

1921.

2 June 1921

LEGISLATIVE ASSEMBLY.

NEW SOUTH WALES.

AUSTRALIAN MUSEUM.

(REPORT OF THE TRUSTEES FOR THE YEAR ENDED 30TH JUNE, 1921.)

Presented to Parliament pursuant to Act No. 61, 1902, Sec. 10.

Printed under No. 6 Report from Printing Committee, 1 December, 1921.

TO HIS EXCELLENCY THE GOVERNOR,—

The Trustees of the Australian Museum have the honour to submit to your Excellency their Sixty-seventh Report, being for the year ended 30th June, 1921.

1. TRUSTEES.

The Board has during the year sustained two serious losses by resignation of Elective Trustees. Professor J. T. Wilson, who had occupied a seat on the Board for twenty-seven years, resigned on 6th August, 1920, having been appointed to the Chair of Anatomy at the University of Cambridge; the vacancy was filled by the election of Mr. J. J. Fletcher, for many years secretary of the Linnean Society of New South Wales. Brigadier-General Reuter E. Roth, who had been an Elective Trustee for fifteen years, resigned on 7th February, 1921, and Mr. George McRae, Government Architect, was elected in his place.

The following is a list of the Trustees, with a record of their attendances at Board Meetings; there were eleven ordinary and four special meetings during the year:—

Crown Trustee.

Mr. James McKern	14
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*Official Trustees.**Statutory—*

His Honor the Chief Justice	—
The Hon. the Colonial Secretary	—
The Hon. the Attorney-General	...	...	...	...	...	...	...	...	—
The Hon. the Colonial Treasurer	...	...	...	...	...	...	...	...	—
The Auditor-General	...	...	...	...	...	...	...	...	13
The President of the Medical Board (Dr. T. S. Dixon, President)	...	...	...	...	...	...	...	...	15

Appointed—

The Hon. the President of the Legislative Council	...	...	...	...	...	...	...	...	—
The Crown Solicitor	...	...	...	...	...	...	...	...	—
The Surveyor-General and Chief Surveyor	...	...	...	...	...	...	...	...	—
Secretary for Public Works and Minister for Railways	...	...	...	...	...	...	...	...	—
Minister for Education	...	...	...	...	...	...	...	...	1

Elective Trustees.

Prof. W. A. Haswell, M.A., D.Sc., F.R.S.	...	...	...	...	...	...	...	...	10
Prof. Sir T. W. E. David, K.B.E., C.M.G., B.A., F.R.S.	...	...	...	...	...	...	...	...	13
*Prof. J. T. Wilson, M.B., Ch.M., F.R.S.	...	...	...	...	...	...	...	...	—
†Mr. W. H. Hargraves	...	...	...	...	...	...	...	...	10

* Resigned 6th August, 1920.

† Leave of absence for part of the year.

*Brigadier-General R. E. Roth, C.M.G., D.S.O., V.D., M.R.C.S.E.	...	...	...	1
Dr. Eric Sinclair	...	...	...	9
†Colonel The Hon. Sir James Burns, K.C.M.G., M.L.C.	...	...	...	5
Dr. J. R. M. Robertson	...	...	...	9
Mr. Ernest Wunderlich	...	...	...	13
†Dr. G. H. Abbott, B.A.	...	...	...	8
Mr. J. Vernon	...	...	...	6
The Right Hon. D. Levy, B.A., LL.B., M.L.A.	...	...	...	7
‡Mr. J. J. Fletcher, M.A., B.Sc.	...	...	...	11
§Mr. G. McRae	...	...	...	1

* Resigned 1st April, 1921.

† Leave of absence for part of the year.
§ Elected 6th May, 1921.

‡ Elected 3rd September, 1920.

To facilitate the work of the Board three Sectional Committees meet monthly and make recommendations on matters coming within their purview. The House Committee deals generally with all questions affecting the Staff and such matters as structural improvements, alterations, and additions; the Scientific and Publication Committee controls the publications of the Museum and the acquisition and exchange of collections and publications; the Finance and Publicity Committee supervises the finances of the institution and devises measures for the purpose of popularising the Museum and making its contents and educational advantages better known to the public.

The members of these Committees and their attendance during the year are as follows. The President of the Board, when present, is *ex officio* chairman of each committee.

Finance and Publicity Committee—

Mr. Wunderlich (Chairman)	...	11
Mr. McKern	...	10
Mr. Hargraves	...	9
Sir James Burns	...	5

Thirteen meetings were held.

House Committee—

Mr. Coghlan (Chairman)	...	8
Dr. Dixon	...	9
Prof. Haswell	...	6
Mr. Hargraves	...	6
Dr. Robertson	...	6

Eleven meetings were held.

Scientific and Publication Committee—

Prof. Wilson (chairman till 6/8/20)	...	6
Dr. Sinclair (chairman since 23/9/20)	...	6
Prof. David	...	2
Prof. Haswell	...	6
Dr. Abbott	...	5
Mr. Fletcher	...	6

Ten meetings were held.

Six Special Committee meetings were held during the year.

2. STAFF.

The position of Director, vacant since the death of Robert Etheridge in January, 1920, was filled on 14th February by the appointment of Dr. Charles Anderson, M.A., who has been Mineralogist since July, 1901. At the same time Mr. C. Hedley was appointed Principal Keeper of Collections. Messrs. J. R. Kinghorn and E. Le G. Troughton were on 4th February, 1921, promoted to be First Class Scientific Assistants. Mr. P. H. Eldershaw, Cadet, who resigned 30th October, 1920, to pursue his studies at Sydney University, was succeeded by T. G. Campbell on 13th December. Messenger H. O. Fletcher resigned 5th February, 1921, and on 16th May was reappointed to the new position of General Assistant; he was on 8th February succeeded as Messenger by R. H. Connolly. Miss J. Allan, previously a temporary employee, was appointed to the Permanent Staff on 5th November, 1920. On 1st April, 1921, it was resolved to strengthen the scientific staff by the appointment of a Palaeontologist and an Assistant in Mineralogy and Petrology. These positions were accordingly advertised, and on 3rd June Mr. T. H. Smith, of the Geological Survey Staff, was selected for the latter position; a Palaeontologist has not yet been appointed. Mr. H. J. Carter, an entomologist of high attainments, was on 2nd July, 1920, placed on the Staff as an Honorary Entomologist. The Trustees regret that Attendant R. Long, who has been in their service for twenty-seven years, died on 4th May. To fill this vacant position Mr. W. Barnes was appointed and commenced duty on 6th June.

The following is a list of the Museum Staff as at 30th June, 1921:—

Name and Office.	Date of first appointment in the Museum.	Date of appointment to present position.
Charles Anderson, M.A., D.Sc., Director and Mineralogist	22 July, 1901	14 Feb., 1921
Charles Hedley, Principal Keeper of Collections and Conchologist	1 April, 1891	14 Feb., 1921
Allan R. McCulloch, Zoologist in charge of Fishes	1 July, 1901	1 July, 1906
Wm. W. Thorpe, Ethnologist	9 Oct., 1899	1 „, 1906
Reg. W. Bretnall, Zoologist in charge of Lower Invertebrates	11 Feb., 1907	2 May, 1919
Anthony Musgrave, Zoologist in charge of Insects and Arachnids	7 Feb., 1910	1 June, 1920
J. Roy Kinghorn, Zoologist in charge of Birds, Reptiles, and Amphibia	1 Sept., 1907	4 Feb., 1921
Ellis Le G. Troughton, Zoologist in charge of Mammals and Skeletons	13 Jan., 1908	4 Feb., 1921
F. A. McNeill, Zoologist in charge of Crustacea and Spirit House	18 May, 1914	6 Dec., 1918
T. Harvey Johnston, M.A., D.Sc., Hon. Zoologist	18 Feb., 1908	5 Mar., 1909

5. EXHIBITS.

Among recently installed exhibits special mention may be made of the fine series of life-size casts of a Hawaiian family group engaged in the manufacture of "poi" and bark cloth ("tapa"). The group was arranged under the superintendence of Messrs. A. R. McCulloch and W. W. Thorpe and the casts very skilfully coloured by Miss P. F. Clarke, forming a most interesting and instructive exhibit, greatly admired by visitors. The Trustees intend to instal similar characteristic groups of Australian aboriginals. A large number of plaster faces and busts of Pacific races, placed on exhibit during the year, forms a striking feature in the Ethnological gallery. The large Solomon Islands head-hunting canoe, 46 feet long, which was presented to the Museum in 1915 by Mr. Harry Wickham, of Roviana, Solomon Islands, and has hitherto been stored in a shed inaccessible to the public, was placed in the gallery. As the canoe, which is rather a frail structure, had to be passed in through an upstairs window very slightly wider than the canoe itself, the task was not an easy one, and great credit is due to Mr. J. H. Wright, Assistant Taxidermist, who planned and supervised the work.

6. THE AUSTRALIAN MUSEUM MAGAZINE.

A publicity scheme was submitted by the Finance and Publicity Committee, 3rd October, 1920, and adopted by the Board. In accordance with this resolution the issue of a magazine, to be called *The Australian Museum Magazine*, and to contain popular articles on scientific subjects, was commenced. This step was taken as the Trustees feel that the ordinary publications of the Museum, while of great scientific value, are too technical for average readers, many of whom are nevertheless deeply interested in natural history and are entitled to sympathetic consideration by a public institution such as this Museum.

The first number of the magazine appeared on 29th April, 1921, and met with a gratifying reception; within a month the issue of 1,000 copies was practically exhausted, showing that the publication satisfies a public want. It is hoped that this publication, which will be issued in quarterly numbers, will play an important part in popularising the Museum.

7. LIBRARY.

During the year the Library acquired by purchase and exchange 290 volumes, besides loose parts and reprints. Included in these is a number of volumes from ex-enemy countries which form welcome additions to our shelves. Economy has again been practised in purchase and binding. The library premises were as usual fumigated at Easter.

The damp condition of the basement, where the valuable collection of foreign serials is housed, is a continual cause of concern; it is only by constant vigilance that the growth of mould can be prevented.

The Library, while principally a library of reference for the Staff, is highly appreciated by other workers. Research students from other States and from the Dominion of New Zealand frequently appeal for assistance, which is cheerfully granted. It is constantly used by local students, artists, and designers.

The Librarian, Mr. W. A. Rainbow, as in previous years, has supervised the production of the Museum publications and given invaluable assistance in the work of editing.

8. LECTURES.

A series of popular lectures was as usual delivered during the year. The popularity of these lectures is now so great that the lecture hall is frequently overcrowded, and more than once would-be hearers have been regretfully turned away for lack of room.

Subjects and lecturers during the year were as follows:—

1920—July 8th—"The Birds of Sydney," L. Harrison, B.Sc., B.A.

August 12th—"Useful and Destructive Insects," C. T. Musson, F.L.S.

September 9th—"Coal: its History and Uses," C. Anderson, M.A., D.Sc.

October 14th—"Some Strange Life Stories," E. A. Briggs, B.Sc.

November 11th—"The Life History of a Frog," L. Harrison, B.Sc., B.A.

1921—April 14th—"The Depths of the Sea," C. Hedley.

May 12th—"The Natural History of the Hawkesbury Valley," C. T. Musson, F.L.S.

June 2nd—"The Physiography of Czecho-Slovakia," Dr. J. V. Danes.

June 9th—"A Seashore Ramble," F. L. Grutzmacher, F.C.S., F.G.S.

This year a pleasing innovation was introduced in the address on the physiography of the Czecho-Slovak Republic by Dr. Danes, Consul-General. It is hoped that it may be found possible to utilise the lecture hall more frequently in the future for discourses on general subjects such as this.

9. CURATORIAL WORK.

Mammals (Mr. E. Le G. Troughton in charge).—Over 150 specimens have been registered during the year, constituting a record for this group since 1889; this is mainly owing to increased collecting activity in the department. As usual, interesting donations were received from the Taronga Park Zoological Trust, including two specimens of the rare Bernard's Kangaroo (*Macropus bernardus*) from the

the South Alligator River, Northern Territory, various marsupials, monkeys, a deer, and an interesting species of cat. Other donations included the following:—A rare rat (*Epimys fuscipes*) and a long-eared bat (*Nyctophilus gouldi*), by Mr. L. A. Abrahams; a series of calculi on mammalian teeth, frequently mistaken for deposits of gold, by Mr. T. Steel, F.L.S.; a staple of wool 20 inches long, by Messrs. Pitt and Eastway; a collection of skins, skulls, and spirit specimens of bats, rats, and marsupials, by Messrs. A. S. Le Souef and H. Burrell, forming the first instalment of what promises to be an extensive and valuable donation. Purchases included a small collection of marsupials from the Northern Territory. A large series of the fruit bat (*Pteropus poliocephalus*), displaying sex and colour variation, was collected by Messrs. A. Musgrave and J. H. Wright, of the Museum Staff. Mr. Troughton, who possesses considerable skill as a preparator, was able, when on annual leave, to acquire valuable specimens of bats, rodents, and marsupials for the collection.

The following paper was published:—

"Notes on Australian Mammals, No. 1," by E. Le G. Troughton, *Rec. Austr. Mus.*, xiii, 3, 1920, pp. 118-122.

Skeletons (Mr. E. Le G. Troughton in charge).—Eighty-seven mammalian skulls and skeletons were cleaned and prepared by the articulators, providing valuable material for study and exchange. Several birds, including Birds of Paradise and a Hornbill, and some fishes from the large collection presented by the Fisheries Branch, were skeletonised.

Birds (Mr. J. R. Kinghorn in charge).—Donations for the year amounted to sixty-one specimens, among them some fine skins of the rarer birds of Lord Howe Island, collected by Messrs. A. R. McCulloch and E. Le G. Troughton of the Museum Staff. This collection included the Woodhen (*Oxydromus sylvesteris*), the Tropic Bird (*Phaeton rubricauda*), and a very rare petrel (*Fregata gallaria*). A Wandering Albatross (*Diomedea exulans*), measuring 10 feet from tip to tip of the wings, which broke its neck in collision with a ferry boat on the harbour, was acquired by purchase.

The gallery exhibits and the cabinets in the bird room have received due attention, the floors of the cases and drawers having been cleaned and repaired by the taxidermists.

A start has been made with the cataloguing and indexing of the large collection of bird skins. All the cabinets have been lettered and the drawers numbered, and a complete index of genera compiled.

Reptiles and Amphibia (Mr. J. R. Kinghorn in charge).—During the past year 107 specimens have been added to the collection, one by purchase, the others by donation; of this total forty-two specimens were presented by Mr. W. W. Froggatt, Government Entomologist. A Copper-head Snake (*Denisonia superba*) was cast in plaster by Mr. G. C. Clutton and coloured by Miss P. F. Clarke.

The spirit house collection received due attention, the bottles and tanks being refilled with preservative to counteract evaporation. The spirit collection of Australian snakes, lizards, and frogs was spaced out to facilitate ready reference; lack of space prohibits the cataloguing and sorting of the foreign collection. The gallery exhibits of lizards and frogs has been rearranged; a large number of bottles was removed from the shelves and the space filled with more interesting mounted specimens.

Some half-dozen lecturettes were given in the Reptile Gallery and were much appreciated. In August, 1920, a lecture on Snakes was given at the rooms of the Workers' Education Association, in which the work of the Museum was briefly explained.

The following papers were issued during the year:—

"Studies in Australian Reptiles, No. 1," *Rec. Austr. Mus.*, xiii, 3, 1920, pp. 100-1, pl. xx.

"Studies in Australian Reptiles, No. 2," *Rec. Austr. Mus.*, xiii, 4, 1921, pp. 143-154, pls. xxv-xxvi.

"Snakes and Snake Venom," *Austr. Mus. Maj.*, i, 1, 1921, pp. 22-6.

A short illustrated paper on "Snakes and Snake Bite," was written for use as a first aid lecture, and published by the Junior Red Cross Society.

Fishes (Mr. A. R. McCulloch in charge).—The most important item in this department since July, 1920, is the acquisition of a very large and valuable collection of fishes which had been accumulated at the Fisheries Branch. It includes many hundreds of picked specimens of local species, together with smaller collections of American and Hawaiian specimens. The space available for storage of the reference and duplicate collection in the spirit house is now very overcrowded, and, until more room is made available, it will be impossible to deal with any more large collections.

Several casts of interesting fishes have been prepared for exhibition in the gallery, including an example of the School Shark (*Galeorhinus australis*), an unusually large Blackfish (*Girella tricuspidata*), and a curiously deformed Mullet (*Mugil dobula*). An example of the brilliantly coloured Seahorse (*Phyllopteryx foliatus*) was dried and coloured from fresh specimens and forms an attractive exhibit.

The following papers have been published:—

"Studies in Australian Fishes, No. 6," *Rec. Austr. Mus.*, xiii, 2, 1920, pp. 14-71, pls. x-xiv.

"Studies in Australian Fishes, No. 7," *Ibid.* xiii, 4, 1921, pp. 123-142, pls. xxi-xxiv.

"Check List of the Fishes and Fish-like Animals of New South Wales, part 2," *Austr. Zoologist*, ii, 9, 1921, pp. 14-58, pls. v-xxiv.

Mr. F. A. McNeil has rendered much valuable assistance in handling the spirit house collection, but his own rapidly growing department now calls for so much attention that the need for a junior assistant has become insistent.

Insects

Insects and Arachnids (Mr. A. Musgrave in charge; Cadet T. G. Campbell, Assistant).—During the past year a large collection, chiefly Coleoptera, was received by donation from the South Australian Museum. Mr. G. H. Hardy presented a valuable series of Australian Diptera, including many types. Mr. H. J. Carter, Honorary Entomologist, has enriched the collection by much material previously unrepresented, including paratypes of species described by him. A large collection of insects from Central Queensland was presented by Miss F. Bradshaw, and we are indebted to Mr. R. Illidge for a fine series of Queensland Homoptera. We acquired by purchase a series of Coleoptera collected by Mr. H. Brown in the Northern Territory, and a general collection of insects from the Dorrigo, New South Wales, collected by Mr. W. Heron.

The rearrangement of the gallery collection has been commenced and the section devoted to Australian Hymenoptera thoroughly revised and explanatory labels added. The large spirit collection of spiders has been overhauled, catalogued, and arranged.

Crustacea (Mr. F. A. McNeill in charge).—The work of checking and classifying the collection has been continued; specimens in the dry store have been partly rearranged. A collection comprising eighty-one species of local Decapoda has been packed and despatched in exchange to the Paris Museum. Many specimens of local Amphipods and Isopods have been collected for Prof. C. Chilton, of Canterbury College, New Zealand; these were mainly required for comparison with material forming the subject of his report on the collections made by the F.I.S. "Endeavour." In return for this material the Museum collection has acquired a series of valuable named Crustacea.

Several descriptive labels have been placed in the gallery and an exhibited specimen of the Murray River Lobster (*Astacopsis serratus*) has been coloured from life by Miss J. Allan, of the Museum staff. A new exhibit shows our common commercial prawns, accompanied by information as to occurrence and identification.

Collecting in the neighbourhood of Sydney has resulted in the acquisition of a series of the common species which were hitherto but poorly represented in the Museum. Mr. E. Le G. Troughton secured some valuable material while on an official collecting trip in South Australia, and a small but valuable collection from Trial Bay, New South Wales, was presented by Master A. Kinghorn, including a decapod new to science and several species new to this State. A large and valuable series of New South Wales Crustacea was presented by the Fisheries Branch, and a named collection of Antarctic species was received from the Antarctic Publication Committee.

Paper published:—

"Studies in Australian Carcinology, No. 1," by F. A. McNeill, *Rec. Austr. Mus.*, xiii, 3, 1920, pp. 105-8, pl. xix.

Mollusca (Mr. C. Hedley in charge; Miss J. Allan, Assistant).—During the year Miss Allan attended to routine work and devoted the greater part of her time to sorting the Cox collection. An advance was made with the cataloguing and indexing of the collections, resulting in the completion of a generic index to the collection of Australian Pelecypoda. The large and valuable foreign collection remains in an unsatisfactory condition owing to the need for more assistance.

Numerous additions were made by donation and collecting, the latter resulting in material obtained at St. Crispin Reef, Queensland, by Mr. A. R. McCulloch, at Honolulu by Mr. Hedley, and at various localities in South Australia by Mr. E. Le G. Troughton. Among the donations the most noteworthy was a collection of Antarctic Mollusca presented by the Antarctic Publication Committee, and a collection presented by Miss Ethel Helms.

Mr. Hedley represented the Trustees at the Pan-Pacific Conference held in Honolulu in August, 1920.

Two papers by Mr. Hedley were published during the year:—

"Concerning Edentellina," *Proc. Malac. Soc.*, xiv, 1920, pp. 74-6.

"A Revision of the Australian Tridacna," *Rec. Austr. Mus.*, xiii, 4, 1921, pp. 163-172, pls. xxvii-xxxiv.

Lower Invertebrates (Mr. R. W. Bretnall in charge; Cadet A. A. Livingston, Assistant).—A big advance has been made in the cataloguing and indexing of the collection. The Echinoderms and Actinozoans in the gallery, spirit house, and dry store have been put in order, and the work on the sponges is nearing completion. Disinfection and general maintenance of the collections have been attended to regularly and systematically.

Among the additions the most noteworthy is a collection of Bryozoa presented by Mr. J. Gabriel, of Kew, Victoria, and the Antarctic Pterobranchia, by the Antarctic Publication Committee.

The following papers have been completed by Mr. Bretnall during the year:—

"Description of some Fossil Bryozoa from Western Australia; compiled with the assistance of notes left by the late Robert Etheridge, junior."

"On a new species of *Lophopodella*," *Austr. Zoologist*, i, 8, 1920.

"Two Australian species of *Ditrypa*," *Rec. Austr. Mus.*, xiii, 4, 1921, pp. 155-6.

"Studies on Bryozoa, part I," *Rec. Austr. Mus.*, xiii, 4, 1921, pp. 157-162.

Much of Mr. Bretnall's time has been devoted to the study of the "Endeavour" collection of Bryozoa, and his report on this material is nearing completion.

Ethnology (Mr. W. W. Thorpe in charge; Cadets P. E. Eldershaw and T. G. Campbell assisted for part of the year).—Among the donations to this department were:—A collection of Roman pottery by Mrs. D. Arthur; Fijian weapons, by Mr. W. H. Fletcher; a series illustrating the manufacture of "tapa," by

by Mr. H. G. Bowling; a facially restored skull from Malekula, New Hebrides, by Mr. R. F. King; a Sorcery Box from Papua, by His Excellency Judge J. H. P. Murray; a number of shell objects from Walpole Island, by Mr. A. C. Mackay. The more important exchanges were a number of stone implements from Singleton, New South Wales, from Mr. A. N. Eather, an interesting series of aboriginal flakes, Victoria, from Dr. G. Horne, and two large carved Maori slabs, from Otago University Museum. By purchase we acquired a number of weapons, ornaments, and utensils from the Fiji group, spears from New Caledonia and the Bismarck Archipelago, and a large collection illustrating the culture of the Papuan Gulf natives.

Efforts to maintain the collections in good order have been unremitting. Due attention has been paid to the Papuan Official Collection stored here; His Excellency Judge J. H. P. Murray inspected this collection during the year and found its condition satisfactory.

Three important installations have been made during the year. The Hawaiian group of four life-sized figures engaged in "tapa" beating and the manufacture of "poi," has been completed and is one of the most attractive exhibits in the Museum. A fine series of Fijian Ethnography, hitherto stored, was mounted and set out, accommodation being provided for them by the removal of a large number of Buka dance paddles. A series of plaster face-masks, taken from life by Dr. Otto Finsch to illustrate the races of the Central Pacific, forms an instructive and interesting exhibit. The Solomon Islands war canoe, slung from the roof so as to be seen to advantage from the stair landing, forms a striking object in the Melanesian room. The vessel is 46 feet long and has a beam of about 4 feet. The prow and stern-post rise to a height of nearly 11 feet, and are freely ornamented with cowries and inlaid pearl shell. It has seating accommodation for twenty-two rowers. The Museum is very fortunate in possessing this valuable canoe, as these vessels are no longer being built and it would now be impossible to secure so fine an example of a head-hunting canoe.

A fine collection, consisting mainly of stone implements ancient and modern, loaned by Commander J. F. Robins, R.A.N., is now on view in the Melanesian room.

Paper published:—

"A Papuan Sorcery Tube," by W. W. Thorpe, *Rec. Austr. Mus.*, xiii, 4, 1921, pp. 173-4.

Numismatics (Mr. W. W. Thorpe in charge).—During the early part of the year some time was devoted to identifying, registering, and labelling a large series of Chinese and other eastern coins; the mounting of the collection has been deferred owing to the high cost of cabinet construction.

Palaeontology (Mr. W. W. Thorpe in charge).—A number of donations was received, including Permo-Carboniferous Fossils, Broger's Creek, near Berry, New South Wales, by Mr. W. White; sponges, ammonites, &c., Folkestone, England, by Miss H. G. Hirst; Permo-Carboniferous bivalves, Dapto and Mt. Brown, New South Wales, by Mr. W. Mant. Specially interesting are the bones of a fossil turtle, perhaps *Miolania*, from Walpole Island, presented by Mr. A. C. Mackay.

The skull and mandible of a squalodont whale recently found by Prof. T. T. Flynn, in the Tertiary beds of Wynyard, Tasmania, was sent to the Museum to be restored and cast. This work was admirably executed by the articulators, and eight fine casts of this valuable find have been prepared; two of these are retained in our collection.

Minerals (Dr. C. Anderson in charge).—This department has received a large number of accessions during the year. The most interesting is Prof. A. Liversidge's valuable collection of crystals, comprising 185 specimens. Mrs. H. Burrell presented a large collection of minerals, chiefly Australian, and including a fine series of tin ores from New England, New South Wales. From Mr. Arthur Combe we obtained by donation and exchange a number of minerals of exceptional interest, constituting new records. As in past years we have benefited by exchange with Mr. George Smith, Inspector of Mines. Mr. D. A. Porter collected for us a fine series of the splendid calcite crystals found in the Garibaldi Mine, near Lionsville, New South Wales. A representative lot of these has been placed in the gallery and makes an imposing display. Mr. Porter also presented a number of minerals collected during his travels in the north and districts of New South Wales.

"Mineralogical Notes No. xi," is ready for the press.

Spirit House (Mr. F. A. McNeill in charge).—As mentioned in the last Annual Report, the present accommodation for spirit specimens is inadequate, and steps are being taken to convert part of the lift room and adjoining space now used for boilers and for storing firewood into an auxiliary spirit house.

Mr. McNeill has this year had the assistance of Cadet A. A. Livingstone, who has taken control of the spirit collection of lower invertebrates and has helped materially in combating the effects of evaporation. The fungus growth, which formerly played havoc in the large formalin tanks, has now been completely overcome by slightly increasing the strength of the preservative.

10. COLLECTING.

By the courtesy of Mr. E. B. Harkness, Under Secretary, Chief Secretary's Department, and Mr. A. P. Summergreene, Manager of the State Trawling Industry, Messrs. F. A. McNeill, and A. A. Livingstone were enabled to make a short trip in one of the State trawlers, and obtained a valuable collection of marine animals. Mr. E. H. Rainsford, of Bowen, Queensland, was supplied with the necessary materials and has been very successful in collecting specimens round Port Denison and Palm Islands for donation to the Museum. He has secured a number of fishes of considerable interest, several being recorded from Australian waters for the first time. An eelotrid, which lives in the tunnels bored in drift timber by the "cobra," represents a new species. Mr. Rainsford has also added a number of crustaceans to our collection. Some of these are exceptionally valuable, as they were obtained at Holborn Island, which is a type locality for many specimens collected in the eighties by Prof. W. A. Haswell and described in his Catalogue of Australian Crustacea.

11. FINANCIAL.

Statement of Receipts and Expenditure for the year ended 30th June, 1921.

	Endow- ment Account.	Public Account.	Totals.		Endow- ment Account.	Public Account.	Totals.
	£ s. d.	£ s. d.	£ s. d.		£ s. d.	£ s. d.	£ s. d.
Balance from last year...	911 17 4		911 17 4	Salaries—			
Statutory Endowment ...	1,000 0 0		1,000 0 0	Director, and Principal Keeper of			
Parliamentary Appropriations—				Collections ...	1,222 16 3		
Salaries ...		13,093 0 0		First Class Scientific Assistants ...	1,823 5 5		
Contingencies ...		1,675 0 0		Second Class Scientific Assistants ...	817 7 7		
Basic Wage Increase...		543 16 10	543 16 10	Clerical Staff ...	1,078 0 8		
Sales of Publications—				Mechanics ...	1,969 11 2		
Records ...	5 5 7			Attendants ...	2,881 0 2		
Post Cards ...	2 18 6						9,797 11 3
Nest and Egg Catalogue ...	13 12 3			Overtime and Sundays ...		424 19 6	424 19 6
Memoirs ...	0 7 9			Building and Maintenance—			
Miscellaneous ...	0 1 6			Repairs ...	132 2 0		
Magazine ...	25 7 7			Cases ...	365 12 0		
Magazine Advertisements ...	6 10 0		6 10 0				497 14 0
Miscellaneous—				Superannuation—			
Fines ...	0 8 0			Trustees Contributions ...	2,100 0 5		
Miscellaneous ...	0 0 1			Employees ...	532 5 1		
Interest—				Pensions ...	476 2 10		
Reserve Account ...	19 9 5						3,117 17 4
War Loan ...	25 0 0			Insurance ...		252 18 1	252 18 1
Peace Loan ...	20 0 0			Statutory and Additional Endow- ment—			
Refund ...		0 4 9	0 4 9	Working Expenses ...	451 7 11	318 17 10	
William-street Resumption Compens- ation—Fixed Deposit Interest ...	101 15 6		101 15 6	Insurance ...	0 17 2		
				Cases ...	0 13 5		
				Tools and Plant ...	28 10 5	4 8 0	
				Catalogues (Pub. "Records," &c.) ...	409 6 7	6 16 6	
				Purchase of Books and Bookbinding ...	243 0 10	55 8 5	
				Preservation of specimens ...	28 9 5	61 5 11	
				Purchase of specimens ...	82 15 4	0 3 0	
				Collecting and travelling ...	105 3 0		
				Publicity and Advertising ...	36 13 6		
				Miscellaneous ...	71 18 3		
				Refund to Treasury ...		0 4 0	1,566 1 6
				Refund of Unexpended Balances ...		688 17 0	0 4 9
				Balance ...	511 16 2		688 17 0
				Fixed Deposit ...	101 16 6		511 16 2
							101 16 6
	£ 2,132 14 6	15,227 1 7	17,257 19 7		£ 2,132 14 6	15,227 1 7	17,359 16 1

List of Investments.

	£ s. d.
Seventh War Loan, at 5 per cent. ...	500 0 0
Peace Loan, at 5 per cent. ...	400 0 0
Fixed Deposit Bank of New South Wales, at 4 per cent. ...	6,039 8 6

Examined and found correct,—

N. BLACK,

Senior Inspector of Public Accounts,
29th August, 1921.

The Common Seal of the Museum was hereunto affixed by order
of the Board, this seventeenth day of October, 1921,

J. STOR E DIXSON, President.

C. ANDERSON, Director.

12. APPENDICES.

The following Appendices are attached, viz. :—

I. List of the Publications of the Australian Museum.

II. Catalogue of the Additions to the Library.

APPENDIX I.

List of available publications of the Australian Museum :—

I.—*Annual Reports.*

Nos. 1-65. 1853-1919.

II.—*Catalogues.*

3. Catalogue of the Minerals and Rocks in the Collection of the Australian Museum, by G. Krefft. 1873.
4. Catalogue of the Australian Birds in the Australian Museum, by E. P. Ramsay. Part I, Accipitres, 1876. Part II, Striges, 1891. (Second edition, revised by A. J. North, 1898.) Part III, Psittaci, 1891. Part IV, Halcyones, 1894.
6. Catalogue of the Library of the Australian Museum, 1883. With two Supplements.
7. Catalogue of a Collection of Fossils in the Australian Museum. With Introductory Notes by F. Ratte. 1883.
9. Descriptive Catalogue of the General Collection of Minerals in the Australian Museum, by F. Ratte. 1885.
10. Catalogue of Echinodermata in the Australian Museum, by E. P. Ramsay. Part I, Echini, 1885. Second edition, 1890.
12. Descriptive Catalogue of the Nests and Eggs of Birds found breeding in Australia and Tasmania, by A. J. North. 1889. (See also Special Catalogue I.)
13. Descriptive Catalogue of the Sponges of the Australian Museum, by R. von Lendenfeld. 1888.
14. Catalogue of the Fishes in the Australian Museum. Part I, Palæiethyan Fishes. By J. Douglas Ogilby. 1888.
15. Catalogue of the Marine Shells of Australia and Tasmania, by J. Brazier. Part I, Cephalopoda, 1892. Part II, Pteropoda, 1892. Part III, Gasteropoda (Murex), 1893.
16. Catalogue of Australian Mammals, with Introductory Notes on General Mammalogy, by J. Douglas Ogilby. 1892.
17. Descriptive Catalogue of the Tunicata in the Australian Museum, by W. A. Herdman. 1899.

III.—*Special Catalogues.*

1. Nests and Eggs of Birds found breeding in Australia and Tasmania, by A. J. North. Vol. I, 1901-1904. Vol. II, 1906-1909. Vol. III, 1910-1912. Vol. IV, 1913-1915.

IV.—*Monographs.*

1. Australian Lepidoptera and their Transformations, by A. W. Scott, with Illustrations by his daughters, Mrs. Morgan and Mrs. Forde, Vol. I, 1864. Vol. II, edited and revised by Mrs. Forde and A. S. Olliff, 1890-98.

V.—*Memoirs.*

1. History and Description of the Skeleton of a new Sperm Whale in the Australian Museum, by W. S. Wall. 1851.
2. Lord Howe Island: Its Zoology and Physical Characters, by R. Etheridge, Junr., and Others. 1889.
3. The Atoll of Funafuti, Ellice Group: Its Zoology, Botany and General Structure, based on Collections made by C. Hedley. 1896-1900.
4. Scientific Results of the Trawling Expedition of H.M.C.S. "Thetis," off the Coast of New South Wales, in February and March, 1898. 1899-1914.

VI.—*Records.*

The Records contain descriptions of specimens, accounts of expeditions, and other results of the scientific work of the Museum Staff.

Vol. III, 1897-1900; Vol. IV, 1901-3; Vol. V, 1903-5; Vol. VI, 1905-8; Vol. VII, 1908-10; Vol. VIII, 1910-13; Vol. IX, 1912-13; Vol. X, 1913-15; Vol. XI, 1916-17; Vol. XII, 1917-21; Vol. XIII, Nos. 1-4, 1920-21.

VIII.—*Miscellaneous Publications.*

1. List of Old Documents and Relics in the Australian Museum, 1884. Reprinted with additions. 1890.
2. Descriptive List of Aboriginal Weapons, Implements, &c., from the Darling and Lachlan Rivers, by K. H. Bennett. 1887.
3. Notes for Collectors. 1887.
4. Hints for the Collectors of Geological and Mineralogical Specimens, by F. Ratte.
5. Hints for the Preservation of Specimens of Natural History, by E. P. Ramsay. 1891. 4th edition.
6. List of Duplicate Books and Pamphlets available for exchange in the Library of the Australian Museum. Prepared by S. Sinclair, Secretary and Librarian, 1900.
7. Report of a Visit to Certain European Museums in 1911, by Charles Anderson. 1912. With Notes on a Report by C. Anderson, &c., by R. Etheridge, Junr., 1912 (for private circulation only).
8. Report on Museum Administration in the United States, by Charles Hedley. 1913 (for private circulation only).
9. Rules to be observed in Writing Papers for the "Records" and "Memoirs." Revised edition. 1913 (for use of the Staff of the Museum).
10. List of Museum Publications prepared and arranged by S. Sinclair, Secretary and Librarian, assisted by W. A. Rainbow, Assistant Librarian. 1916.

APPENDIX

APPENDIX II.
ADDITIONS TO THE LIBRARY.

Reg. No.	Books.	How acquired.	Reg. No.	Books.	How acquired.
PART I.—AUTHORS.			19983	FITZSIMONS, F. W. The Natural History of South Africa. . . . Mammals. Vols. III-IV. 2 vols. 8vo. London, 1920	Purchased
19928	ALEXANDER, Mary C. The Story of Hawaii. 1 vol. 8vo. New York, 1912.	Presented by C. Hedley	19930	GOWEN, Herbert H. The Napoleon of the Pacific, Kamehameha the Great. 1 vol. 8vo. New York, 1919.	Presented by C. Hedley
19927	ALEXANDER, W. D. A Short Synopsis of the most essential points in Hawaiian Grammar. 1 vol. 8vo. Honolulu, 1920.	Presented by C. Hedley	19986	GRIMWADE, Russell. An Anthrography of the Eucalypts. 1 vol. 4to. Sydney, 1920.	Presented by C. Hedley
20056	BARBUT, James. The Genera Vermium exemplified by various specimens of the Animals contained in the Orders of the Intestina et Mollusca, Linnæi, drawn from Nature by James Barbut, 1783.		19941	GROTH, P. Chemische Krystallographie, Teil IV. 1 vol. 8vo. Leipzig, 1917.	Purchased
20057	—The Genera Vermium of Linnæus, Part 2, exemplified by several of the rarest and most elegant subjects in the Orders of the Testacea, Lithophyta, and Zoophyta Animalium, accurately drawn from Nature by James Barbut, 1788, with explanations in English and French. 2 vols. 4to. London, 1783-1788.	Presented by C. Hedley	19891	EISEN, Gustaf, TULLBERG, T., and THEEL, H. J. On the Anatomy of Oenerodrilus. Gustaf Eisen (Reg. Soc. Sc. Ups. Nova Acta (3), 1878). Ueber die Byssus des Mytilus edulis. Tycho Tullberg (Reg. Soc. Sc. Ups. Nova Acta (3), 1877). Note Sur Quelques Holothurics des mers de la Nouvelle Zemble. H. J. Theel, 1877 (Reg. Soc. Sc. Ups. Nova Acta (3), 1877).	Presented
19951	BARRETT, Charles (Editor). Australian Nature Pictures. 1 vol. 8vo. Melbourne.	Exchange	20076	GUTHRIE, William. A New Geographical, Historical and Commercial Grammar; and present state of the several Kingdoms of the World . . . to which are added:—I. A Geographical Index, with the names of places alphabetically arranged. II. A Table of the Coins of all Nations, and their value in English Money. III. A Chronological Table of Remarkable Events, from the Creation to the Present Time. . . . The Astronomical Parts by James Ferguson, to which have been added the late discoveries of Dr. Herschel and other eminent Astronomers. . . . 21st edition. 1 vol. 8vo. London, 1808.	Presented
19919	BEAVER, Wilfred N. Unexplored New Guinea; a record of the Travels, Adventures, and Experiences of a Resident Magistrate among the Head-hunting Savages and Cannibals of the Unexplored Interior of New Guinea, with an Introduction by A. C. Haddon. 1 vol. 8vo. London, 1920.	Purchased	19965	GUYER, Michael F. Animal Micrology, Practical Exercises in Zoological Micro-technique. With a chapter on Drawing by Elizabeth A. Smith. Revised edition. 1 vol. 8vo. Chicago, 1906.	Presented
19920	BECKENKAMP, Dr. J. Statische und kinetische Kristalltheorien. Zweiter Teil. 1 vol. 8vo. Berlin, 1915.	Purchased	19931	HADFIELD, Emma. Among the Natives of the Loyalty Group. 1 vol. 8vo. London, 1920.	Presented by C. Hedley
19997	BIRD, Isabella L. The Hawaiian Archipelago. Six months among the Palm Groves, Coral Reefs, and Volcanoes of the Sandwich Islands. 5th edition. 1 vol. 8vo. London, 1882.	Presented by C. Hedley	20015-20018	HAMBURGISCHE WISSENSCHAFTLICHE STIFTUNG. Ergebnisse der Süde-Expedition, 1908-1910. Herausgegeben von Prof. Dr. G. Thilenius. II. Ethnographie. B. Mikronesien. Band I. Nauru. Paul Hambuch. Halbb. 1-2, 1914-15. Band II. Yap. Wilhelm Müller (Wismar). Halbb. 1-2, 1917-18. Band III. Palau. Augustin Krämer. Teilb. 1-2, 1917-19. Band IV. Kusae. Dr. E. Sarfert. Halbb. 1-2, 1919-20. In 4 vols. 4to. Hamburg, 1914-1920.	Purchased
19982	BROWN, Prof. J. McMillan. Volcanoes in Pacific Ocean Legend. 1 vol. 8vo.	Presented	19925	HAWAII. Collected Papers relating to. Hawaiian Almanac and Annual for 1920. . . Thomas G. Thrum, 1919. Race Mixture in Hawaii. First and Second Series. (Journal of Heredity, vol. x, 1919.) Mid-Pacific Magazine. Vol. xviii, No. 6, and Vol. xx, No. 2. Tourist Folders of Island of Hawaii, Island of Maui, Island of Kauai, City of Hilo, City of Honolulu. The Island of Hawaii, by Hy. Walsworth Kinney. Revised edition of L. W. de Vis-Norton. 1916. In 1 vol. 8vo. Honolulu, 1916-1919.	Presented by C. Hedley
19967	CHILD, Charles M. Individuality in Organisms. 1 vol. 8vo. Chicago, 1915.	Presented	19966	HEINEMAN, Paul G. A Laboratory Guide in Bacteriology. 3rd revised edition. 1 vol. 8vo. Chicago, 1915.	Presented
19964	CROSS, Whitman, and others. Quantitative Classification of Igneous Rocks based on Chemical and Mineral Characters, with a systematic Nomenclature by Whitman Cross, Joseph P. Iddings, Louis V. Pirsson, and Henry S. Washington. With an introductory review of the Development of Systematic Petrography in the nineteenth century by Whitman Cross. 1 vol. 8vo. Chicago, 1903.	Presented			
20032	CUNNINGHAM, J. T. Sexual Dimorphism in the Animal Kingdom, a theory of the Evolution of Secondary Sexual Characters. 1 vol. 8vo. London, 1900.	Presented by W. A. Rainbow			
19972-19976	CUVIER, G. L. C. F. Le Regne Animal distribue d'apres son organisation, pour servir de base a l'Histoire Naturelle des animaux et d'introduction a l'anatomie comparee. Tom. I-V. Nouvelle edition. 5 vols. 8vo. Paris, 1829.	Purchased			
19929	ELLIS, William. A Narrative of a tour through Hawaii or Owhyhee I. With remarks on the History, Traditions, Manners, Customs, and Language of the Inhabitants of the Sandwich Islands. (Reprint of the London 1827 edition.) With an Introduction by Lorin A. Thurston. (The Advertiser Historical Series.) 1 vol. 8vo. Honolulu, 1917.	Presented by C. Hedley			
19953-19955	ETHERIDGE, R. E. Collected Papers, Palæontology. Vols. I-III. 3 vols. 8vo. 1873-1899.	Purchased			
19917	A FAUNA OF BRITISH INDIA, including Ceylon and Burma. Published under authority of the Secretary of State for India in Council. Edited by A. E. Shipley . . . assisted by Guy A. K. Marshall . . . Diptera Brachyera, vol. i, by F. Brunetti. 1 vol. 8vo. London, 1920.	Purchased			

Reg. No.	Books.	How acquired.	Reg. No.	Books.	How acquired.
NEW SOUTH WALES.			19942 NATURAL HISTORY REVIEW, THE. A Quarterly Journal, including the Transactions of the Belfast Natural History and Philosophical Society, Cork Cuvierian Society, Dublin Natural History Society, Dublin University Zoological Association, and the Literary and Scientific Institution of Kilkenny, as authorised by the Councils of these Societies for the Sessions, 1853-1854. Vol. I.		
19921	GEOLOGICAL SURVEY OF NEW SOUTH WALES. Memoirs, Palaeontology. No. 13. A Monograph of the Silurian and Devonian Corals of New South Wales, with illustrations from other parts of Australia. Part I, The Genus <i>Halysites</i> , by R. Etheridge, junr., 1907.			1 vol. 8vo. Dublin, &c., 1854. Purchased	
19922	Do do Part II, The Genus <i>Tryplasma</i> , 1907.		Continued as—		
19923	No. 14. A Monograph of the Foraminifera of the Permo-Carboniferous Limestones of New South Wales, by Frederick Chapman and Walter Howchin, 1905.		19943	The Natural History Review. Published quarterly. Including the Proceedings of the Irish Natural History Societies for the Sessions 1854-1856. Vols. II-III.	
	In 3 vols. Fol. Sydney, 1904-1907.	Presented	19944	2 vols. 8vo. London, &c., 1855-56. Purchased	
19894	GOVERNMENT STATISTICIAN. The Official Year Book of New South Wales, 1918.		Continued as—		
	1 vol. 8vo. Sydney, 1920.	Presented	19945	The Natural History Review. A Quarterly Journal of Zoology, Botany, Geology, and Palaeontology. Conducted by A. H. Haldane, W. H. Harvey . . . Rev. S. Haughton . . . and others, &c. (Reviews of Works on Natural History; Proceedings of Societies, &c.) Vol. IV.	
20010	—The Official Year Book of New South Wales, 1919.			1 vol. 8vo. London, &c., 1857. Purchased	
20013	MINISTER OF PUBLIC INSTRUCTION. Report (together with Appendices) of the Minister of Public Instruction for the year 1919.		Continued as—		
	1 vol. Fol. Sydney, 1920.	Presented	19946	The Natural History Review and Quarterly Journal of Science. Edited by A. H. Haldane . . . W. H. Harvey . . . Rev. S. Haughton, Rev. A. R. Hogan . . . and E. P. Wright, &c. Vol. V.	
20074	UNIVERSITY OF SYDNEY. Reprints of Papers from the Science Laboratories of the . . . 1916-1917 to 1919-1920.			1 vol. 8vo. London, &c., 1858. Purchased	
20075	B. From the Departments of Anatomy, Botany, Geology, Pathology, Physiology, Veterinary Science and Zoology. Vols. I-II, 1920.		Continued as—		
	2 vols. 8vo. Sydney, 1920.	Presented	19947-19950	The Natural History Review. A Quarterly Journal of Biological Science. Edited by G. Bask . . . W. B. Carpenter . . . E. Currey . . . J. R. Green . . . T. H. Huxley . . . J. Lubbock . . . R. M. O'Donnell . . . D. Oliver . . . P. L. Slater . . . W. Thomson. . . . The first three volumes contain a bibliography of Works and Papers on Natural History published in the years 1860-1861.	
TASMANIA.				4 vols. 8vo. London and Edinburgh, 1861-1865. Purchased	
19979	TASMANIAN GOVERNMENT TOURIST DEPARTMENT. Complete Guide to Tasmania.		20019	PALEONTOGRAPHICAL SOCIETY. Vol. LXXII, containing—1. The Pliocene Mollusca, by Mr. F. W. Harmer. 2. The Ordovician and Silurian Bellerophonacea, Part I, by Dr. F. R. Cowper Reed. Issued for 1918.	
	1 vol. 8vo. Tasmania, 1918.	Presented		1 vol. 4to. London, 1920. Purchased	
DOMINION OF NEW ZEALAND.			19397	RAY SOCIETY. The British Charophyta, by James Groves and George Russell Bullock-Webster. Vol. I. Nitellæ. (Issued for the year 1917.)	
19938	NEW ZEALAND INSTITUTE. Transactions and Proceedings. Vol. LII (new issue).			1 vol. 8vo. London, 1920. Purchased	
20051	YEAR BOOK. Official Year Book of New Zealand for 1920. 29th year of issue.		20049	—The British Freshwater Rhizopoda and Heliozoa, by James Cash, George H. Wailes, and J. Hopkinson. Vol. V, Heliozoa, by G. H. Wailes. (Issued for the year 1918.)	
	1 vol. 8vo. Wellington, 1920.	Presented		1 vol. 8vo. London, 1921. Purchased	
UNITED KINGDOM.			19398	—A Monograph of the British Orthoptera, by William John Lucas. (Issued for the year 1919.)	
20070	BRITISH MUSEUM (NATURAL HISTORY). Monograph of the Lacertidae, by George Albert Boulenger, Vol. I, 1920.			1 vol. 8vo. London, 1919. Purchased	
	1 vol. 8vo. London, 1920.	Presented	20002	ROYAL SOCIETY OF LONDON. Philosophical Transactions of the Royal Society of London. Series A, Papers of a Mathematical or Physical Character.	
20071	—Catalogue of the Lepidoptera Phalaenae in the British Museum. Supplements II, 1920.			Vol. 220, Series B. Papers of a Biological Character. Vol. 209.	
20072	2 vols. 8vo. London, 1920.	Presented		2 vols. 4to. London, 1920. Purchased	
20050	LIVERPOOL BIOLOGICAL SOCIETY. Proceedings and Transactions. Vol. XXXIV, Session 1919-20.		19999-20001	TRAVEL AND EXPLORATION. January-June, 1909.	
	1 vol. 8vo. Liverpool, 1920.	Presented		—July-December, 1909.	
20059-20062	LIVERPOOL MARINE BIOLOGY COMMITTEE. L.M.B.C. Reports, Nos. 2-5, 1889-1900. 2nd, 3rd, 4th, and 5th Reports upon the Fauna of Liverpool Bay and the Neighbouring Seas. Written by Members of the L.M.B.C. and other Naturalists, and edited by E. A. Herdman, 1889-1900.			—January-March, 1910.	
	4 vols. 8vo. London, 1889-1900.	Purchased		3 vols. 8vo. London, 1909-1910. Presented by W. A. Rainbow	
20063-20069	—L.M.B.C. Memoirs on Typical British Marine Plants and Animals.		20005	YEAR BOOK OF THE SCIENTIFIC AND LEARNED SOCIETIES OF Great Britain and Ireland. A Record of Work done in Science, Literature, and Art during the session 1919-1920, by numerous Societies and Government Institutions. 37th Annual Issue.	
	Vol. XVII. Peeten, by W. J. Dakin, 1909.			1 vol. 8vo. London, 1920. Purchased	
	XVIII. Eledone, by Annie Isgrove, 1909.				
	XIX. Polychæt Larvæ, by F. H. Graveley, 1909.				
	XX. Buccinum (The Whelk), by Wm. J. Dakin, 1912.				
	XXI. Eupagurus, by H. Gordon Jackson, 1913.				
	XXII. Echinoderm Larvæ, by Herbert C. Chadwick, 1914.				
	XXIII. Tubifex, by Gertrude C. Dixon, 1915.				
	7 vols. 8vo. London, 1909-1915. Purchased				

Reg. No.	Books.	How acquired.	Reg. No.	Books.	How acquired.
20004	ZOOLOGICAL RECORD. The Zoological Record. Vol. LV, being the Records of Zoological Literature relating chiefly to the year 1918. 1 vol. 8vo. London, 1920.				
	BRITISH DOMINIONS.				
	Canada.				
19921	PROVINCIAL MUSEUM OF NATURAL HISTORY. Guide to the Anthropological Collection. 1 vol. 8vo. Victoria (B.C.), 1909.	Presented			
19899	ROYAL SOCIETY OF CANADA. Proceedings and Transactions of the Royal Society of Canada. 3rd Series, Vol. XIII, 1919. 1 vol. 8vo. Ottawa, 1920.	Presented			
	UNITED STATES OF AMERICA.				
	District of Columbia.				
19959	AGRICULTURE, U.S. DEPARTMENT OF. Year Book of the . . . for 1919. 1 vol. 8vo. Washington, 1920.	Presented			
19958	BUREAU OF AMERICAN ETHNOLOGY. 33rd Annual Report, 1911-1912. 1 vol. 4to. Washington, 1919.	Presented			
20053	— Bulletin 67. Alsea Texts and Myths, by Leo J. Frachtenberg. 1 vol. 8vo. Washington, 1920.	Presented			
19933	— Bulletin 68.				
19934	— Bulletin 69.				
19994	— Bulletin 71. Native Cemeteries and Forms of Burial East of the Mississippi, by David R. Bushnell, junr. 1 vol. 8vo. Washington, 1920.	Presented			
19990	BUREAU OF FISHERIES. Report of the United States Commissioner of Fisheries for the Fiscal 1918, with Appendices. 1 vol. 8vo. Washington, 1920.	Presented			
20054	SMITHSONIAN INSTITUTION. Annual Report of the Board of Regents of the . . . showing the Operations, Expenditures, and Conditions of the Institution for the year ending 30th June, 1917. 1 vol. 8vo. Washington, 1919.	Presented			
20052	— Smithsonian Miscellaneous Collections, Vol. LXXI, No. 1, Smithsonian Physical Table, 7th revised edition, prepared by Frederick E. Fowle. 1 vol. 8vo. Washington, 1920.	Presented			
19896	U.S. NATIONAL MUSEUM. Proceedings of the . . . Vol. LIV. 1 vol. 8vo. Washington, 1919.	Presented			
19956	— Proceedings of the . . . Vols. LV-LVI. 2 vols. 8vo. Washington, 1920.	Presented			
19957	— Report on the Progress and Condition of . . . for the year ending 30th June, 1919. 1 vol. 8vo. Washington, 1920.	Presented			
	Hawaiian Islands.				
19935	BERNICE PAUAAHI BISHOP MUSEUM. A Handbook for visitors to the Bernice Pauahi Bishop Museum of Polynesian Ethnology and Natural History. 1 vol. 8vo obl. Honolulu, 1903.	Presented			
	Illinois.				
20008	ILLINOIS STATE MUSEUM. Guide to the Mineral Collections in the Illinois State Museum, by A. R. Crook. 1 vol. 8vo. Springfield, 1920.	Presented			
20011	STATE GEOLOGICAL SURVEY. Bulletin 37. Geology and Mineral Resources of the Hennepin and La Salle Quadrangles, by Gilbert H. Cady. 1 vol. 8vo. Urbana, 1919.	Presented			
19969	UNIVERSITY OF CHICAGO. Investigations representing the Departments—Physics, Chemistry, Geology, and Mathematics. 1st series, Vol. IX. Vol. X, 1st series—Zoology, Anatomy, Physiology, Neurology, Botany, Pathology, Bacteriology. 2 vols. 4to. Chicago, 1903-1904.	Presented			
19970	—				
19971	WALKER MUSEUM OF THE UNIVERSITY OF CHICAGO. Contributions from. Vol. I. Edited by S. W. Williston and S. Weller. 1 vol. 8vo. Chicago, 1917.	Presented			
	Michigan.				
19887	AGRICULTURE, STATE BOARD OF. 57th Annual Report of the Secretary of the . . . of the State of Michigan, and 31st Annual Report of the Experiment Station, from 1st July, 1917, to 30th June, 1918. 8 vols. 8vo. Fort Wayne, 1919.	Presented			
19883	MICHIGAN GEOLOGICAL AND BIOLOGICAL SURVEY. Catalog and Table of Contents of the Publications of the . . . with a list of Publications of the U.S. Geological Survey relating to Michigan, 1838-1917. 1 vol. 8vo. Michigan, 1917.	Presented			
20073	— Pub. 29. Geological Series 24. Mineral Resources of Michigan, with Statistical Tables of Production and Value of Mineral Products for 1918 and Prior Years. 1 vol. 8vo. Fort Wayne, 1920.	Presented			
20034	UNIVERSITY OF MICHIGAN. Occasional Papers of the Museum of Zoology, Nos. 1-63. 1 vol. 8vo. Ann Arbor, 1913-1918.	Presented			
	New York.				
19995	AMERICAN MUSEUM OF NATURAL HISTORY. Handbook Series, No. 8. Peoples of the Philippines, by A. L. Kroeber. 1 vol. 8vo. New York, 1919.	Presented			
	Philippine Islands.				
19889	PHILIPPINE MUSEUM. Bulletin No. 3. Birds from Benguet Province, Luzon, and from the Islands of Lubang, Mindoro, Cuyo, and Cagayancillo, by Richard C. McGregor. Bulletin No. 4. The Birds of Calayan and Fuga, Babuyan Group, by Richard C. McGregor. 1 vol. 8vo. Manila, 1904.	Presented			
	Wisconsin.				
20012	WISCONSIN GEOLOGICAL AND NATURAL HISTORY SURVEY. Bulletin No. 57. Scientific Series, No. 12. Phytoplankton of the Inland Lakes of Wisconsin, by Gilbert Morgan Smith. Part I. 1 vol. 8vo. Madison, 1920.	Presented			
	EUROPE.				
	Denmark.				
19993	KJOBENHAVNS UNIVERSITETS — ZOOLOGISKE MUSEUM. Svøla Atlantica. 1. Bidrag til Kundskab om Salperne, M. P. A. Traustedt. 2. Om nogle pøl giske Annulæ, G. M. R. Levinson. 3. Bidrag til Pteropodernes Morfologi og Systematik, J. E. V. Boas. 1 vol. 4to. Kjobenhavn, 1885-1886.	Presented			
19987-	— E. Museo Lundii. En Samling Afhandlinger om de i et indre Brasiliens Kalkatanshuler af . . . P. V. Lund udgravede og i den Lundske Palæontologiske Afdeling af Kjobenhavn Dyre- og Venneskeknoglen. Bd I, II, 1-2, III, 1-2.				
19991	— 5 vols. 4to. Kjobenhavn, 1888-1915.	Presented			
	France.				
19937	ASSOCIATION FRANCAISE POUR L'AVANCEMENT DES SCIENCES. Conférences faites en 1919-1920. 1 vol. 8vo. Paris, 1919.	Presented			
	MUSEUM NATIONAL D'HISTOIRE NATURELLE—				
19903	Annales, Tome I, 1802.				
19904	— II, 1803.				
19905	— III, 1804.				
19906	— IV, 1804.				
19907	— V, 1804.				
19908	— VI, 1805.				
19909	— VII, 1806.				
19910	— VIII, 1806.				
19911	— IX, 1807.				
19912	— X, 1807.				
19913	— XI, 1807.				
19914	— XII, 1808.				
19915	— XIII, 1809.				
19916	— XIX, 1812.				
19917	— XX, 1813.				
	15 vols. 8vo. Paris, 1802-1813.	Purchased			

Reg. No.	Books.	How acquired.	Reg. No.	Books.	How acquired.
<i>Germany.</i>			ZEITSCHRIFT FÜR WISSENSCHAFTLICHE ZOOLOGIE.		
ARCHIV FÜR NATURGESCHICHTE.			20020	Bd cxi, 1914.	
20035	Jahrg. 80, 1914, Abt. B, H.—		20021	cxii, 1915.	
	5-7 (1916-1919).		20022	cxiii, 1915.	
20036	8-10 (1916-1919).		20023	cxiv, 1915.	
20037	11-12 (1918-1920).		20024	cxv, 1916.	
20038	Jahrg. 82, 1916, Abt. A, H.—		20025	cxvi, 1916.	
	1-4 (1917).		20026	cxvii, 1917.	
20039	5, 7-9 (1917-1918).			7 vols. Svo. Leipzig, 1914-1917.	Purchased
20040	10-12 (1918).			ASIA.	
20041	Jahrg. 83, 1917, Abt. A, H.—			Japan.	
	1-6 (1919).		19939	TOKYO IMPERIAL UNIVERSITY ANTH- ROPOLOGICAL INSTITUTE. Clay Hu- man Figures in the Sites of the Prehistoric Stone Age of Japan. (Twenty Plates with text in Japanese.) 1905. "Haniwa" Figures on the Ancient Burial Mounds in Japan. (Forty Plates with text in Japanese.) 1920. In 1 vol. Fol. Tokyo, 1905, 1920.	Presented
20042	7-12 (1919).			Nederlandsch-Indie.	
20043	Jahrg. 84, 1918, Abt. A, H.—		19981	LANDBOUW, Department van. Mede- deelingen No. 3 Proeve Omtrent Schadu- cultuur, met Deli-Tabak op Sumatra's Oost- kust, door Dr. F. W. T. Hunger.	
	1-4 (1920).			1 vol. Svo. Batavia, 1907.	Presented
20044	5-8 (1920).				
20045	9-12 (1920).				
20046	Jahrg. 85, 1919, Abt. A, H.—				
	1-4 (1920).				
20047	5-8 (1920).				
20048	9-12 (1920).				
	14 vols. Svo. Berlin, 1916-1920.	Purchased			