

ROYAL SOCIETY.

APRIL, 1890.

The inaugural meeting of the members of this Society for the session of 1890 was held on April 22nd at the Museum. The President, His Excellency Sir R. G. C. Hamilton, K.C.B., took the chair, and there was a large attendance of Fellows, while the visitors included a number of ladies.

PROFESSOR HUXLEY.

The PRESIDENT, on taking the chair, said he was not going to depart from his usual custom of only inflicting one address on the Society at the close of the session by giving an address also at the opening, but there was a matter which he would like to see brought before the Council and members of the Society. They had seen from the telegraphic news from London that Professor Huxley was on his way to Australia. He was to stop at Teneriffe and thence go on to the Cape, coming on to Australia by one of the Shaw Savill steamers. If that were so Hobart would be the first point in Australia that Professor Huxley would visit, and he thought that the advent of so great a man of science ought to receive some recognition from the Society. He therefore suggested to the Council and Fellows that it was very desirable that on his arrival the Professor should be met with an address from the Society. He would do all he could to induce Professor Huxley to break his journey at Hobart and spend a few days in Tasmania. But even if the Professor was only here during the short time the vessel was in Hobart he still thought they might make arrangements to invite him to the rooms of the Society to receive an address from the Fellows, which he (the President) would be glad to present. (Applause).

Mr. Alexander Durrand, F.R.M.S., was introduced as a visitor.

NEW FELLOWS.

Rev. E. H. T. Thompson, Messrs. A. W. Gosnell, M.A., and Robert Shirley Hales were admitted Fellows of the Society.

ADDITIONS TO LIBRARY.

The Secretary, Mr. A. MORTON, read the following list of additions to the Library of the Royal Society:—

Adelaide University Calendar for the Academical Year 1890 (bound).
From the Council.

Anales de la Oficina Meteorologica Argentina, Tomo VII. From the Department.

Anales del Ministerio de Fomento de la Republica Mexicana. From the Society.

Annales de la Société Royale Malacologique de Belgique. Current Nos. From the Society.

Annual Progress Report of the Geological Survey for the year 1888-9, Queensland. From the Government Geologist.

Anzeiger der Kaiserlichen Akademie der Wissenschaften Mathematisch Naturwissenschaftliche Classe XXV., 1888. From the Society.

Astronomische Arbeiten des K. K. Gradmessungs-Bureau, 1, Band. From the Society.

- Athenæum. Current Nos.
 Boletín Mensual del Observatorio Meteorológico del Colegio Pio de Villa. Colon Montevideo. From the Society.
 Boletín Mensual, Tomo II., No. 34. Mexico. From the Society.
 Boletim da Sociedade de Geographia de Lisboa. Current Nos. From the Society.
 Bollettino della Societa Geografica Italiana, Serie 3, Vol. II., III., 1889, 1890. From the Society.
 Bollettino dei Musei di Zoologia ed Anatomia Comparata, Vol. IV., 1889. From the Society.
 Botany Bay, or Eucalyptus "Kino" (pamphlet). By J. H. Maiden, F.L.S. From the Author.
 Bulletin of the Museum of Comparative Zoology at Harvard College, Cambridge, Mass., Vol. XVI., No. 6, Geological Series. The intrusive and extrusive Triassic trap sheets of the Connecticut Valley. By W. M. Davies and C. L. Whittle, Vol. XVIII., No. 5. The Morphology of the Cartoids. By F. Ayers, No. 6. Cave Animals from Western Missouri. By S. Garman. Annual Report for 1889. From Professor Agassiz.
 Bulletin de la Société Imperiale des Naturalistes de Moscow, current Nos. From the Society.
 Bulletin de la Société Royale de Botanique de Belgique Tome Vingt-Huitieme. Bruxelles, 1889.
 Catalogue of Fossil Reptilia and Amphibia, part III., 1889. From the Trustees British Museum.
 Contributions to Canadian Palæontology, Vol. I., by J. Whiteaves, F.G.S., "On some fossils from the Hamilton formation of Ontario, with a list of the species at present known from that formation and province." The fossils of the Triassic Rocks of British Columbia. On some Cretaceous Fossils from British Columbia, the N.W. Territory, and Manitoba. From the Department.
 Department of Agriculture of Victoria, Bulletin June, 1888. Bulletin 3, 4, 5, April, July, and September, 1889. From the Department.
 Department of Agriculture, Queensland—Report of the Government scientific expedition to Bellenden—Ker Range upon the Flora and Fauna of that part of the colony. From the Department.
 Department of Mines, Sydney, N.S.W. Records of the Geological Survey of N.S.W., Vol. 1; Parts I., II., III., 1889. Palæontology—No. 1. The invertebrate fauna of the Hawkesbury. Winamatta series, beds above the productive, coal measures of N.S.W. By R. Etheridge, junr. Mineral products of N.S.W. By Harrie Wood. Notes on the Geology of N.S.W. By C. S. Wilkinson. Description of the Seams of Coal worked in N.S.W. By J. Mackenzie. Geology of the Vegetable Creek Tin-Mining Field, New England District, N.S.W., with maps and sections. By T. W. F. David. Contribution to the Tertiary Flora of Australia. By Dr. C. Baron von Ettingshausen. Annual Report of the Department of Mines for the year 1888. From the Department.
 Department of Agriculture United States (Division of Entomology). Insect Life. Vol. I., Nos. 1 to 12, 1889, devoted to the Economy and Life Habits of Insects, especially in their relations to agriculture, and edited by the Entomologist and sanction of the Commissioner of Agriculture. Nos. 1 to 6, 1889. Bulletin No. 16. The Entomological Writings of Dr. A. S. Packard. By S. Henshaw. 1887. Bulletin No. 18. The Life and Entomological Work of the late Townend Glover, first Entomologist to U.S. Dept. of Agriculture. By C. R. Dodge. 1887, Bulletin 19. An examination of the published synopsis catalogues and lists of N.A. insects, together with other information intended to assist the student of American Entomology, 1888. Bulletin 20. The Root Knot disease of the peach, orange, and other plants in Florida due to the

work of Angullura, prepared under the direction of the Entomologist, J. C. Keal. Bulletin No. 9. The Mulberry Silkworm; being a manual of instructions in silk culture. By C. V. Riley. No. 10. Our Shade Trees and their insect defoliators; being a consideration of the four most injurious species which affect the trees of the capital, with means of destroying them. By C. V. Riley. No. 11. Reports of experiments with various insecticide substances, chiefly upon insects affecting garden crops. No. 13. Reports of observations and experiments on the practical work of the division made under the direction of the Entomologist, 187. No. 14. Do. do. No. 15. The *Icerya* or Fluted Scale, otherwise known as the Cottony Cushion Scale. Catalogue of the exhibit of Economic Entomology at the World's Industrial and Cotton Centennial Exhibition, New Orleans, 1884-5. No. 6. General Index and supplement to the nine reports on the insects of Missouri. By C. V. Riley, Washington, 1881. Third report of the U.S. Entomological Commission, relating to the Rocky Mountain Locust, the Western Cricket, the Army worm, Canker worm, the Hessian fly, together with descriptions of Larvæ of injurious forest insects. Studies on the embryological development of the locusts and of other insects, and on the systematic position of the orthoptera in relation to other order of insects. Four reports of the U.S. Entomological Commission; being a revised edition of Bulletin No. 3, and the final report on the Cotton worm, together with a chapter on the Boll-worm. By C. V. Riley. Maps and Illustrations. From the Entomologist.

Encyclopædia Britannica, a dictionary of arts, sciences, and general literature (ninth edition), Vols. 1 to 24, with index. From His Excellency Sir R. G. C. Hamilton, K.C.B.

Estudio de la Filosofía y Riqueza de la Lengua Mexicana par el presb A Jastina de la Rosa. From the Department.

Geological and Natural History and Survey of Canada, A. R. C. Selwyn, LL.D., Director. Vol. I., pp. 11. Contributions to Canadian Palæontology. By J. F. Whiteaves, F.G.S. Contributions to the Micro Palæontology of the Cambria silurian rocks of Canada, pt. II. By E. O. Ulrich. From the Department.

Guide to the Mineral Gallery, British Museum. From the Trustees.

Guide to the study of insects and a treaty on those injurious and beneficial to crops, for the use of colleges, farms, and agriculturists, with 15 plates and 670 woodcuts. By A. S. Packard, New York, 1889, (Bound).

Hepatic, A new British. By A. H. Pearson. From the Author.

Illustrations of typical specimens of Lepidoptera, Heterocerca collection in the British Museum, Vol. VIII. By A. G. Butler. Illustrated (bound). From the Trustees.

Jahrbuch des Norwegischen Meteorologischen, Instituts, 1885-6. From the Department.

Journals and proceedings of the Royal Society of New South Wales, Vol. XXIII., 1889, report 1. From the Society.

Journal of Morphology, Vol. III. From the Editor.

Journal of the Royal Microscopical Society. Current Nos. From the Society.

Lichen Flora of Queensland with description of species. By J. Shirley. From the author.

List of named Insects in the South Australian Museum, Adelaide. By J. G. O. Tepper, F.L.S. From the author.

Meteorological Service, Dominion of Canada. Monthly weather Review. Current Nos. From the Department.

Meteorologische Beobachtungen Moscow. From the Department.

Monograph of the Horny Sponges of Australia. By Dr. Lendenfeld. Illustrated (bound). From the Trustees Sydney Museum.

Monthly notices of the Royal Astronomical Society (current numbers). From the Society.

Monthly Weather Review of the United States (current numbers). From the Department.

Monthly records of results of observations in Meteorological, Terrestrial Magnetism, etc., taken at Melbourne during October and March, 1889. From the Department.

Nature. Current Nos.

Nouveaux memoires de la Societe Imperiale des Naturalistes de Moscow, Tome XV. From the Society.

On Lighting and Gunpowder Magazine. On the Theory of Hail (pamphlets). From Mrs. Davies.

Perak Government Gazette. From the Government.

Proces-verbaux de la Seances Societe Royale Malacologique de Belgique. 1888-9. From the Society.

Proceedings of the Canadian Institute, Toronto, October, 1889. From the Society.

Prodromus of the Zoology of Victoria. Decade XIX. From the Government.

Psyche, a journal of Entomology, Comb., Mass. From the Society.

Proceedings of the Linnean Society of New South Wales (second series). Vol. IV. Pts. 1, 2, 3, 4. 1889. From the Society.

Records of the Australian Museum, edited by the Curator, Vol. I., No. 1, March, 1890. From the Department.

Records of the Geological Survey of India, Vol. XXII., pt. 4, 1889. From the Department.

Report of the first meeting of the Australasian Association for the Advancement of Science, held at New South Wales in August and September, 1888 (bound). From the Association.

Report of the Surgeon-General of the Army, U.S., June, 1889. From the Department.

Report of Mr. Tebutt's Observatory, N.S.W., for the year 1889. By J. Tebutt. From the Author.

Revue des Deux mondes, December 1, 1889. From the Society.

Revista do Observatorio Publico Mensal Imperial do Observatorio do Rio de Janeiro, Anion IV., 1889. From the Society.

Scottish Geographical Magazine, current Nos. From the Society.

Société de Géographie de Lisbonne L'Incident. Anglo-Portugais motion Votée a la Seance de la Société de Géographie de Lisbonne. Le 2 Decembre, 1889. Impotation abusive en Afrique par des sujets Anglais D'Armes Perfectionne. From the Society.

Statistics of the Colony of Tasmania for the year 1888. From the Government.

Transactions and Proceedings and Report of the Royal Society South Australia. Vol. XII., for 1888-9. From the Society.

Transactions of the Geological Society of Australasia. Vol. 1, IV. From the Society.

Transactions of the Royal Society of Canada for the year 1888. Vol. VI. From the Society.

Transactions of the Wagner'Free Institute of Science of Philadelphia. Vol. 2. From the Society.

United States Coast and Geodetic Survey Report of the Superintendent, showing the progress of the work during the fiscal year ending with June, 1887. Part I., Texts; Part II., Sketches. From the Department.

Verhandlungen der Gesellschaft Fur Erdkunde [zu Berlin. Band XVI., XVII., No. 9. From the Society.

Victorian Year Book for 1888-9, Vol. I. From the Government Statist.

Victorian Naturalist, The. Current Nos. From the Society.

PROCEEDINGS, APRIL.

Walch's Catalogue of Books for 1890. From the Publishers.

SIR LAMBERT DOBSON thought that they could hardly allow the list of additions to pass without calling special attention to the valuable addition made to the library by the presentation of the ninth edition of the "Encyclopædia Britannica" by His Excellency. This was a very grand and noble work, a veritable storehouse of knowledge, and treating of almost every possible subject in articles supplied by the greatest specialists of the day. He would not move a formal vote of thanks, as His Excellency was in the chair, but he was sure he spoke the unanimous feeling of the Society when he said that they all cordially appreciated the gift of His Excellency. (Applause.)

HIS EXCELLENCY, who was received with applause, said that the discovery of the existence of a Royal Society in vigorous operation was one of the many pleasant surprises he met in coming to Tasmania, and he made up his mind to do all he could to advance its objects, and as time went on to mark his appreciation of the work of the Society in a tangible and useful way. He had himself found in considering some of the subjects brought forward by the Society the want of ready access to some comprehensive and authoritative work of reference, and it seemed to him that the want must be felt by others. He therefore determined to present the Society with the best and most comprehensive work of reference, and it gave him much gratification to find that the addition to the library had met with acceptance. (Applause.)

AUSTRALASIAN ASSOCIATION.

Mr. JAMES BARNARD, Vice-President of the Society, said: Following the course which I took on the occasion of my return from attending the first meeting of the Australasian Association for the Advancement of Science, which was held in Sydney in 1888, when I gave a short personal explanation of what had occurred, I now ask permission to state in a few words the particulars of the second annual meeting of the Association, which was held in Melbourne in January last. As is known to the Fellows, several other gentlemen representing our Royal Society were associated with me in this visit to Melbourne, and I venture to in some measure speak their sentiments as well as my own when I bear testimony to the warmth and cordiality of the welcome accorded to us in Melbourne from the moment of our arrival until our departure. Throughout our stay we were most hospitably entertained with free quarters by Dr. Leeper at Trinity College in the University, besides sharing in a variety of entertainments and concerts given generally to the members of the Association by the distinguished President, Baron Von Mueller, K.C.B., the Hon. Sir William Clarke, Bart., the Worshipful the Mayor of Melbourne and others. Excursions and visits to places of attraction were also planned and provided for, and were more or less availed of. I need not speak of the part which my colleagues and myself took in the work of the several sections of the Association, as that will be shown in the annual volume recording its transactions. Suffice it to say that the sittings of the various sections were assiduously attended by our little Tasmanian band. During the session Tasmania came well to the front, and the proposal to hold the fourth annual meeting of the Association at Hobart in 1892, instead of at Adelaide, received general support, and was carried by acclamation. Hence it is suggested that a corresponding obligation is now imposed upon the Council and Fellows of the Royal Society of Tasmania, aided by the willing co-operation of all having sympathy with the object, to form themselves into a committee to consider the proper steps to be taken for holding the meeting of the Association in Hobart at the date fixed; nor is it much too soon to open a subscription-list and invite for it liberal support; for while it is neither expected nor desired that Tasmania, with its limited means, should attempt to vie

with Melbourne or Sydney, with their magnificent resources, still the expenses incidental to the honour of the position, and the call to reciprocate in some degree the attentions shown to the Tasmanian representatives in the colonies mentioned, must necessarily be considerable. It may also be mentioned, in conclusion, as a good omen of success, that our painstaking and energetic secretary, Mr. Alexander Morton, has accepted the position of local honorary secretary for the occasion; and a general desire was expressed that our own highly-esteemed president, His Excellency Sir Robert Hamilton, would consent to officiate as president of the Association for its meeting in Hobart in 1892. (Applause).

THE SETTLEMENT OF NORTHERN TASMANIA.

Mr. J. B. WALKER read a paper on "The Discovery and Occupation of Port Dalrymple." The writer began by remarking that the discovery of Southern Tasmania belonged to the ancient epoch of Australian history, but the discovery of Northern Tasmania to the modern period 150 years later, when Port Jackson had already been settled. The exploration of Bass Straits and of Port Dalrymple was the work of Bass and Flinders. A sketch of the daring voyage of Bass from Sydney to Western Port in an open boat, and of the discovery of Port Dalrymple and circumnavigation of Tasmania by Flinders and Bass in the little 25-ton sloop Norfolk in 1798, followed. The northern settlement was made by order of Lord Hobart, Secretary of State for the Colonies, for political reasons, to prevent the French getting a footing in Bass Straits. Colonel Paterson was appointed Lieut.-Governor of the New Settlement, and left Port Jackson on June 7, 1804, with 20 convicts and a guard of 20 soldiers. The ships were driven back by gales, but in October following a new attempt was made, and this time was successful. H.M.S. Buffalo, assisted by the schooners Integrity and Francis, and the armed tender Lady Nelson conveyed the expedition, which consisted of 67 military, under the command of Capt. Anthony Fenn Kemp and 74 convicts. Dr. Mountgarrett was surgeon, and Mr. Alex. Reilly storekeeper. The vessels were separated by a gale on the voyage down, and the Buffalo on entering the River Tamar ran aground near Outer Cove (George Town). The prisoners and stores were accordingly landed there on November 10, 1804, and formal possession was taken the next day. Huts were erected at Outer Cove, and the settlement established there, while Lieut. Governor Paterson went up the river to examine the country. He went up the North Esk some miles in his boat, and considered the country better than any that had been up to that time discovered, either in Van Diemen's Land or New South Wales. On his return, however, he chose, as his headquarters, a site at the head of the shallow inlet of Western Arm where the land was bad. Mr. Walker thought that Paterson's reasons for what seemed such an extraordinary choice were to be sought in the policy of the Home Government whose object was to establish military posts near the entrances of harbours to be maintained by convict labour, and not to found colonies in the modern sense. In March 1805, Paterson moved his headquarters to the new site, which he named York Town, but still retained the settlement at Outer Cove (George Town.) At this time the colony contained about 200 people, afterwards increased to 300. After about 12 months York Town was found so unsuitable that Paterson in March 1806, removed his headquarters to the banks of the North Esk, on the present site of Launceston. York Town was not finally abandoned until a year later. The site of this early settlement is about five miles north-west of Beaconsfield, at the head of Western Arm, nearly opposite to George Town. No remains exist of the buildings erected by Lieut-Governor Paterson in 1804.

A GANOID FISH.

The next paper, which was read by Mr. R. M. Johnston, was a description by that gentleman in conjunction with Mr. A. Morton, of a second ganoid fish from the lower mesozoic sandstones, near Tinder-Box Bay. Last session the same gentlemen brought under the notice of the Society a similar fish, obtained from the Knocklofty sandstones, and named *Acrolepis Hamiltoni*, in honour of the President, Sir Robert Hamilton. The present specimen is much better preserved, and although closely allied to the first is yet distinct in several respects. Some good photographs of the specimen were shown, and the writers expressed their belief that there was a probability of a larger number of these interesting fish remains being obtained when operations in certain quarries were again carried out. He mentioned as an interesting fact that a fish of similar species had been recently found at Latrobe.

MARINE ORGANISMS.

Mr. A. Durrand, Fellow of the Royal Microscopical Society, London, exhibited a select series of microscopical preparations of foraminifera and other minute marine organisms from soundings made at depths from five fathoms to about two miles among the islands of the Hawaiian Group, Coast of Java, Channel Islands (Guernsey), Ireland, etc., demonstrating the important part which the calcareous and siliceous remains of these organisms play in submarine deposits, which after upheaval and solidification, constitute a material portion of limestone and similar formations, the city of Richmond, United States, America, being built on an ancient sea bed covering a considerable area, many feet in depth, and largely composed of the inorganic remains of these tiny denizens of the deep, the beauty of which is indescribable by pen or pencil. Some of the specimens shown were from a fossil deposit over 60ft. thick at Wanganui, New Zealand, and appeared as perfect as those recently alive. In connection with this he stated that Mr. Morton, Secretary of the Society, and he (Mr. Durrand), purposed conducting dredging operations in the harbour to ascertain the distribution of these interesting forms, the result of which will probably be submitted to the Society during his stay, and as the microscopical life of our harbour may present some unique features, being yet comparatively unexplored, the investigations of Messrs. Morton and Durrand are expected to result in important information in this direction.

CONGRATULATORY.

The PRESIDENT moved a vote of thanks to the gentlemen who had contributed papers, and mentioned as a matter for congratulation that for the first time the printed proceedings of the past session were on the table at the opening of a new session.

The proceedings terminated.