion was passed.

The CHAIRMAN having acknowledged the compliment, the meeting separated.

LIST OF PRESENTATIONS TO THE MUSEUM FOR THE MONTHS OF NOVEMBER AND DECEMBER.

Mammals :

A Tasmanian Tiger, *Thylacinus cynocephalus*, the Hon. W. Gellibrand.
A Tasmanian Rat, Mr. Turvey.
Gunns. Bandicoot, *Perameles Gunni*, a Bat, Mr. Archer.

Birds.

A Gala Parrot, Mr. Bedelph.
White Fronted Falcon, *Falco lunulatus*, Mr. Massy,
Eagle Hawk, *Aquila Audax*.
Australian Goshawk, *Astur novæ hollandiæ*, Mr. O. Flexmore.

Fishes.

A Saw Fish, *Pristes* sp., Mr. Johnston.
Dog Fish, *Scyllium laticeps*, Mr.
Elephant Fish, *Callorhynchus antarcticus*, Mr. G. Bridge.

Attendance at the Museum.

November, Week Days	1540.	Sundays,	550.
December, " "	1557.	" "	580.
Gardens, November, 6500;		December, 6200	