SEPTEMBER, 1889.

The monthly meeting of the Royal Society was held on Monday, September 9th. The PRESIDENT (His Excellency Sir Robert G. C. Hamilton, K.C.B.) presided. Mr. J. Provis, of South Australia, was elected a corresponding member of the Society; Mr. Chas. Guesdon a member.

The PRESIDENT desired to bring a matter concerning the young salmon now at the Salmon Ponds before the Society. These were the undoubted product of the ova brought out by Sir Thomas Brady, which had been stripped from the male and female fish and artificially fertilised, and the utmost care had been taken to keep them apart from any other fish bred in the Ponds. He recently visited the Ponds, accompanied by the Chairman of the Fisheries Board, the Secretary, and two of the members, when they carefully examined a number of the young salmon, among which they were surprised to find marked differences existing, not only in size, but in their characteristics. It has often been held that the *salmonidæ* caught in Tasmanian waters cannot be true *Salmo salar* because so many of them have spots on the dorsal fin, and a tinge of yellow or orange on the adipose fin, but nearly half of the young salmon they examined, which had never left the Ponds, had these characteristics. Again, many of them were almost "bull-headed" in appearance—another characteristic which is not supposed to distinguish the true *Salmo salar*. He would suggest to the Chairman of the Fisheries Board, whom he saw present, that the Secretary should be asked to make a formal report of the result of this visit, and to obtain some specimens of the young fish, which could be preserved in spirits, and perhaps sent to Sir Thomas Brady to be submitted for the consideration and opinion of naturalists at Home.

Mr. ALLPORT directed attention to the desirableness of placing young fish in the West Coast rivers, which were entirely free at present of fish of a migratory character.

Mr. JOHNSTON pointed out the difficulty of transit in stocking these rivers. He thought Lake Dixon would afford an excellent home for the salmon, equal to any of the Scotch waters; and as it is one of the affluents of the Franklin and Gordon Rivers, the young fish would find their way to the Western Ocean.

Mr. MERTON drew attention to a specimen of the fish referred to, one that had been bred from the late shipment of ova brought out by Sir Thomas Brady. The fish exhibited had no markings on the dorsal fin, but, as had been stated by His Excellency, there appeared to be quite an equal number in the pond with markings on the dorsal as those without. He hoped the recommendations of His Excellency, that specimens of this young fry should be sent to some of the leading ichthyologists in Europe for their opinion would be carried out, because from the care and attention bestowed on the late shipment of ova there could be no question but that the ova was from the true fish, *Salmo salar*.

SMUT IN GRAIN, AND DEPOSIT OF SALT.

The Secretary (Mr. A. Morton) read the following correspondence rom Mr. Joseph Barwick, relating to smut in wheat, and also to a large deposit of salt found on the plains near Mona Vale.

"To the President and Council of the Royal Society of Tasmania. Gentlemen,—After reading the two high class, and what would seem unanswerable papers upon the above subject, read at the last meeting

of your Society, it will seem presumption for me to again trespass upon you. However, I respectfully ask leave to do so in support of my first paper. The learned writers, Messrs. Abbott and Stephens, conclude, from the tenor of my paper, that I had not made myself acquainted with what had been done in attempting to elucidate the mystery of smut. I desire to say that for the last 14 years I have obtained and read all the papers I could find upon the subject, but scarcely two of the writers agree in the most important points, and the whole of the writings that I have read deal more with effect than cause, that is, with the diseased plant. We all know that when we see either cattle or horses infested with vermin that the animal is weakly and poor ; but we do not believe that the vermin cause the poverty, but the reason we know is that poverty from disease or starvation breeds vermin, and this is my experience with plants and trees ; and I am strongly of opinion that it is the same with our grain plant, the plant being weakly from defective rooting it is attacked by fungus. My object in asking for space in the Botanical Gardens was not with a desire to carry out scientific examinations, but to demonstrate that sound grains will not produce smut, and that the so-called spores are as harmless as soot dust, that is if practical tests of sixteen years are of any value, and I further concluded that the only way to interest the public and induce other societies to take the matter up, was to carry out the tests in some public place, and if my experience was confirmed that some means might be devised by which the seed grain could be threshed without injury, which would prove an enormous saving of grain, labour, expense, and a more vigorous plant. The tests I enumerated were only a few of the many ; I tried all with the same result. I have now one and a half acres sown this year with wheat collected upon stock that had been skaken out in removing sheaves ; this I have not dressed. I do not fear the result. It is too late to carry out any further tests this year."

" Tea Tree, August 23, 1889. Curator of the Museum, Hobart.—Sir, —In forwarding the exhibit of salt it cannot be classed as one of our manufactures, as it is a natural product of the centre of Tasmania, and it seems to me more of a curiosity, or more properly a source of undeveloped wealth, as nothing has ever been done to ascertain the source of the constant and inexhaustible deposit. These chains of lagoons, or what are known as the salt pans, are situated nearly in the centre of the colony, and are situated on the estates of Lower Park, Balochmyle, Ellenthorpe, and Mona Vale. I am well acquainted with these pans, having known them for nearly 50 years. They extend for a distance of seven miles, running as nearly as, I should say, south-east by north-west, and there are to my knowledge 10 of them, in area from one acre to 100. There may be more beyond my travels, and I think if a line was drawn it would be found that they are not over one mile out of line. To my mind, the most mysterious fact is that on either side of this line there are similar pans containing fresh water. In one case at Ellenthorpe there is one large pan of probably 100 acres, and within 10 chains on either side there is a lagoon of fresh water. The most prolific in salt of these pans is Ballochmyle and Mona Vale, as over 50 years ago I went with my father to these pans for a supply, and in dry seasons large quantities have been taken from those pans, many hundreds of tons ; the surface, about 2in. deep, is scraped up for domestic use, and the soil is used for manure. A very old hand in the colony, John Duffield, who came in the prison ship Dromedary, informed me that this salt was formerly a source of wealth to the aboriginals who owned the surrounding lands, and was often the scene of hot battle and bloodshed. I have heard several theories of the source of supply, but none of which are tenable. The one is that it is brought from higher levels by streams, but most of them are situated upon a level surface and have no inlet. Another is that the land is impregnated with salt, and that the supply is kept up

by soakage, but if this was so it would follow that the whole of these pans would be salt, which I have shown is not the case. My idea is that a reef extends throughout the length of these pans. Supposing this to be so, would the salt rise from any great depth? I think not, and if my theory is correct, the reef cannot be far from the surface.

Mr. STEPHENS said Sir Lambert Dobson, who had had a lengthy knowledge of the district, might impart some information.

Sir LAMBERT DOBSON had known the salt pans district for a period of 53 years. They were really small lakelets which contained salt water, and from which, during summer, the evaporation caused the layer of salt to form. In past years this was made a source of revenue by collectors of the salt, which was of excellent quality, and suitable for domestic purposes. Some of the lakelets provided richer deposits of salt than others, but no reliable information, so far as he was aware, was forthcoming respecting the origin of these deposits. Evidently they did not originate from springs, because during summer the lakelets dried up. The soil around was fertile, the native grasses growing well. This suggested that the water became impregnated with salt below the surface.

Mr. JOHNSTON considered the subject one of deep interest, and worthy of consideration at the hands of members of the Society. He thought that Mr. Barwick had given good reasons in favour of the idea that the salt was derived from some underlying rock formation of marine origin—probably of upper palæozoic age—whose members are often highly charged with saline matter.

Mr STEPHENS said it would be interesting to ascertain from the inhabitants of the district if the trade in the salt had been discontinued owing to a decrease in the supply, or market influences. The difference between salt and fresh water lagoons was that the latter always had natural outlets, and even if some of these lagoons having outlets contained a percentage of salt from the solid deposits, the outflow naturally brought about a reduction of this. Many of the sandstone formations in Tasmania were particularly saliferous, and contained large percentages of all the salts, from Epsom salt and alum to chloride of sodium. This especially was noticeable in caves which protected the deposits from being carried away by the rain. It should be remembered that a large portion of this district had been under the sea about the tertiary period, if not in post tertiary times. The possibility of the existence of a solid bed of salt, as suggested by Mr. Johnston, should not be ignored.

Mr. JOHNSTON doubted this.

Mr. STEPHENS said that the district, as far as Antill Ponds, gave evidence in favour of this. Marine fossils were not likely to be found where the land had been rising or in drift.

THE LAST LIVING ABORIGINAL OF TASMANIA.

Mr James Barnard read the following paper compiled by him upon this subject:—It has been generally supposed that the grave has closed over the remains of the last of the aborigines, and that the extinction of the race has been final and complete. This supposition, however, is believed to be erroneous; for there still exists one female descendant of the former "princes of wastes and lords of deserts' in the person of Fanny Cochrane Smith, of Port Cygnet, and the mother of a large family of six sons and five daughters, all of whom are living. Some doubts have been cast in Parliament and elsewhere upon the claim of Fanny (to keep to her pre-nuptial and first Christian name) to be of the pure blood of her ancestors, but after searching the records, and upon her own personal testimony, and from other evidence, there seems to be

little reason to doubt the fact. It appears, then, that Fanny was born at Flinders Island in 1834 or 1835, and is now about 55 years of age. Sarah was the name of her mother, and Eugene that of her father, and both were undeniably aboriginals. Sarah first lived with a sealer, and became the mother of four half-caste children; and was subsequently married to Eugene (native name, Nicomanie), one of her own people, and had three children, of whom Fanny is the sole survivor and representative of the race. Lieut. Matthew Curling Friend, R.N., in a paper read before the Tasmanian Society, on March 10, 1847, "On the decrease of the Aborigines of Tasmania," in alluding to the curious theory propounded by Count Strzelecki, that the aboriginal mother of a half-caste can never produce a black child should she subsequently marry one of her own race, controverts this notion of invariable sterility by quoting two instances which came under his notice while visiting the aboriginal establishment at Flinders Island. I give his own words :— "One was the case of a black woman named Sarah, who had formerly four half-caste children by a sealer with whom she lived, and has had since her abode at Flinders Island, where she married a man of her own race, three black children, two of whom are still alive. The other, a black woman named Harriet, who had formerly by a white man with whom she lived two half-caste children, and has had since her marriage with a black man a fine healthy black infant, who is still living." Commenting upon this doctrine of Strzelecki, West observes (Hist. of Tasmania, vol. 2, p. 75.), "A natural law by which the extinction of a race is predicted will not admit of such serious deviations." Some explanation may properly be expected from me for reviving a question which was supposed to be set at rest when Truganini was consigned to the tomb, and declared to be the last woman of her race. I will therefore mention the incident which has given me something of a personal interest in the matter. It is now nearly 40 years ago that I was accustomed occasionally to accompany my friend, the late Dr. Milligan, the Medical Superintendent of the Aborigines, to the settlement at Oyster Cove, where I saw a good deal of the native people, at that time some 30 or 40 in number. Among these I have a distinct recollection of Fanny, who was then apparently about 17 years of age, slender and active, less dusky in colour, but rather more prepossessing in appearance than any of her kind; and certainly at that time I never heard a doubt expressed of her not being a true aboriginal. There was one circumstance in particular which impressed her upon my remembrance, and that was on one occasion we crossed over in a boat from Oyster Cove to Bruni Island, rowed by four of the black men, and Fanny taking the steer-oar, which she handled with marvellous skill and dexterity. My visits to the settlement shortly after ceased, and from that time to the present, until a few weeks ago, when I was greatly surprised to receive a visit from this identical Fanny, who had become transformed into a buxom matron of considerable amplitude. By the courtesy of the Hon. P. O. Fysh, Chief Secretary and Premier, I have been permitted access to the official records bearing upon the subject of this investigation. The first documents brought under my attention were two letters under date June 23 and 26, 1882, embodying a report from the Police Magistrate of Franklin, the late E. A. Walpole, emphatically stating that Fanny "is a half-caste, born of an aboriginal woman, by a white man whose name is unknown, at Flinders Island on or about the year 1835." No authority beyond the expression of his individual opinion is adduced by Mr. Walpole in support of his statement. The next document was a letter by the late Dr. Milligan, Medical Superintendent of Aborigines, under date July 17, 1854, enclosing William Smith's consent to marry Fanny Cochrane, and describing her as an aboriginal girl belonging to the establishment at Oyster Cove. This affords strong evidence in support of the opposite view of the case, as those who knew Dr.

Milligan would remember how precise and accurate he invariably was in any statement of facts. A point of some importance in the contention would arise from Fanny's second name, Cochrane. According to Bonwick, in his "Last of the Tasmanians," p. 282, this was taken from the sealer who lived with Sarah, whose name was Cottrel Cochrane. Were this so, it would have at once have gone far to settle the question of parentage, and show her to be the half-caste supposed. Bonwick is obviously in error in his statement; for I have lately ascertained from the lips of a married lady living in Hobart, a daughter of the late Mr. Robert Clark, catechist at the aborigines establishment, that Cochrane was the maiden name of her mother, and that it was given by her father to Fanny when a child, and residing in his family. Again, Bonwick writes (p. 310): "We read of a sawyer, one Smith, and his black friend, Mrs. Fanny Cochrane Smith, receiving £25 a year for their half-caste child." Instead of "black friend" he might have written "black wife;" for the parties were duly married at Hobart by the Rev. Frederick Miller, Congregational minister, in 1854. As respects the cause assigned for the annuity, this writer was also in error, for the sum of £24 (not £25) was bestowed upon Fanny on the occasion of her marriage, and not for the reason stated. The next document is a letter dated 8th December, 1842, conveying the official approval of the admission into the Queen's Orphan School of the three aboriginal children named in the margin—Fanny, Martha, Jesse. Then follows in the records under same date an application from Mr. Robert Clark, late catechist of the aborigines on Flinders Island, for permission to receive into his family "an aboriginal child named Fanny, upon his engagement to feed, clothe, and educate her as one of his own children."

Next is an extract from an official document dated 8th March, 1847:— "Eugene and his wife, the father and mother of Fanny and Adam, being asked if they were willing that their children should be sent back to Mr. Clark, said they were not. Fanny being asked if she understood the nature of an oath, answered, 'No,' and the doctor explained it. Fanny said she did not wish to return to Mr. Clark."

From a long report to the Government by Dr. Milligan, dated November 29, 1847, I have taken the following extract:—"The fifth girl, Fanny Cochrane, almost a woman, might remain with her half-sister, Mary Ann. Indeed, I can scarcely say how otherwise she could be satisfactorily disposed of." There being no difference of opinion as to Sarah being the mother of both, this testimony, given by Dr. Milligan as to a difference of parentage in the case of the father, at once discriminates her from Mary Ann, and in itself affords a strong presumption in favour of the contention.

The superintendent at Oyster Cove, under date 4th November, 1857, reports to the Colonial Secretary the death of Adam, aged 20 years, the youngest of the aboriginals; and states that during his illness he was waited upon by his mother, sister, and the latter's husband; these being respectively Sarah, Fanny, and William Smith. Up to this point my researches have been eminently satisfactory, and have tended to confirm the theory of Fanny being an aboriginal; but another document has been brought under my notice which, unexplained, certainly discountenances that theory. It is the report of certain proceedings taken before Dr. Jeanneret, the superintendent at Flinders Island, on the occasion of certain allegations made against an officer of the establishment, and in which is a deposition made by Fanny, dated March 25, 1847, commencing with these words,—"I am a half-caste of Van Diemen's Land. My mother is a native. I am about 13 years of age," etc., with her signature attached at the foot. At first sight this admission would appear to be conclusive and unanswerable; but, upon reflection, I am led to believe that there must be a mistake

somewhere. In the first place a child of her age, with imperfectly developed intelligence, would scarcely be likely to volunteer that statement, or do more than give a mechanical assent to the question when asked, without, perhaps, at all understanding its import. Again, possibly the clerk writing the deposition may have understood that Fanny was sister to Mary Ann instead of half-sister, and naturally assumed them to be the offspring of the same parents. Besides, it conflicts with all the official correspondence in which she is referred to with Dr. Milligan, the medical superintendent, and Mr. Clark, the catechist, in all of which the term "half-caste" never once appears, and she is invariably designated an aboriginal girl, and distinguished from Mary Ann, her half-sister, and an undisputed half-caste. I may add, also, that Fanny wholly repudiates all knowledge or recollection of the evidence referred to. The paper of Lieut. Friend, which I have quoted, in which he refers to Sarah, the mother of Fanny, in support of his hypothesis, as well as the official statement given of Eugene being her father and Adam being her brother, should remove all doubt as to Fanny being a true aboriginal. While it is not to be denied that differences of opinion exist on the point, I think it must be allowed, from the facts brought forward, that the weight of testimony is in its favour. The characteristics of the complexion and of the hair have been cited as favouring the opinion that Fanny must be deposed from the pedestal claimed for her as a pure aboriginal and placed in the ranks of the half-castes. Mr. Walpole states that "her colour is a very dark brown," but I should rather term it a blackish-brown, and showing the true aboriginal tint. On this point it must be remembered that from her infancy she has been encircled within the pale of civilised life, and shielded from the severities of weather and privations to which otherwise she would have been exposed,—all this, together with her surroundings, must naturally have in some degree tended to exercise a modifying influence. The same as to her hair, which, if less woolly and like a mop, has no doubt been combed and brushed out to some small extent of its original fluffiness to reconcile it to the model of the hair of the white children with whom she was brought up, and which she would naturally strive to imitate. The question at issue may appear, at first sight, to be a mere personal matter, and of comparative unimportance, but it is in reality much more than that, and has acquired a scientific aspect deserving of attention. There is reason to believe that the theory of Strzelecki has influenced many to concurrence in his views, and to disregard or overlook the cogency of facts opposed to it. Lieutenant Friend, as we have seen, disputes the dictum referred to, and has adduced strong evidence in support of his objection. Thus an interesting problem has been presented for solution. All controversy, however, must now be regarded as finally set at rest, since the adoption by Parliament, after due inquiry, of two resolutions passed, respectively, in sessions 1882 and 1884, by the first of which the pension of Fanny Smith was increased from £24 to £50 per annum, and by the second that a grant deed of the 100 acres of land she at that time occupied, and for the 200 acres additional then presented to her, should be issued to Fanny free of cost, both votes being passed on the ground specified of her being the last survivor of the aboriginal race.

Mr. TAYLOR did not doubt Mr. Barnard had made very searching inquiry before submitting his paper. There was much that was new in the paper, and he hoped if any members possessed any further evidence respecting this much-vexed question, they would not fail to place it before the Society.

NEW DARK FIELD MICROMETER.

In the absence of Mr. A. B. Biggs, the SECRETARY read a paper contributed by that gentleman on "a new dark field micrometer for

double star measurements." The author referred to the fact that some of the grandest achievements of science were due to workers who had had to content themselves with very simple and perhaps roughly constructed apparatus, the outcome of their own ingenuity, called forth by the necessities of the case. The writer claimed the applicability of these remarks to his own case only so far as they related to the necessity of trusting mainly to his own resources in his very limited field of scientific work. The instrument, of which he furnished a description, had been in this way the outcome of his necessity; its special function being the measurement of very minute angular distances, such as those of double stars, giving at the same time the angle of position with reference to the meridian.

PYRAMIDAL NUMBERS.

Mr. JOHNSTON read a paper on a discovery made respecting pyramidal numbers, suggesting that these might have formed the original selections of sub-divisions of time, space, weight, coinage, etc.

Mr. Johnston suggested that as the Egyptian pyramid builders were great geometricians, the peculiar combinations of numbers in models of simple pyramids of odd, even, and mixed numbers would be familiar to them; and that the square pyramid of even numbers with 12 as base and the odd and even square pyramids with a base of twice 7, or 14, might be seized upon by them for typifying astronomical facts, in conjunction with some great fixed standard of measurements. The selection of these types might be supposed reasonable, as the aggregates or squares of cubes in their principal divisions coincide exactly with the known days of year, month, week, etc.; their simple multiples also coincide with the principal dimensions of the Great Pyramid of Egypt, and with the length of the Egyptian cubit; while many of the natural sequences of related layers of cubes such as 4, 12, 20; 28, 56, 112; 44, 220, 440; 12, 24, 36, 144—are very suggestive, as accounting for the origin of many of our more important existing sub-divisions of time, space, weight and money.

Mr. TAYLOR said it would be almost impossible to discuss such a paper. He suggested the advisableness of dividing the work of the Society into different branches. They might form a Philosophical Society to deal with subjects apart from the scientific subjects now dealt with by the Society. Many subjects would, he thought, be dealt with under such an arrangement.

Mr. MORTON said the Society was always ready to discuss papers on any subject. They were too small to have these sub-sections. This had been done in the past, and lasted but a very short time. The Council had considered the matter some three years since, and decided that the Society was too small to thus sub-divide themselves. The papers of late years had been most varied, and had always been ably dealt with. He drew attention that a member of the New South Wales Society had congratulated them on the fact that the Royal Society of Tasmania in the thoroughness of its work had only one contemporary society in the colonies that held higher position than them, viz., the Linnæan Society of Sydney.

COMPLIMENTARY.

The PRESIDENT in moving the usual complimentary vote to contributors of papers, said he thought the Society specially indebted to Mr. Barnard for his paper. The records of the Society were for all time, and it would be to these records that reference would be made for authentic information on a matter of this sort. He thought the paper would help much toward the settlement of the question as to the last of the Tasmanian aboriginals, seeing that it adopted the scientific method of taking nothing for granted, but giving data for all his conclusions.

Mr. Mault had acted wisely in getting the only gentleman who differed from his expressed views respecting Flinders detention, to read his paper there respecting—(Laughter)—whilst Mr. Johnston's paper had perfectly staggered him (the President) by its ingenuity.

The proceedings then terminated.

LIBRARY ADDITIONS.

List of additions to the Library of the Royal Society :—

Acta Horti Petropolitani. Tomus X. From the Society.

Annales de la Société Entomologique de Belgique, Brussels, 1889. From the Department,

Annals and Magazines of Natural History, current numbers.

Anales de la Oficina Meteorologica Argentina, Tomo VI, 1888. From the Department.

Archives du Musée Teyler, Serie II, vol. III, Deuxieme Partie. From the Society.

Annual report of the Secretary for Mines of Victoria. On the working of the regulations and inspection of mines and Mining Machinery Act during the year 1888. From the Department.

Blowpipe The, in Chemistry, Mineralogy, and Geology, containing all known methods of anhydrous analysis, many working examples, and instructions for making apparatus, by Lieut.-Colonel W. A. Ross, R.A., F.G.S. Illustrated (bound), London, 1889.

Bolletino dei Musei di Zoologia ed Anatomia Comparata (current parts). From the Society.

Boleteim da Sociedade de Geographia de Lisboa (current numbers). From the Society.

Boletin Mensual (pamphlets). From the Meteorological Department, Mexico.

Bollettino della Societa Geografica Italiana (current numbers). From the Society.

Bulletin de la Sociétié Academique Indo-Chinoise de France. From the Department.

Bulletin de la Société D'Ethnographie, Nos. 1 to 6, Paris, 1887. From the Society.

Bulletin de la Sociétié Imperiale des Naturalistes de Moscow (current numbers). From the Society.

Bulletin of the Museum of Comparative Zoology at Harvard College, Vol. XVII. The Coral Reefs of the Hawaiian Islands (plates), by Alexander Agassiz. From the author.

Catalogue de la Bibliothèque dressé par C. Ekama. Septieme Livraison. Mathématiques ; Chimie et Physique, Astronomie ; Météorologie. Huitième Livraison, Archéologie. Antiquites, etc. Arts et Metiers, Miscellanus, Supplément et Additions ; Table Alphabetique, Harlem, 1887-8. From the Society.

Descriptive Catalogue of the Sponges in the Australian Museum, Sydney, 1888. From the Trustees.

Eruption of Krakatoa, The, and Subsequent Phenomena, (bound) 1888

Franklin, the Lightning Conductor (a lecture), by C. Tomlinson, F.R.S. From the Author.

Geological Magazine. Current numbers.

History of the Birds of New Zealand, second edition, vols. 1, 2. London, 1888. Illustrated (bound).

History of the Yorkshire Geological and Polytechnic Society, 1837-1887. With biographical notices of some of its members, by James W. Davis (bound). From the Society.

Imperial Federation, current Nos. From the Editor.

Iconography of Australian species of Acacia and cognate genera. By Baron Mueller. Decade 13. From the Government.

Insect World. Being a popular account of the orders of insects, together with a description of the habits and economy of some of the most interesting species. By Louis Figuier (Illustrated) bound.

Journals and Proceedings of the Parliament of Tasmania, Vol. XI, 1888-9, bound. From the Government.

Journal and Proceedings of the Royal Society of New South Wales, Vol. XXII., Part II., 1888. From the Society.

Journal of Morphology, edited by C. O. Whitman and E. P. Allis. Vol. II., No. 3 plates. From the authors.

Journal of the Royal Microscopical Society of England. Current numbers. From the Society.

Leeds Philosophical and Literary Society. Report for 1888-9. From the Society.

Lord Howe Island; its Zoology, Geology, and Physical Character, 1889. From the Trustees Sydney Museum.

Metallurgy of gold: A practical treatise on the metallurgical treatment of gold-bearing ores, including the process of concentration and chlorination, and the assaying, melting and refining of gold. By M. Eissler. Illustrated (bound). London, 1889.

Metallurgy of silver: A practical treatise on the amalgamation, roasting, lixibiation of silver ores, including the assaying, melting, and refining of silver bullion. By M. Eissler. Illustrated (bound). London, 1889.

Meteorological Department, New Zealand, 1885. From the Department.

Meteorological papers. From the Department, Mexico.

Meteorological Monthly Weather Review, Canada, current numbers. From the Department.

Minerals of New South Wales, etc., by A. Liversidge, M.A., F.R.S., with map, bound. From the Author.

Mineral Statistics of Victoria for 1887. From the Department.

Monthly Notices of the Royal Astronomical Society, current parts. From the Society.

Narrative of a journey to the shores of the Polar Seas, in the years 1819, '20, '21, and '22, by John Franklin, captain R.N., F.R.S., with an appendix on various subjects relating to Science and Natural History. Illustrated by numerous plates and maps. London 1823. Narrative of a second expedition to the shores of the Polar Sea, in the years 1825, '26, and '27, by Captain John Franklin, R.N., F.R.S., including an account of the progress of a detachment to the Eastward by John Richardson, M.D., F.R.S., F.L.S. Plate and maps. London, 1828 (bound); 2 vols. From Lieutenant-General Sir Henry Lefroy.

Nature. Current numbers.

New Hepatic A. By Dr. B. Carrington and W. H. Pearson. From the authors.

Observatorio Nacional Argentine. Vol. x. Cordoba. From the department.

Ocean World: Being a description of the sea and home of its inhabitants, from the French by Louis Figuier, illustrated (bound).

Papers from the Registrar-General's office, New Zealand.

Phormium Tenax as a Fibrous plant (bound). By Sir James Hector, R.C.M.G. From the author

Proceedings of the Linnean Society of New South Wales. Second ser. Vol. IV., Pt. 1, 1889. From the Society.

Proceedings of the Royal Society of Queensland, 1889. Vol. VI., Pt. 2. From the Society.

Proceedings of the Yorkshire Geological and Polytechnic Society, Vol. XI., Pt. 1, 1889. From the Society.

Proceedings and Transactions of the Queensland Branch of the Royal Geographical Society of Australasia, 1888-9, Vol. IV. From the Society.

Proceedings and Transactions of the Royal Society of Canada. Vols. III., 1885; IV., 1886; V., 1887; (bound). From the Society.

Psyche, a Journal of Entomology, Mass., U.S. (Current numbers.) From the Society.

Report of the Trustees of the Australian Museum for 1888. From the Trustees.

Report of the Public Library, Museum, and Art Gallery of South Australia for 1887-8. From the Trustees.

Report of the Zoological and Acclimatisation Society of Victoria for the year 1888. From the Society.

Report of the Surgeon-General of the Army to the Secretary of War for the fiscal year ending June, 1888. From the Department.

Report of the Auckland Institute and Museum for 1888-9. From the Trustees.

Report of the Mining Registrars of the Goldfields of Victoria for the quarter ended 31st March, 1889. From the Department.

Report, Twenty-third Annual, on the Colonial Museum and Laboratory, etc., New Zealand. From the Trustees.

Reports of Geological Explorations during 1887-8, with maps and sections, New Zealand. From the Department.

Revista do Observatorio, Rio de Janeiro, 1889. From the Department.

Records of the Geological Survey of India (current numbers). From the Society.

Results of Astronomical Observations made at the Melbourne Observatory in the years 1881 to 4 (bound). From the Department.

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