

1921 (188) British Museum. Return to an order of the Honourable the House of Commons, dated 10 March 1921; for, copy "of account of the income and expenditure of the British Museum (special trust funds) for the year ending the 31st day of March 1921; and return of the number of persons admitted to visit the museum and the British Museum (Natural History) in each year from 1915 to 1920, both years inclusive; together with a statement of the progress made in the arrangement and description of the collections, and an account of objects added to them in the year 1920."

495

BRITISH MUSEUM.

RETURN to an Order of the Honourable The House of Commons,
dated 10 March 1921; for,

COPY "of Account of the INCOME and EXPENDITURE of
the BRITISH MUSEUM (SPECIAL TRUST FUNDS) for
the Year ending the 31st day of March 1921; and
RETURN of the Number of PERSONS admitted to
visit the MUSEUM and the BRITISH MUSEUM
(NATURAL HISTORY) in each Year from 1915 to
1920, both Years inclusive; together with a
STATEMENT of the PROGRESS made in the ARRANGE-
MENT and DESCRIPTION of the COLLECTIONS, and
an ACCOUNT of OBJECTS added to them in the
Year 1920."

Treasury Chambers, { HILTON YOUNG.
27 July, 1921.

(*Mr. Herbert Fisher.*)

Ordered, by The House of Commons, to be Printed,
27 July, 1921.

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ACCOUNTS, ETC., OF THE BRITISH MUSEUM.

3

I.—AN ACCOUNT of the RECEIPTS and EXPENDITURE of the BRIDGEWATER FUND, from the 1st April 1920 to the 31st March 1921.

	CASH.	STOCK, 2½% Consols.
	£ s. d.	£ s. d.
To BALANCES on the 1st April, 1920	200 10 7	13,659 3 2
„ DIVIDENDS received on £13,659 3s. 2d. Stock in 2½ per cent. Consols, bequeathed by the Earl of Bridgewater, viz.:		
On the 5th April, 1920	£85 7 4	
„ 5th July, 1920	85 7 4	
„ 5th October, 1920	85 7 4	
„ 5th January, 1921	85 7 4	
	341 9 4	
„ RENT OF A REAL ESTATE, Whitchurch, bequeathed by the Earl of Bridgewater (less charges) ...	23 7 6	
	£565 7 5	£13,659 3 2
	CASH.	STOCK, 2½% Consols.
	£ s. d.	£ s. d.
By One Year's SALARY of the Egerton Librarian ...	175 0 0	
„ AMOUNT expended in purchase of Manuscripts ...	50 0 0	
„ BALANCES ON THE 31ST MARCH, 1921, carried to Account for 1921-1922	340 7 5	13,659 3 2
	£565 7 5	£13,659 3 2

II.—AN ACCOUNT of the RECEIPTS AND EXPENDITURE of the FARNBOROUGH FUND, from the 1st April 1920 to the 31st March 1921.

	CASH.	STOCK, 2½% Consols.
	£ s. d.	£ s. d.
To BALANCES on the 1st April, 1920	35 12 1	2,879 10 7
„ DIVIDENDS received on £2,879 10s. 7d. Stock in 2½ per cent. Consols, bequeathed by Lord Farnborough, viz.:		
On the 5th April, 1920	£17 19 11	
„ 5th July, 1920	17 19 11	
„ 5th October, 1920	17 19 11	
„ 5th January, 1921	17 19 11	
	71 19 8	
	107 11 9	£2,879 10 7
	CASH.	STOCK, 2½% Consols.
	£ s. d.	£ s. d.
By AMOUNT expended in purchase of Manuscripts ...	52 10 0	
„ BALANCES ON THE 31ST MARCH, 1921, carried to Account for 1921-1922	55 1 9	2,879 10 7
	£107 11 9	£2,879 10 7

A 2

(1368.) Wt. 12066. C. 309-90. 10/21. J. T. & S., Ltd. G. 14.

III.—AN ACCOUNT of the RECEIPTS and EXPENDITURE
of the SWINEY FUND, from the 1st April 1920 to the 31st March 1921.

	CASH.	Stock, 2½% Consols.
	£ s. d.	£ s. d.
To BALANCES on the 1st April, 1920	9 11 1	5,744 0 8
„ DIVIDENDS received on £5,744 0s. 8d. Stock in 2½ per cent. Consols, bequeathed by Dr. George Swiney, for Lectures on Geology, viz.:		
On the 5th April, 1920 ... £35 18 0		
„ 5th July, 1920 ... 35 18 0		
„ 5th October, 1920 35 18 0		
„ 5th January, 1921 35 18 0		
	143 12 0	
	£153 3 1	£5,744 0 8
	CASH.	Stock, 2½% Consols.
	£ s. d.	£ s. d.
By AMOUNT paid to Dr. J. D. Falconer, for Lectures on Geology in 1920	140 0 0	
„ BALANCES ON THE 31ST MARCH, 1921, carried to Account for 1921-1922	13 3 1	5,744 0 8
	£153 3 1	£5,744 0 8

IV.—AN ACCOUNT of the RECEIPTS and EXPENDITURE of
the BIRCH FUND, from the 1st April 1920 to the 31st March 1921.

	CASH.	Stock, 2½% Consols.
	£ s. d.	£ s. d.
To BALANCE on the 1st April, 1920	—	565 3 9
„ DIVIDENDS received on £565 3s. 9d. Stock in 2½ per cent. Consols, bequeathed by Dr. Birch in 1766, for the three Under Librarians of the British Museum, viz. :-		
On the 5th April, 1920 ... £3 10 8		
„ 5th July, 1920 ... 3 10 8		
„ 5th October, 1920 3 10 8		
„ 5th January, 1921 3 10 8		
	14 2 8	
	£14 2 8	£565 3 9
	CASH.	Stock, 2½% Consols.
	£ s. d.	£ s. d.
By LEGACY paid to the three Under Librarians of the British Museum, whose offices existed in 1766, viz., the Keepers of the Departments of Printed Books, Manuscripts, and Natural History ...	14 2 8	
„ BALANCE ON THE 31ST MARCH, 1921, carried to Account for 1921-1922	—	565 3 9
	£14 2 8	565 3 9

ACCOUNTS, ETC., OF THE BRITISH MUSEUM.

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V.—AN ACCOUNT of the RECEIPTS and EXPENDITURE of the bequest of the late MR. CHARLES DRURY EDWARD FORTNUM, from the 1st April 1920 to the 31st March 1921.

	CASH.			Stock, 5% War Loan.		
	£	s.	d.	£	s.	d.
To BALANCES on the 1st April, 1920	118	11	1	2,100	0	0
„ Net Proceeds of Sale of £1,307 9s. 7d. 5% War Loan Stock	1,130	0	0			
„ INTEREST on War Loan	105	0	0			
	<u>£1,353 11 1</u>			<u>£2,100 0 0</u>		

	CASH.			Stock, 5% War Loan.		
	£	s.	d.	£	s.	d.
By Stock sold as above				1,307	9	7
„ Amount expended in aid of the Parliamentary Vote, 1920-1921	1,350	0	0			
„ BALANCES ON THE 31ST MARCH, 1921, carried to Account for 1921-1922	3	11	1	792	10	5
	<u>£1,353 11 1</u>			<u>£2,100 0 0</u>		

VI.—AN ACCOUNT of the RECEIPTS and EXPENDITURE of the CARCHEMISH EXCAVATIONS FUND, from the 1st April 1920 to the 31st March 1921.

	CASH.		
	£	s.	d.
To BALANCE on the 1st April, 1920	534	11	10
„ DONATION (further anonymous contribution)	4,000	0	0
	<u>£4,534 11 10</u>		

	CASH.		
	£	s.	d.
By EXPENDITURE on Excavations	3,525	8	6
„ BALANCE on the 31st March, 1921, carried to Account for 1921-1922	1,009	3	4
	<u>£4,534 11 10</u>		

VII.—AN ACCOUNT of the RECEIPTS AND EXPENDITURE of the bequest
of the late MR. HENRY LOUIS FLORENCE, from the
1st April 1920 to the 31st March 1921.

	CASH.			STOCK. 5% War Loan.		
	£	s.	d.	£	s.	d.
To BALANCES on the 1st April, 1920	45	0	6	1,052	12	6
„ INTEREST on 5% War Loan, 1929-47	52	12	6			
	<u>£97</u>	<u>13</u>	<u>0</u>	<u>£1,052</u>	<u>12</u>	<u>6</u>

	CASH.			STOCK. 5% War Loan.		
	£	s.	d.	£	s.	d.
By AMOUNT expended in purchase of Prints and Drawings	84	17	7			
„ BALANCES ON THE 31ST MARCH, 1921, carried to Account for 1921-1922	12	15	5	1,052	12	6
	<u>£97</u>	<u>13</u>	<u>0</u>	<u>£1,052</u>	<u>12</u>	<u>6</u>

VIII.—AN ACCOUNT of the JOHN A. ROEBLING FUND, from the
1st April 1920 to the 31st March 1921.

	CASH.			STOCK. 5% War Loan.		
	£	s.	d.	£	s.	d.
To BALANCE ON THE 1ST APRIL, 1920	52	9	6	1,049	8	10
„ INTEREST on War Loan	52	9	6			
	<u>£104</u>	<u>19</u>	<u>0</u>	<u>£1,049</u>	<u>8</u>	<u>10</u>

	CASH.			STOCK. 5% War Loan.		
	£	s.	d.	£	s.	d.
By BALANCES ON THE 31ST MARCH, 1921, carried to Account for 1921-1922	104	19	0	1,049	8	10
	<u>£104</u>	<u>19</u>	<u>0</u>	<u>£1,049</u>	<u>8</u>	<u>10</u>

1st April, 1921.

FREDERIC G. KENYON,
Director and Principal Librarian.

IX.—NUMBER of PERSONS ADMITTED to VISIT the BRITISH MUSEUM and the BRITISH MUSEUM (NATURAL HISTORY).

A.—PERSONS ADMITTED TO VIEW THE GENERAL COLLECTIONS IN THE BRITISH MUSEUM in each year from 1915 to 1920, both Years inclusive.

	1915.		1916.		1917.	1918.	1919.		1920.	
	Week-day.	Sunday.	Week-day.	Sunday.			Week-day. (Closed Sunday.)	Week-day.	Sunday.	
January	60,764	4,224	56,474	4,148		Galleries Closed Jan.—July.	50,346	64,829	—	
February	52,415	3,779	38,579	3,532			39,239	53,065	—	
March	57,858	5,435					54,314	55,420	—	
April	71,772	5,314				Temporary Exhibition. Week-day.	74,698	86,391	—	
May	54,556	4,859					56,143	61,449	—	
June	49,615	3,341					50,635	57,586	—	
July	58,825	4,011			Galleries Closed.		55,990	84,649	—	
August	64,374	5,545					75,735	105,460	—	
September	49,759	4,076					28,408	80,173	—	
October	55,005	5,126					27,417	68,902	—	
November	49,569	3,844					24,590	57,731	4,818	
December	55,488	3,537					36,032	58,661	2,862	
Total Number of Persons admitted to view the General Collections.	680,000	53,091	95,053	7,680				843,803	7,680	
	733,091		102,733			150,442	691,650	851,483		

ACCOUNTS, ETC., OF THE BRITISH MUSEUM.

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NUMBER OF VISITS OF STUDENTS TO PARTICULAR DEPARTMENTS.

	1915.	1916.	1917.	1918.	1919.	1920.
To the Reading Room	178,410	134,501	121,538	114,543	130,198	147,145
„ Newspaper Room	12,650	9,461	9,108	10,890	10,407	10,880
„ Map Room	380	142	170	188	260	317
„ Department of Manuscripts	7,781	5,713	5,483	4,621	6,013	7,340
„ Department of Oriental Printed Books and Manuscripts.	2,705	817	691	826	888	1,926
„ Print Room	5,781	2,063	1,254	777	2,588	*5,439
„ Egyptian and Assyrian Department	1,700	500	—	—	2,300	2,500
„ Greek and Roman Department	1,201	517	219	—	368	1,809
„ Galleries of Sculpture	1,798	249	—	—	552	1,272
„ British and Mediæval Department†	1,488	746	486	576	804	1,213
„ Coin and Medal Room	2,150	377	—	—	2,424	2,533
Total	216,044	155,086	138,949	132,421	156,802	182,374

* The Print Room was re-opened from 3rd August.

The British Museum, Bloomsbury (including the Departments of Printed Books and Maps, Manuscripts, Oriental Printed Books and Manuscripts, Prints and Drawings, Egyptian and Assyrian Antiquities, Greek and Roman Antiquities, British and Mediæval Antiquities and Ethnography, and Coins and Medals), is open free to the public on week-days (except on Good Friday and Christmas Day and days of Public Fast or Thanksgiving) from 10 a.m. to 6 p.m.

But after 4 p.m. in January, February, November, December, and after 5 p.m. in March and October, some only of the Galleries remain open, viz. :—

On Mondays, Wednesdays, and Fridays.	{ Exhibitions of Manuscripts and Printed Books ; Prehistoric, British, Anglo-Saxon, Oriental, Religious and Ethnographical Collections ; Fourth, Fifth and Sixth Egyptian Rooms ; Assyrian and Babylonian Rooms ; Glass, China, and Mediæval Collections.
On Tuesdays, Thursdays, and Saturdays.	{ Egyptian, Assyrian, Greek and Roman Collec- tions ; Prehistoric, Terra-cotta, Gold Ornament, Greek and Roman Life, Bronze and Vase Rooms ; Mummy Rooms ; Prints and Drawings Exhibition Gallery.

The Museum is open also on Sunday afternoons—

From 2 to 4 p.m. in January, February, November, December.

„ 2 to 5 p.m. in March and October.

„ 2 to 6 p.m. April to September, inclusive.

The Reading Room is open to Students from 9 a.m. to 6 p.m., the Newspaper Room and Manuscript Students' Room from 10 a.m. to 5 p.m., on every week-day except Good Friday, Christmas Day, and the first four week-days in March and September.

British Museum, }
1st April, 1921. }

Frederic G. Kenyon,
Director and Principal Librarian.

B.—PERSONS ADMITTED TO VIEW THE COLLECTIONS IN THE BRITISH MUSEUM (NATURAL HISTORY), CROMWELL ROAD, in each YEAR from 1915 to 1920, inclusive.

	1915.		1916.		1917.		1918.		1919.		1920.	
	Week-day.	Sunday.	Week-day.	Sunday.	Week-day.	Sunday.	Week-day.	Sunday.	Week-day.	Sunday.	Week-day.	Sunday.
January	29,458	3,177	30,632	4,001	30,594	2,578	32,056	2,723	33,715	3,628	30,823	3,763
February	25,599	3,759	26,948	3,301	25,452	3,046	26,245	3,193	25,989	3,912	28,439	5,647
March	29,933	4,266	28,614	3,386	30,165	4,020	29,022	4,268	32,270	6,843	32,363	4,911
April	42,600	4,380	32,024	4,301	44,284	5,880	38,064	3,896	48,131	4,577	61,832	6,624
May	32,483	4,655	28,854	3,161	31,785	4,106	31,695	3,784	29,719	4,721	33,090	6,023
June	27,666	3,340	31,165	3,808	28,304	4,122	27,034	4,780	34,216	5,311	29,880	6,118
July	33,687	3,791	27,792	4,091	28,981	4,742	33,588	4,252	32,452	5,676	43,423	5,622
August	46,712	6,068	33,006	3,902	42,316	4,284	40,681	4,037	40,965	5,989	66,408	6,890
September	27,972	3,886	28,993	3,913	27,705	4,849	26,768	6,300	28,548	4,600	33,595	6,131
October	30,358	4,678	33,228	4,238	29,377	3,296	30,991	3,567	31,363	3,829	34,780	7,411
November	27,523	3,241	29,368	2,479	30,026	2,753	27,426	2,416	28,174	4,076	32,015	3,735
December	31,181	3,168	28,635	2,833	27,671	2,792	33,126	2,893	33,521	3,511	35,622	2,556
Total Number of Persons admitted to view the Natural History Collections (including students)	385,172	48,409	359,259	43,414	376,660	46,468	376,696	46,109	399,063	56,673	462,270	65,431
	433,581		402,673		423,128		422,805		455,736		527,701	

NUMBER OF VISITS TO PARTICULAR DEPARTMENTS for the purpose of STUDY.

	1915.	1916.	1917.	1918.	1919.	1920.
Zoology (including Art Students)	8,020	7,018	6,314	5,553	7,459	8,973
Entomology	3,354	3,149	2,909	3,277	3,306	4,088
Geology	2,531	3,000	3,623	3,214	4,648	4,920
Mineralogy†	510	354	404	461	915	625
Botany	3,226	3,303	2,751	2,657	3,170	3,443
Total	17,641	16,824	16,001	15,162	19,498	22,049

† Study series directly accessible to the public, and so labelled as to render reference to the staff almost unnecessary, have been arranged in this Department.

ACCOUNTS, ETC., OF THE BRITISH MUSEUM. 11

The Exhibition Galleries of the British Museum (Natural History), Cromwell Road, South Kensington, including the Departments of Zoology, Entomology, Geology and Palæontology, Mineralogy, and Botany, are open to the public, free daily, except Good Friday and Christmas Day, and days of Public Fast or Thanksgiving.

The Hours of Admission are as under:—

On WEEK-DAYS, throughout the year from 10 a.m., in

January and February	...	...	...	...	to 5	p.m.
March	...	...	...	...	„ 5.30	„
April to September	...	...	...	...	„ 6	„
October, November and December	...	...	...	...	„ 5	„

On SUNDAYS, in

January	...	...	...	...	from 2	to 4	p.m.
February 1st to 14th	...	...	...	...	„ 2	„ 4.30	„
„ 15th to end	...	...	...	...	„ 2	„ 5	„
March	...	...	...	...	„ 2	„ 5.30	„
April	...	...	...	...	„ 2	„ 6	„
May to August	...	...	...	...	„ 2.30	„ 7	„
September	...	...	...	...	„ 2	„ 6	„
October	...	...	...	...	„ 2	„ 5	„
November and December	...	...	...	...	„ 2	„ 4	„

Persons are admitted to study in these Departments every weekday from 10 till 4 o'clock.

On Sundays the following galleries are open, namely:—Central Hall, North Hall, Bird Gallery, Mammal Galleries (including Whale Room), Fossil Mammal Gallery, Fossil Reptile Gallery, and Mineral Gallery.

British Museum (Natural History), 1st April, 1921.	} <i>Sidney F. Harmer,</i> Director of the Natural History Departments.
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X.—GENERAL PROGRESS AT THE MUSEUM, BLOOMSBURY.

The evacuation of the Museum by the Departments installed in some of the galleries during the war was completed in the course of the first months of 1920. The Medical Research Committee quitted the Sub-ground Floor of King Edward the Seventh's Galleries on February 6th, and the Registry of Friendly Societies completed their removal from the galleries belonging to the Departments of Prints and Drawings and Egyptian and Assyrian Antiquities on March 26th. The work of cleaning these galleries and replacing the collections in them was taken in hand at once. The three Mummy Rooms were reopened to the public on May 24th, the Phœnician and Himyaritic Rooms on June 21st, the Fourth Egyptian Room, the exhibition gallery of Prints and Drawings and half the Gallery of Ceramics and Mediæval Collections on July 15th, the Babylonian Room on July 31st, the Students' Room of the Department of Prints and Drawings on August 3rd, and the Fifth and Sixth Egyptian Rooms on December 6th. At the end of the year the only portions of the Museum remaining unopened were two small rooms of the Egyptian and Assyrian Department, and half the Ground Floor Gallery in King Edward the Seventh's Galleries, in which the collections of Oriental Ceramics, Glass, and a portion of the Mediæval collections were being installed.

Sunday opening of the galleries was resumed on November 7th.

The total number of visitors to the Museum was 851,483, composed of 843,803 on week-days and 7,680 on the Sundays in November and December. The figure for week-days is considerably higher than in any previous year except 1913, and is more than 150,000 in excess of the total for 1919 (691,650), when, however, the galleries were only gradually reopening in the course of the year. On the other hand the number of readers visiting the Reading Room has not yet reached the pre-war standard. The total of 147,145, though an increase on the 130,198 of 1919, is lower than the figure for 1915, while before the war, ever since the beginning of the century, the total invariably exceeded 200,000 (except when the Room was closed for cleaning), and in 1913 reached 243,659. Students visiting other Departments amounted to 35,229, about double the number in 1919 (when, however, several of the Students' Rooms were not open), and only a little less than in 1915. Had the Print Room been open throughout the year the 1915 total would no doubt have been exceeded.

The parties of the Guide Lecturers were well attended. Exact figures cannot be given, since visitors join or leave the parties in the course of the lectures, but the approximate figure is 35,670.

The number of separate objects incorporated in the several Departments during 1920 is as follows:—

Printed Books:

Books and Pamphlets	-	-	-	-	-	29,397
Serials and Parts of Volumes	.	-	-	-	-	83,447
Maps and Atlases	-	-	-	-	-	1,812

GENERAL PROGRESS OF THE MUSEUM.

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Printed Books— <i>continued</i> —	
Music - - - - -	10,843
Newspapers (single numbers) - - - - -	282,692
Miscellaneous - - - - -	1,852
Manuscripts and Seals - - - - -	460
Oriental Printed Books and MSS. - - - - -	1,890
Prints and Drawings - - - - -	4,773
" " (Oriental) - - - - -	878
Egyptian and Assyrian Antiquities - - - - -	2,347
Greek and Roman Antiquities - - - - -	66
British and Mediæval Antiquities - - - - -	1,614
Coins and Medals - - - - -	7,919
Total - - - - -	429,990

Of the total increase of 96,000, nearly the whole is accounted for by an increase of 81,500 in the number of newspapers, but most Departments show increases except the Department of Egyptian and Assyrian Antiquities.

Among the accessions described in the Departmental reports that follow, a few of the most notable may be mentioned here. The Department of Printed Books made considerable acquisitions of early English and Spanish books—two branches of bibliographical research to which considerable attention is now being paid. The Department of MSS. acquired at the Yates Thompson sale a very valuable and early illuminated Life of St. Cuthbert, written at Durham at the end of the 12th century; and it received a gift of special interest in the volume of Middle English verse presented by a group of teachers of English in America, as a mark of their sympathy with England during the war, and of the assistance which they had derived from the British Museum.

In the Department of Prints and Drawings the most important single accessions were the album of drawings by a North Italian artist (formerly supposed to be Mantegna), presented by Lord Rosebery, and the very early portrait of Yoritomo, the first Shogun of Japan.

The Department of Egyptian and Assyrian Antiquities acquired a very fine papyrus roll, nearly 60 feet in length, containing a late recension of the Book of the Dead, in a fuller form than in any other known manuscript. The Department of Greek and Roman Antiquities received by bequest from Lord Astor a most attractive half-length bronze statue of a young priestess, which was at one time stated, but without authority, to be a portrait of Drusilla, Caligula's sister, and to have been dredged up from Lake Nemi. The Department also acquired a particularly fine rock crystal gem, formerly in the Cockerell collection; and it was fortunate in securing several interesting Greek vases.

The Department of British and Mediæval Antiquities was enriched by a specially interesting gift, Mr. G. Eumorfopoulos (a frequent and munificent benefactor of the Museum) having elected to commemorate the completion of forty years' service by

the Keeper, Sir Hercules Read, by presenting to the Museum a rare and beautiful example of Chün stoneware, of which the existing specimens are few in number and proportionately valuable. Another addition to the Chinese collections was a wooden statue, more than life-size, of a Bodhisatva with remains of the original paint and gilding, dating probably from the 12th century. This was obtained through the good offices of the National Art Collections Fund and other friends.

The Department of Coins and Medals secured a further portion of the Weber collection of Greek Coins, but the most interesting accessions were two single pieces; one being an example (only six others are known) of the silver decadrachm supposed to have been struck at Athens in commemoration of the victory over Persia, while the other is the second known example of the Crown of the Rose, struck by Henry VIII., but withdrawn after two months.

Publications issued during 1920:—

Guide to the Department of Greek and Roman Antiquities in the British Museum. Fifth edition, with illustrations, maps and plans. 8vo. 2s. 6d.

A Guide to the Exhibition illustrating Greek and Roman Life. Second Edition. 8vo. 2s. 6d.

How to Observe in Archæology. Suggestions for travellers in the Near and Middle East. 8vo. 2s. 6d.

Grains and Grammes. A Table of Equivalents for the use of Numismatists. 8vo. 3s.

Rules for compiling the Catalogues in the Department of Printed Books in the British Museum. 8vo. 2s. 6d.

Chinese Pottery Statue of a Lohan. 7 pp. text, with coloured plate. 4to. 1s.

Guide to the Antiquities of the Bronze Age in the Department of British and Mediæval Antiquities. Second Edition, with 10 plates and 195 illustrations. 8vo. 2s. 6d.

Summary Guide to the Exhibition Galleries of the British Museum. Fourth Edition. With plans and illustrations. 8vo. 4d.

The Book of the Dead. Monograph by Sir E. A. W. Budge. 8vo. 1s. 6d.

The Babylonian Story of the Deluge and the Epic of Gilgamesh. With an account of the Royal Libraries of Nineveh. With 18 illustrations. 8vo. 1s. 6d.

Hittite Texts in the Cuneiform Character from Tablets in the British Museum. 50 plates. Foolscap folio. 15s.

Cuneiform Texts from Babylonian Tablets in the British Museum. Part XXX. 50 plates. Foolscap folio. 12s.

Guide to an Exhibition of Japanese Colour-Prints (from the end of the 17th century to 1858). 8vo. 6d.

Frederic G. Kenyon,
Director and Principal Librarian.

British Museum,
1st April, 1921.

XI.—PROGRESS made in the ARRANGEMENT AND DESCRIPTION OF THE COLLECTIONS AND ACCOUNT OF OBJECTS ADDED TO THEM in the year 1920 (Bloomsbury).

DEPARTMENT OF PRINTED BOOKS.

I. *Arrangement.*—The works added to the collection during the past year have, as far as possible, been placed on the shelves of the Library according to the system of classification adopted in the Museum.

The press-marks, indicating their respective localities, have been marked on the inside and affixed to the back of each volume.

The total number of these press-marks amounts to 64,735; in addition to which 36,092 press-marks have been altered on books and in the catalogues, in consequence of changes and re-arrangements carried out in the Library; 34,364 labels have been affixed to books and volumes of newspapers, and 48,389 obliterated labels been renewed.

The number of stamps impressed upon articles received is 406,456.

10,885 presses of books have been dusted in the course of the year.

II. *Cataloguing.*—46,957 titles have been written for the General Catalogue and for the Catalogue of Maps and Music.

Printing.—34,450 titles and index-slips for the General, and 1,428 for the Map, Catalogue have been printed during the year.

Incorporation.—General Catalogue.—32,998 title-slips and index-slips have been incorporated into each of the three copies of the Catalogue. This has rendered it necessary, in order to maintain as far as possible the alphabetical arrangement, to re-arrange 54,723 title-slips and index-slips in each copy and to add to each copy 461 new leaves.

Map Catalogue.—2,017 titles have been written for this Catalogue, and 1,734 title-slips have been incorporated into each of three copies of it. This has rendered it necessary to re-arrange 2,691 title-slips in each copy and to add to each copy 21 new leaves.

Music Catalogue.—8,096 titles have been written for this catalogue; 30,294 title-slips have been relaid on 2,207 new leaves.

Shelf Catalogue.—For this catalogue, in which the title-slips, mounted on cards, are arranged in order of press-marks, 23,364 have been so mounted and 27,880 have been incorporated in their proper order.

Special Catalogues.—Work has been continued on the *Catalogue of Books printed in the XVIIth Century* and progress made with the *Venetian Presses*, which will occupy Part V.

A short-title catalogue of Spanish Books to the end of the XVIth century has also been prepared.

III.—*Binding*.—The number of volumes and sets of volumes sent to be bound in the course of the year was 12,186, including 4,512 volumes of newspapers. In consequence of the frequent adoption of the plan of binding two or more volumes in one, the number of volumes returned was 9,738. In addition, 1,989 volumes have been repaired in the binders' shops.

Besides this, the following binding work has been done in the Library itself:—4,173 volumes have been repaired, 8,761 cleaned and polished and 4,608 volumes bound in a light style of binding.

The following maps, etc., have also been bound or mounted during the year:—13 atlases and 14 volumes of the 25-inch Ordnance Survey have been bound; in addition, 395 general maps, in 957 sheets, have been mounted on linen, 10 maps, in 186 sheets, mounted on cards, and 147 Admiralty Charts mounted on linen.

49,490 numbers of Colonial newspapers have been made up into 1,095 parcels and the parcels tied up and labelled.

109 volumes of the General Catalogue have been broken up and rebound, and 10 volumes of the Music Catalogue.

IV.—*Reading Room Service*.—The number of volumes replaced in the General Library after use in the Reading Room was 481,475; in the King's Library, 14,364; in the Grenville Library, 2,140; in the Map Room, 3,566; in the presses in which books are kept from day to day for the use of readers, 659,246; and in the Oriental Department, 1,910; making a total of 1,162,701 volumes supplied to readers during the year, exclusive of those to which the readers have personal access on the shelves of the Reading Room. The number of readers during the year was 147,145, giving an average of 484 daily—the room having been open on 304 days.

Newspaper Room.—The number of readers during the year was 10,880, giving a daily average of 36—the room having been open on 304 days. The number of volumes replaced after use was 49,492, giving a daily average of 163, not reckoning volumes taken from the shelves by the readers themselves. In addition, 1,372 country newspapers were brought up to the Library from the Repository at Hendon for the use of readers.

Map Room.—317 students were admitted to the Map Room.

Photography.—There were 296 applications for leave to photograph from books in the Library and 787 volumes were supplied for this purpose.

V. *Accessions*.—*General Library*.—29,397 complete volumes and pamphlets have been added to the General Library during the year. Of these, 7,818 were presented, 14,501 received by Copyright, 687 by Colonial Copyright, 1,133 by International Exchange, and 5,858 acquired by purchase.

83,447 parts or volumes of serial publications and of works in progress have been added to the General Library. Of these, 6,435

were presented, 53,463 received by Copyright, 601 by Colonial Copyright, 1,647 by International Exchange, and 21,301 acquired by purchase.

Maps.—59 atlases, 178 parts of atlases, and 1,575 maps in 3,991 sheets have been added to the collection during the year. Of these, 15 atlases, 24 parts and 976 maps were presented; 27 atlases, 81 parts of atlases and 482 maps received by Copyright; 13 atlases and 18 maps by Colonial Copyright; 2 parts of atlases and 1 map by International Exchange; and 4 atlases, 69 parts of atlases and 976 maps acquired by purchase.

Music.—10,843 musical publications have been added to the collection during the year. Of these, 1 book was presented, 9,890 books and 1,251 parts received by Copyright, 774 books by Colonial Copyright, and 178 books and 128 parts acquired by purchase.

Newspapers.—The number of newspapers published in the United Kingdom and received under the provisions of the Copyright Act during the year was 3,079, comprising 204,665 single numbers. Of these newspapers, 1,141 were published in London and its suburbs, 1,439 in other parts of England and Wales, 284 in Scotland, and 215 in Ireland. 39 sets, comprising 11,422 single numbers, were received by Colonial Copyright; 1 set, comprising 434 single numbers, by International Exchange; 353 sets, comprising 50,116 single numbers, have been presented; and 90 sets, comprising 16,055 single numbers, acquired by purchase.

Miscellaneous.—1,852 articles not included in the foregoing paragraphs have been received, consisting of single sheets, photographs and postage stamps.

Acquisitions of Special Interest

The following is a list of the most important and interesting books, maps and music, acquired by presentation or purchase during the year:—

Books printed in the 15th century.

Mapheus Vegius, *Carmen de morte Astyanactis*. Robertus de Fano and Bernardinus de Bergamo, Cagli, 1475. The first book printed at Cagli, and a very rare tract.

S. Francis of Assisi, Fioretti. Giovanni Lionardo Longo, Vicenza, 1476. The first edition of the Fioretti and the first known product of Longo's press.

Augustinus Datus, *Elloquentiæ præcepta*. Leonardus [Pachel] and Henricus [Scinzenzeler], Milan, 1478. The only book known to have been produced by this partnership.

Zeichen der falschen Gulden. [Anton Sorg, Augsburg, about 1480.] A placard, with woodcuts of base coin in circulation. No sheet of this kind was previously represented in the Museum collection.

Psalterium cum canticis. Bartholomæus Ghotan, Magdeburg, 1481. A fine copy of one of two dated books known to belong to this press, both of which are very rare. *Presented by Major George Anson.*

C

Heinrich Müntzinger, *Das Pater noster mit der Gloss, etc.* Anton Sorg, Augsburg, 1482. A rare collection of devotional tracts and a good specimen of Augsburg vernacular printing.

Diogenes Laertius, *Vita de' filosofi.* Jacobus Caroli and Petrus Honofrii, Florence, 1489. The work done by these printers jointly was not previously represented in the Museum collection, and specimens of it rarely occur.

Year Books, 1 and 3-8, Edward IV. [Richard Pynson, London, about 1492 and 1495.] Of most of these seven Year Books only one other copy is known to exist. The first is a variant issue of an edition already represented in the Museum.

Officium pro festo Visitationis B. V. Mariæ. [Richard Pynson, London, about 1492.] An apparently hitherto unrecorded product of Pynson's press. *Presented by Major George Anson.*

Votiuale Missarum. Valentin Fernandez, Lisbon, 1496. The only known copy of this service book, the existence of which had not previously been recorded.

English Books of the 16th and 17th centuries.

The *Kalendar of Shyppars.* Antoine Vérard, Paris, 1503. A Scots translation of the "*Kalendrier des bergers,*" with fine woodcuts. Only two other copies are known, one of which, like the present, is imperfect.

Terentii Comœdiæ a Guidone Iuuenale illustratæ. Josse Bade, Paris, for Wynkyn de Worde, Michael Morin and Joannes Brachius, London, 1504. The only book known to have been printed for De Worde in conjunction with these two partners. *Presented by Major George Anson.*

Nicholas Udall, *Floures for Latine Spekyng selected oute of Terence.* T. Berthelet, London, 1533. The first edition.

Sir Geoffrey Fenton, *Monophylo.* W. Seres, London, 1572.

R. S. [Robert Smythe], *Straunge, lamentable and tragicall Hystories.* H. Jackson, London, 1577.

The Mirror of Princely Deedes and Knighthood, translated by M. T. [Margaret Tyler]. T. East, London [1578]. The first part only.

John Lyly, *Euphues and his England.* T. East for G. Cawood, London, 1580. Belonging to one or other of the first three editions. *Presented by S. R. Christie-Miller, Esq.*

Thomas Howell *His Deuises,* London, 1581. Wanting the title and two following leaves. Only one perfect copy is known.

Arthur of Little Britaine [translated by Lord Berners]. T. East, London [1582].

Palmerin d'Oliva, turned into English by Anthony Munday. The first part. I. Charlewood for W. Wright, London, 1588. The first edition.

Claude Colet, *The famous Historie of Palladine of England,* translated by Anthony Munday. E. Allde for J. Perin, London, 1588.

The History of Palmendos, translated by Anthony Munday. I. C. for S. Watson, London, 1589.

H. R. [Henry Roberts], A Defiance to Fortune proclaimed by Andrugio. I. Proctor, London, 1590.

Henry Barrow, A brief Discoverie of the false Church. [Dort?], 1590.

Etienne de Maison Neuve, Gerileon of England, translated by Anthony Munday. C. Burbie, London, 1592.

Barnaby Rich, The Adventures of Brusanus, Prince of Hungaria. T. Adames, London, 1592.

The first Book of Primaleon of Greece. C. Burby, London, 1595.

Henry Roberts, Pheander, the Mayden-Knight. T. Creede, London, 1595. The only known copy.

Richard Johnson, the second Part of the History of the Sea-uen Champions of Christendome. C. Burbie, London, 1597.

Heroicall Adventures of the Knight of the Sea, Prince Oceander. W. Leake, London, 1600.

William Browne, Britannia's Pastorals. T. Snodham for G. Norton, London, 16[13]-16. The first part is of the rare first issue, afterwards freely altered by the author and reprinted for publication with the second part.

Sir Richard Beling, A sixth Booke to the Countesse of Pembroke's Arcadia. Society of Stationers, Dublin, 1624.

John Cameron, A Tract of the Sovereigne Judge of Controversies. W. Turner for H. Curteine, Oxford, 1628. *Presented by Falconer Madan, Esq.*

The Famous History of George, Lord Fauconbridge. I. B. for J. Wright, London, 1635.

T. D. [Thomas Deloney], The Gentle Craft. The first part. R. Bird, London, 1637. Believed to be unique.

Thomas Godwin, Romanæ historiæ anthologia. L. Lichfield for H. Crypps, Oxford, 1638. *Presented by Falconer Madan, Esq.*

John Prideaux, Bishop of Worcester, Tabulæ ad grammatica græca introductoriæ. L. Lichfield for E. Pearse and T. Allam, Oxford, 1639. *Presented by Falconer Madan, Esq.*

The Noble Birth and Gallant Atchievements of Robin Hood. T. Vere and W. Gilbertson, London, 1662. *Presented by S. R. Christie-Miller, Esq.*

[Gauthier de Costes, Seigneur de la Calprenède], Pharamond or the History of France, rendered into English by John Davies of Kidwelly. N. Brook and S. Speed, London, 1662.

[John Wilson, Recorder of Londonderry], The Cheats, a comedy. G. Bedell, T. Collins, C. Adams, London, 1664.

The true and admirable History of Patient Grissel. J. Wright, J. Clarke, etc., London, 1682.

Sir Josiah Child, A new Discourse of Trade. J. Everingham, London, 1693.

[Sir Richard Steele], The Procession, a poem on Her Majesties Funeral. By a Gentleman of the Army. T. Bennet, London, 1695. Steele's first published work.

Early Spanish Books.

Las Epistolas de Seneca en romance. P. Hagembach, Toledo, 1502. With woodcuts.

Antoninus, Summa de confession llamada Defecerunt. P. Hagembach, Toledo, 1504.

Ramon Lull, Arbor scientiae. P. Posa, Barcelona, 1505. With woodcuts.

Fasciculus myrrhe nueuamente corregido. J. Varela, Seville, 1518.

Ramon Lull, Blanquerna. J. Joffre, Valencia, 1521. A specimen of a very rare edition, in the original Valencian, of this famous work.

Cristobal de San Antonio, Triumphus Iesu Christi contra infideles. Salamanca, 1524. A very rare edition.

Gamaliel nueuamente traduzido. D. de Robertis, Seville, 1536. With woodcuts.

Martin Cortes, Breve compendio de la sphaera y de la arte de navegar. A. Alvares, Seville, 1551. The first edition of a famous treatise on navigation. With maps.

La Historia de los dos nobles cavalleros Oliveros de Castilla y Artus de Algarve. P. de Santillana, Burgos, 1553.

Recibimiento que la Ciudad de Toledo hizo a la Reyna Ysabel. Toledo, 1561. A very rare historical work.

Relacio delo sucedido ala Armada de Su Magestad desde que entro enel Canal de Inglaterra. C. de Lara, Seville [1588]. A hitherto undescribed report, printed at an otherwise unknown press, on the operations of the Spanish Armada.

Henrique Visorio, Anagramma de la vida humana. A. Alvares and A. Lopez, Lisbon, 1590. An otherwise unknown Spanish poem.

Later Books.

Vergil, Traductieou de l'Eneido [books 1, 2, 4, 6]. Besies, 1682. A translation into the dialect of the Narbonnais.

A collection of over 200 German hymnological works, including numerous hymn-books for local use, the earliest dating from the 17th century.

A collection of fifty-nine works, complete in seventy-two volumes, printed by or under the superintendence of Mr. Bruce Rogers, mostly at the Riverside Press, Cambridge, Mass.

A complete set, including all the supplements, of "La Libre Belgique," published in Belgium during the German occupation.

A copy of the Shelley Society's reprint of "Adonais" bound in brown morocco with gold tooling by T. J. Cobden-Sanderson in 1888. *Presented by T. J. Cobden-Sanderson, Esq.*

A volume of photographs of an early Greek manuscript of the Psalms now in the Freer Collection at Washington. *Presented by Charles Lang Freer, Esq.*

Music.

Theobaldus Billicanus, De partium orationis inflexionibus. [Wittenberg], 1526. With specimens of musical settings of Horatian Odes, a very early instance of such settings.

Claude Gervaise, Quart liure contenant xxvj. chansons musicalles a troys parties. Paris, 1550.

John Adson, Courtly Masquing Ayres composed to 5 or 6 parts. T.S. for John Brown, London, 1621. Six parts in one volume.

Walter Porter, Madrigales and Ayres. W. Stansby, London, 1632. The only perfect copy known.

John Gamble, Ayres and Dialogues, London, 1656, and the Second Book of the same, London, 1659. With a power of attorney signed by the composer inserted. Of the Second Book only two other copies appear to be on record.

A volume of compositions by Bach and Mendelssohn, once in Mendelssohn's possession and with his autograph, also a volume of first editions of compositions by Schumann with autograph inscriptions by him.

Maps.

The first and second issue of Le Théâtre François par Maurice Bouguereau, Tours, 1594, and three editions (Paris, 1621, 1626, 1637) of the Théâtre géographique du Royaume de France, these additions making the Museum set of early French atlases exceptionally complete. *Presented by Sir H. George Fordham.*

A collection of 102 maps, containing some very fine specimens of 18th-century cartography, among them a number of excellent English county maps. *Presented by R. Holland Martin, Esq., C.B.*

A collection of thirty-nine maps and plans of Western Flanders, of the period around 1850, including Ypres, Dixmude, Nieupoort, etc., of interest as giving in great detail the land on which many battles were fought during the War.

Alfred W. Pollard.

DEPARTMENT OF MANUSCRIPTS.

1. *Catalogue of Additions*.—Egerton MS. 2901, acquired in 1913, has been described and indexed.

Of the MSS. acquired in 1914, Additional 38,988–38,996, 39,021–39,048, 39,060, 39,064–39,066, 39,068, 39,069, 39,072–39,075, 39,079, 39,080, 39,091–39,096, 39,098–39,119, 39,121–39,164; of those acquired in 1915, Additional 39,218–39,252; of those acquired in 1916, Additional 39,259–39,264; of those acquired in 1917, Additional 39,569, 39,625–39,628, 39,658, and Egerton 2,973, 2,977; of those acquired in 1918, Additional 39,757, Egerton 3,018; of those acquired in 1919, Additional 39,840–39,842, 39,848–39,859, 39,865, 39,866, 39,907; and of those acquired in 1920, Additional 39,929–39,936, 39,954, 39,955 have been described and indexed.

The Charters and Detached Seals acquired in 1911–1915 have been described and indexed for the quinquennial Catalogue of Additions.

2. *Catalogue of Greek Papyri*.—The Papyri acquired in 1911–1915 have been described and indexed for the quinquennial Catalogue of Additions.

Papyri 2,103–2,182, acquired in 1920, have been provisionally transcribed.

For the projected Catalogue of Literary Papyri, Papyri 272, 273, 486, 736, 886, 1,545, 1,862, 1,873, and 2,037 have been transcribed.

3. *Catalogue of the Royal and King's MSS.*—Sheets Z—Pp of Vol. III., completing the general index and the index of Greek initia, and beginning that of Latin initia, have been printed off, and sheet Qq is in type. The introductions to Vols. I. and III. are in type. The revision of the index of initia has been continued.

4. *Catalogue of Irish MSS.*—The revision of the section Theology is nearly completed, and that of the sections Poetry and Tales is in progress.

5. *Catalogue of Charters*.—Additional Charters 57,769–57,805, 58,271–58,335, acquired in 1913, have been described and indexed.

6. *Miscellaneous*.—A list of original Papal Bulls and Briefs in the Department has been compiled.

7. *Binding*.—One hundred and twenty-three Additional MSS., newly acquired, and ninety-eight MSS. of the old collections have been bound, repaired, or lettered, together with seventy-seven Books of Reference and Catalogues. Three Charters and Rolls have been repaired.

8. *Verification*.—The entire collection of MSS. has been verified by comparison with the Shelf-lists.

9. *Reproductions*.—Three reproductions of miniatures in colours (Royal MS. 15 D. II., f. 3, and Additional MSS. 18,850, f. 65, and 25,698, f. 8) and one set of Pictorial Postcards (Life of St. Cuthbert) have been issued; and two further sets of Pictorial Postcards (Calendar-pictures from Queen Mary's Psalter) have been passed.

Part III. (English, 1300–1350) of Schools of Illumination is in preparation.

10. *Stamping, folioing, and placing*.—128 Additional MSS., 344 Charters and Rolls, 124 Books of Reference and 161 Postcards have been stamped. The total number of impressions made was 9,169.

180 MSS. have been folioed, with a total of 43,832 folios.

4,290 slips have been numbered.

50 newly acquired MSS. and 26 Papyri have been placed, and 7 MSS. and 11 Papyri have been re-placed. All have been press-marked and entered in Hand- and Shelf-lists. 168 Additional Charters and Rolls have been placed, and have been entered in the Hand-list. 85 seals and casts have been provided with boxes, placed, and entered in Hand- and Drawer-lists.

11. *Books of Reference*.—125 volumes and parts, together with 161 postcards and 2 reproductions, have been received, catalogued and placed.

Seven volumes and parts have been added to the series of Facsimiles placed in the Department and available for the use of readers. These include a noteworthy addition in an unpublished photographic reproduction of the text of Euripides in the Laurentian MS. (Plut. xxxii. 2), presented by J. A. Spranger, Esq.

12. *Consultation of MSS.*—19,827 MSS. and 2,632 Charters and Seals have been consulted in the Students' Room. The number of Students was 7,340.

13. *MSS. photographed*.—631 MSS. (including Papyri, Charters, and Seals) were allowed to be photographed, with a total of 7,906 photographs taken.

14. *Acquisitions*.—The number of Manuscripts and Documents, etc., acquired during the year has been:—

Additional MSS.	-	-	-	-	-	93
Egerton MSS.	-	-	-	-	-	4
Charters and Rolls	-	-	-	-	-	162
Papyri	-	-	-	-	-	138
Detached Seals and Casts	-	-	-	-	-	63

The most interesting acquisition of the year is the illuminated Life of St. Cuthbert, written at Durham at the end of the 12th century. This important work of North of England art, which came up in the second sale of Mr. Yates Thompson's MSS., was beyond the unaided reach of the Museum funds, and appeals were necessary, not only to the National Art Collections Fund, which provided £1,000, but also to the generosity of individuals. Mainly

through the help of Dr. F. W. Dendy of Newcastle, this appeal raised from fourteen donors a further £2,000, and the Trustees provided the rest of the purchase-money.

Another acquisition, of importance in itself and of great interest from the circumstances of its presentation, is a volume of Middle English religious verse written in the 15th century, including several unique and unpublished pieces. It was selected and purchased (by private arrangement with the owners) from the Phillipps collection at Cheltenham by Dr. Carleton Brown, Professor of English in the University of Minnesota, acting on behalf of a number of teachers of English in American Colleges and Universities. These subscribers, to use their own words, having "enjoyed the privilege of reading in the British Museum, desire to convey to the authorities of the Museum our grateful appreciation of the courtesies so generously accorded to students from abroad," with the hope that this gift "may have its influence in strengthening the cordial bonds which unite British and American scholars." It is to be known as "The American Testimonial MS."

The Gospel-Book of Thorney Abbey, written, perhaps on the Continent, in the 10th century, has been used as a "Liber Vitae," to record long lists of benefactors and others whose names were commemorated in the monks' prayers in the 11th and 12th centuries. It was purchased at Lord Mostyn's sale.

Other monastic records acquired are the Chartulary of Bridlington Priory, 13th-14th centuries; a portion (D-J) of the large 15th century coucher-book of Fountains Abbey, of which two other volumes were already in the Museum; a rental and an account-book of the same monastery; and a 14th century chartulary of the collegiate church or chantry of Shottesbrooke in Berkshire. *The last was purchased from the Farnborough Fund.* Also an inventory and rental of Pershore Abbey, 1376, *presented by R. Steele, Esq.*

A copy of the minor works of the historian Ralph de Diceto, purchased at Sir W. Ingilby's sale, is apparently the original presentation-copy to William Longchamp, the Chancellor, about A.D. 1195.

A Spanish sacramentary of the early part of the 13th century is a notable addition to the representation of Spanish illumination in the Museum.

A 13th-century Latin Bible is valuable from its correctorium-notes in the margin.

A small roll-calendar of the late 13th century has English illuminated ornament.

A volume of French romances of the cycle of Fierabras, of the middle of the 14th century, and a well-drawn armorial of English nobility, about 1440, with some Flemish additions, were both *bought from the Bridgewater Fund.*

Other manuscripts worthy of mention are:—

Catullus, Tibullus and Propertius, 15th century. *Purchased from the Farnborough Fund.*

A small expense-roll of Edmund, Earl of Lancaster, 1294.

Justice-book of Philippe de la Crux, 1469-1476. *Presented by Lt. Steele, Esq.*

Visitacion of Cheshire, 1566, with a chronicle of the mayors of Chester.

Formulary-book for the Courts Palatine of Chester and Lancaster, 18th century.

Narrative of voyages to Guinea and parts of the West Indies, &c., 1714-1716.

"Aristides," an anonymous pamphlet against Lord St. Vincent's naval administration, 1804.

Diary and papers of William Erskine (1773-1852), translator of Baber's Memoirs. *Presented by Mrs. H. Beveridge.*

Minute-book of the National Union of the Working Classes, 1831. *Presented by Professor Edwin Gay.*

Manual of Artillery, copied at Woolwich R.M.A. by Collingwood Dickson, afterwards V.C., in 1835. *Presented by Lt.-Col. J. H. Leslie.*

Specifications for the re-erection of the Crystal Palace at Sydenham, 1852. *Presented by Rev. H. Chadwick.*

Vocabulary of the Romany language by Rev. R. N. Sander-son. *Presented by E. J. Beaumont Nesbitt, Esq.*

Holograph letter of Louis XIV. to Charles II. relating to the secret treaty of 1676.

Correspondence (50 letters) of George Mackenzie, Earl of Cromarty, chiefly with Lord Treasurer Godolphin, 1703-1708.

Collection of about 80 letters, chiefly relating to the Jacobites, from the Hodgkin collection.

Correspondence of the Twining family, especially Rev. Thomas Twining, translator of Aristotle, 1735-1804, etc.

Letters (21) of Lieut. Robert Knowles, 7th Fusiliers, during the Peninsular War, 1809-1813. *Presented by Sir Lees Knowles, Bart.*

Supplementary letters to the Huskisson Papers, chiefly letters addressed to William Huskisson's widow. Two volumes.

Select correspondence, other than scientific, of Sir Richard Owen. *Presented by C. D. Sherborn, Esq.*

Autograph poems by George Meredith and Sir William Watson, and letters of Swinburne, Matthew Arnold, A. H. Clough and others. *Bequeathed by Sir E. T. Cook.*

Autograph letter of Dr. Isaac Watts, 1745. *Presented by Mrs. E. K. Drummond.*

Autograph letter of William Hogarth, 1758. *Presented by F. Tessier, Esq.*

Autograph letters of Horace Walpole (to Chatterton), Gilbert Elliot (Lord Minto), Henri Murger, Bernardin de St. Pierre, Ivan Tourgeneff and others.

Situation-map of the Western Front in the Great War, 25th September, 1918, signed by F.M. Earl Haig. Also a memorandum concerning operations on that front during his command. The letter is sealed up, and not to be opened till 1940. *Presented by Earl Haig.*

D

Collections relating to Hampshire and Berkshire by F. J. Baigent. 34 vols. and two series of rolls. *Presented by H. E. Cardinal Gasquet.*

Collections by Daniel Howard on the history of Portsmouth. *Presented by Mrs. E. R. Howard.*

Twenty-five rubbings of monumental brasses by Rev. F. E. Scott. *Presented by Mrs. Scott.*

Plans of ancient earthworks in co. Monmouth, by Rev. E. A. Downman.

Harpichord solos by Dr. Arne, Handel and others, in Dr. Charles Burney's hand, 1744. *Presented by A. Hughes-Hughes, Esq.*

About 138 Greek papyri, chiefly of the Roman and Byzantine periods, and mainly from Oxyrhynchus.

Early deeds from Spain, a remarkable series of seventy-nine, from the neighbourhood of Barcelona, mostly dated in the 10th and 11th centuries.

A document with signatures of Gian Galeazzo and Ludovico Maria Sforza-Visconti, 1480. *Presented by Dr. A. S. Woodward.*

Deeds (53) relating to Ludworth and the Lumley family, from the 13th century onwards.

J. P. Gilson.

DEPARTMENT OF ORIENTAL PRINTED BOOKS AND MSS.

Arrangement and Cataloguing.—The number of the sheets of the Catalogue of Persian Printed Books sent to press in 1920 was 25.

The number of titles written for the Catalogues is:—Arabic, 723; Armenian, 3; Assamese, 24; Bengali, 272; Brahui, 2; Burmese, 54; Chin, 8; Chinese, 111; Coptic, 2; Gujarati, 124; Hebrew and Samaritan, 694; Hindi, 300; Hindustani, 184; Japanese, 25; Kachin, 6; Kanarese, 89; Karen, 12; Kashmiri, 44; Khasi, 6; Kond, 3; Malay, 188; Malayalam, 10; Mandaean, 8; Manipuri, 3; Marathi, 144; Mikir, 6; Naga, 3; North Arvan (Khotanese), 2; Oriya, 71; Pali, 23; Panjabi, 87; Persian, 664; Prakrit, 64; Pushtu, 4; Sanskrit, 435; Santali, 3; Siamese, 9; Sindhi, 16; Sinhalese, 11; Syriac, 40; Talaing, 8; Tamil, 328; Telugu, 266; Tibetan, 58; Total, 5,137.

One thousand one hundred and thirteen Chinese MSS. have been catalogued for the Hand-list of the Stein Collection.

One hundred and thirteen short descriptions of MSS. have been entered in the Descriptive List, the Register, and the Classed Inventory.

Three hundred and eighty-nine MSS. (71,779 folios) and seven printed books (1,017 folios) have been folioed.

Binding.—The number of Printed Books and MSS. sent to the binders is:—Arabic, Persian and Hindustani Books, 57; Chinese Books, 9; English Books, 4; French Books, 1; Hebrew Books, 146; Malay Books, 1; Books in Sanskrit and other Indian languages, 124; Siamese Books, 25; Uighur Books, 2; MSS., 379. Total, 748.

Students.—The number of visits of Students to the Oriental Students' Room attached to this Department during the year is 1,926. The number of Oriental MSS. used by them is 2,295, and the number of Oriental Printed Books used by them is 12,357. 1,910 Oriental Printed Books were used in the Reading Room.

Photography.—One hundred and thirty-two applications have been made to photograph books and MSS. in this Department.

Additions.—The number of volumes, etc., added to the collections of the Department during the year is 1,890, of which 1,817 are Printed Books and 73 are MSS.

Of the Printed Books, 327 were bought; 1,295 were received under the India Copyright Act; 21 were received under the Colonial Copyright Act from Ceylon; and 184 were presented. Of the MSS., 57 were bought and the remainder presented.

The MSS. are as follows:—

Arabic	25
Armenian	1
Chinese	26
Coptic	1
Hebrew	3
Hindustani	1
Manchu and Chinese	1
Persian	3
Sanskrit	3
Sanskrit and Khotanese	3
Syriac	2
Syriac and Arabic	1
Tibetan	3
Total	73

The most important acquisitions are:—

Arabic MSS.—1. A fragment on vellum containing an Arabic version (apparently unknown) of the Epistles from Ephesians ii., 10, to II. Timothy ii., 12, in a fine early hand, perhaps of the 9th century. 12°.

2. A MS. containing a detailed criticism of Islām, apparently from the Jewish standpoint; incomplete at the beginning and end. 11th or 12th century. 8°. Apparently unique.

3. A letter in Jewish-Arabic from Šamaḥ Haḥkōhēn ben Samuel to Abu Ishāq Ibrāhīm. A.D. 1151.

4. *Ijtīmā'āt al-falāsifah fī buyūt il-ḥikmah*, sayings of the Greek philosophers, by Ḥunain b. Ishāq. Nearly the first quarter of the work, two quires being lost at the beginning. 12th century. 12°. Only one other copy is on record.

5. A Jewish-Arabic commentary by Sa'adyāh Gāōn on the two Songs of Moses. Followed by translations of parts of the Jewish liturgy. 12th century. 12°. Apparently otherwise unknown.

6. A MS. containing four grammatical works, viz., al-Anbarī's *Mizān al-'arabīyah* and *Asrār al-'arabīyah*, al-Jurjānī's *al-Jumal*, and al-Murtaǧal, a commentary on the last by 'Abd Allāh b. Aḥmad al-Khassāb. With an *ijāzah* in the handwriting of Aḥmad b. 'Alī b. Aḥmad al-Kūfī, called Ibn al-Faṣṣḥ. Copied A.H. 661 (A.D. 1263). 8°.

7. A letter in Jewish-Arabic to Ibn al-Rabī' Sulaimān Haḥkōhēn b. Abi Zakariyā. 13th century?

8. *Al-Risālat al-muknī'ah*, a work on the recitation of the *bismillah* formula at prayers, by Abu 'l-Faḥḥ Salīm b. Aiyūb al-Rāzī; transmitted by the author's disciple Abu 'l-Faḥḥ Naṣr b. Ibrāhīm 'al-Maḥḍisī, and collated with a MS. corrected from the author's holograph. Copied A.H. 737 (A.D. 1336-37). 12°. No other copy seems to be recorded.

9. Part 2 of *al-Iḥāṭah fī akhbār il-Ghīrnāṭah*, a biographical dictionary of famous men of Granada, by Lisān al-Dīn Ibn al-Khaṭīb. Copied A.H. 780 (A.D. 1378)? 4°. An important work; MSS. are rare.

10. *Al-Tabyīn fī ansāb il-ḡurashīyīn*, genealogies of the Prophet Muḡammad and his descendants and followers of the tribe of Ḳuraish, by Muwaffiḡ al-Dīn ‘Abd Allāh b. Ahmad ibn Ḳudāmah al-Maḡdisī. Copied A.H. 795 (A.D. 1393). 12°.

11. A work on ethics, apparently the ‘Aḡabāt of al-Ghazzālī. 15th century. 12°. Not otherwise known.

12. *Fath rabb al-barriyah*, a commentary by Ahmad b. Hasan al-Sandūbī on al-Ḳaṣ at al-maḡariyah, an elegy on the kings of Spain, by Ahmad b. Muḡ. al-Maḡarī. 15th-16th century. 8°.

13. *Matāli’ al-anzār*, a commentary by Maḡmūd b. ‘Abd al-Raḡmān al-Isfahānī on al-Baidāwī’s metaphysic *Tawālī’ al-anwār*. 16th century. 8°. *Presented by Colonel R. H. Whitwell.*

14. A MS. containing part of *Ta’wīlāt al-Ḳur’ān*, the commentary of Ḳasim b. Muḡ. al-Nishābūrī on the Ḳur’ān (viz., on Sūrah 78 to the end), etc., XVIIth-XVIIIth century. 8°. *Presented by Colonel R. H. Whitwell.*

15. The Old Testament in the Jewish-Arabic dialect of the Aleppo district. XVIIIth-XIXth century. 8°.

16. A collection of Egyptian folk-songs, compiled by ‘Abd al-Malik b. ‘Abd al-Waḡḡāb al-Fitnī. 2 vols. XIXth century. 8°.

Chinese MSS.—1. “The Old Drunkard’s Arbour,” a composition written in 1048 A.D. by Ou-yang Hsiu; copied in calligraphic style by Su Shih (1036-1101). With many notes of appreciation by various scholars, the first dated A.D. 1348. Roll.

2. An essay on the art of handwriting, written by the artist and calligrapher Mi Fei, and dated A.D. 1080. Roll.

3. Facsimiles of writing by the poet Ts’ao Tzu-chien (A.D. 192-232) and by Ssu-t’u Chung-yu. Roll.

4. An ink-rubbing of a specimen of writing by the calligrapher Ou-yang Hsün (A.D. 557-645).

5. Black-and-white drawings and calligraphy, with notes of appreciation by various scholars. Roll.

6. Pen-and-ink drawings of orchids, etc., with calligraphy. Roll.

7. Specimens of calligraphy by the artists Chao Mêng-fu (A.D. 1310) and Tung Ch’i-ch’ang (A.D. 1582).

8. An album of calligraphy by the Ming artist Tung Ch’i-ch’ang, with a specimen by the poet Lo Pin-wang (7th century).

9. A volume of specimens of Ming calligraphy.

10. A volume of specimens of calligraphy by 26 artists under the reigns of Shun Chih and K’ang Hsi (A.D. 1644-1722).

11. A volume of calligraphy on silk, by various artists.

12. The *P’i p’a hsing*, written in calligraphic style by the Ming artist Tung Ch’i-ch’ang.

13. A volume of calligraphy in cursive style by Liang Shan-chou.
14. Ch'in ting kuo shih to ch'ên lieh chuan, vol. 121 of the Manchu dynastic records, containing biographies.
15. Vol. II., ch. 6-10 of Ta ch'ing mu tsung i huang ti shêng hsün, Imperial edicts. In an embroidered case.
16. Ping ling fang lüeh, a collection of works on the military art. 6 parts, in brocaded cover.
17. Huo lung shên ch'i, a work on military weapons, etc. 3 parts, in brocaded cover.
18. Yü t'u pien lan, a geography of China, with maps. 4 vols.
19. Chien cha hui ts'un, an album of letters.
20. A collection of seal-impressions with decipherment. 4 vols.
21. A collection of seal-impressions. 2 vols.
22. An examination of the Japanese "Spirit Character," believed to be identical with the ancient "Tadpole Script" of China. Translated into Chinese by Shên Wên-ying, and revised by his brother Shên Wên-wei. 4°. Presented by Colonel R. H. Whitwell.
- Hebrew MSS.*—1. Gan Yêhōshūa', i.e. pt. 3 of the 'Ăšē Lēbhōnāh, a commentary on the section Nāshīm of 'Ēn Yisrā'el by Joshua Segri. Autograph copy, in an Italian cursive hand. XVIIth century. 4°.
2. Discourses of Israel Benjamin Basan. Autograph copy. 4 vols., in an Italian cursive hand. Copied A.D. 1740-93. Fol.
3. A vellum strip containing (1) a contract of marriage and (2) a bill of divorce, of A.D. 1065.
- Manchu and Chinese MS.*—1. Part of a collection of Imperial seals of the Ching dynasty with decipherment.
- Persian MS.*—1. A fragment of a Jewish-Persian commentary in the Book of Joshua. XIIth century. 12°.
- Syriac and Arabic MSS.*—1. A collection of letters of Yūsuf Odo, Chaldean Patriarch of Babylon. XIXth century.

L. D. BARNETT.

DEPARTMENT OF PRINTS AND DRAWINGS.

I.—*Arrangement and Cataloguing, &c.*

Arrangement.—212 drawings and 2,481 prints recently acquired have been incorporated with the divisions of the collection to which they severally belong.

82 books of drawings and prints have been placed.

Much preliminary work has been done on the engravings presented by Lady Lucas, before incorporating them with the main collection.

The whole of the select mezzotints of the Cheylesmore collection, now completely mounted in royal, imperial and atlas size, have been incorporated with the mounted select mezzotints of the old Museum collection, to complete the engravers' works. The arrangement is now alphabetical under engravers' names, and each case is arranged according to Chaloner Smith or other standard catalogues. An alphabetical list of the engravers represented in the select English mezzotints has been drawn up. The new references have been added to the Cheylesmore catalogue and the catalogue of select English mezzotints. The "royal" mezzotints now occupy 79 cases, the imperial 48, and the atlas 44. In addition, 15 mezzotints from the Cheylesmore collection have been incorporated with the series of early mezzotints. A selection has been made for special mounting from the mezzotints presented by Lady Lucas, and 32 mezzotints by S. W. Reynolds have been added to the special series. The work of indexing mezzotints placed with portraits and masters' works has been continued.

Catalogue references have been printed on the mounts of the drawings by Rembrandt and his school.

The whole engraved work of the Master E.S. has been collected and re-arranged according to the catalogue by Max Lehrs (Vol. II.), 19 engravings being re-mounted for this purpose. The work of this engraver is now placed in four solander cases following that which contains the engravings described in Lehrs, Vol. I. The work of arranging the engravings described in Vol. III. has been begun, but they are not yet fully mounted or lettered.

The work of re-arranging the engravings by Marcantonio Raimondi in the order of Bartsch has been completed, and references have been inserted in Bartsch, vol. XV.

The complete etched work of G. B. Tiepolo has been arranged according to the catalogue of De Vesme, and detailed instructions have been given for mounting it.

The reproductions of drawings by Clouet, Dumonstier and Lagneau have been re-arranged.

The works of J. Perrissin and J. Tortorel have been marked off in Robert-Dumesnil's catalogue.

References to engravings by W. Faithorne have been inserted in the catalogue by Fagan.

The collection of duplicate engravings available for loan has been thoroughly revised, many specimens being eliminated and

others added. A new systematic list of the loan collection, which will occupy 284 frames, has been drawn up and prepared for press.

Catalogues and Indexes.—Work has been continued on the catalogue of Dutch and Flemish Drawings, and study of the drawings by Rubens, Van Dyck and their followers is in progress.

Work has been continued on the catalogue of British engraved portraits, and the preparation of the fifth volume is advanced, with a view to printing some sheets in 1921.

The work of indexing foreign portraits contained in books of prints has been continued.

The work of inserting the new references to case, shelf and number in the indexes of artists has been completed, and is being methodically kept up as new acquisitions are placed.

Exhibition.—The gallery was re-opened to the public on July 15th, with a large and varied exhibition of prints and drawings, in which the principal features, apart from the Oriental section, were as follows:—174 drawings by old masters of the various foreign schools; 165 drawings by British artists, all acquired since 1914; 37 drawings of the War by Muirhead Bone; a first selection, 146 in number, of the engravings presented by Lady Lucas, chiefly of the British school, 1780–1820, and including many printed in colours; select prints illustrating the processes of engraving, and new acquisitions, both old and modern, including some early illustrated books, MSS. containing 15th-century engravings, and sketch books. In the autumn some portions of this exhibition were modified, 22 drawings of the work of the Egyptian Expeditionary Force being exhibited in place of those by Bone, while in connection with the Spanish Exhibition at Burlington House, 16 Spanish drawings and a large selection of etchings and lithographs by Goya were placed on view. Many changes have been made in the section of recent acquisitions.

Registration.—2,801 items have been entered in the Register of Acquisitions.

Stamping and Mounting.—6,271 drawings, prints, etc., recently acquired, have been impressed with the departmental stamp and references to the Register.

800 prints and drawings have been permanently mounted and lettered with artists' names and references to register and catalogues, and about 200 prints have been temporarily mounted for exhibition.

Numerous prints and drawings have been cleaned and mounted.

Students.—The total number of visitors admitted to the Print Room during the year ended December 31st, 1920, was 5,439. The Students' Room was re-opened under normal conditions on August 3rd.

Photographing.—291 applications were made for leave to photograph, and 1,192 photographs were taken.

II.—*Acquisitions.*

The total number of prints, drawings, books, &c., acquired during the year was 4,773, no acquisition of outstanding importance being included in this number, except the book of Paduan drawings presented by Lord Rosebery. The chief acquisitions are mentioned, as follows, under the various schools.

ITALIAN SCHOOL.

Drawings.

Anonymous, Paduan school, second half of 15th century. Book of 26 leaves of vellum with drawings in pen and ink on both sides, representing sacred and mythological subjects, scenes from contemporary court life, groups of children, and heads wearing fantastic helmets. This book, when discovered at Padua in the 18th century, was attributed for the first time to Mantegna, on the analogy of the "Tarocchi" wrongly ascribed to that artist. All the drawings were engraved in 1795 by Francesco Novelli. *Presented by the Earl of Rosebery, K.G., K.T.*

Anonymous, probably Sienese school, influenced by Raphael. The Virgin and Child with SS. Bernardine and Catherine of Siena; pen and ink. Richardson and Northwick collections.

Angolo (or Angeli), Battista (del Moro). Sketch for a decoration in fresco with the Resurrection and two Prophets. The Body of Christ beneath the Cross, with St. Catherine and a sainted bishop. Red and violet wash over black chalk upon yellow paper, heightened with white. Northwick collection.

Bassano, Jacopo. Sketch for a picture of Dives and Lazarus; black chalk.

Bernini, Giovanni Lorenzo. Allegorical composition, with figures of Time, Health, Medicine, etc.; pen and ink.

Canuti, Domenico Maria. Coronation of the Virgin; pen and bistre, and bistre wash.

Castello, Valerio. The Finding of Moses; pen and bistre. Northwick collection.

Caula, Sigismondo. A figure kneeling before a crucifix; wash, heightened with white. Prince de Ligne collection. *Presented by Prof. W. Bateson, F.R.S.*

Crespi, Daniele. Head of a negro; red chalk. Northwick collection.

Creti, Donato. The Virgin crowned by two angels; pen and ink. Northwick collection.

Feti, Domenico. A man being shaved by torchlight; pen and bistre, and bistre wash. Northwick collection.

Ricci, Sebastiano. The Adoration of the Shepherds, and two single figure studies; pen and sepia, with Indian ink wash. *Presented by Mr. F. R. Meatyard.*

Sacchi, Andrea. A draped figure standing, highly finished; red chalk. F. Abbott collection.

Tiarini, Alessandro. St. Lucy; black chalk. *Presented by F. Wellesley, Esq.*

E

Vanni, Francesco. Death of a monastic saint; pen and bistre, and bistre wash. Northwick collection.

Zampieri, Domenico. Study, over life size, for the head of St. Luke in the fresco of the Four Evangelists in S. Andrea della Valle, Rome; black chalk. Lawrence and Labouchere (Lord Taunton) collections.

Engravings.

Anonymous, Florentine, 15th century ("Fine Manner"). The Annunciation, from the Life of the Virgin and of Christ. Coloured, with ornamental border, having been used as part of an altar-piece (no example of a Florentine engraving thus treated was hitherto in the Museum). Poynter collection. *Presented by the National Art-Collections Fund, with the aid of a contribution from Prof. W. H. Woodward.*

Anonymous, School of Marcantonio. Twenty engravings of the ruins and antiquities of Rome.

Beatrizet, Nicolas. Laocoon, B. 90, first state; Castello di S. Angelo, B. 101, first state.

Francia, Jacopo (attributed to). Three boys. *Presented by G. T. Clough, Esq.*

Novelli, Francesco. Disegni del Mantegna; complete set of 52 plates and title after the drawings recently presented to the Department by the Earl of Rosebery. *Presented by Arthur Kay, Esq., through the National Art-Collections Fund.*

Woodcuts.

Campagnola, Domenico. Landscape, B. 5. *Presented by Y. Urushibara, Esq.*

Carpi, Ugo da. Hercules and the Nemean lion, chiaroscuro, B. 15; fine impression, printed in blue.

Hercules driving out discord, after B. Peruzzi, chiaroscuro, B. 12; early state.

Coriolano, Bartolommeo. St. Jerome, after Reni; fine impression in yellow.

Fantuzzi, Antonio (da Trento). The Martyrdom of SS. Peter and Paul, chiaroscuro; two impressions in different colours.

Zuccaro (after, by unknown engraver). Silenus, Pass. VI. 237. 72. *Presented by G. T. Clough, Esq.*

Prints arranged to illustrate the works of masters.

Cignaroli, G. B. Joseph and Potiphar's wife. Mezzotint by J. Clarot.

Errante, Giuseppe. "Quidquid Amor jussit." Mezzotint by G. Bigatti.

Reni, Guido. The Adoration of the Shepherds. Mezzotint by J. P. Pichler, from the picture in the Liechtenstein Gallery.

GERMAN SCHOOL.

Drawings.

Beham, Hans Sebald. Christ crowned with thorns. St. Peter denying Christ. Round pen and ink drawings, designs for glass painting, both dated 1522. Fairfax Murray collection.

Elsheimer, Adam. Jupiter and Mercury entertained by Philemon and Baucis; pen and ink, with Indian ink wash. Northwick collection.

Scholderer, Otto. Seven black chalk drawings, including a study for a portrait of the artist's wife, various figure subjects, and studies of still life. *Presented by J. V. Scholderer, Esq.*

Winterhalter, Franz Xaver. Four small portrait heads; red, black and white chalk.

Engravings.

Master of the Mount of Calvary. An armed knight, Lehrs 9 (the only impression known). *Transferred from the Department of Printed Books.*

Olmütz, Wenzel von. The Virgin with an apple, after Schongauer, Lehrs 13, first state (only two impressions were hitherto known, in two states). Curzon collection. *Presented by Major G. H. Anson.*

Schongauer, Martin (after). The Nativity; undescribed anonymous copy.

Beham, Hans Sebald. St. Bartholomew, P. 50, fourth state; St. Matthew, P. 52, first state; Justice, P. 134, third state. *Presented by Frank Madan, Esq.* "Night," P. 154, first state. Lanna and Heseltine collections. *Presented by T. D. Barlow, Esq.*

Monogrammist I. W., 1598. Ornament.

Clarot, Joseph. Hercules and Alcestis (after G. B. Cignaroli?). Mezzotint, before letters.

Clerck, Jacob Friedrich. Death of Semiramis, after J. Platzer. Mezzotint, before letters.

Hampeln, Carl von. Holy Family, after Jan van Hoeck. Mezzotint.

Kininger, V. G. The Holy Family, after Batoni. Mezzotint, before letters.

Pichler, J. P. Ferdinand IV, King of the Two Sicilies, after J. B. Lampi. Melchior Birkenstock. Baron von Sperges, after J. B. Lampi. Mezzotints; the first two proofs before letters.

Unterberger, Ignaz. The bust of Kaunitz crowned by Immortality. Allegory of Death and Eternity. Mezzotints.

Wrenk, Franz. The Magdalen in the desert, after O. Gentileschi. Caritas, after B. Franceschini. Mezzotints, before letters.

Etchings.

Scholderer, Otto. Ten, of various figure subjects, several in more than one state. *Presented by J. V. Scholderer, Esq.*

Welti, Albert. Hochzeitszug, Teufelsbrücke, Der Ehehafen, Glück und Unglück, and five other subjects, including two bookplates. *Presented by M. Albert J. Welti, son of the artist.*

Woodcuts.

Anonymous, 15th century. Four coloured illustrations from *Leben der Heiligen* (Winterteil), printed at Augsburg by Günther Zainer, 1471. (The first illustrated book printed at Augsburg; not in the British Museum.)

Beck, Leonhard. Twenty-three woodcuts (*six presented by Charles Shannon, Esq., R.A.*) from the series of Saints connected with the House of Habsburg; early impressions.

Cranach, Lucas. Eleven out of fourteen woodcuts of the Passion, B. 8, 9, 12-20, printed on vellum. *Presented by Major G. H. Anson.*

St. Mary Magdalen, B. 72; good impression, surrounded by a border. Heseltine collection.

Dürer, Albrecht (after). St. John swallowing the book; copy by H. Greff, 1502, with German text, completing a set of the copies in which this subject was wanting.

Traut, Wolf. St. Stephen between two bishops, from the Passau Missal of 1514; first state. E. Schultze and V. Mayer collections.

SCHOOLS OF THE NETHERLANDS.

Drawings.

Berchem, Nicolaes. Small oblong sketch-book of 158 leaves, with original parchment cover, containing drawings of animals and landscape in black and red chalk. Woodburn and Mayer de Rothschild collections. *Presented by the Earl of Rosebery, K.G., K.T.*

Bol, Ferdinand (attributed to). Study for a lady's portrait; red chalk drawing of the school of Rembrandt, about 1640.

Bol, Hans. The Lamentation beneath the Cross. Pen and ink and purple wash; signed and dated 1570.

Breughel, Pieter I. Avarice. Pen and bistre, signed and dated 1556. One of a series of the Seven Deadly Sins; "Avarice" was engraved in 1558 by P. Van der Heyden (Petrus a Merica). Denon and Fairfax Murray collections.

Claesz, Aert. Christ taken captive. Christ before Pilate. Round designs for glass-painting; pen and ink and Indian ink wash. Lawrence, Woodburn and F. Abbott collections.

Koninck, Philips de. Two studies of a ragged man. Pen and sepia. Northwick collection.

Lingelbach, Johannes. A Levantine or Italian sea-port. signed. Pen and ink and water-colours. Northwick collection. Scene in a harbour; a Chinaman and a man seated, smoking. Black chalk and bistre wash.

Maes, Nicolaes. Cottagers entertaining a satyr. Pen and sepia and sepia wash. Richardson, Reynolds and Northwick collections.

Momper, Joos de. Harbour with shipping. Black chalk, pen and ink, and indigo wash. Fairfax Murray collection.

Visscher, Cornelis. Half-length portrait of a lady, 1649; lead point on vellum. *Presented by F. J. Wellesley, Esq.*

Vos, Paulus de (by or after). A woman selling fruit and vegetables. Pen and ink and wash.

Engravings.

Muntinck, Adriaen. Six prints of ornament with fruit.

Valck, Gerard. Series of the Twelve Months, each with four verses in Dutch and French.

Etchings.

Bauer, Marius. Eleven etchings of Oriental subjects, scenes in Cairo, Stamboul and Jerusalem.

Nieuwenkamp, W. O. J. Constantine. Verona. *Presented by J. de Graaff, Esq.* The Fisherman. Indian bullock cart. Death and the Fisherman. *Presented by the Artist.* The picturesque Sluice. Arab quarter at Java.

Woodcuts.

Key, Adriaen Thomas. The death of Absalom, chiaroscuro. Nieuwenkamp, W. O. J. Verona. Mill at Bruges. *Presented by the Artist.*

Prints arranged to illustrate the works of Masters.

Rubens, P. P. Lion and boar hunt; etched by W. P. van Leeuw.

FRENCH SCHOOL.

Drawings.

Carrière, Eugène. Mother and child; black chalk. *Presented by C. Dodgson, Esq., C.B.E.*

Degas, Edgar. Horse galloping; slight sketch in red chalk. *Presented by C. Dodgson, Esq., C.B.E.* Study of nude woman; black chalk. Study of head of jockey; black chalk. *Bought from the H. L. Florence fund.*

Géricault, J. L. A. Théodore. Woman standing with her arms above her head; brush drawing in Indian ink on brown paper, heightened with white. A fight between soldiers and civilians; pencil and red chalk. Both from the His de la Salle and Fairfax Murray collections. *Bought from the H. L. Florence fund.*

Leu, Thomas de. Portrait of Étienne Tabourot, poet (Seigneur des Accords); black chalk. Fontette and Northwick collections.

Marilhat, Prosper. View of Toledo; pen and ink.

Matisse, Henri. Study of the nude; black chalk. *Presented by R. E. A. Wilson, Esq.*

Miller, Jean-François. The good Samaritan; pen and ink. *Presented by Denys Hague, Esq.*

Pils, Isidore A. A. Study of a Zouave trumpeter; black and red chalk. His de la Salle and Fairfax Murray collections.

Pissarro, Camille. Landscape sketch at Eragny, 1890; water-colour. *Presented by Charles Ricketts, Esq.* Three studies of peasant women; pastel. Woman seen from the back; charcoal and pastel. *Purchased from the H. L. Florence fund.*

Ribot, Théodule. Four pencil drawings of boys. *Purchased from the H. L. Florence fund.*

Rousseau, Théodore. Three sketches of trees and cottages; pen and ink. J. Staats Forbes collection.

St. Aubin, Augustin de. Nine small portrait drawings; black and red chalk. W. Basevi Sanders and Fairfax Murray collections.

St. Aubin, Gabriel de. Portrait of Simon-Nicolas-Henri Linguet; black chalk. Northwick collection.

Thomon, Thomas de. Architectural composition; palatial buildings seen through an arch; pen and ink and water-colour, signed and dated 1785. *Purchased from the H. L. Florence fund.*

Toulouse-Lautrec, Henri de. Head of a woman; blue chalk.

Engravings.

Alix, P. M. La promenade du Soir, after Demarne; aquatint, printed in colours. Phipson collection.

Daullé, Jean. Louis Cazeau de Nestier (equestrian portrait), after Delarue; unfinished proof.

Levachez. Napoléon I; large equestrian portrait, after Carle Vernet; aquatint, printed in colours. Phipson collection.

Morel. La promenade du Matin, after Demarne; aquatint, printed in colours. Phipson collection.

Ridé. Louis XVI, after Benard; aquatint, printed in colours.

Sergent-Marceau, A. F. Clovis I^{er}; aquatint, printed in colours. Louis Philippe, Duc d'Orléans; printed in two colours. *Presented by H. W. B. Joseph, Esq.* Jean Jouvenet; aquatint, printed in colours.

Etchings.

Bracquemond, Félix. Twenty-five decorative etchings of birds, fish, flowers, etc., intended for transfer to china and known as the "Service de table de la Maison Rousseau" (Beraldi 530-554).

Bresdin, Rodolphe. Repos de la Sainte Famille.

Heyman, Charles. Train de Marchandise. *Presented by John Murray, Esq., M.P.*

Meryon, Charles. Le Ministère de la Marine, Paris (W. 26, L.D. 45 I); the rare first state, dated in Meryon's writing, from the Wasset and Macgeorge collections. L'ancien Louvre (W. 60, L.D. 53 I); the rare first state, dated in Meryon's writing, from the Macgeorge collection.

Pissarro, Camille. Ten etchings (recent impressions, 1920), including figure subjects, landscapes and a portrait of Cézanne. *Presented by the Widow and Sons of the Artist.*

Lithographs.

Anquetin, Louis. Les Courses; printed in colours. *Presented by C. Dodgson, Esq., C.B.E.*

Bresdin, Rodolphe. La Comédie de la Mort.

Courbet, Gustave. L'Apôtre Jean Journet.

Pissarro, Camille. Gardeuse d'oies. Baigneuse le soir. Groupe de baigneuses le soir. Théorie de baigneuses. Baigneuses (L'estampe originale). *Presented by C. Ricketts, Esq.*

Toulouse-Lautrec, H. de. Les Vieilles Histoires. Cover for L'estampe originale. Désastres de la guerre. Yvette Guilbert, 1898 (set of seven, with frontispiece and cover). Treize Lithographies: Tirage spécial pour les XX (two impressions of each subject). *Presented by C. Dodgson, Esq., C.B.E.*

Woodcuts.

Bischoff, Henri. Seven of various subjects, coloured by hand. *Presented by Oskar Reinhart, Esq.* Susanna and the elders; coloured by hand.

Busset, Maurice. Le Vieux Pays d'Auvergne; En Avion. Two albums of woodcuts, partly printed in colours. *Presented by the Artist.*

Carlègle, F. Copa, with an extra set of proofs of the illustrations. *Presented by C. Dodgson, Esq., C.B.E.*

Morin-Jean. Suite domestique en dix tableaux. *Presented by C. Dodgson, Esq., C.B.E.*

Paul, Hermann. Chansons de France; set of six ballad sheets with woodcuts. *Presented by C. Dodgson, Esq., C.B.E.*

Prints arranged to illustrate the works of masters.

Decamps, Alexandre. Episode de la défaite des Cimbres. Samson turning the mill. Lithographs by Eugène Le Roux. *Presented by the Hon. Walter James.*

SPANISH SCHOOL.

Drawings.

Cano, Alonso. Four angels; pen and bistre and bistre wash. A Miracle of St. Anthony of Padua; pen and bistre and bistre wash.

Carducho, Vincenzo. Christ on the Cross; black chalk.

Roelas, Juan de las. The Infant Christ; pen and bistre and indigo wash.

Zurbaran, Francisco. A saint in glory in the clouds; red chalk on blue paper.

All of the above are from the Northwick collection.

GREEK SCHOOL.

Zarokilli, Nicholas Panagioti (Nikolaki). Sixteen dry point portraits, some in more than one state, including those of H.M. the Queen of Spain, the Infantas Maria Christina and Beatriz, the Grand Duchess Alexander Mikhailovitch, Feodor Alexandrovitch, André Alexandrovitch, the Grand Duchess Marie Paulovna, Prince and Princess Youssoupoff, the Archbishop of Canterbury, and others; also a study of the nude, "Biblis," in two states. *Presented by the Artist.*

AMERICAN SCHOOL.

Drawing.

Whistler, J. A. McN. The Thames at Battersea; water-colour (monochrome), from the collection of Sir Wm. Eden, Bart. *Presented by Miss Hague.*

Etchings.

Brown, Benjamin C. Six soft-ground etchings printed in colours (views of Venice and California).

Whistler, J. A. McN. Jo's bent head; dry point, Kennedy 78 II. *Presented by Mortimer Menpes, Esq.* Boats, Dordrecht, Kennedy 244. *Presented by C. Dodgson, Esq., C.B.E.*

Lithographs.

Brown, Bolton. Thirty-nine, chiefly of landscape subjects. *Presented by the Artist.*

Oakley, Thornton. Fifteen lithographs of shipbuilding in Hog Island shipyard. *Presented by the Artist.*

FOREIGN ARTISTS RESIDENT IN ENGLAND.

Drawings.

Brandoin, Michel-Vincent (wrongly called "Charles" by some authorities). North view and West view of the Castle of Grignan in Provence, a pair; pen and ink and water-colour. *Presented by A. B. Anderson, Esq.*

Goupy, Joseph. Sir Robert Walpole, K.G., addressing a meeting of the Cabinet (ca. 1730-40); gouache. *Presented by the National Art-Collections Fund.*

Griffier, Jan. Mountain landscape with travellers; black chalk and sepia wash on blue paper. Northwick collection.

Loutherbourg, P. J. de, R.A. Cattle and a boy piping, signed and dated 1766; pen and sepia. Northwick collection.

Roubiliac, Louis-François. Design for a statue of a physician, emblems of Æsculapius; pen and ink. Fairfax Murray collection. *Presented by Mr. Frank T. Sabin.*

Van Dyck, Anthony. Study for Venus rising from the sea; on the back, sketch of figures dancing, both suggested by compositions of Rubens; pen and ink. Fairfax Murray collection.

Zoffany, John, R.A. Two designs for the decoration of a ceiling with Apollo driving the Chariot of the Sun, and a third design with nude figures; black and white chalk. From the collection of Sir Frederick Gore-Ouseley.

Engravings.

Geminus, Thomas. Two engravings of arabesque ornament (duplicate) from the book "Morysse and Damashin renewed and increased," London, 1548, of which the only copy known (26 leaves, omitting these two duplicates and title page) is in the Landesmuseum at Münster in Westphalia. These are the only line engravings at present known to have been published in England during the reign of Edward VI.

Schiavonetti, Luigi. Archduke Charles of Austria, after Kellerhoven; stipple, unfinished proof.

Swertner, John. View of London from the North; coloured aquatint, published at Bristol, 1802.

BRITISH SCHOOL.

Drawings.

Barlow, Francis. Ostrich, peacock and other birds; pen and ink and Indian-ink wash; etched by John Griffier.

Callow, William. View of a lake; water-colour, signed and dated 1834. Poynter collection.

Cameron, D. Y., R.A. The Hills of Morvern; water-colour (monochrome). *Presented by the Artist.*

Crane, Walter. Una and the Lion; unpublished illustration to Spenser's "Faërie Queene"; pen and ink.

Evershed, Arthur. A book containing 27 drawings in gold and silver point. *Presented by Mrs. Evershed.*

Gill, Eric. The original designs (1914) for the Stations of the Cross in Westminster Cathedral; pen and ink, enriched with water-colour and gold, and heightened with white. *Presented by the Contemporary Art Society.*

Gooden, James Chisholm. Six water-colour sketches, chiefly of marine subjects. *Presented by Arthur Phillips, Esq., and J. Walters, Esq.*

Hunt, William Henry. View in a park; water-colour, from the collections of Dr. Thomas Monro and Lord Northwick. *Presented by Captain E. G. Spencer-Churchill.* Sawyers working at Bushey, with Dr. Monro on horseback as a spectator. Northwick collection.

Lessore, Thérèse. Stalls, the Euston Palace; pen and ink and water-colour. *Presented by J. L. Rayner, Esq.*

MacColl, D. S. The Fishers' Church, Honfleur; water-colour. Dordrecht; pencil. *Presented by the Artist.*

May, Phil. Thirty-one humorous drawings; chiefly pen and ink, but including specimens in pencil and water-colour. *Presented by Arthur Morrison, Esq.*

Nasmyth, Patrick. Cottages near Maidenhead; black chalk. Northwick collection.

Nollekens, Joseph, R.A. Six sketches for monuments, including that of Jonathan Shipley, Bishop of St. Asaph. Indian ink and water-colour.

Parry, John Orlando. The twelfth passenger; black, red and white chalk, signed and dated 1865. *Presented by E. E. Leggatt, Esq.*

Paton, Frank. Four studies of dogs, ducklings and chickens; water-colour and body colour on tinted papers. *Presented by Mrs. Paton.*

Reynolds, Sir Joshua, P.R.A. Four sheets of pen and sepia sketches of portraits after Sir J. Kneller, including those of Edward and Lady Elizabeth Southwell. Northwick collection.

Riviere, Briton, R.A. A wolf; charcoal and wash; study for the picture "Væ victis!" Three studies of a collie dog. Studies of wolves and wolves' heads; charcoal. *Presented by Mrs. Briton Riviere.*

Lithographs.

Belleruche, Albert. Woman seated in a chair. *Presented by C. Dodgson, Esq., C.B.E.*

Conder, Charles. Béatrix et Conti; unpublished and very rare, only two other impressions being known. *Presented by C. Dodgson, Esq., C.B.E.*

F

Nasmyth, James. Seven pen lithographs, minutely finished, of the years 1854-55.

Rothenstein, William. Twelve portraits of Americans. *Presented by the Artist.*

Woodcuts.

Batten, John Dickson. Book-plate of J. D. Batten, 1894 (three impressions). Book-plate of J. Platt (two impressions). The Mermaid, 1894 (three impressions). Eve, 1895 (ten impressions, from separate blocks, combinations of blocks and trial proofs, the finished work in different colour schemes). The Harpies (outline and colour print). Constance (trial proof and finished colour print). The Tiger (finished colour print). *Presented by the Artist.*

Fletcher, Frank Morley. Eve; colour print (1895).

Gardner, W. Biscombe. George Meredith, after Watts, and two subjects after J. W. Edwards and F. Wilfred Lawson. *Presented by Mrs. Gardner.*

Giles, William. Midsummer Night; colour print from six relief blocks of metal. *Presented by C. Dodgson, Esq., C.B.E.*

Mackie, Charles Hodge. Five progress proofs of the colour-printed woodcut, "Picardy Poplars." *Presented by Mrs. Mackie.*

Moore, Thomas Sturge. Book-plates of Mrs. W. B. Yeats, W. S. Kennedy (two states), and Sibyl Pyc. *Presented by the Artist.*

Pilkington, Margaret. Six original woodcuts (hens, geese, goats, mountains), 1916-19. *Presented by the Artist.*

Platt, John Edgar. Snow in summer; colour print. *Presented by the Artist.*

Rooke, Noel. The Edge of the Wood (in black and in colours). *Presented by the Artist.*

Soper, George. The Shepherd. The Hay Cart. Introduction. *Presented by the Artist.*

Prints arranged to illustrate the Works of Masters.

Herring, J. F. The Return from the Derby; coloured aquatint by J. Harris, 1862.

Landseer, Sir Edwin, R.A. Fifteen engravings by T. Landseer and others, hitherto wanting in the collection of Landseer's engraved work.

PORTRAITS.

The 1,383 English and 354 foreign portraits acquired during the year include 1,591 portraits selected from the duplicates in a large collection of small engraved portraits, formed by the late Mr. John Doyle Fry; these duplicates were presented by his son, Mr. H. R. Fry. They also include 11 recently issued portraits of members of the Grillion Club (*presented by the Rt. Hon. Sir George H. Murray, G.C.B.*), 61 foreign portraits, chiefly French, of the Revolution period (*presented by H. W. B. Joseph, Esq.*),

a number of Austrian and German mezzotints, and a large etching by Ferdinand Schmutzer of the Archduke Francis Ferdinand (d. 1914).

BOOK-PLATES.

These include a collection of 71, in proof state, by the Spanish artist, A. de Riquer (*presented by Messrs. Bromhead and Cutts*), six by Ludovic Rodo (*presented by the Artist*), and a few American specimens, by W. F. Hopson and others.

COLLECTIONS AND SETS.

A collection, formed by the engraver's daughter, of 148 mezzotints and line engravings by Charles Algernon Tomkins (1821-1905), pupil of Henry Quilley. *Presented by W. M. Newton, Esq.*

The first eight "Jahresmappen" (1898-1904) of the Gesellschaft für Vervielfältigende Kunst, Vienna, containing 69 modern engravings, etchings, lithographs and woodcuts of various schools, but chiefly Austrian and German. *Presented by Campbell Dodgson, Esq., C.B.E.*

BOOKS OF PRINTS AND BOOKS OF REFERENCE.

Leonardo da Vinci. Quaderni d'Anatomia, 6 vol., Christiania, 1911-16.

J. Veth and S. Muller. A. Dürer's Niederländische Reise, 2 vol., 1918.

G. Glück. Niederländische Gemälde aus der Sammlung des Herrn Dr. L. Lilienfeld in Wien, 1917. *Presented by Dr. Lilienfeld.*

Gustav Klimt. Fünf-und-Zwanzig Handzeichnungen. Vienna, 1920. *Presented by C. Dodgson, Esq., C.B.E.*

J. Meder. Die Handzeichnung, ihre Technik und Entwicklung, Vienna, 1919. *Presented by Victor Koch, Esq.*

G. Keller. Die drei gerechten Kammacher (six etchings by A. Cossmann). Vienna, 1915.

Le Nouvel Imagier. Published by La Société de la gravure sur bois originale. Paris, 1914.

P. de Nolhac and L. Demonts. Quarante Dessins de Claude Lorrain. Paris, 1920.

Adam E. M. Paff. Etchings and dry-points by F. W. Benson, vol. 2, 1919. *Presented by the Author.*

C. Dodgson. Catalogue of the etchings of Augustus John, 1920. *Presented by Messrs. Charles Chenil & Co., Ltd.*

L. Delteil. Le Peintre-Graveur illustré. Tome 11, 12. Toulouse-Lautrec. *Presented by M. Loys Delteil.*

Campbell Dodgson.

SUB-DEPARTMENT OF ORIENTAL PRINTS AND DRAWINGS.

I.—*Arrangement and Cataloguing, &c.*

The framed Chinese and Japanese pictures intended for permanent exhibition at the western end of the exhibition gallery were re-hung, and a series of Chinese paintings (including a number of Buddhist paintings from the Stein collection), with a selection of Indian drawings, were arranged in cases and on screens for the re-opening of the gallery on July 15th. This exhibition remained on view till about the end of November.

On December 3rd a new exhibition of Japanese Colour-Prints was opened to the public. This is intended to be the first of a series, to be held in successive winters, illustrating the various phases of the Ukiyo-yé School and the whole history of the colour-print in Japan. A Guide to this exhibition has been printed and is on sale.

The entire collection of Japanese paintings has been re-arranged. The Morrison collection has been incorporated with the older Museum Series (chiefly from the Anderson collection) and the whole arranged chronologically within the several schools, and continuously numbered. The series now contains between three and four thousand items. A list of the paintings, in their new order, with the subjects and the artists' names, has been written in duplicate. The necessary re-labelling has been done.

The Index of Chinese Artists has been revised for publication. New matter has been incorporated, and over three hundred cross-references have been added.

The reproductions of Chinese and Japanese paintings have been arranged in twelve portfolios.

A case-list of the Oriental collections has been prepared.

Twelve albums containing Indian and Persian drawings and paintings have been transferred from the Department of Oriental Printed Books and MSS. to the Sub-Department. Most of these, being of a miscellaneous character, are in process of being broken up, so that the drawings may be separately mounted and arranged according to school and period. Ten drawings detached from albums remaining in the Library have also been transferred.

A small selection of duplicate Japanese Colour-Prints has been mounted and framed, to form a loan collection.

All corrections of references in the indexes, rendered necessary by recent re-arrangements, have been made.

Three books of reference, recently acquired, have been catalogued, placed and labelled.

The work of entering corrections and additions in an interleaved copy of the Catalogue of Japanese Woodcuts has been begun.

A record has been begun, in slip form, of all Japanese woodcuts acquired since the printing of the Catalogue.

Three hundred and thirty-two prints, paintings, etc., have been incorporated with the divisions of the collection to which they belong.

Registration.—651 items have been entered in the Register of Acquisitions.

Stamping and mounting.—1,019 prints, paintings, etc., recently acquired, have been impressed with the departmental stamp and references to the Register.

Two large paintings from the Stein collection have been mounted with silk borders.

One Chinese painting has been mounted and five repaired.

Two Persian drawings and one Indian drawing have been mounted on sunk mounts.

Two hundred and six Japanese prints have been mounted on sunk mounts.

Fifty Persian and Indian drawings have been removed from albums and backed.

II.—*Acquisitions.*

The total number of paintings, prints, etc., acquired during the year was 878, of which the following are the most important:—

CHINESE.

Paintings.

Lang Shih-ning (*i.e.*, the Jesuit Giuseppe Castiglione). Hunting scene. Kakemono, painted in colours.

Lêng Mei. A lady at a window. Kakemono, painted in colours.

Wu Li. Twelve landscape designs in an album, made with a "fire pencil" (heated stylus).

Woodcuts.

Anonymous. "All Nations Coming to Court." Printed in colours.

JAPANESE.

Paintings.

Mitsuoki, Tosa. Five makimono illustrating the Isé Monogatari. Painted in colours. *Presented by G. B. Dodwell, Esq.*

Sanraku, Kanō, attributed to. Ch'ao Fu and Hsü Yu: two-fold screen, painted in colours and gold.

Takanobu, after. Portrait of Yoritomo, the first Shōgun. A fine and very ancient copy after the portrait of Yoritomo preserved in Japan and attributed to Takanobu. Kakemono, painted in colours. *Purchased with the aid of the National Art-Collections Fund and a contribution from G. Eumorfopoulos, Esq.*

Yūshō, Kaihoku. Birds on a willow in winter. Kakemono painted in ink.

Woodcuts.

Bunchō. Actor playing in a woman's part. *Presented by R. N. Shaw, Esq.*

Fujinobu. A man talking to a girl. *Presented by R. N. Shaw, Esq.*

Hiroshige. White heron among reeds. *Presented by R. N. Shaw, Esq.*

Hokusai. Long surimono; Yoshitsuné and the princess. Men dragging nets; Hundred Poems series, No. 3. *Presented by R. N. Shaw, Esq.* Three prints from the Hundred Poems series, Nos. 5, 37 and 97.

Jakuchiū. Set of six prints of birds and flowers on black ground.

Kiyonaga. Girls on a verandah by the sea. Girls and children near a temple gateway; diptych. *Presented by R. N. Shaw, Esq.* Evening by the sea.

Kiyoshige. Michizane holding plum-blossom. *Presented by R. N. Shaw, Esq.*

Koriūsai. Tea-house scene.

Riūkoku. Girl with scroll.

Shunchō. Girls and cat.

Utamaro. Girl painting her lips. Girl tying a poem to a blossoming tree. *Presented by R. N. Shaw, Esq.* An actor in a woman's part (very early print). Two lovers under an umbrella.

Yeisui. Three girls. *Presented by R. N. Shaw, Esq.* Lovers eloping.

Book of Woodcut Designs.

Minchō Seidō Gwayen. Printed in colours after Shunboku, 2 vol., 1746. The first edition, of which no other copy appears to be known, of one of the earliest examples of colour printing in Japan. *Presented by Arthur Morrison, Esq.*

KOREAN.

The God of the North; The God of the South. Two large paintings in colours.

INDIAN.

Paintings and Drawings.

The paintings and drawings, approaching 500 in number, acquired by transference from the Department of Oriental Printed Books and MSS., make a very important addition to the Indian collections. They are mostly of the Mogul School. A few are of the time of Akbar, but the finest paintings are of the time of Jahāngir and Shāh Jahān, and include signed examples of the work of Hūnhār, Chitarman, Anūpchatar, Govardhan, Muhammad Nādir and other distinguished artists of the 17th century.

Group of young prince and maidens; water-colour copy by Mukul Dey after one of the most ancient of the Ajantā Frescoes.

Kangra School. Lovers on a terrace. *Presented by Ernest Debenham, Esq.*

SUB-DEPARTMENT OF ORIENTAL PRINTS AND DRAWINGS. 47

PERSIAN.

About 50 drawings and paintings, mostly of the 16th and 17th centuries. *Transferred from the Department of Oriental Printed Books and MSS.*

TIBETAN.

Mahākāla. Banner painting, in colours. *Presented by Arthur Morrison, Esq.*

BOOKS OF PRINTS AND BOOKS OF REFERENCE.

Hiroshige Memorial Exhibition, Tokyo, 1918. *Presented by Laurence Binyon, Esq.*

Nakamura. Catalogue of National Treasures in Japan. *Presented by H. F. Visser, Esq.*

Liang Chang-Chu Collection: illustrated catalogue. *Presented by Laurence Binyon, Esq.*

Otani, Count. Sai-iki Kōko Zufu; Central Asian Antiquities. 2 vol. *Presented by Sei-ichi Taki, Esq.*

Petrucci, Raphael. Encyclopédie de la Peinture Chinoise; traduction et commentaires.

Streelneek, F. A. Chinese Pictorial Art (Streelneek collection). *Presented by E. A. Streelneek, Esq.*

Laurence Binyon.

DEPARTMENT OF EGYPTIAN AND ASSYRIAN ANTIQUITIES.

I.—*Arrangement, Cataloguing, &c.*

EGYPTIAN ANTIQUITIES:—

The general re-arrangement of the Egyptian Galleries and Vestibule has been continued, and a number of portrait figures, statues, etc., have been incorporated and provided with pedestals or plinths, and wooden cases. The washing and cleansing of the hard stone statues have been continued.

The predynastic pottery and other antiquities, and the objects of the Archaic and Early Dynastic Periods have been removed from the cases on the north-west staircase and re-arranged in the Sixth Egyptian Room. Descriptive labels have been attached to the painted casts in the Vestibule and in the Fifth Egyptian Room.

Metal tubes, with perforated ends and filled with cotton wool, have been fixed in all the wall-cases for the purposes of ventilation, and holes have been drilled in the glass coverings of painted frescoes to prevent condensation of moisture.

The collections of mummies and coffins and large funerary furniture have been arranged in Egyptian Rooms I.-III., which were re-opened to the public on May 24th (Whit Monday). The Fourth Egyptian Room, containing the smaller funerary objects, scarabs, shabti figures, jewellery, etc., was re-opened to the public on July 15th, and the Fifth and Sixth Egyptian Rooms on December 5th.

The Egyptian, Nubian and Meroitic pottery and earthenware objects have been grouped and arranged, each object having a distinguishing letter painted upon it.

A selection from the funerary, historical, legal, and magical papyri in the hieroglyphic, hieratic and demotic characters has been made and exhibited in the Sixth Egyptian Room.

The collection of Royal scarabs has been amplified and classified and re-arranged in chronological order; and one hundred and ninety-seven scarabs have been re-mounted.

Ten frames for miscellaneous objects have been made; several hundreds of feet of mahogany slips for labels have been prepared for ebonizing; fifty-eight pedestals for mummies and coffins and seventy-seven bearers have been made; three hundred dividing slips for scarabs and twenty-three for pottery have been prepared and either distempered or covered with cloth; one box and a number of stands for boats have been made; new shelves and bearers have been prepared and fixed in Egyptian Rooms IV.-VI.; five coffins have been re-dowelled, and a large house-door has been removed from the Vestibule and fixed in Room V. Three hundred and forty-three figures of gods have been refixed.

About five hundred objects have had numbers painted upon them; one hundred and ninety-one labels have been written and painted and fixed; four hundred and thirty-one objects have been

registered; ten inscriptions have been copied and several copies revised, and the plates for Part VI. of Egyptian Texts have been checked over.

A set of twenty-two postcards with coloured representations of coffins and mummies has been printed, descriptive labels have been written for them, and short introductions dealing with the Book of the Dead and mummification have been written and printed.

A monograph on the Book of the Dead has been written.

Three hundred and forty-four slips for the *Catalogue of Scarabs* have been written.

ASSYRIAN ANTIQUITIES:—

The general re-arrangement of the Babylonian Room and the Phœnician and Semitic Rooms in the Second Northern Gallery has been completed, and the Rooms were re-opened to the public on July 15th.

The collection of Sumerian and early Babylonian antiquities has been amplified, and all objects bought during the year have been incorporated.

Thirty-one cases of antiquities have been brought from the Docks to the Museum, and their contents unpacked and examined.

The collection of Hittite sculptures has been brought upstairs, and the bas-reliefs and sculptures have been placed in the wall-cases on the North-West Staircase.

Twenty Babylonian bricks, twelve miscellaneous Babylonian objects (ovoids, plaques, etc.), one seated figure, and one Kûfi gravestone, have been mounted on stone plinths; eight table-cases have been covered with cloth.

Thirty tablets, twenty figures, thirty-one terra-cotta vases, twenty-one bowls and dishes, etc., have been repaired, and five tablets have been cleaned.

The restoration of the bronze masks from the heads of animals from Babylonia has been continued, and the bitumen cores of the masks have been treated with preservative solutions. Four boxes of human and animal bones have been treated.

The remainder of the cases of Babylonian antiquities from the Postal Tube have been unpacked, and their contents, about fifty thousand tablets, have been checked, and their glass-topped boxes cleaned and repaired.

Seven thousand seven hundred objects have been numbered; fifteen hundred and forty-three objects have been registered; two hundred and ten texts have been copied; the wall-cases in the Babylonian Room have been labelled.

An introduction has been written for Part XXXV. of "Cuneiform Texts"; an Index to Parts XXVI.-XXXV. of "Cuneiform Texts" has been compiled and printed; an Introduction to "Hittite Texts" has been written and printed; and a list of signs and personal names in the Cappadocian tablets has been prepared.

A monograph on the Deluge Tablet and the Epic of Gilgamish has been written.

Students.—About two thousand and five hundred visits have been made to the Department by students, dealers, and soldiers from Egypt and Mesopotamia, and descriptions of four hundred and eighty-four objects brought by them for examination have been written.

Publications:—

- The Book of the Dead. An illustrated monograph.
- The Babylonian Story of the Deluge. An illustrated monograph.
- Cuneiform Inscriptions. Part XXXV.
- Hittite Texts in the Cuneiform Character.
- Twenty-two coloured postcards of typical mummies and coffins.

II.—*Acquisitions.*

I.—EGYPTIAN:—

- I. 1–14. Ushabtiu figures in wood, stone, faïence, from the XIIth to the XXVIth dynasty.
15. Bronze ægis of Khnemu-Amen. XXIIInd dynasty. A rare object.
16. Bronze libation bucket with figures of gods in relief. XXVIth dynasty.
17. Bronze plate bearing the prenomen of Thothmes IV.
18. Scale from a suit of bronze armour.
19. Bronze base of a figure of Pa-nefer-ānh.
20. Model of a hoe, in wood.
21. Model of a cradle for moving stones, in wood.
- 22, 23. Two wax figures made to be burnt in working magic. XXIIInd dynasty.
24. Terra-cotta head of Apis, late period.
25. Terra-cotta vase handle, late period.
- 26–31. Six porcelain handles of sistra. XXVIth dynasty.
- 32–45. A group of objects, scarabs, figures of animals, &c. VIth to XIIth dynasty.
- 46–80. A miscellaneous collection of scarabs, chiefly of the XVIIIth dynasty.
- 81–99. A miscellaneous collection of scarabs, &c. XIXth to XXVIIth dynasty.
- 100–104. Gold ægis of Bast and four small silver objects. XIIth dynasty.
105. Faïence disc with the prenomen Uah-ab-Rā. XXVIth dynasty.
106. Portion of sistrum with a figure of Sesheta.
107. Head of Ptah-Seker.
- 108, 109. Figure of Hāpi and a blue and green fragment.
110. Vase with cartouche in a bronze stand.
111. Marble vessel of Ptah-mes, high priest of Memphis.
112. Fragment of marble vase of Thothmes II.
- 113–117. Bone figures of a lion, a man, and three women.
- 118–125. Bone die, and seven bone objects.
- 126–130. Five objects—use unknown.
- 131–136. Six fragments inscribed with royal names.

DEPARTMENT OF EGYPTIAN AND ASSYRIAN ANTIQUITIES. 51

- 137-138. Wooden box and arm of a figure.
 139. Model of a woman in terra-cotta.
 140. Alabaster head of a duck, painted.
 141. Circular object, drill (?).
 142-194. A collection of 53 glass objects. XVIIIth dynasty to the Roman Period.
 195-254. A miscellaneous collection of objects in porcelain, stone, &c., of various periods.
 255, 256. Two Gnostic gems with figures of Abrasax.
 257. Modern imitation of a Gnostic gem.
 258. A draughtsman in the form of Khnemu-Horus.
 259. A fragment of blue colour.
- II. A codex of the Saïte Recension of the Book of the Dead, about 18 feet 6 inches in length. The text of this very valuable papyrus is written in a small but beautifully clear and distinct hand, and is illustrated by a series of vignettes which are executed in great detail and with great delicacy. This papyrus contains 165 chapters, which run in the order of those found in the Turin Papyrus published by Lepsius, and was probably written in the early years of the Roman Period. It is the fullest and most perfect of all the known codices of the Saïte Recension written in the hieratic character.
- II.—ASSYRIAN :—
- I. 1. A copy of an inscription of Sin-Gashid concerning his palace.
 2-5. Four Sumerian texts of the early period.
 6, 7. Two Babylonian contracts.
 8-25. Eighteen letters and deeds dating from the time of the 1st dynasty of Ur, about B.C. 2400.
 26-45. Twenty fragments of Cappadocian tablets, many of which bear fine and complete impressions of seal cylinders. About B.C. 2200.
- II. 1. Inscription of Gimil-Sin, King of Ur, B.C. 2300, recording the building of a temple to the god of Vmma.
 2. Cone of Libit-Ishtar, with a Semitic inscription. A rare and valuable object, as most of his cones are inscribed in Sumerian.
 3. Brick of Gudea, governor of Lagash.
 4. Votive offering, cake (?).
 6, 7. Archaic tablets—Accounts, list of property, cattle, grain, &c.
 8, 9. Clay divining bowl and a broken case tablet.
 10. Babylonian letter.
 11. Receipt for cattle. Dynasty of Ur.
- III. 1. Brick bearing the name and titles of Rammanu-Nirari I., son of Arik-dên-ilu, King of Assyria, B.C. 1325.

- IV. 1. Foundation deposit tablet of Eannatum, King of Lagash (Tall Loh), giving the names and titles of the king and Akurgal, and recording the sinking of a well in the temple of Ningirsu.
- V. 1, 2. Two tablets inscribed with mathematical calculations. About B.C. 2400.
- 3-22. Twenty commercial tablets of the 1st dynasty of Babylon.
- 23-172. A collection of tablets inscribed with legal texts, and dating from the early part of the Persian Period.
- 173-252. Eighty well-written tablets dealing with loans, contracts, &c. Persian Period.
- 253-275. A collection of 23 tablets which were made during the period that followed immediately after the fall of Alexander's Empire. The tablets are well written in the Babylonian character, and are of unusual thickness. The seal impressions on some of them are of peculiar interest.
- VI. 1-151. A collection of commercial documents and lists written during the late Babylonian and Persian Periods; two scribe's exercise tablets, and fragments of two literary texts. The dated tablets bear the names of Shamash-shum-ukin, Nabopolassar, Nebuchadnezzar II., Nabonidus, Cyrus, Darius, Cambyses, and Artaxerxes.
- VII. A large and important collection of North Syrian antiquities:—
- 1-7. A group of seven bas-reliefs in hard grey stone, similar to basalt, on which are sculptured:
1. The figures of an archer, after an Assyrian design.
 2. A man on horseback, soldier or trainer (?).
 3. Horseman wearing a conical cap and holding a shield.
 4. A man holding a noose or lasso.
 5. A king.
 7. Warrior with spear and shield.
 8. A bird—vulture (?)
- 8-13. A group of six bas-reliefs in soft limestone (?), coloured pink, on which are sculptured:
1. A conventional representation of the date palm, copied from an Assyrian design.
 2. The king ascending a ladder, resting against a palm tree, to perform the ceremony of fertilising the palm.
 3. Lioness.
 4. A boat on a stream in which fish are swimming.
 5. Figures of a gryphon and bird.
 6. A king slaughtering a prisoner by thrusting a knife into his body.

DEPARTMENT OF EGYPTIAN AND ASSYRIAN ANTIQUITIES. 53

- 14-125. One hundred and twelve tablets and fragments written during the latest Assyrian Period.
- 126-331. Two hundred and sixteen fragments of painted and incised pottery of various periods.
- 332-343. Twelve fragments of glazed pottery.
- 344-346. Three fragments of pottery with Greek inscriptions.
- 347-351. Five stone figures, three-quarter length.
352. One small relief.
- 353-365. Thirteen boxes containing miscellaneous groups of amulets, utchats, &c.
- 266-371. Six clay figures of a man and animals.
372. Stone head of a lioness.
373. Mutilated steatite female figure.
- 374, 375. Two scarabs.
- 376-398. Twenty-three cylinder seals on which are cut signs, &c., similar to those found on Hittite remains.
399. Stamp for cakes or bread.
400. Clay impression of a scarab.
- 401-410. Ten miscellaneous objects with incised decoration.
- 411-414. Four boxes containing 78 bronze coins.
- 415-425. Eleven iron spear-heads.
- 426-433. Eight iron arrow-heads.
- 434-503. About seventy-five iron objects, rings, &c.
509. Bronze bowl.
510. Bronze cup.
511. Bronze axe-head.
512. Bronze ladle.
513. Bronze bell with iron clapper.
- 514-518. Five bronze arrow-heads.
- 519-562. About fifty-four bronze objects, handles, rings, fibulæ, &c.
- 563-614. Fifty-two objects, in ivory, alabaster, &c.
- 615-640. Thirty-six stone bowls, stands and fragments.
- 641-654. Fourteen pottery vessels, dishes, bowls, jugs, lamp, &c.
- 677-1504. Eight hundred and fifty fragments of pottery of various styles and periods.
- 1505-1520. Sixteen stone bowls and dishes.
Eighteen small racks containing specimens of sherds, stones, &c.
Forty-six cardboard boxes containing specimens of earth, stony deposits, sand, gravel, &c.

Presents.

- I.—A calcareous stone whorl of the Coptic Period.
Presented by Captain D. S. Savours.
- II.—A small gravestone with a Kûfi inscription. From Old Basrah.
Presented by S. Meer, Esq.
- III.—Squeeze of a Hittite bas-relief in the Taurus Mountains.
Presented by Colonel A. J. G. Bird, R.E.

- IV.—Green glazed faïence scarab bearing the cartouche of Thothmes III. About B.C. 1500.
Presented by Miss E. S. Tudor and H. Tudor, Esq.
- V.—Hæmatite cylinder seal which was made for a worshipper of the god Rammānu. About B.C. 1200.
Presented by Sir Albert Gray.
- VI.—1. Bronze figure of the god Rā or of a king in the character of Rā.
2. A small bronze figure of Osiris.
Presented by Miss E. M. Palmer.
- VI.—A piece of rope taken from the bitumen layer between bricks at Mukayyar (Ur).
Presented by Major C. A. Cusse.
- VII.—1, 2. Two pieces of blue beadwork.
3. Wooden hawk.
4. A hand.
5. A shabti figure.
6. A linen sheet.
7. Terra-cotta lamp.
8. Board used in teaching the Greek or Coptic alphabet.
9–10. Two scarabs.
Presented by John Herratt, Esq.
- VIII.—Vestiges of Assyria. Sheet No. 3.
Presented by the Registrar of Maps, India Office.
- IX.—Fragment of a Sassanian brick from Noaterhie, Māl al-Amīr.
Presented by A. W. B. Holland, Esq.
- X.—Stone portrait shabti figure. XIXth or XXth dynasty.
Presented by C. Pett Triscott, Esq.
- XI.—Green glazed steatite amulet inscribed “Meri-Rā, Lord of the Two Lands” (Egypt).
Presented by J. H. Armstrong, Esq.
- XII.—1. A stone plaque with inscription of Bur-Sin, about B.C. 2300.
2–11. A group of ten Babylonian tablets written during the reign of Bur-Sin and other kings of his dynasty.
12. A stone figure of a king with inscription. Modern imitation.
Presented by Colonel S. Anderson, I.M.S.
- XIII.—Clay cone bearing an inscription of Libit-Ishtar, an early Babylonian king, about B.C. 2200.
Presented by Colonel A. G. H. Hogg.
- XIV.—A stone sphinx mounted on a modern hard stone base. From Denderah. Roman Period.
Presented by J. H. Kennedy, Esq.
- XV.—1–4. Four small terra-cotta vases. Period uncertain. Said to come from Maskat.
Presented by Mrs. Kossman.
- XVI.—1. Mace-head dedicated to Nergal by Laba Erishum, the king's diviner, for the life of Shu-dur-kib, King of Agade.

2. Seal inscribed in Sumerian with prayers to the goddess Nin-Sun, on behalf of Ubalisu-Marduk, the servant of Kuri-galzu I. B.C. 1600.
Presented by Major V. E. Mocatta.
- XVII.—1, 2. Two-handed handsome alabaster jar with painted frontal design, and an alabaster unguent jar. From the tomb of Menephtah I. in the Valley of the Tombs of the Kings at Thebes.
Presented by the Right Hon. the Earl of Carnarvon.
- XVIII.—Porcelain bead bearing the names of the Nubian King Tet-ka-Rā Shabaka.
Presented by Captain the Hon. R. Bethell.
- XIX.—Limestone amulet with illegible Babylonian inscription.
Presented by Colonel Luxmoore.
- XX.—1, 2. Two blue glazed shabti figures, uninscribed.
Presented by J. Pollak, Esq.
- XXI.—Blue glazed steatite scarab of Thothmes II.
Presented by Miss T. Weldon.
- XXII.—1. The original map of the Al-Kab district in Upper Egypt, drawn by F. W. Green in 1896, and five printed copies of the same.
2. "Christian Antiquities in the Nile Valley," by Somers Clarke, Oxford, 1912, 4to (with added notes, letters, extracts from periodicals and drawings, and 24 photographs).
3. Fifty-six drawings and tracings (originals of the illustrations of the above work).
4. Fifteen photographs of scale drawings of the churches in the Wādī Natrūn (made for the Comité de Conservation des Monuments de l'Art Arabe).
5. Eight photographs of scale drawings of the Kasrash-Shamina. (Nos. 3-5 are bound up in one volume.)
Presented by Somers Clarke, Esq., F.S.A.
- XXIII.—Head and forefront of a small ivory Sphinx, probably representing a Hyksos Pharaoh, grasping the figure of a prostrate Egyptian. From Abydos. Middle Empire. Unique.
2. Ivory figure of a boy squatting; on the base is the name of the steward Ata. XIIth dynasty. A very fine object.
3. Mother-of-emerald figure of Maāt; a rare and valuable object.
4. Red pottery bowl. IVth dynasty.
5. Red and black ware pot. XIIth dynasty.
6. Plain red ware jug. XVIIIth dynasty.
7. Red pottery—woman and child. XVIIIth dynasty.
8. Black ware jug.
9. Three-handled pilgrim bottle. Roman.
10. Red model vase. XVIIIth dynasty.
11. Black model jug. XVIIIth dynasty.

12. Blue marble alabastron, with lid. XIXth dynasty.
13. Blue marble alabastron, without lid. XIXth dynasty.
14. Bronze vase, with lily handle. New Empire.
15. Bronze dagger. XIIth dynasty. From Abydos.
16. Bronze razor.
- 17, 18. Bronze arrow-heads.
19. Wooden scoop.
20. Figure of a pelican. XIIth dynasty.
21. Clay figure of a naked dancing girl. XIIth dynasty.
22. Clay model hoe.
23. Blue glazed porcelain bunch of grapes.
24. Glazed ware button seal. From Abydos. XIIth dynasty.
25. Glazed scarab of Amenemhat III. From Abydos. XIIth dynasty.
26. Glazed cylinder seal of Amenemhat III. From Abydos. XIIth dynasty.
27. Glazed cylinder seal. From Abydos. XIIth dynasty.
28. Glazed scarab with spirals. From Abydos. XIIth dynasty.
29. Glazed scarab. From Abydos. XIIth dynasty.
30. Blue glazed porcelain scarab of Sebek. XVIIIth dynasty.
31. Blue glazed steatite scarab of Amenhetep I. XVIIIth dynasty.
- 32, 33. Two blue glazed steatite scarabs. XVIIIth dynasty.
34. Blue glazed steatite scarab of Hatshepsut. XVIIIth dynasty.
35. Blue glazed steatite frog. XVIIIth dynasty.
36. Blue glazed porcelain cow. XVIIIth dynasty.
37. Bronze ring, with scarab of Rameses II.
38. Blue glazed porcelain hawk. Late period.
39. Slate object—pre-dynastic?

Presented by Mrs. Russell Rea.

E. A. Wallis Budge.

DEPARTMENT OF GREEK AND ROMAN ANTIQUITIES.

I.—Arrangement.

1. *The Sculpture Galleries.*—During the early months of the year the remaining storecasts and casts, which had formed a part of the Temporary War Time Exhibition, were returned to their proper places, and all traces of war-time conditions were thus effaced from the Galleries.

In May a rearrangement of the Ephesus Room was undertaken. The sculptures of the older Temple of Ephesus were concentrated in the middle of the East side of the room and delimited by the provision of wooden screens. The corners of the room were cleared by the removal of the Dionysos of Thrasyllos and the Cypriote bull-headed capital to the Mausoleum Room. In the vacant north-east corner a series of Greek portrait busts was arranged. In the opposite south-east angle was installed a series illustrative of the schools of sculpture of the 4th century B.C., including the Towneley Venus, the Nicocleia statue and several busts from the Third Græco-Roman Room.

A rearrangement of the Second Græco-Roman Room was undertaken with the object of forming a similar series of the sculpture types of the 5th century B.C. The Vaison Diaduménos was brought from the First Græco-Roman Room to fill the alcove formerly occupied by the Towneley Venus; the Westmacott athlete and other pieces were transferred from the Third Græco-Roman Room.

In the First Græco-Roman Room the large altar of Calpurnius from Ephesus and the colossal bust of Faustina from Sardis have been placed on exhibition. In the Third Græco-Roman Room minor adjustments have been made, necessitated by the rearrangement elsewhere. In the Elgin Room, three newly acquired casts of fragments have been inserted into the Frieze of the Parthenon. In the Hall of Inscriptions and the Gallery of Roman portraits, all sculptures were covered up during the repainting of the rooms and afterwards replaced on exhibition. The contents of the Gallery of Casts and the Carthaginian basement and the mosaics on the north-west staircase have also been cleaned.

Eighteen pieces of sculpture or fragments have been repaired and fifty-nine mounted; eighteen inscriptions have been mounted and eighty-three plinths and pedestals cleaned and repolished. Six sculptures at the Natural History Museum have been cleaned.

Moulds have been made of two slabs and a fragment of the Frieze of the Parthenon, and of three slabs of the Frieze of the Mausoleum. Six busts have been restored in plaster. The store casts of the Harpy Tomb and of the Frieze of the Parthenon have been repaired.

2. *The Upper Galleries.*—In preparation for structural work on the roof, the First and Second Vase Rooms have been completely cleared and the vases placed in storage in the other

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rooms. A temporary exhibition illustrative of the contents of these two rooms has been arranged in the Third Vase Room.

The exhibition of Greek and Roman Life has been rearranged and renumbered throughout in correspondence with the new edition of the Guide.

In the Terracotta Room a rearrangement of the exhibited and unexhibited collections has been made and a new Finding List of Terracottas prepared. The Finding List of Bronzes is similarly in process of revision; the standard case of large bronzes has been refitted and rearranged to permit of the inclusion of the Astor statue. In the Terracotta Room and the Room of Ancient Life, all cases have been boarded up and shades removed during repainting; at the conclusion of this, the rooms have been restored to exhibition. A rearrangement of unexhibited gems is in progress; and a large number of case fittings for the Gold Ornament Room have been made.

A temporary exhibition illustrative of the collections made by the Salonica Expeditionary Force has been arranged in the Room of Ancient Life. Sixty-nine vases, fifty-six terracottas, two gold, four silver, twenty-two iron, sixty-four bronze, one wood, two stone and two glass objects have been cleaned and repaired. Casts have been made from three hundred and ninety gems and from two terracotta moulds. Seventy-one terracottas, sixty-eight bronzes and two hundred and forty-eight rings and gems have been mounted. Three hundred and eighty objects were registered, and one thousand three hundred and eight numbered; seventy-four labels were written and forty-seven printed. One hundred and eight vases were measured to supply materials for the study of Mr. Jay Hambidge's system.

The number of visits to the Departmental Library and Students' Room for the purposes of research was 359; there were 1,450 visits to the staff for enquiry or on Departmental business. Seventy-nine tickets were issued and 27 renewed to students of art and architecture, who made 1,272 attendances in the Sculpture Galleries.

3. *Publications.*—The revised editions of the Guide to the Exhibition of Ancient Life and of the Departmental Guide have been issued. The Catalogue of Silver Plate has been set up in type. Progress has been made with the Catalogue of Vases, Vol. I., part I, and with the revised edition of the Catalogue of Gems. Four new sets of pictorial postcards have been placed on sale, the subjects being Greek Terracottas, Greek Sculpture in Relief, Greek Statuary, and Roman Imperial Portraits. Two sets have been reissued, namely the Exhibition of Greek and Roman Life, and the Frieze of the Parthenon.

II.—Acquisitions.

I.—Sculpture in Stone and Marble.

- 1.—Unfinished statuette of the archaic Apollo type; height .39 metre. Found in the Stamato Vouni Quarry, on Mount Pentelicus in Attica. *Revue Archéologique*, 4th series, XI., p. 40. Presented by the late Canon Rawnsley through the National Art-Collections Fund.

- 2.—Sepulchral relief of L. Ampudius Philomusus; within a frame, busts of wife, husband and daughter; on either side, a *modius* or corn-measure. Ht. .61 m., Length 1.63 m. Found about 1700 near the Porta Capena, Rome; during the 18th century in the Villa Casali; recovered from a garden at Putney, previous to which it had lain for at least fifty years in a contractor's yard in North London. *C.I.L.*, VI., 11595; VI. 4, 34044, and *Journal of Roman Studies*, VIII., pl. 2, p. 179, where references to the older literature are given.
- 3.—Fragment of seated figure on a throne sculptured on back and front with two tiers of reliefs. Ht. .32 m. From the Atkinson Collection; said, probably erroneously, to have formed part of the Elgin Collection. *Journal of Hellen. Stud.* VI., p. 43, No. 5.
- 4.—Votive relief of Zeus Sabazios on horseback; inscribed *Εὐτυχος Δι Σαβαζίω κατ' ὄνυρον χαριστήριον*. Acquired in Constantinople. Presented by W. H. Buckler, Esq.
- 5.—Sepulchral relief of banquet, inscribed *τέκνω γλυκυτάτω μείλας χάριν*.
- 6.—Sepulchral relief; two busts, male and female.
- 7.—Votive relief; horseman, youth on altar, and tree.
- 8.—Slab bearing the inscription C.I.G. 3332, copied at Smyrna about 1710. Presented by the Committee of the Guildhall Museum.

II.—Gems and Glass.

- 9.—Carnelian gland, Minoan; intaglio of a cuttle-fish; from Crete. Presented by Henry Burgon, Esq.
- 10.—Rock crystal scarabæoid intaglio of a seated girl playing a lyre. Found about 1819; formerly in the Ross, Broendsted and Cockerell collections. Broendsted, *Voyages de la Grèce*, II., vignette and p. 277; King, *Antique Gems*, II., pl. XVII. B. No. 7; Furtwaengler, *Antike Gemmen*, pl. XIV., No. 20; *Geschichte*, p. 137; *Burlington Fine Arts Club, Exhibition of Greek Art, Catalogue*, L. 153, pl. 63, p. 181; *Encycl. Brit.*, 11th ed., s.v. Gems, pl. II. 36.
- 11.—Sard scarab with an intaglio of a female head; fourth century B.C.
- 12.—Sard scarabæoid with an intaglio of a cow; inscribed V. MAQRINVS.
- 13.—Sard intaglio of the Ephesian Artemis. Presented by A. P. Ready, Esq.
- 14.—Burnt sard intaglio with head of Ariadne; the reverse has been re-used as a signet ring, with a Cufic inscription. Presented by Mrs. F. Macalister.

III.—Gold and Silver.

- 15.—Pair of Greek earrings of finest style of 4th century B.C., with palmettes and wave-pattern.

- 16.—Pair of earrings in the form of a cluster of pendant leaves; from Populonia.
- 17.—Large bulla with palmette and tongue decoration; from Populonia.
- 18.—Two pairs of earrings in the form of a duck with fine filigree work.
- 19.—Pair of earrings with beads of turquoise and glass and pendant in the form of a deer's-head rhyton.
- 20.—Silver finger-ring with intaglio of a squirrel. *Presented by W. Barclay Squire, Esq.*

IV.—Bronze.

- 21.—Stand for a vase; four panels with open work reliefs of a seated citharist and figures bringing offerings, alternating with conventional trees. From Curium, Cyprus; an example of the class of bronze vessels associated with the metal furniture of the Temple of Solomon (I. Kings, vii., and see Furtwaengler, *Kleine Schriften*, II., p. 298).
- 22.—Statue of a priestess, two-thirds life size; formerly considered a portrait of Drusilla, sister of Caligula. Ht. .95 m. *Revue Arch.* 1909, p. 177; *Times* of June 19 and July 3, 1909; *Illustrated London News* of 1st Jan., 1910; Reinach, *Répertoire*, IV., p. 307. *Bequeathed by the late Viscount Astor.*
- 23.—Statuette of Athena-Isis-Fortuna; a pantheistic combination of attributes hitherto unknown, though Athena-Isis and Athena-Fortuna are known and Isis-Fortuna is common. Weber Collection.
- 24.—Helmet of early Corinthian form. *Transferred from the United Services Museum.*
- 25.—Copper implement of early date; hammer-head with socket, balanced by an animal's head. From Laurium.
- 26.—Twenty-two Italian fibulæ, mainly of early types. *Presented by the Committee of the Guildhall Museum.*
- 27.—Toe, broken from the foot of a colossal statue. *Presented by A. Lawson, Esq.*
- 28.—Funnel, with incised patterns.
- 29.—Mirror in case.
- 30.—Iron chisel, pincers, link of chain and fragments of balance. From the Province of Cordova, Spain. *Presented by A. Taylor, Esq.*

V.—Vases.

- 31.—Large beaked jug of late Cycladic style. Ht. .4 m. From Melos or Thera. *Presented by G. Dunn, Esq.*
- 32.—Mycenæan kylix; on each side, a serpent. From Vari.
- 33.—Jug of Phaleron ware; two horses at a manger; birds and geometric patterns. From Vari.
- 34.—Plate of Corinthian style; animals and rosettes. From Vari.
- 35.—Late Corinthian kylix; on each side, two dancing figures. Fairfax Murray Coll.

- 36.—Early Attic black-figure kylix; on each side, dance of men and women. Fairfax Murray Coll.
- 37.—Feeding bottle; on the top, a black-figure frieze of a hunting scene in “Kleinmeister” style.
- 38.—Attic black-figure amphora; Theseus slaying the Minotaur, and other figures.
- 39.—Attic black-figure skyphos; lion behind a tree confronting a herd of cattle. For a similar vase, compare Heinemann, *Landschaftl. Elemente in d. Griech. Kunst*, fig. 14. Fairfax Murray Coll.
- 40.—Attic black-figure lekythos; owls, and in centre, a Siren standing on an altar playing a lyre.
- 41.—Large lekythos of late Attic black-figure style; combat, with Athena between the protagonists. Inscribed *καλὸς ὁ παῖς δοκεῖ ναυχι ἐμοί, ναυχι*.
- 42.—Lekythos with design in opaque paint; Centaur pursuing an armed man. *Presented by C. Ware, Esq.*
- 43.—Kylix of early red-figure style, signed by the potter Euergides. Interior, woman dancing; exterior, young men and groom with horses. Found at Old Capua, and first published in *Annali dell' Inst.*, 1849, p. 145, pl. B. Afterwards lost to view for many years. For full reference to the literature, see Hoppin, *Handbook of Red-Figure Vases*, Vol. I., p. 366.
- 44.—Kylix, red-figure style. Interior, Victory and youth; exterior, Victory crowning Theseus who turns away from the prostrate Minotaur, a new type for this subject. Fairfax Murray Sale.
- 45.—Hydria of strong red-figure style; the Iapith Kaineus overwhelmed by two Centaurs. Formerly in the Barone Coll. *Bull. Napol.*, VI., pl. 2. Reinach, *Répertoire*, I., p. 474.
- 46.—Bell-crater, late red-figure style; Marsyas playing on the flutes in the presence of Apollo and two Muses. Deepdene Coll.
- 47.—Hydria of finest red-figure style. Toilet scene; seated mistress and maid with casket.
- 48.—Pyxis of fine red-figure style; on box, a marriage procession with chariot, herald and torch-bearers; on lid, Helios, Selene and Nyx. (Sotheby's Catalogue, Dec. 6, 1921, plate.)
- 49.—White Lekythos with design in varnished outline; man with drawn sword (“Tyrannicide” type) advancing from a house.
- 50.—White Lekythos with design in dull outline and wash; tombstone with old man and boy with hoop.
- 51.—Guttus of early Italian red-figure style; grotesque procession of Mænad, Seilenos and Satyrs, going to a revel.
- 52.—Fragment of Samian ware, showing imperfect modelling. From Puy-de-Dôme. *Presented by H. H. Cox, Esq.*
- 53.—Fifteen Roman vases from the Rhineland, of various red and grey fabrics. *Presented by the Committee of the Guildhall Museum.*

- 54.—Roman cup of black ware, found with a stone painter's palette and other fragments in a tomb on the French front. *Presented by Lieut. C. M. Grieve.*
- 55.—Lamp with bust of Athena and stamp of the potter Lucius. *Presented by S. C. Atchley, Esq.*
- 56.—Lamp with bust of Vitellius (modern). *Presented by L. A. Lawrence, Esq.*

VI.—*Terra cottas.*

- 57.—Tablet inscribed in the Minoan script. *Presented by Major F. W. B. Willett.*
- 58.—Two fragmentary statuettes; one of Græco-Phœnician, one of Hellenistic style. From Larnaca, Cyprus. *Presented by Col. D. H. Colnaghi.*
- 59.—Statuette of draped young man holding a lyre; style of early fifth century B.C. From Lamia.
- 60.—Statuette of standing youth with drapery over shoulder; the head has been moulded separately; on the back is inscribed the maker's name Παιροφίλου. From North Syria. *Presented by Major C. L. Woolley.*
- 61.—Pair of clay sealings stamped with impressions of the head of Athena. From Egypt. *Presented by J. D. Beazley, Esq.*
- 62.—Series of votive eyes. From the site of Lake Regillus. *Presented by Miss E. B. Ede.*
- 63.—Tile bearing the sepulchral inscription of a child Kerasa: εὐτυχεῖ Κερασά Ἀσιδίαο ἀνατος ἐτῶν δ'. From Sinai. *Presented by L. Richmond Wheeler, Esq.*

VII.—*Casts and Reproductions.*

- 64.—Electrotype copy of the situla of Kuffarn (*Mitt. d. Anthropol. Ges. in Wien*, 1891, XXI., pl. 9).
- 65.—Electrotype copies of geometric and medical instruments from Pompeii.
- 66.—Plaster casts of one slab and nine fragments of the Frieze of the Parthenon. *Presented through the British School at Athens by the Greek Government.*

A. H. Smith.

DEPARTMENT OF BRITISH AND MEDIEVAL ANTIQUITIES AND
ETHNOGRAPHY.1.—*Arrangement, Cataloguing, etc.*

Prehistoric Room.—The exhibition drawers in the Central Saloon have been overhauled, and two table-cases re-arranged. The labelling of the Greenwell Collection has been continued.

Iron Age Gallery.—A series of Teutonic finger-rings has been specially mounted and exhibited in a table-case.

Room of Roman Britain.—Additions have been made to the exhibits of New Forest and Pudding Pan Rock pottery, and moulds exhibited in a table-case.

King Edward VII. Gallery (Ground Floor).—The arrangement of the mediæval collections and European pottery and porcelain was completed, and the western portion of the gallery opened to the public in July. The collections of Oriental Ceramics and Glass are in course of arrangement in the eastern portion.

Christian Room and Buddhist Room.—The temporary arrangement of the Early Christian collections made for the opening of the gallery to the public is in course of revision. The large wooden Buddhist figure has been exhibited in the Buddhist Room in place of the Chinese altar furniture now removed to the King Edward VII. Gallery.

Room of Indian Religions.—The colossal bronze figure of a Chinese dignitary has been removed to the top of the Grand Staircase, and its place taken by a Hindu stone relief from Bihar. Some re-arrangements have been made, and a number of fresh labels provided.

Asiatic Saloon.—A temporary exhibition of a large portion of the Mexican and Central American Antiquities, and of the North American stone age, has been made. The Tower Collection of Oriental arms has been re-arranged, and permanent fittings provided.

Ethnographical Gallery.—A temporary exhibition of the greater part of the South American Antiquities has been made in the Asiatic section. The Kabyle pottery, part of which had been removed for safety, has been re-exhibited, and several of the wall-cases entirely re-arranged. Numerous additions have been made to the exhibits and many fresh labels provided in all sections. The whole of the contents of table-case cupboards and drawers has been examined.

Basement.—The whole of the ethnographical material, which had been temporarily accommodated in the former Departmental Offices, has now been checked, sorted and stored in the basement, including the collection of Christy duplicates. The re-arrangement of collections stored in the basement has been continued

in such a way as to ensure the maximum of accessibility to students under present conditions, and the provision of an index to these collections is in progress. That portion of the Chinese and other Oriental ethnographical collections which was stored in cupboards in the King Edward VII. Gallery has been transferred to the basement. The unpacking of the Sturge Collection and its arrangement and storage in cases has been completed.

Registration, etc.—The registration of current acquisitions has been continued and 1,614 objects have been added, including ethnographical specimens. The cataloguing of the French and Spanish pottery is in progress. Numbers have been painted on 1,825 specimens, and 1,296 permanent labels have been written. Objects have been mounted to the number of 908; 380 ring-mounts have been covered with cloth, and the rings mounted upon them, and a number of ring-impressions made and mounted; 52 mounting-boards have been prepared and a number of case fittings covered with cloth; 529 labels have been typewritten and 114 printed; 118 photographs have been taken, 66 photographic prints and 10 lantern-slides made. The wall-cases in the Pre-historic Room, Iron Age Gallery, Room of Roman Britain, and the Rooms of Oriental Religions have been photographed. A large number of specimens have been cleaned, repaired and restored. The card-catalogue of the departmental library has been continued.

Publications.—A second edition of the Bronze Age Guide and a monograph on the Chinese Statue of a Lohan have been prepared and published. A Guide to the Room of Roman Britain and a second edition of the Guide to the Early Christian and Byzantine Antiquities are in preparation. A Catalogue of the Mediæval Enamels is in progress. A series of pictorial post-cards illustrating Indian art with descriptive letterpress has been published, and letterpress has been prepared for a series of post-cards illustrating English porcelain.

Much assistance has been given by Mr. Longworth Dames in the preparation of a slip catalogue and in the arrangement and labelling of the collections illustrating Oriental Religions, and Mr. Oscar Raphael has devoted much time to the arrangement of the Ceramic Collections.

Two lectures have been delivered by a member of the Staff in the Prehistoric Room and the Iron Age Gallery.

Students.—1,213 students and visitors have been received in the Department.

2.—Acquisitions.

(1) *Prehistoric and Early British Antiquities*:—

(a) *Stone Age.*—Two palæoliths found at the Foreland, Isle of Wight (see *Quarterly Journal of the Geological Society*, XXVI., 542), and Warsash, N.E. of Southampton Water respectively; from the collection of the late Thomas Codrington, Esq., F.G.S. Presented by Commander G. G. Codrington.

Conical flint plane from Redhill, Dyke Road, Brighton, and worked flint flake from Stow, Suffolk. *Presented by G. J. Buscall Fox, Esq.*

Large series of pygmy flints from various localities from the collection of the late Dr. Colley March. *Presented by Mrs. Colley March.*

Series of flint implements of rostro-carinate form, some figured in *Philosophical Transactions of the Royal Society*, B. 202, pl. 15, I, and figs. 18, 19, 25 and 26 in text, from Suffolk, Selsey Bill, Sussex, etc. *Presented by Sir E. Ray Lankester, F.R.S.*

Eleven flint implements from rock-shelters, etc., Oldbury, Kent. *Presented by Benjamin Harrison, Esq.*

Series of flint implements collected by the donor in Tilgate Forest, Sussex (*Sussex Archaeological Collections*, LV., 123). *Presented by Dr. Edgar Willett.*

Diorite celt found at Longdon Marsh in a ditch at S. end of Malvern Hills, 1860, and made of local stone. *Presented by H. D. Acland, Esq., F.S.A.*

Series of flint implements from Yorkshire. *Bequeathed by Thomas Boynton, Esq., F.S.A.*

Chalk lump cut nearly spherical, found by the donor on Floor 52, Grime's Graves, near Weeting, Norfolk. *Presented by Rev. H. G. O. Kendall, F.S.A.*

Two chalk carvings excavated by the donor at Grime's Graves, near Weeting, Norfolk. *Presented by Derek Richardson, Esq.*

(b) *Bronze Age*.—Gold hoop with trumpet-ends, found near a stone coffin in Islay, Scotland. *Bequeathed by Eleanore Anne, Lady Trevelyan, widow of Rt. Hon. Sir Charles Trevelyan, K.C.B., through Mrs. James Anstruther.*

Series of food-vessels, beads, etc., mostly from Ireland and Scotland. *Presented by N. D. Smith, Esq.*

Series of jet beads and studs from Yorkshire. *Presented by the Earl of Feversham.*

Two-handled vase of black pottery, figured and described in *Proc. of the Society of Antiquaries*, xxv., 84-88. It resembles ware from Troy of about the 9th century B.C., and was found in the Thames gravel below Hammersmith.

Chert core and arrowhead from Bralo, Mount Parnassus. *Presented by Rev. Harold Pyner.*

(c) *Foreign*.—Ten flint implements from the trenches at Coigneux, 16 miles S.W. of Arras. *Presented by Capt. Francis Buckley.*

Twelve stone specimens of the Vespestad type (shell-mound stage of neolithic period), excavated by the donor on the Isle of Boemmel, S. of Bergen, Norway. *Presented by Dr. Haakon Shetelig, Hon. F.S.A.*

Ten stone specimens of Nöstvet type (early neolithic) from Kristiania Fjord, Norway. *Presented by Dr. A. W. Brögger.*

Stone implements and flakes from Imbros found in the bank of a stream. *Presented by Capt. Hugh Copley, R.A.F.*

Re-chipped polished celt (Dolmen period) obtained in Paris. Presented by *C. R. Jennings, Esq.*

Bronze statuettes and ring-brooches, Early Iron Age, from Despeñaperros, Spain. Presented by *C. T. Andrews, Esq.*

Gold capsule of the Oxus Treasure type; 4th century B.C. from N.W. India.

(2) *Romano-British*:—

Pottery and pieces of kiln-lining from a kiln at Sloden, New Forest, Hants. Presented by *Heywood Sumner, Esq., F.S.A.*

Specimens of "Samian" pottery from the Pudding Pan Rock, off Herne Bay, Kent (*Proc. Soc. Antiq.*, xxi, 279). Presented by the Librarian, Guildhall, London.

Pottery lamp with cross found near Tidworth House, Wilts. Presented by *W. G. Wise, Esq.*

(3) *Anglo-Saxon and Foreign Teutonic*:—

Anglo-Saxon shield-boss, brooches, etc., from Dorchester. Presented by the Librarian, Guildhall, London.

Anglo-Saxon iron girdle-hanger from Cliffe, near Rochester. Presented by *F. Wright, Esq.*

Part of a Merovingian pin with bird-terminal, and brooch in the form of a horse. Presented by *Louis C. G. Clarke, Esq., F.S.A.*

Bronze penannular brooch, early 9th century, from the Island of Mull, Scotland, figured in *Proc. of the Society of Antiquaries of Scotland*, xiii, 70, fig. 2. Presented by *N. D. Smith, Esq.*

Bronze medallion set with blue glass inlaid with silver, Scotie work of about A.D. 800, from the collection of Sir Benjamin Chapman at Killua, W. Meath.

(4) *Medieval and Later*:—

(a) *British*.—Bronze candlestick in the form of a centaur playing a fiddle, 13th century. Found at Felixstowe, Suffolk, in digging trenches.

Bronze seal-matrix, late 13th century, from Salisbury (Evans Collection).

Bronze seal-matrix, 13th century, found in the Close, Exeter, 1887 (Evans Collection). Presented by *Maurice Rosenheim, Esq., F.S.A.*

Seventeen seal-matrices, two described and figured in *Proc. Soc. Antiq.*, xxiii, 105, another in *Proc. Soc. Antiq.*, xxv, 78.

Two ivory panels, 14th century.

Bronze pax, late 15th century, described and figured in *Proc. Soc. Antiq.*, xxv, 27.

Gold badge of the Order of the Garter, jewelled and set with an onyx cameo, about 1660.

Cup of Boscobel oak turned and mounted in silver, used at the audit dinner of the Dean and Chapter of Worcester. Bequeathed by *Mrs. Editha Wathen*.

Pewter plate, 18th century, with stamps and initials F.S.G. Presented by *W. E. Bennett, Esq.*

Sextant in mahogany case, made by Cary, London, formerly the property of David Walker, surgeon and naturalist under Sir L. McClintock in the search for Franklin 1857-9. *Presented by Miss Constance M. Steel.*

Steel official seal-matrix of the Nyassaland Protectorate (*temp.* George V.), damaged by fire and replaced. *Presented by the Lord President of the Council.*

(b) *Foreign.*—Series of bronze seal-matrices, Italian, 14th century and later, collected by Commander Francesco Grecchi, Milan.

Gold seal-ring, N. Lombard, found at Bergamo, Italy.

Bronze seal-matrix of Jean d'Orlencourt, found in digging trenches near Arras, 1917. *Presented by Major E. St. Clair Harnett.*

Sard intaglio signed ΑΠΟΛΛΩΝΙΔΟΥ, formerly in the Poniatowski Collection. *Bequeathed by Eleanore Anne, widow of Rt. Hon. Sir Charles Trevelyan, K.C.B., through Mrs. James Anstruther.*

(5) *Ceramic and Glass Collections:—*

(a) *Oriental Wares.*—Earthenware model of a cooking-stove, Chinese, Han dynasty. *Presented by Lady Cunard.*

Three Chinese pottery specimens of the Han dynasty, two of the T'ang dynasty, a pottery figure of the T'ang dynasty, and two pottery bowls, Ming dynasty, from tombs in Szechuan, S.W. China.

Vase, T'ang dynasty, with enamelled colours.

Two Chinese porcelain bowls, one of the Sung, the other of the Ming dynasty, and fifteen specimens of Japanese pottery and porcelain. *Presented by the Misses Alexander.*

A remarkable stoneware glazed bulb-bowl, Chün Yao, Sung dynasty, made at Chün Chou, Honan; given in commemoration of Sir Hercules Read's completion of 40 years' service at the Museum. *Presented by G. Eumorfopoulos, Esq., F.S.A.*

Chinese pottery tiles, one blue-glazed, from the Temple of Heaven, the other green-glazed, from the Temple of Confucius, the latter taken during the Boxer Rising at Peking. *Presented by Alfred Harburn, Esq.*

Early Persian pottery bowl. *Presented by Sir Henry Howorth, K.C.I.E., through the National Art Collections Fund.*

Persian lustre-bottle, with date 1180 A.D.

Six specimens of modern ware in the ancient style, made at Kutahia, Anatolia. *Presented by Mrs. J. Valentine Salvage.*

(b) *Continental.*—Eight jugs of majolica, 15th and 16th centuries, found in excavations at Orvieto, Italy.

Dutch Delft figure, about 1660. *Bequeathed by Thomas Boynton, Esq., F.S.A.*

Nine pottery fragments from waste-heaps at Bologna, Italy; eight pottery tiles from Toledo, and two pottery bowls excavated in Seville, Spain. *Presented by Dr. W. L. Hildburgh, F.S.A.*

Cup and saucer of Capo di Monte porcelain.

(c) *English*.—Pottery ball inlaid with marble and star pattern, found at Ruscombe, Berks, 1862. *Bequeathed by Mrs. Editha Wathen.*

Copy of a German stove-tile with date 1561, made in Fulham stoneware and signed E.M. *Presented by Sir Hercules Read, F.S.A.*

Sixteen pieces of English pottery and porcelain. *Bequeathed by Thomas Boynton, Esq., F.S.A.*

Pottery jug, marked PRATT, late 18th century. *Presented by R. L. Hobson, Esq.*

Box of fragments of tin-glazed earthenware from the site of the potteries at Wincanton, Somerset, formerly in the Bristol Museum. *Presented by W. Pountney, Esq.*

(d) *Glass*.—Two pieces of antique glass.

(6) *Collection illustrating various religions:—*

(a) *Christianity*.—An ivory liturgical diptych with a Greek inscription written between A.D. 623 and A.D. 662; probably used in a church in the diocese of Hermonthis.

A pair of bronze openwork Coptic carriages from Cairo. *Presented by Captain Murray.*

A portion of a painted wooden ikon from Russia. *Presented by Howard Carter, Esq.*

A glass money-weight with bust of the Emperor Justinian. *Presented by Col. the Hon. Milo. G. Talbot.*

(b) *Buddhism*.—A Chinese wooden statue of more than life-size, representing a Buddhist personage, probably of the 12th century. *Presented by the National Art Collections Fund and others.*

A gilt figure of a seated Buddha from Burma. *Presented by Mrs. Roberts.*

A brass figure of Buddha seated on a lotus throne.

A gilt bronze Lamaistic figure of Avalokitesvara, small life-size, from Tibet.

A Gandhâra stone relief, representing Buddha enthroned between worshippers. *Presented by Lt.-Col. H. S. Moberley.*

(c) *Hinduism*.—Two early Hindu stone sculptures from Java, representing Saktis of Bodhisattvas. *Presented by Col. Sir John Hall, Bart.*

A brass lingam with figures of Nandi and a Naga, obtained at Deolali, Bombay, and said to have come from Nasik. *Presented by E. G. Millar, Esq.*

(d) *Mohammedanism*.—A Mohammedan engraved standard of silvered copper. *Presented by Mrs. Hallinan.*

(e) *Zoroastrianism*.—A stone panel relief of a male figure with cloak, representing Athar, the Persian fire-god, from Masjid Suleiman. *Presented by Dr. M. Y. Young.*

(7) *Oriental and Ethnographical*:—

Asia.—Three Turkish bows, a bow-ring, bracer, and arrows, together with descriptive notes and sections illustrating the structure of the composite bow. *Presented by Lady Payne Gallwey.*

A bronze horse-bit of early date obtained in Mesopotamia.

A silver ring, set with a sapphire glass cameo of the head of a Persian king.

A relief in iron and brass representing a saint seated between two lions. Indo-Persian. *Presented by Mrs. Hallinan.*

A portion of an early Indian stone relief, representing a banquet scene. *Presented by Sir Hercules Read, P.S.A.*

A bronze Brahmi seal of the 4th century A.D. *Presented by Mrs. M. S. Jacomb.*

A gold ring with sapphire, a gold earring, and a garnet intaglio with name Animida, dating A.D. 480-500, from India.

A jewelled armlet from India. *Presented by Mrs. H. Randolph Rose.*

A number of bronze objects and beads from three early graves in the Ranchi district, Chota Nagpur, India. Collected by *Sarat Chandra Roy.*

Four strings of stone beads found in association with leaden coins dating 250 B.C.—150 A.D. at Gudevada, Khrishna District, S. India. *Presented by E. D. Puzey, Esq.*

A selection from a series of crystal, stone, and pottery beads, together with a piece of limonite in which a number of beads are embedded; found while clearing jungle at Deniyaya, Ceylon. *Presented by the Beverley Tea and Rubber Estates Ltd.*

A number of native woven and dyed cloths from the Naga tribes, Assam. *Presented by Major J. Hardcastle.*

A native hand-woven coat and leggings from the Mru, a kilt or shawl from the Nung, and a belt from the Khanti Shan tribes, Upper Burma. *Presented by L. Lacey Langley, Esq.*

A circular mirror of speculum metal with relief designs, of the Han dynasty, from China. *Presented by Prof. Masumi Chikashige.*

Africa.—An ethnographical series, including a number of silver amulets and ornaments, from the Oasis of Siwa, Sudan. *Presented by W. Seymour Walker, Esq.*

A series of ethnographical objects chiefly from Bassa and Kabba Provinces, Northern Nigeria. *Presented by C. A. Woodhouse, Esq.*

A carved ivory double armlet of ancient Benin work, W. Africa.

An ethnographical series, including a number of objects in cast bronze, from Benin, West Africa.

A plaster cast of an ivory cup with cover, in the possession of the Society of Antiquaries of Newcastle-on-Tyne, of XVI century West African work. *Presented by Parker Brewis, Esq., F.S.A.*

A wooden idol, pottery bowl, and various other objects obtained from the Aros near Arochuku, S. Nigeria. *Presented by D. A. Macalister, Esq.*

A wristlet of gold and glass beads taken from one of the Ashanti temples, Gold Coast. *Presented anonymously.*

The robe and cap of the King of Dahomey, given to Vice-Admiral Eardley Wilmot.

Two steatite carvings of a man and a woman from Mendiland, Sierra Leone. *Presented by Major Hugh Rochford.*

A steatite figure obtained in about 1884 in the Yoni country, Sierra Leone. *Presented by Major H. E. Weaver.*

A series of stone implements of palæolithic type, found at or near the village of Katende, 40 miles from Luebo, in the gravels of the Lulua River, Belgian Congo. *Presented by the Rev. G. Tollefsen.*

An iron arrowhead, found in a cave at Kakontwe Quarry, Katanga, Belgian Congo. *Presented by Alexander Hay, Esq.*

A Bushman ochre painting on stone, representing antelopes, from Rhodesia. *Presented by H. H. Hamling, Esq.*

Two large digging-stick stones and several other stone implements from the Transvaal. *Presented by Major T. G. Trevor.*

The rod of office of a priestess of the "Nabingi" Secret Society, and a necklet of charms worn by the Muhundé Ndochibiri, from Kigezi, British Ruanda. *Presented by Capt. J. E. Philipps, M.C.*

A nine-stringed guitar from the Uganda Protectorate. *Presented by C. O. Skilbeck, Esq.*

A series of beads found upon the seashore, and a "slate" made from a camel's scapula, from Zanzibar.

Oceania.—A wooden cannibal fork from Fiji. *Presented by H.M. the King.*

A large series of ethnographical objects, chiefly from Fiji, Tonga and the New Hebrides, collected by the donor, and including a large whale's tooth given by King George Tubou of Tonga to Thakombau, and an heirloom mat of Fatafahi, "Divine King" of Tonga. *Presented by Sir Everard im Thurn, K.C.M.G., K.B.E., C.B.*

A large series of stone implements, sculptures and other objects from Easter and Pitcairn Islands, collected by the donor and Mrs. Scoresby Routledge on their expedition to the Pacific, 1913-16. *Presented by Scoresby Routledge, Esq., F.S.A.*

A stone sculptured head, mounted on a shell ring, representing the "tindalo" of Kulanikama, and a stalagmite armlet and breast ring worn by his priest, from the Solomon Islands. *Presented by the Rev. Canon A. Penny.*

A carved wooden block for printing "tapa" from Fiji. *Presented by Dr. A. P. Maudslay.*

A kava bowl and dish from Fiji, and a paddle from the Caroline Islands. *Presented by C. O. Skilbeck, Esq.*

A wooden slop-bowl studded with human teeth, formerly the property of Kamehameha I, King of Hawaii.

DEPARTMENT OF BRITISH AND MEDIEVAL ANTIQUITIES. 71

A fine carved club from the Marquesas Islands, and a jade pendent charm from New Zealand. *Bequeathed by Thomas Boynton, Esq., F.S.A.*

A Maori carved box for "huia" feathers, from New Zealand.

America.—Two ancient pottery vases and two pottery heads from the Valley of Mexico. *Presented by Señor Manuel Gamio, on behalf of the Government of Mexico.*

A Maya painted vase found on the banks of the Rio Lempa in Salvador, Central America.

An ancient pottery mould and impression, a figurine, and two vases from Azcapotzalco, Mexico. *Presented by Señor W. Niven.*

Several pottery vessels for burning copal found in a temple at Menche, two ancient vessels from Alta Vera Paz, and two vases from Peru. *Presented by Dr. A. P. Maudslay.*

Three silver cups, and a series of gold ornaments and other objects from graves mainly at Ancon, Peru. *Presented by G. Lockett, Esq.*

Seven ancient Peruvian vases from the Chicama Valley.

An ancient Peruvian copper knife obtained in Cuzco. *Presented by W. G. Buchanan, Esq.*

A small stone pestle with carved handle from Bogota, Republic of Colombia. *Presented by Sir Percy Wyndham, K.C.M.G.*

Three stone arrowheads, a stone pendant, and a stone hook for a spear-thrower, found at or near Cabo Verde, Minas Geraes, Brazil. *Presented by Dr. Alfonso Taunay.*

A large series of ancient stone implements from the West Indies. *Presented by A. R. Brailey, Esq.*

A wooden chest carved with totemic designs and inlaid with teeth and shell, from the Haida Indians, Queen Charlotte Island. *Presented by St. George Littledale, Esq.*

A large wooden chest with totemic carvings, a carved baby-carrier, a totem-pole, and several other objects from the North West Coast and New Mexico.

A carved horn spoon, wooden fork and spoon, and fish-hooks from the North West Coast of America, and several other objects. *Presented by Miss Bowick.*

A series of games and implements collected by the donor from the Zuñi Indians in 1893 and 1907. *Presented by Stewart Culin, Esq.*

A wooden mask from the Boruca Indians, Costa Rica. *Presented by Comte Maurice de Périgny.*

An ethnographical series from tribes of the Upper Amazon, obtained at Iquitos, Peru. *Presented by the heirs of Emilio Kanthack, Esq.*

A number of feather ornaments, collected in 1916 by the donor, from tribes on the Bermejo River, Argentine Republic. *Presented by A. S. Hume, Esq., C.E.*

A basket for collecting shell-fish, a string child-carrier, and a quartz arrowhead from the Coast of Patagonia. *Presented by Miss M. B. Dockray.*

CHRISTY COLLECTION.

During the year the Trustees have acquired by donation the following objects, which have been transferred to the Trustees of the British Museum:—

(1.) *Ethnography of Asia.*

Five stone implements from the Kachin district of the Northern Shan States, Upper Burma. *Presented by G. C. B. Stirling, Esq.*

Two silver coins from Siam. *Presented by Miss Cleverley.*

A pottery water-vessel from the neighbourhood of Kula Kangsar, Perak, Federated Malay States. *Presented by Mrs. C. T. Huttenbach.*

Two bronze key-hangers with silk tassels and copper pendants, from Korea. *Presented by Sir Hercules Read, P.S.A.*

(2.) *Ethnography of Africa.*

An iron spear-head from the Sudan. *Presented by A. E. Warden, Esq.*

A doll from el Duem, Egyptian Sudan. *Presented by Mrs. Lock.*

A doll from el Duem, Egyptian Sudan. *Presented by C. F. Lock, Esq.*

Firesticks from the Mt. Sabinio area of Ruanda, Uganda Protectorate. *Presented by Capt. J. E. Philipps, M.C.*

Three copper bangles obtained at Nairobi, British East Africa. *Presented by R. Stanley Taylor, Esq.*

A musical instrument called Limba, used by the Anyanja of Nyasaland. *Presented by H. S. Stannus, Esq., M.D. (See "Man," 1920-20.)*

Six carnelian beads found on the beach, Pondoland, South Africa. *Presented by J. Burt-Davy, Esq., F.L.S.*

A wooden figurine from the Coast District, Belgian Congo. *Presented by Mrs. Wilson.*

Grotesque pottery head from the Cameroons, W. Africa. *Presented by C. L. Fenton, Esq.*

An ivory fetish from the Kwilu, an ivory comb from the Lualaba, and a silver amulet from North Africa. *Presented by Louis C. G. Clarke, Esq.*

(3.) *Ethnography of Oceania.*

Three spears and two spear-throwers from Western Australia. *Presented by Capt. Coghlan.*

Two clubs and two boomerangs from Queensland, Australia. *Presented by Mrs. A. M. Pollock.*

Two jade ceremonial axes from New Caledonia. *Presented by the Dowager Countess of Dunmore.*

Seven arrows from the New Hebrides. *Presented by T. Thompson, Esq.*

A human skull with modelled features from the Island of Espiritu Santo, New Hebrides. *Presented by Vice-Admiral E. F. A. Gaunt.*

Three carved dancing clubs from the island of Buka, Solomon Islands. *Presented by C. E. Reader, Esq.*

(4.) *Antiquities and Ethnography of America.*

Three stone arrowheads found near Russell, Illinois. *Presented by E. Firth, Esq.*

The head of a dancing staff, with totemic carving, from the north-west coast, and a pottery vase from the Nasca Valley, Peru. *Presented by Louis C. G. Clarke, Esq.*

Four pottery figurines in primitive style from the Panuco Valley, Mexico. *Presented by J. M. Muir, Esq.*

A gold ornament in the form of a human head, found by the late M. de Waldeck in the ruins of Palenque, Chiapas, Mexico. *Presented by C. B. O. Clarke, Esq.*

A pottery vase with painted ornament from the highlands of Ecuador. *Presented by Miss Lillian E. Elliott.*

Pottery figurine of a fish, found six feet below the surface of the ground on the island of La Tola, in the estuary of the Santiago River, Ecuador. *Presented by H. S. Gordon, Esq.*

A shrunk human head from the Jivaro Indians, Ecuador. *Presented by J. H. Spottiswoode, Esq.*

A series of stone implements and fragments of early pottery from Santa Catharina, Brazil. *Presented by Dr. G. C. Bleyer.*

Ancient pottery vase, found at a depth of 10 feet in the bank of the Rio Colorado (Bermejo), 6 miles east of Tinogasta, Catamarca, Argentina. *Presented by H. Teschmaker, Esq.*

Stone *manija* of a *boleador* from the Tuyu region of Cape San Antonio, Buenos Aires, Argentina. *Presented by Sir Herbert Gibson.*

A series of stone arrowheads and implements from middens in the Chubut Valley, about five miles from the coast, Argentina. *Presented by Canon P. E. Class.*

Series of antiquities from the windward side of Montserrat, West Indies. *Presented by the Hon. Fred Driver.*

In addition to the above donations, the Christy Trustees have acquired by purchase a collection of pottery figurines, vase fragments, whistles, stamps, and ornamented spindle-whorls, all of pre-Inca date, and found within a comparatively small area in the Province of Manabi, Ecuador.

Charles H. Read.

DEPARTMENT OF COINS AND MEDALS.

I.—*Régistration and Arrangement.*1. *Greek Series.*

Two thousand seven hundred and fifty-seven coins of various parts of the Greek world, recently acquired, have been registered, and two thousand seven hundred and twenty-nine incorporated, while thirty-six coins hitherto classed as uncertain have been identified and incorporated in the general series.

Eleven pieces have been added to the collection of forgeries.

Owing to these large additions, two cabinets have been inserted in the series of European Greece and Asia Minor, and the coins have been re-spaced in the trays throughout the major part of the collection. This has necessitated the renumbering of most of the trays and the correction of the labels attached to the outside of the cabinets, which task is now nearly completed.

The substitution of the new for the old pattern glass trays has been continued.

The provenance of the electrum coinage assigned to Ionia in the collection has been examined and, where ascertainable, noted in the trays.

The treatment and cleaning of sick and dirty coins has been undertaken with the assistance of the scientific adviser to the Museum, and good results have been obtained.

The following collections have been examined and a selection made for purchase: (*a*) Two dealers' stocks of North African coins; (*b*) a collection made in the Troad, another made in the Black Sea area, and another made during the war in the Levant; (*c*) various Sale Catalogues, British and Continental.

Many small parcels of coins submitted for identification by private individuals, and in some cases by local Museums, have been dealt with.

A Hand-list has been compiled of all available Sale Catalogues, with notes as to their relative utility as material for study. The bibliography has been kept up to date.

Several selections of casts have been made for foreign scholars.

2. *Roman and Byzantine Series.*

Five hundred and sixty coins have been registered and incorporated.

All issues of Hadrian and the second brass issues of the period from Trajan Decius to Carus have been rearranged, while considerable progress has been made with the classification of the billon issues of the 3rd century after Christ, according to mints. The arrangement of the issues of the period 395–476 A.D. has been checked in the light of recent research.

The weights of the coins of the early 3rd century after Christ have been examined in order to determine the standards to which they conform.

The specific gravity of a number of aurei and denarii has been taken with a view to determining their metallic composition and thereby deciding, in some cases, their genuineness.

The collection of casts of Imperial coins has been largely increased, and the casts of medallions from Philip I. to the end have been rearranged.

Several collections offered for presentation or purchase have been examined and selections made.

The bibliography has been kept up to date.

3. *British and Colonial Series.*

One thousand six hundred and fifty-nine coins have been registered and incorporated.

Various collections etc., offered for purchase or presentation have been examined and a selection made from them, notably a find of Anglo-Saxon coins of Eadgar, Eadward II. and Aethelred II., a collection of 18th century tokens, a large collection mostly composed of Kentish tokens of the 17th century, and a collection of English gold coins of the first importance.

4. *Modern and Mediæval Series.*

One thousand four hundred and eight coins have been registered and one thousand three hundred and twenty-five incorporated.

The Swiss coins and medals in the Townshend collection, which up till now have been kept separate, have been incorporated into the general collection: this has necessitated the rearrangement of all the coins in the series and the insertion of fresh heading-cards.

Various collections offered for purchase or presentation have been examined, and a selection made, notably from a large bequest and from a collection of money of necessity struck during the great war in the Central Empires.

5. *Oriental Series.*

One thousand and twenty-five coins have been registered and incorporated.

An unusually large number of collections has been offered for presentation and purchase. These have been examined and selections made for the Museum.

PUBLICATIONS.

1. *Catalogue of Greek Coins.*

Coins of Arabia, Mesopotamia, &c., by G. F. Hill.

Fifty-five collotype plates and sheets B—L (80 pages) have been passed for press and M and N sent for revise.

Coins of Cyrenaica, by E. S. G. Robinson.

One hundred and twenty-four coins have been described. The issues of the fourth century have been rearranged in a more convenient order. The weights of all coins of the district available have been collected and digested into tables with a view to their insertion in the Catalogue.

2. *Catalogue of Roman Coins.**Coins of the Early Roman Empire*, by Harold Mattingly.

All the coins have been described and a considerable portion of the introduction has been written, while the description of the coins of Augustus and Tiberius and the earlier sections of the introduction have been revised and thrown into final form.

3. *Catalogue of Indian Coins.**Ancient Indian Coins*, by J. Allan.

Ninty-four coins have been described.

4. *Guides.**Guide to Exhibition of Historical Medals.*

The text and introduction of the old Guide to English Medals have been subjected to a first revision; descriptions of the additions to the English series and of the medals in Part II (general series) have been written. An index to the inscriptions on medals in Part I has been written and translations added.

5. *Miscellaneous.*

Grains and Grammes. A Table of Equivalents for the Use of Numismatists, has been published.

Exhibition.

The New Exhibition Room has been fitted with cases. The mounting of the coins and medals for exhibition has been begun, eleven cases of medals illustrating British and European history from the fifteenth century onwards having been mounted and labelled, and the first draft of the guide to this section prepared.

Extension of the Medal Room.

The screen between the Medal Room and the North Corridor has been removed, and the latter space is being fitted for inclusion in the main room, thus increasing by nearly one-half the accommodation for the collections.

III.—ACQUISITIONS.

The total number of coins and medals added to the department during the year 1920 was 7,919, of which 460 were of gold, 2,843 of silver, 4,138 of copper and 478 of other metals. The average of the preceding ten years was 2,787.

DEPARTMENT OF COINS AND MEDALS.

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The following table shows the numbers of the new acquisitions classified according to the several series to which they belong:—

Class.	Gold.	Silver.	Bronze.	Other Metals.	Total.
Greek... ..	15	737	2,197	21	2,970
Roman	14	151	396	38	599
British and Colonial	255	514	711	118	1,598
Medieval and Modern	64	869	473	272	1,678
Oriental	112	572	361	29	1,074
Total	460	2,843	4,138	478	7,919

Of the above 6,033 were presented, viz., 314 of gold, 1,905 of silver, 3,384 of bronze, and 430 of other metals.

The following is a list of benefactors to the Department of Coins and Medals during the past year:—

H.M. the King; H.M. the King of Italy; the Lords Commissioners of the Admiralty; the Adjutant-General to the Forces; the Administration of the Air Force; the Assistant-Director of Statistics, Inland Revenue; the Deputy-Master of the Royal Mint; the Director of Industries for the Central Provinces; the Director of the Memorial Plaque Factory; the West African Currency Board; the British Academy; the British School in Egypt; the Birmingham Mint; the Camberwell Public Libraries; the Gas Light and Coke Company; the Goldsmiths' Company; Rev. Justin E. Abbott; Mrs. Frederick Adam; W. Airy, Esq., M.I.C.E.; S. C. Atchley, Esq.; A. H. Baldwin, Esq.; Captain J. W. Bailie; Master Reginald Bennett; Colonel J. Biddulph; M. Adrien Blanchet, Membre de l'Institut; Edwin Bradnam, Esq.; Prof. C. J. Brown; J. C. Brudenell-Bruce, Esq.; Hr. L. E. Bruun; F. Buckler, Esq.; W. H. Buckler, Esq.; Sir John Bucknill, K.C.; W. E. M. Campbell, Esq., I.C.S.; Miss A. Cazenove; G. P. Churchill, Esq.; A. H. W. Cleave, Esq.; Col. F. P. Cockerell; Colin H. Dakers, Esq.; Col. G. A. Dale; M. A. Dieu-donné; L. V. Keitley Duff, Esq.; F. R. Durham, Esq.; E. Earle, Esq.; Robert J. Eidlitz, Esq.; Sir Arthur Evans, F.R.S.; Miss Helen Farquhar; B. S. Faudel-Philips, Esq.; W. Fensome, Esq.; Lionel L. Fletcher, Esq.; L. F. Ford, Esq.; Albert Fox, Esq.; the late H. B. Earle Fox, Esq.; Rev. T. S. Frampton, M.A., B.C.L., F.S.A.; Heer M. Frankenhuis; Henry Garside, Esq.; Stephen Gaselee, Esq., C.B.E.; C. S. Gifford, Esq.; Col. F. Guays; G. C. Haines, Esq.; the late D. T. Harris, Esq.; Mrs. F. W. Hasluck; the late F. W. Hasluck, Esq.; Thomas Hedley, Esq.; Richard Heming, Esq.; L. M. Hewlett, Esq.; Mrs. E. L. Hicks; George F. Hill, Esq.; J. C. Hodgson, Esq.; A. W. W. Horsbrugh, Esq.; Sir Henry H. Howorth, K.C.I.E.; Major E. G. Hume; Major E. H. S. James; Gresham P. L. James, Esq.; Hubert S. Job, Esq., O.B.E.; Louis Keen, Esq.; E. G. H. Kempson, Esq.; Sir Frederic G. Kenyon, K.C.B.; Signor L.

Laffranchi; H. A. Latham, Esq.; L. A. Lawrence, Esq., F.S.A.; M. H. Lee, Esq.; W. H. Lee-Warner, Esq.; Dr. Ritter A. von Loehr; G. D. Lumb, Esq.; Lt.-Col. G. B. Croft Lyons, F.S.A.; Mrs. Macdonald; Harold Mattingly, Esq.; Rev. F. L. Powys Maurice; J. Mavrogordato, Esq.; E. G. Millar, Esq.; J. Grafton Milne, Esq.; Messrs. Samuel Montagu & Co.; L. A. D. Montague, Esq.; Mons. J. de Morgan; Prof. R. Newstead, F.R.S.; Heatley Noble, Esq.; H. E. Okeover, Esq.; Henry Oppenheimer, Esq., F.S.A.; Charles L. Pack, Esq.; Conte Nicolò Papadopoli-Aldo-brandini; Henry E. Parkes, Esq.; R. E. W. Partridge, Esq.; W. W. Pearson, Esq.; Prof. Dr. Behrendt Pick; Ernest Richmond, Esq.; C. A. Robertson, Esq.; Commander A. P. Robinson; E. S. G. Robinson, Esq.; Maurice Rosenheim, Esq., F.S.A.; J. Sanford Saltus, Esq.; Signor A. Segré; C. T. Seltman, Esq.; E. H. Shine, Esq.; C. Davies Sherborn, Esq.; Master T. C. Skeat; T. R. Skinner, Esq.; Messrs. Spink & Son; Robert Sutcliffe, Esq.; Rev. E. A. Sydenham; Sir Percy M. Sykes, K.C.I.E., C.M.G.; Col. the Hon. Milo G. Talbot, C.B.; E. Timperley, Esq.; Alderman W. Vernon, Esq., J.P.; Gordon Ward, Esq., M.D.; W. C. West, Esq.; Howland Wood, Esq.; C. L. Woolley, Esq.; Andrew W. Young, Esq.; Dr. W. Young, C.I.E.

IV.—*Remarkable Coins and Medals.*

The year has been marked by a very large number of accessions, and by some important gifts. Amongst these special attention must be called to the gift of a notable series of fine gold English coins by the Goldsmiths' Company; the bequests by Mr. Earle Fox of his very useful collection of Greek coins and by Mr. Hasluck of a selection from his remarkable collection made in the Levant; the gift of the Crown of the Rose of Henry VIII by Mr. Sanford Saltus; and the gift by Mr. Frampton of his collection of Kentish Tokens.

Among the purchases the first place is taken by the silver "Marathon" decadrachm of Athens described below.

1. *Greek Series.*

Further acquisitions have been made by purchase or donation during the year from the collection of the late Sir Hermann Weber. Among the most important are the following:—

Cumæ. A silver Campanian didrachm of the early fifth century B.C. *Obv.* Lion scalp between two boars' heads. *Rev.* shell.

Hyria. A silver Campanian didrachm of 400 B.C. *Obv.* Head of Pallas. *Rev.* man-headed bull and, in addition to the ethnic, the letters *ASKH* between its legs.

Thurium. A silver Italic didrachm of the fourth century B.C. *Obv.* head of Pallas. *Rev.* bull butting with the letters *THE* above and two fishes in the exergue. *Presented by Sir Arthur Evans, F.R.S.*

Two other similar didrachms with a torch and *TI*, and a dolphin and *PHI*, respectively, as reverse symbols and letters.

Aenus. A silver Attic tetradrachm of the late fifth century B.C. of fine style. *Obv.* head of Hermes. *Rev.* goat, a pig's head as symbol.

Damastium and Pelagia. Two rare silver tetradrachms of quasi-barbarous style of the fourth century B.C. *Obv.* head of Apollo. *Rev.* tripod and the ethnics of Damastium and Pelagia respectively. *Presented by Sir Arthur Evans, F.R.S.*

Elis. A very fine silver stater of the early fifth century B.C. *Obv.* eagle devouring hare. *Rev.* Nike running.

Cyzicus. An electrum hekte with the type of a crouching lion and a hemihekte with the type of a winged monster. both about 400 B.C.

Caria. A gold hekte of the dynast Pixodarus B.C. 340-334. *Obv.* Head of Apollo. *Rev.* Zeus Labrandeus.

Tarsus. A fine specimen of the rare issue of the satrap Mazaeus, B.C. 350-333. *Obv.* Baal-Tars seated. *Rev.* The walls of Tarsus, above which lion killing bull, and the inscription "Mazaeus ruler of the country beyond the Euphrates and Cilicia" in Aramaic, with mint letters differing from those on the Museum specimen.

Syria. A tetradrachm of Antiochus IX. with the reverse type of the monument of Sandan. *Presented by Miss Helen Farquhar.*

The Greek series has received a most useful accession in the collection bequeathed to it by the late Mr. H. B. Earle Fox. Among many other coins, principally of European Greece, may be noted a series of over four hundred Athenian coins of all periods, mostly copper, but including a very fine silver tetradrachm of the sixth century B.C., and an abundant series of the smaller silver denominations in which the Museum collection had previously been relatively weak, as well as four hundred and eighty varieties of the coinage of Corinth as a Roman colony.

Among other Greek coins acquired during the year may be noted the following:—

Hatria. A fine variety of the copper As of the early fourth century B.C., with types of the facing head of Silenus and the sleeping dog.

Velia. A silver Campanian didrachm of about 400 B.C. *Obv.* Head of Pallas, the bowl of her helmet decorated with Scylla (an ornament hitherto unknown at this mint). *Rev.* Lion bringing down stag.

Macedon. A silver stater of Philip II. of unusually fine style and condition, with the star mintmark.

Olbia. An unpublished silver tetradrachm of the first century A.D. of Inensimeus, King of Olbia. *Obv.* Diademed bust of Inensimeus with his name and title. *Rev.* Head of Apollo with the name of the moneyer Niceratus and symbol bow.

Crannon. An example of the very rare silver drachm of the early fifth century B.C. *Obv.* Taurokathapsia. *Rev.* Horse with trailing rein and trident.

Chalcis. A silver drachm of about 200 B.C. *Obv.* Female head diademed (a portrait possibly of Euboea, the Queen of Antiochus III.). *Rev.* Eagle with serpent.

Athens. A silver decadrachm of the early fifth century B.C. with the types of the head of Athena and an owl facing with open wings. This coin, whose existence was hitherto unrecorded, appears to be the seventh known example of this extremely rare and important coinage which has been thought to have been issued in commemoration of the victorious close of the Persian War. The head is from a different die from any of the other known specimens, and, while the style is perhaps not quite so strong as that of the example already in the Museum (which had been irretrievably damaged by a deep gash across the face), it is in excellent condition.

Two silver tetradrachms, local imitations of Athenian types, both found on the banks of the Oxus. One bears on the reverse in Aramaic the name conventionally interpreted as Mazæus, with the additional inscription SA, the other the apparently unique symbol of a prow of a vessel.

Achaea. One hundred and two varieties, hitherto unrepresented in the Museum, of the coinage of the Achaean League from the collection of the late Major-General M. G. Clerk.

Elis. A unique variety of the silver didrachm issue of the later fourth century B.C., combining an obverse die with a head of Zeus similar in style to that of the issues of the middle of the century, with a reverse die on which appears a spearhead symbol as well as a thunderbolt and the initials HP which are characteristic of the following period.

Cnossus. An apparently unpublished silver drachm of the second century B.C. with the types *obv.* Head of Zeus laureate, *rev.* Labyrinth.

North-Western Asia Minor. Over a hundred coins, mostly copper, of the Imperial period collected in this district and containing many unpublished varieties and interesting pieces, notably the second known example of the medallion struck at Magnesia in Ionia in the reign of Antoninus Pius, of which the reverse type is a copy of the statue of Themistocles which stood in the market-place of that city.

Smayrna. The second example known of the silver drachm issued during the second century B.C. with types *obv.* Head of Apollo; *rev.* Homer seated, *without* magistrate's name.

Lycia. A silver stater of a hitherto unknown Lycian dynast Krîna about 400 B.C. *Obv.* Head of Athena. *Rev.* Head of dynast in Persian headdress with the name Krîna in Lycian characters.

Selge. A silver stater of the second half of the fourth century B.C. with the types: *Obv.* Two wrestlers. *Rev.* Heracles, with lionskin over his arm, wielding his club.

Cibyra in Cilicia. A copper coin of the second or first century B.C. with the types of Zeus and Hermes. The very rare issues of this city were hitherto unrepresented in the Museum.

Cyprus. A gold hemiobol of the fourth century B.C. with the types: *Obv.* horse's head. *Rev.* ram's head, a very rare piece sometimes attributed to the Cyrenaica.

Arabia. A very interesting hoard of copper coins, of which no other examples are known, of very barbarous style and types ultimately derived from Athenian coins, obtained by the late Sir Richard Burton in the land of Midian. *Deposited on permanent loan by the Camberwell Public Libraries Committee.*

Elymais. Fifty-nine coins of Orodes I., Phraates and Orodes II. in unusually fine condition. *Presented by Monsieur J. de Morgan.*

Characene. Five tetradrachms of base silver with the reverse type of the seated Heracles and the name of Atambelus, but bearing dates which show that they must be attributed to an earlier and hitherto unrecorded king of that name.

Barce. A very rare silver tetradrachm of the late fifth century with the types: *Obv.* head of Zeus Ammon and the magistrate's name PHAIN. *Rev.* Silphium.

2. Roman and Byzantine Series.

A rare as of L. Atratinus with *rev.* ANTONIVS IMP. Prow, r.

Three fine denarii of Augustus and a rare as of Vitellius, *rev.* CERES AVG S.C. *Presented by Sir Henry Howorth, K.C.I.E.*

A rare denarius of Augustus with *rev.* M. DVRMIVS III VIR. Man-faced bull crowned by Victory.

A dupondius of Nero, perhaps unique, with *rev.* S.C. Triumphal Arch.

A series of rare denarii of Galba, Vitellius and the Civil Wars.

An aureus of Vitellius of the mint of Lugdunum, with *rev.* VICTORIA AVGVSTI and two others of the mint of Tarraco with *rev.* CONSENSVS EXERCITVVM and SECVRITAS IMP. GERMAN.

An aureus of Vespasian of unusual style, of the mint of Tarraco, with *rev.* MARS VLTOR.

A billon coin of Regalian, with *rev.* ORIENS AVG. Sol standing l.; found at Carnuntum. Very rare and very fine for the series.

An interesting series of more than a hundred and fifty silver and brass coins of the Empire, including many of the mint of London. *Bequeathed by the late F. W. Hasluck, Esq.*

A series of interesting bronze coins of the Byzantine Empire, showing dates and mintmarks not represented in the Museum. *Presented by C. Davies Sherborn, Esq.*

3. British and Colonial Series.

(a) Coins.

Two gold Ancient British coins of types, *Evans* A. 2. and C 7. *Presented by Sir Arthur Evans, F.R.S.*

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A silver Ancient British coin (Evans G. 2) and a bronze coin (Evans H. 8) found at Great Chesterford. *Presented by E. H. Shine, Esq.*

An unpublished penny of Offa and a very rare penny of Coenwulf.

A new variety of the penny of Wulfred, Archbishop of Canterbury, 805-832 A.D.

Fifty-eight Anglo-Saxon pennies of Eadgar, Eadweard II. and Aethelred II., found at Chester, including coins of mints and moneyers unrepresented in the Museum. *Presented by Prof. R. Newstead, F.R.S.*

Eight Anglo-Saxon coins of Eadgar, Eadweard II. and Aethelred II. from the Chester find. *Presented by Alderman W. Vernon, Esq., J.P.*

Seventeen Anglo-Saxon pennies of Eadgar, Eadweard II. and Aethelred II. from the Chester find.

Five English pennies of Cnut and Siefried from the Cuerdale hoard. *Presented by His Majesty the King.*

Two pennies of Stephen from a find made in 1881 in Park Place, one of the Oxford mint and the other perhaps of Rochester. *Presented by Heatley Noble, Esq.*

A long cross penny of Henry III. of the moneyer Nichol of Canterbury. *Presented by L. A. Lawrence, Esq., F.S.A.*

A very rare variety of the half noble, a rare variety of the groat, and a new variety of the London half groat of Edward III.

A very rare penny of London mint of Henry IV.

A very rare halfpenny of Edward IV. of Dublin.

A fine selection of 230 English gold coins from the Carlyon-Britton Collection, remarkable alike for condition and rarity. The period covered is from Edward III. to the Commonwealth and many gaps are filled in the Museum series. Among the more notable coins are a fine series of 13 nobles of Richard II., an exceptionally rare noble of Henry II., a rare spur-ryal of James I. and some very fine and rare Anglo-Gallic coins of the Black Prince. *Presented by the Goldsmiths' Company.*

The second known specimen of the "Crown of the Rose" of Henry VIII., one of the rarest and most valuable of English coins. It was ordered to be issued on 22nd August, 1526, and was current for barely two months, after which it was replaced by the crown of the double rose, current at 5s.; the value 4s. 6d. of the crown of the rose had been found inconvenient as it was not an aliquot part of the pound. *Presented by J. Sanford Saltus, Esq.*

A collection of English coins in gold, silver and copper, from the earliest times to the nineteenth century. *Bequeathed by the late F. W. Hasluck, Esq.*

A collection of 12 gold, 45 silver, 602 brass or copper coins, and 4 lead English coins, including a collection, almost complete, of the XVIIth and XVIIIth century tokens of the County of Kent, the latter to be kept separate and known as the Frampton Collection of Kent Tokens. *Presented by the Rev. T. S. Frampton, M.A., B.C.L., F.S.A.*

(b) Medals.

A fine engraved portrait on a silver plaque dated 1594, of George, Earl of Cumberland, by Jacques de Gheyn. *Presented by H. E. Okeover, Esq.*

A rare silver engraved medal signed P.A. satirising Oliver Cromwell and Masianello.

An unpublished silver medal of Monmouth's rebellion signed B.H.

A bronze medal of Princess Louise, Marchioness of Lorne, by Lady Feodora Gleichen.

One silver and two bronze Canadian centenary medals of Laura Secord. *Presented by Thomas Hedley, Esq.*

A silver medal struck by the Gas Light and Coke Company for war services of its employees. By E. Carter Preston. *Presented by the Gas Light and Coke Co.*

A specimen in silver of the Serena Medal for Italian Studies, by E. Carter Preston. *Presented by the Council of the British Academy.*

4. *Mediæval and Modern Series.**(a) Coins.*

Six deniers of Charles the Bald, Berengar, etc., from the Cuerdale hoard, and an extensive series of gold and silver European coins from the sixteenth to the nineteenth centuries, including gold ducats of Hungary, Prussia and Brandenburg-Bayreuth, and an extensive series of thalers, many of great historical interest. *Presented by His Majesty the King.*

A large collection of mediæval and sixteenth and seventeenth century coins of the Low Countries, Germany, France, Italy, especially those which circulated in the Levant, and of the mediæval coinage of the Latin East. This acquisition is particularly valuable to the Museum as it covers series not usually collected, which rarely find their way to this country. *Bequeathed by the late F. W. Hasluck, Esq.*

74 bronze coins of the Despots of Epirus. *Presented by the late F. W. Hasluck, Esq.*

171 modern continental coins in silver, bronze and nickel in continuation of previous gifts. *Presented by Henry Garside, Esq.*

A very rare bronze coin of Stephen, Duke of Naples 758-759 A.D. *Presented by C. Davies Sherborn, Esq.*

98 specimens of the zinc and iron money of necessity of Germany. *Presented by Albert Fox, Esq.*

49 iron or zinc German local coins of necessity. *Presented by Louis Keen, Esq.*

A specimen of the U.S.A. half-dollar of 1920 commemorating the *Mayflower* tercentenary. *Presented by C. S. Gifford, Esq.*

35 gold coins of France, the Low Countries, and Italy, of the sixteenth century, of great rarity and in beautiful condition, from the Carlyon-Britton Collection. *Presented by the Goldsmiths' Company.*

(b) Medals.

A hitherto unrecorded Italian medal of the end of the fifteenth century of Filippo Maria de' Rossi, Count of Berceto, and his grandfather, Pier Maria, founder of the dynasty. *Presented by Henry Oppenheimer, Esq., F.S.A.*

An Italian medal of Gabriel de' Gabrielli, Cardinal of S. Prassede, about 1500 A.D.

A bronze medal of Alfonso V. of Aragon, by Paolo da Ragusa.

A medal by an unknown artist of Pietro Manna of Cremona, c. 1550.

A bronze medal of Gonsalvo de Cordova by Annibal of Milan.

An unsigned medal of Girolamo Morcat (about 1525).

A rare bronze Italian medal of Christ of the XVIIth century, signed PHILIPPI OPUS. *Presented by E. G. Millar, Esq.*

A bronze medal of Philip II. by Jacopo da Trezzo.

A lead medal of the artist Franz Floris.

A silver medal of Count Tilly, with his coat of arms, 1628.

A fine specimen in bronze gilt of the medal of Wolfgang Jörger, 1518, after Hans Schwarz. *Presented by Maurice Rosenheim, Esq., F.S.A.*

A silver medal of Thomas Schweicker of Halle, the artist born without hands, dated 1582. *Presented by His Majesty the King.*

78 German medals in bronze and iron relating to the War, in continuation of previous gifts. *Presented by Heer M. Frankenhuis.*

A silver medal of the Danish numismatist L. E. Bruun, by Lindahl. *Presented by L. E. Bruun, Esq.*

A bronze medal of the International Commission for the Schleswig Plebiscite. *Presented by J. C. Brudenell-Bruce, Esq.*

5. *Oriental Series.*

A very rare gold coin of the Sassanian Emperor Peroz. *Presented by Colonel G. A. Dale.*

An extensive series of Sassanian silver coins from the collection of the late General Malcolm Clerk, including very rare coins of Ardashir III., Kobad II., and Hormazd V.

Six silver coins of Arab governors of Persia. *Presented by Mons. J. de Morgan.*

A dinar of Harun al-Rashid, 178 A.H., with the name of his vizier Ja'afar.

A dinar of the Buyid Azad al-Daula struck at Basra, 370 A.H.

Three dirhems of the Buyid Baha al-Daula struck at Suk al-Ahwaz, 395, 398, 399 A.H. *Presented by Commander A. P. Robinson.*

A dinar of the Great Seljuk Toghrul Beg, of Madinat al-Salam (Baghdad), 455 A.H.

A dinar of the Great Seljuk Muhammad of Nishapur, 498 A.H. *Presented by Major E. H. S. James.*

A dinar of the Ilkhan of Persia, Abu Said of Madinat al-Salam (Baghdad), 717 A.H.

A series of 51 silver and copper coins of mediæval Persia, including the first known coin of Hasan b. Zaid, an Alid rebel who founded a dynasty in Tabaristan, struck at Amul 254 A.H. *Presented by Sir Percy Molesworth Sykes, K.C.I.E., C.M.G.*

A rare gold late Kushian coin with the name *Lohavatyā*. *Presented by Colonel J. Biddulph.*

A very fine specimen of the horse-sacrifice type of Samudragupta from the General Clerk Collection, and a specimen of his Candragupta I. type from the Hoey Collection.

A gold coin of Candragupta II. of the Lion-slayer type, a new variety of B.M.C. no. 113, having the King to left, and the specimen of his Chattra type of Candragupta II. illustrated in B.M.C. Pl. VIII. 4.

The unique gold coin of Puragupta from the Hoey Collection (B.M.C. Pl. XXI. 23).

Four gold tankas of Muhammad II. of Dehli, Dar al-Islam, 704 A.H., Dehli, 697, 698 and 713 A.H.

A rare gold tanka of Muhammad III. of Dehli (744 A.H. type of B.M.C. 328) and another, an unpublished variety of B.M.C. 334.

A fine collection of Moghul coins in gold and silver and copper, including gold muhrs of Akbar, Patna 987; Lahore 47; Jaunpur 980; gold muhrs of Jahangir, Lahore, 1016; Agra, 1021; gold muhrs of Shah Jahan, Agra 1038 and 1044; Surat year 5 (Isfandarmuz) and 1044; Lahore 1050; Delhi 1047 and 1084; Daulatabad 1048; gold muhrs of Aurangzib, Jahangirnagar 1114; 47; Multan 1074; 7; Shahjahanabad 1101; 3 and 1102; 36; Hyderabad 1112; 45; a gold muhr of Jahandar, Murshidabad 1124; 1; a gold muhr of Ahmad, Multan 1164; 4; a gold muhr of Shah Jahan III., Indore, 1174; 1; from the collections of the late Sir Thomas Dennehy, the late Sir Denzil Ibbetson and the late Mr. J. Doyle Smith.

A specimen of the rare gold coinage of the Sikh Ranjit Singh, dated Samvat 1868.

Forty-one coins of the Turks struck in Egypt. *Presented by Henry Garside, Esq.*

Gold coins of Nadir Shah of Persia, struck at Meshhed and Peshawar 1055 A.H.

Four gold coins of Karim Khan of Persia, of Tabriz 1179 and 1184, Kazwin 1186 and Shiraz, 1184 A.H. and one of Fath Ali-Shah, Erivan, 1185 A.H.

Five gold coins of Nasir al-Din Shah of Persia of the mints Tabriz, 1269, Teheran, 1271 ($\frac{1}{2}$ and $\frac{1}{4}$ tuman), 1272 A.H. *Presented by His Majesty the King.*

Three gold coins of Nasir al-Din Shah of Persia of Tabriz 1280, Kazwin 1270 and 1271 A.H.

Two gold Nepalese coins of Girvana Yuddha and one of Queen Siddhi Laksmi Devi (1756). *Presented by His Majesty the King.*

A gold muhr of Surendra Vikrama of Nepal (1791), quarter muhr of Queen Samrajya Laksmi (1746) and a half muhr of Rana Bahadur.

Four muhrs of the Kings of Oudh, Nasir al-Din 1248; 5; Amjad Ali 126x, and Wajid Ali 1264; 2; 1266; 3.

Two gold and silver coins of Assam, including a muhr of Gaurinatha 1706, a quarter muhr of Laksmi Sinha and a unique rupee of Candrakanta, 1742. *Presented by A. W. W. Horsbrugh, Esq.*

A gold muhr of Laksmi Sinha of Assam of the year 1693. *Presented by C. A. Robertson, Esq.*

A gold muhr of Gaurinatha Sinha of Assam, 1707.

A series of rare Afghan coins including gold mohurs of Ahmad Shah Durrani of Dera 1166 and Shahjahanabad 1173, of Timur, Peshawar 1205 and Herat 1195, of Mahmud, Ahmadshahi 1218 and Bhawalpur 1225 and Shuja al-Mulk, Kabul 1223; from the collection of the late Sir Thomas Dennehy.

VI.—*Students and Visitors.*

The number of visits made to the Department of Coins and Medals during the year 1920 was 2,533. The average for the last ten years before the closing of the Exhibition was 3,854. The Exhibition has been closed since July, 1919, when it was dismantled with a view to fitting the new Exhibition Room.

George F. Hill.

BRITISH MUSEUM (NATURAL HISTORY).

STATEMENT of PROGRESS made in the ARRANGEMENT and DESCRIPTION of the COLLECTIONS, and ACCOUNT of OBJECTS added to them, in the year 1920.

GENERAL PROGRESS.

Visitors, &c.

The total number of visitors to the Natural History Museum during 1920 was 527,701, as compared with 455,736 in 1919. This is the largest total since 1909, when the number was 535,116. The attendance on Sunday afternoons was 65,431, as against 56,673 in the previous year. The average daily attendance for all open days was 1,450; for week-days, 1,482; and for Sunday afternoons, 1,258. The number of persons who attended the demonstrations of the official Guide during the year was 14,306.

The members of the International Council for the Exploration of the Seas, which met in London in March, paid an official visit to the Natural History Museum.

The Egg-collection in the Bird-room, which was closed during the War, was re-opened to students under the usual conditions.

The Staff.

Dr. F. A. Bather, F.R.S., attended the Annual Conference of the Museums Association held at Winchester in July as delegate from the Natural History Museum, and Mr. M. A. C. Hinton the Congress of the Royal Sanitary Institute held at Birmingham during the same month. Sir Sidney Harmer was appointed to represent the Museum on the Executive Committee of the Society for the Preservation of the Wild Fauna of the Empire, and Mr. Percy R. Lowe on a Home Office Advisory Committee in connection with the administration of the Wild Birds Protection Acts. Permission was given to Mr. J. Ramsbottom to serve on a Committee appointed by the Army Council to advise as to processes to improve the durability of Tentage; to Mr. A. S. Hirst to accept the post of Honorary Acarologist to the London School of Tropical Medicine; and to Dr. L. J. Spencer and Mr. W. Campbell Smith to act as Examiners in Mineralogy for the Natural Sciences Tripos at Cambridge in 1921.

Swiney Lectures.

Dr. J. D. Falconer, Swiney Lecturer for 1920, gave a course of lectures in the Lecture Theatre of the Imperial College of Science on "The Modelling of the Earth's Crust." The total attendance for the course was 2,556, or, on an average, 213 persons per lecture.

The Trustees have accepted Dr. Falconer's suggestion to take "The Wonders of Geology" as the subject of his next course of lectures under this foundation to be given in November and December, 1921.

Selous Memorial.

A memorial bust to the late Captain F. C. Selous, D.S.O., was presented to the Trustees by the Selous Memorial Committee and placed on the west side of the wall facing the Central Staircase. The memorial was unveiled by Mr. E. N. Buxton, Vice-Chairman of the Memorial Committee, on June 10th, Viscount Grey of Fallodon receiving it on behalf of the Trustees. It is proposed to exhibit the greater part of the Selous Collection of Big Game Trophies, presented to the Trustees by Mrs. Selous, in the corridors surrounding the Central Hall on the first floor. A catalogue of the collection is in preparation by Mr. Guy Dollman.

New Spirit Building.

Provision was made in the Office of Works Estimates for 1920-21 for a commencement of the work on a new building to form part of the western extension of the main building for the storage of specimens in spirit. Such a building has long been urgently necessary owing to the congestion and consequent reduced efficiency and increased risk of fire in the existing spirit building. Plans were prepared and a little preliminary work was done on the site during the year.

Sir John Murray's Oceanographical Collection.

Lady Murray, widow of the late Sir John Murray, K.C.B., having approached the Trustees with a view to the possible transfer to the Museum of her late husband's important Oceanographical collection, it was decided to accept the collection of Marine Deposits and Animals with the corresponding part of the Library, and portions of the collection of Microscopical Preparations and of the contents of the Chemical Laboratory.

Some difficulty arose with regard to the housing of the collection, as there was no accommodation available in the Museum, but it was finally arranged that the Trustees should have the use for the purpose of one of the temporary buildings erected as offices during the War on Museum ground at the back of the main building.

Whaling and Sealing in Southern Waters.

Information was received from the Colonial Office that a regulation had been issued making the period from 1st June to 15th September inclusive in each year, commencing in the season 1919-20, a close time for whaling in South Georgia. This is a matter for unmixed satisfaction as a definite step towards the protection of whales, since whaling reports and statistics give serious grounds for the belief that the supply of whales has fallen off during recent years.

Various reports and statistics were received through the High Commissioner for the Union of South Africa relating to the South African Whaling Industry for the season 1918. The total number of whales captured showed a considerable reduction on the number obtained in 1917. As compared with the figures for South Georgia and the South Shetlands, the most striking feature was the greater predominance of the Sperm Whale and the Sei Whale. The Humpback formed a very inappreciable proportion of the catch, as contrasted with the large numbers of this animal in earlier years. The Fin Whale and the Blue Whale together amounted to more than sixty per cent. of the total catch.

A satisfactory report was received from the Colonial Office with regard to sealing in South Georgia. It stated that no young seals or females were taken during the 1918 season; that arrangements were being made for obtaining, in future, reports and records of the number of seals caught during each month of the season, and that no licences had been issued in the 1919 season for that part of the coast set aside as a seal reserve.

Numerous other reports bearing on these subjects were referred by the Colonial Office to the Museum during the year, and a considerable volume of information and advice was supplied for the benefit of the authorities in the Falkland Islands and elsewhere.

Other Investigations.

Records continued to be kept of Whales and Dolphins stranded on the British Coasts, and a leaflet was prepared for the Board of Trade to aid in the recognition of those species of Cetacea which come under the designation of "fishes royal," the ownership of which is the subject of special legislation in Scotland.

Two conferences were held, under the chairmanship of the Director, with representatives of the Plumage Trade and members of the Royal Society for the Protection of Birds, respectively, to consider the actual state of affairs in regard to Egret farming in Sind and the collection of moulted Egret feathers in Venezuela. The assistance of the Museum was given to the Board of Trade on several occasions during the discussion of the Plumage Bill (1920) in Parliament.

Information was given to the Advisory Committee for Aeronautics, National Physical Laboratory, in connection with the flight of birds.

Mr. C. Tate Regan, F.R.S., prepared a report for the Colonial Office on the Fisheries of the Colonies. He also attended a conference at the Ministry of Agriculture and Fisheries to consider the development of the Fisheries of Malta.

By recent legislation the use of cocaine has been prohibited, under stringent penalties, except by certain privileged classes such as medical practitioners and pharmacists, and by others receiving special permits. The Museum was consulted by the Home Office with regard to the conditions under which excep-

tions might be made, in view of the fact that this substance is a reagent which had been in common use for the preservation of many animals which require special treatment.

As a result of an investigation undertaken in July at the request of the Royal Air Force at Halton, Buckinghamshire, Major E. E. Austen, D.S.O., of the Department of Entomology, found *Anopheles maculipennis* (a well-known malaria-carrying mosquito) breeding extensively in the canal, and to a less extent in Halton reservoir, and advised the medical authorities as to the necessary preventive measures.

Reports were received from Mr. L. R. Crawshay, who is conducting investigations in connection with the sponge fishery of the Bahama Islands, and the Colonial Office were informed that in the opinion of the Trustees a good beginning had been made with the work.

Enquiries were received from the Colonial Office with regard to fish-poisoning in the West Indies. The Museum supported the proposal for an investigation, and suggested that it should not be limited to a single locality, but should be one in which the whole of the West Indies could share and that it might profitably be undertaken in concert with the Ministry of Agriculture and Fisheries.

Dinosaurian Fossils in Tanganyika Territory.

In view of the importance of the deposits containing Dinosaurian fossils in Tanganyika Territory, partially explored by German geologists before the War, the Trustees considered the advisability of sending out an expert to continue the excavations for the benefit of the Museum. As a preliminary, Dr. E. O. Teale, Government Geologist, Tanganyika Territory, undertook to examine the fossils left behind by the Germans; to try to arrange for the packing of all that were worth sending to the Museum; and to report on the present state of the excavations, with suggestions as to the best method of following up the work.

Marine Fauna of South Africa.

The Trustees accepted an invitation to co-operate in a survey of the marine fauna of South Africa which is being undertaken by the Union Government, on the understanding that the Museum should keep the first set of specimens collected, in return for services rendered in getting the collections worked out and in distributing the material to specialists.

Bequests.

An important collection of New Zealand insects was bequeathed to the Museum by the late Major Thomas Broun, of Auckland, but it is being allowed to remain in the Dominion for a period in order to enable New Zealand entomologists to refer to it and to determine their specimens as far as possible.

The late Mrs. Emily Owen has bequeathed to the Museum a marble bust, by Wagnmüller, of her father-in-law, the late Sir Richard Owen, K.C.B., who was Superintendent of the Natural History Departments of the British Museum from 1856 to 1884.

The mounted specimens presented to the Museum during the year by the Trustees of the Rowland Ward Bequest comprised 27 mammals and birds.

Presents.

An offer was accepted from H.R.H. the Prince of Wales to present to the Museum the skeleton of an Arab stallion, "Dwarka," bred in the Arabian Desert by the Anazeh tribe and described as the most perfect Arab ever seen.

Mr. E. Dukinfield Jones removed all restrictions and conditions from the deed of gift, made during the previous year, of his collection of 20,000 Brazilian Lepidoptera, which thus became the absolute property of the Trustees.

Among other gifts of special importance may be mentioned those from:—

Mr. G. E. Bryant—A collection of 21,000 specimens of Coleoptera from the East Indies, Australia and South America, in addition to more than 16,000 specimens which he had presented during the previous year.

Lt.-Col. C. G. Nurse—A named collection of 9,400 specimens of Indian Hymenoptera Aculeata.

Sir George F. Hampson, Bart.—126 natural history publications and his collection of separata, &c., with notes.

Mr. G. L. Bates—A collection of 590 birds made by him in Cameroon.

Capt. G. Blaine—An important collection of African Big Game, from Angola.

H.R.H. Prince Abhakara of Chumpon—A collection of fishes, cephalopods, crustaceans, arachnids and insects from Siam, with a large series of water-colour drawings of Siamese fishes.

Mr. M. Maxwell—The skull of a Javan Rhinoceros and two frontlets, with horns, of the Javan Banteng.

Lord Brabourne—A collection of birds made near Lima, Peru, by the late Lord Brabourne.

Messrs. Johan Rasmussen og Alex. Lange of Sandefjord, Norway—Certain very interesting whale specimens from South Georgia.

The Government of the Union of South Africa—A nearly complete skeleton of a Bryde's Rorqual.

Prof. P. S. Pavlovic, Director of the Natural History Museum, Belgrade—A valuable collection of about 2,500 land and freshwater shells from Serbia.

Expedition.

A collecting expedition to the West Coast of Africa, made by Mr. Willoughby P. Lowe, resulted in the acquisition for the Museum of 110 mammals (including two new species) and 503 birds (including five new species).

Purchases.

The Trustees authorised the purchase of Mrs. Elizabeth Gray's collection of some 38,000 Ordovician and Silurian fossils, to be paid for in instalments spread over three or four years.

Other important purchases made during the year include 248 birds from Cameroon; 601 birds from the United States of America; 395 birds from the Canary Islands; the Penard Collection (consisting of 706 slides) of Rhizopoda and Infusoria; 5,000 specimens of Rhynchota and Coleoptera, including 307 types, being the tenth and final instalment of the Distant collection of insects; a series of about 1,000 fossil sponges, chiefly from the Cretaceous and Jurassic of Hanover; 400 fossil corals and molluscs from the Cretaceous of Gosau, Austria; fossil cephalopods and sponges from the Trias of Timor; selections from the fossils collected round Peterborough by the late Mr. A. N. Leeds; the meteoric stone which fell near Appley Bridge, Wigan, on 13th October, 1914, being the second largest on record that has fallen in Great Britain; a collection of fragments of 74 meteorites; plants from China, Tasmania, and North America; a very fine copy of "Ortus Sanitatis," by Joannes de Cuba, 1491, the excessively rare first dated edition of the greatest mediæval cyclopædia of Natural History.

Exchanges were made with, and gifts of duplicate specimens made to, various institutions and persons.

The skeleton of the famous racehorse "Eclipse" was received from the Royal College of Veterinary Surgeons on "permanent loan" for exhibition in the Museum.

The Museum took charge, on behalf of the Colonial Office, of a collection of negatives of photographs of Nigerian Natives made by Mr. N. W. Thomas.

Publications.

The following new works on Natural History were published during the year:—

British Antarctic ("Terra Nova") Expedition, 1910.
Natural History Report.

Zoology. Vol. II.

No. 9. Mollusca. Pt. III. Eupteropoda (Pteropoda Thecosomata) and Pterota (Pteropoda Gymnosomata). By Anne L. Massy. Pp. 203-232: 9 text-figures. 4to. 7s. 6d.

No. 10. Mollusca. Pt. IV.—Anatomy of Pelecypoda. By R. H. Burne, M.A. Pp. 233-256: 4 plates. 4to. 8s. 6d.

Zoology. Vol. IV.

No. 3. Echinoderma (Part II.) and Enteropneusta, Larvæ of Echinoderma and Enteropneusta. By E. W. MacBride, D.Sc., LL.D., F.R.S. Pp. 83-94: 2 plates (with explanations). 4to. 7s. 6d.

Monograph of the Lacertidae By G. A. Boulenger, LL.D., D.Sc., F.R.S. Vol. I. Pp. x., 352. [With Systematic Index]. 8vo. £2.

Catalogue of the Lepidoptera Phalaenae in the British Museum. By Sir George F. Hampson, Bart.:—

Supplement. Vol. II. Catalogue of the Lithosiadae (Arctiinae) and Phalaenoididae. Pp. xxiii., 619: 112 woodcuts. [With Systematic and Alphabetical Indexes.] 8vo. £1 10s.

Atlas of 30 Coloured Plates (xlii.-lxxi.). 8vo. £1 12s. 6d.

Handbook of British Mosquitoes. By W. D. Lang, M.A., Sc.D. Pp. vii., 125: 132 text-figures and 5 plates. [With List of Plates, Index of Trivial Names, and List of Figures.] Roy. 8vo. £1.

Flora of Jamaica, containing descriptions of the Flowering Plants known from the Island. By William Fawcett, B.Sc., F.L.S., &c., and A. B. Rendle, M.A., D.Sc., F.R.S., F.L.S., &c.

Vol. IV. Dicotyledons. Families Leguminosae to Callitrichaceae. Pp. xv., 369: 114 text-figures. [With List of Works referred to, Conspectus of Families, Key to Families, and Index.] 8vo. £1 5s.

Summary Guide to the Exhibition Galleries of the British Museum (Natural History). [By C. Tate Regan, M.A., F.R.S.] Pp. 16: 3 plans and view of the façade. 8vo. 3d.

Economic Series:—

No. 1A.—The House Fly. Its Life-history and Practical Measures for its Suppression. By Major E. E. Austen, D.S.O. Pp. 52: 11 plates and text-figures. 8vo. 1s. 6d.

No. 11.—Furniture Beetles. Their Life-history and how to check or prevent the damage caused by the worm. By C. J. Gahan, D.Sc. Pp. 23: 1 plate, 5 text-figures. 8vo. 6d.

New editions were issued of the following pamphlets:—

Instructions for Collectors:—

No. 10.—Plants. Fifth Edition. Pp. 10: 3 text-figures. 8vo. 6d.

Economic Series:—

No. 1.—The House Fly as a Danger to Health. Its Life-history, and how to deal with it. By Major E. E. Austen, D.S.O. Third Edition. Pp. 20: 3 plates (containing 6 figures), and 5 figures in text. 8vo. 3d.

- No. 3.—Fleas as a Menace to Man and Domestic Animals. Their Life-history, Habits and Control. By James Waterston, B.D., B.Sc. Second Edition. Pp. 21: 1 plate, 6 text figures. 8vo. 4*d*.
- No. 4.—Mosquitoes and their Relation to Disease. Their Life-history, Habits and Control. By F. W. Edwards, B.A. Second Edition. Pp. 20: 6 text-figures. 8vo. 4*d*.
- No. 6.—Species of Arachnida and Myriopoda (Scorpions, Spiders, Mites, Ticks and Centipedes) injurious to Man. By S. Hirst. Second Edition. Pp. 60: 26 text-figures. 3 plates. 8vo. 1*s*.
- No. 8.—Rats and Mice as Enemies of Mankind. By M. A. C. Hinton. Second Edition. Pp. 63: 2 plates and 6 text-figures. 8vo. 1*s*.

The undermentioned works were in preparation during the year:—

“Terra Nova” Antarctic Report. Further sections, including Tanaidacea and Isopoda, by W. M. Tattersall, D.Sc.; Parasitic Protozoa, by H. M. Woodcock, D.Sc., and Miss Olive Lodge; Collembola, by Prof. G. H. Carpenter; Mallophaga, by James Waterston, B.D., B.Sc.; Fish Remains from the upper Old Red Sandstone of Granite Harbour, Antarctica, by A. Smith Woodward, J.L.D., F.R.S.

Handbook of British Lichens, by Miss A. L. Smith.

Catalogue of Fossil Bryozoa:—The Cretaceous Bryozoa. Vol. III., by W. D. Lang, M.A., Sc.D.

GENERAL LIBRARY.

The additions to the General Library during the past year have been:—

By purchase	...	269	volumes.
By transference from other Departments			53 maps.
By donation...	...	640	volumes, 3 maps, and 106 photographs.
Total ...	...	<u>909</u>	<u>56</u> <u>106</u>

All the volumes and maps have been catalogued, press-marked and put in their places, while 1,484 volumes have been bound in 464, and 415 maps mounted.

The extent of the collection on the 31st December was 48,667 volumes, 6,004 maps, and 1,211 photographs (not including those in the Owen Collection of Drawings, &c.).

The accessions to the Departmental Libraries have also been catalogued as they came in, and duplicate transcripts of the titles have been returned with the books.

Altogether 2,806 title-slips have been written, 90 rewritten, and 3,208 revised (independently of those prepared for printing).

There are now, on a rough estimate, 106,945 volumes (exclusive of continuations and minor separata) and 6,339 maps in the whole building.

The number of visits paid to the General Library during the year by Students and others (irrespective of the Staff and persons to whom the use of a key is granted) was 1,585.

Donations have been received from a great number of Museums, Academies and other corporate bodies, as well as from personal donors.

The printing of the Supplement to the Library Catalogue has been continued, title-slips to the middle of "GUËN" have been set up in type, and printed off as far as "GREG," and the first four sheets of the "Addenda and Corrigenda" have also been printed off.

INDEX TO THE GENERA AND SPECIES OF ANIMALS.

During 1920 work has proceeded satisfactorily, and upwards of 25,000 references have been added to the manuscript.

After thirty years' work every book referring to Zoology (published before 1851) in the libraries of the British Museum (Natural History), of the British Museum and all the scientific societies of London, Oxford, Cambridge, Manchester, &c., have been collated and indexed. There remain some 1,000 volumes of serials yet to be dealt with, and about 150 volumes not in England, which have been referred to by systematists.

A start has already been made towards the preparation for press by lexicographically sorting the slips preparatory to editing, and it is hoped that the "Introduction," "Bibliography," and letter "A" will be ready for the printer by July, 1921.

Valuable help has been afforded Mr. Sherborn by correspondents, in Zürich, Berlin, Vienna, Dijon, Poitiers, New York, Washington, &c., who not only carried out the work personally, but also in such form as to be of permanent value to the libraries under the charge of the Trustees.

INDEX MUSEUM AND MORPHOLOGICAL COLLECTIONS.

All the dissections exhibited in the Index Museum have been examined during the course of the year, and where necessary have been cleaned, re-spirited or re-sealed.

A new case has been placed on exhibition in the Hall, to illustrate the connection between Tsetse-Flies and Sleeping Sickness. It contains a greatly enlarged model (the work of Mr. A. J. Engel Terzi) of the tsetse-fly, *Glossina palpalis*, the chief transmitter of this disease, together with actual specimens. Enlarged coloured drawings showing the fly in its characteristic resting position, its attitude while sucking blood, and the armature of the piercing proboscis as compared with other flies, are also exhibited. The case further includes models of the infective parasite *Trypanosoma gambiense*, as well as drawings of Trypanosomes from the saliva and gut of the transmitting tsetse-fly. A series of photographs of "habitats" of *Glossina palpalis*, and

a map of distribution of the species are also shown. The work in connection with this case was carried out with the help of Major E. E. Austen, D.S.O. (Entomological Department).

The original models illustrating the life-history of the malarial parasite have been replaced by a better series, which was exhibited at the Ghent Exhibition in 1913. Opportunity was taken at the same time to change the old and faded labels for new ones.

Captain Sir David Wilson-Barker's observations on the flight of the Albatros have been illustrated by a chart (including detailed and explanatory labelling) which has been framed and placed on exhibition in Bay III.

The labels of the Schistosomiasis (Bilharziasis) exhibit in the Hall have been revised, and a drawing has been inserted in the series to replace a vague and over-exposed photograph.

The Amphioxus case in Bay V. has also been thoroughly overhauled and renovated.

The preparation of an Index-series, to serve as a general introduction to the contents of the Museum, has occupied much time. The first case, containing part of this series, should soon be ready to be placed in the Central Hall.

Sidney P. Harmer,
Director.

British Museum (Natural History),
1st April, 1921.

DEPARTMENT OF ZOOLOGY.

I.—Arrangement and Conservation.

MAMMALIA.

Mammal Galleries.

Considerable progress has been made with the Exhibition of the collection of Big Game Trophies shot by the late Captain F. C. Selous, D.S.O., and presented by Mrs. Selous in 1919. More than half the Collection has been placed in position on the Walls of the South, East, and West Corridors. Wooden screens have been prepared for fixing into the windows of the East Corridor; as soon as these screens are in position the remainder of the Collection will be exhibited on them. The finest of the Kudu heads has been placed over the Selous Memorial, and another in a corresponding position on the other side of the Wall. The heads of the two largest Moose in the Collection are exhibited over the arches under the main staircase. The whole Collection has been registered and labelled and the preparation of special exhibition labels is now being undertaken. A Catalogue of this Collection has been prepared and will shortly be ready for press.

The central case in the Upper Mammal Gallery has been repainted and the specimens rearranged. Other than this no special alterations in the arrangement of the Mammal Galleries have been made, and work has been confined in the main to the installation of new specimens and the rewriting and printing of such labels as required modification in order to bring them up to date. The Sunscreens of the windows in the West Corridor have been renewed, the screens being placed inside the windows, instead of outside as formerly.

The additions to the exhibited series in the Mammal Galleries and Corridors include many specimens presented by the Rowland Ward Trustees, among them:—In the Primates: 2 Elliot's Colobus Monkeys (*Colobus ellioti*), a Black Guereza (*Colobus satanas*), 2 Dent's Guenons (*Cercopithecus denti*), a Stuhlmann's Guenon (*Cercopithecus leucampyx stuhlmanni*), and an Ituri Mangabey (*Cercopithecus albigena ituricus*). In the Carnivora: a Caracal (*Felis caracal*), an Indian Wild Dog (*Cuon dukhunensis*), a Maned Wolf (*Chrysocyon jubatus*), and a Cape Hunting Dog (*Lycyon pictus*). In the Rodentia: a West African Scaly-tail (*Anomalurus erythronotus*), and an Ituri Scaly-tail (*Anomalurus pusillus*). In the Ungulata: 2 Mongalla Gazelles (*Gazella albonotata*), 2 Angolan Springbucks (*Antidorcas marsupialis centralis*), a Sudan Bushbuck (*Tragelaphus scriptus bor*), an Angolan Duiker (*Cephalophus grimmi splendidulus*), a young Yellow-backed Duiker (*Cephalophus sylvicultrix*), a Mrs. Gray's Waterbuck (*Kobus maria*), and an Angolan Gemsbuck (*Oryx gazella*). In the Edentata: A Tamandua Anteater (*Tamandua tetradactyla*), a Giant Pangolin (*Manis gigas*), and a Pigmy Armadillo (*Chlamyphorus truncatus*). In the Marsupialia: an

Australian Opossum (*Trichosurus vulpecula*), a Philander Opossum (*Philander lanigera cicur*), a Tree Kangaroo (*Dendrolagus lamholtzi*), a Black-gloved Wallaby (*Macropus irma*), and a Rabbit-eared Bandicoot (*Thalacomys lagotis*).

Other additions to the Mammal Galleries include a fine male specimen of Varian's Sable Antelope (*Hippotragus niger variani*), presented by Captain H. F. Varian; a mounted specimen of the Angolan Mountain Zebra (*Equus zebra hartmannæ*), presented by Captain Gilbert Blaine; a mounted head of a Shou (*Cervus affinis*), presented by Mrs. Claude White; a mounted specimen of a young Harp Seal (*Phoca grænlandica*), presented by Miss E. M. Balston; 22 mounted heads and horns, including 3 heads of the Astor Markhor (*Capra falconeri falconeri*), and a Kashmir Barasingha (*Cervus cashmiriensis*), shot by the late Mr. Martyn Kennard and presented by the Right Hon. Cora Countess of Strafford; the skull of a Javan Rhinoceros (*Rhinoceros sondaicus*) with horn of record length, 2 pairs of horns of the Javan Banteng (*Bibos banteng*), and antlers of a Sangnai (*Rucervus eldi*), presented by M. Maxwell, Esq.; a mounted head of a Mongalla Gazelle (*Gazella albonotata*), presented by P. Haig Thomas, Esq.; 5 pairs of horns, including those of a Wild Goat (*Capra hircus agagrus*), presented by Brigadier-General J. Marriott, C.B.E., M.V.O., D.S.O.; a mounted specimen of a young East African Klipspringer (*Oreotragus oreotragus aureus*), presented by Lieut. Commander J. de B. Jessop, D.S.O., R.N.; the skull of an Indian Buffalo (*Bubalus bubalis macroceros*) with horns of nearly record length, shot and bequeathed by the late Mr. Arthur Forbes, I.C.S., C.S.I.; 17 mounted specimens, heads, and horns, including a mounted Red Sea Ibex (*Capra nubiana nubiana*), presented by His Highness Prince Demidoff; 8 skulls with horns of the Barren Ground Caribou (*Rangifer tarandus arcticus*), presented by the Sabellum Trading Company, Limited; 12 mounted heads of African Antelopes, including 2 Red-fronted Gazelles (*Gazella rufifrons lowvipes*) and 2 Sudan Reedbucks (*Redunca redunca coltoni*), presented by C. E. Russell, Esq., and a Hyrax (*Procavia goslingi*) presented by A. W. Cardinal, Esq.

An interesting donation, in the form of 2 old-fashioned Sporting Rifles (8 and 12 bore), was received from Brigadier-General J. Marriott, C.B.E., M.V.O., D.S.O.

One of the most important purchases made during the year was an exceptionally large and well-preserved tusk of a Mammoth (*Elephas primigenius*) from Grand Liakhovsky, New Siberian Islands, collected in 1907-08 by the Count Alexander Steinhok-Ferror Geographical Expedition.

Study series.—The usual work of labelling, registering, and incorporating the mammals added to the collection, and of skull cleaning has been continued.

The collection of American Muridæ and a large part of the skull collection have been re-arranged.

The Department is again indebted to volunteer helpers for much valuable assistance. The following should be especially

mentioned in this connection:—Mr. R. C. Wroughton, Mr. T. B. Fry, Captain P. S. Kershaw, Mr. Hugh Smith, Miss W. M. Davidson, and Miss A. Grasemann.

Mr. R. C. Wroughton, with the assistance of Mr. T. B. Fry, Miss W. M. Davidson and Miss A. Grasemann, has worked out the various collections received from the Bombay Natural History Society's Mammal Survey of India and has published reports on them. Mr. Wroughton, with the same help, has again been engaged upon the preparation of a list of the types in the collection. This list already affords most valuable assistance in carrying on the work of the department; and it has now been completed for the orders Primates and Rodents.

The arrangement of the skeleton collection has made progress, but more cabinets are much needed. A number of Cetacean skeletons have been added, and numerous casts of heads, blow-holes and valves, and of paddles of various Cetaceans have been made.

DOMESTICATED ANIMALS.

The most noteworthy addition to the Collection of Domesticated Animals is the skeleton of the famous Thoroughbred Stallion "Eclipse," which the Trustees have accepted on permanent loan from the Royal College of Veterinary Surgeons, London. Eclipse was bred by the Duke of Cumberland in 1764 and died in 1789. He was never beaten, and during his two years' turf career was the winner of 18 races.

The additions by presentation to the series of Domesticated Animals include the following:—A mounted specimen of a German breed of Pointer, presented by Captain J. Hamilton Leigh; a Tibetan Spaniel, presented by Mrs. Wilmot Corfield; a Toy Trawler Spaniel, presented by Captain A. W. F. Fuller; a Pekinese Spaniel, presented by Mrs. L. Raymond Mallock; a Fancy Rat, presented by Ralph Blake, Esq.; 3 Fancy Rats, presented by H. C. Brooke, Esq.; a Belgian Bearded Bantam Hen, presented by Richard Terrot, Esq.; a Racing Pigeon (holder of the World's record for speed), presented by Dr. M. E. Tresidder; and a Linnet-Canary hybrid, presented by Messrs. Martin and Archer.

AVES.

In the Exhibition Gallery a start has been made in the re-arrangement and remounting of the various families of Passerine Birds. The following groups have been recently completed:—Pycnonotidae, Timeliidae, Troglodytidae, Cinclidae, Mimidae and Turdidae.

During the year the mounted specimens in every wall-case have been thoroughly cleaned and overhauled, as also the nesting group series.

In the Bird Room, the Paridae, Sittidae, Certhiidae, Regulidae, Motacillidae, Alaudidae, Podicipidae, and Limicolae, besides various independent genera, have been revised and re-arranged according to the latest views of systematists.

Owing to the war a large number of collections had accumulated since 1914. Most of these have now been determined, registered and incorporated. The egg-collection, which was closed during the war by order of the Trustees, has now been reopened to students.

Card-indexes of the Ornithological literature of geographical units, of authors, of groups, and of species in the collection have been initiated. Cabinets are still urgently required for the very necessary work of expansion of the collection.

Valuable assistance in the arrangement of the Collection and the determination of accessions has been given by Mr. C. W. Mackworth Praed and others.

Mr. W. L. Sclater has made a revision of the Birds of Prey and has prepared a manuscript catalogue of the group. Captain H. Lynes, C.B., R.N., has worked out the valuable collections made on his expeditions to Darfur and presented by him to the Museum. Mr. D. A. Bannerman has continued his work on the Birds of West Africa, and Mr. C. Chubb has worked at the South American Birds, and has also continued the list of type specimens in the Collection.

REPTILIA AND BATRACHIA.

All additions have been registered and incorporated in the Collection, and the work of renewing spirit and replenishing jars has been proceeded with as usual.

The Lataste Collection has been catalogued separately, and the spirit specimens have been allowed to remain in their original sealed jars.

Since the retirement of Mr. G. A. Boulenger, F.R.S., the work in this section of the Department has been carried on by Miss Joan B. Procter. Dr. Malcolm Smith has worked out the extensive collection of Reptiles and Batrachians from Siam and Annam which he has now presented to the Museum.

PISCES.

All the accessions have been determined, registered and incorporated. The work of respiriting the collection has been continued.

Extensions of the Gallery in the Spirit Building have been made, and will accommodate 24 cases, which will relieve the congestion of a small part of the collection; the urgent necessity for a new Spirit Building still remains.

The taxidermist has been chiefly engaged in making casts and models from spirit specimens.

MOLLUSCA.

In the Shell Gallery 113 of the cabinets have been overhauled and, in many cases, rearranged. A number of surplus fuzes were purchased from the Disposal Board (Ministry of Munitions), and it is proposed to cut these in two and use the halves as end-weights for the loose series of boxes in order to keep them in position and obviate damage.

Mr. G. K. Gude has continued his rearrangement of the exhibited series of *Helicidae*. Work on the collections has been greatly facilitated by extra assistance, which has been partly voluntary, given by Mr. J. R. le B. Tomlin and Lieut.-Col. A. J. Peile. These gentlemen are responsible for the following work: Systematic rearrangement and cataloguing of the Marginellidae and Mactridae and of the Gwatkin collection of radulae, study and determination of collections from Antigua, Bermuda, the Mediterranean and other localities.

The arrangement and preparation of the Blanford and Godwin-Austen Collection of Oriental Land Mollusca have been continued by Lieut.-Col. H. H. Godwin-Austen, F.R.S.

General collections from Peru, Zanzibar, Florida, Syria, and from a Neolithic shell-mound in Trinidad (W.I.) have been determined and reported upon.

A beginning has been made of a card-index of Mollusca, with references to bionomic, distributional and other data.

A card-index of all accessions has been started, and the similar index of microscopic preparations made in 1919 has been rearranged upon a new plan.

In the Spirit Building the work of replenishing the jars and bottles has been continued, and concurrently with this a generic catalogue of spirit material is in course of preparation.

MYRIOPODA AND ARACHNIDA.

A number of large drawings of Mites and Ticks injurious to man and domestic animals have been mounted and are now exhibited on the wall in the Insect Gallery.

Considerable progress has been made with a manuscript list of the species of Myriopoda and Arachnida in the Collection.

CRUSTACEA AND PYCNOGONIDA.

Some accessions of more than usual interest have been dealt with, notably a small collection comprising several new or little-known species from the South Orkney Islands. All the spirit preparations exhibited in the Gallery have been inspected and a considerable number refilled or remounted. In the spirit collection bottles urgently requiring refilling have been attended to. The registration of the Norman collection, which has been in progress since 1911, has at length been completed, a total number of 53,611 specimens having been registered. A larger number of specialists than usual have consulted the collections during the year, and the Museum has profited by their determination of unnamed or wrongly-named specimens.

ECHINODERMA.

All accessions have been registered and incorporated.

Fourteen specimens of Holothurians exhibited in the Starfish Gallery have been remounted.

WORMS.

Accessions have been, as far as possible, determined and registered. Special attention has been given to the revision of certain

groups of Nematoda, the series of Gnathostomidae having been much improved, and certain sections of the Ascaridae worked over with a view to their more accurate determination and systematic arrangement. The determinations of many other specimens in the old collection have also been checked or revised; some of these specimens bear labels on the outside of the bottles, which have become almost illegible from fading and discoloration; in such cases the original data have been copied on to inside labels so that they may be more permanently preserved.

BRACHIOPODA.

A beginning has been made of the determination of unnamed forms in the collection. Mr. J. W. Jackson has kindly undertaken the study of this material.

COELENTERATA.

The study collection of Hydroida has been respired throughout, and the Norman collection sealed in addition. Two hundred microscopical preparations of Hydroida have been made and incorporated in the study slide collection.

Several small collections have been determined, catalogued and incorporated.

The study collection of dry Fungid corals has been reviewed and rearranged, many undetermined specimens having been named.

PORIFERA.

All accessions have been determined and incorporated and the respiring of the collection has been carried on.

II.—*Duplicates and Exchanges.*

(a) *Duplicates.*

Duplicates have been distributed to museums, scientific institutions and individuals as follows:—

Mammalia.—Goeldi Museum, Para; Dr. A. Cabrera.

Aves.—Boy Scouts' Association; National Museum of Wales, Cardiff.

Batrachia.—American Museum of Natural History, New York.

Pterobranchia.—National Museum, Dublin.

Mollusca.—National Museum of Wales, Cardiff; Prof. J. H. Ashworth, F.R.S.; Mr. P. J. Barraud; Lt.-Col. A. J. Peile; Mr. J. R. Le B. Tomlin; Mr. G. A. Williamson.

Crustacea.—Indian Museum, Calcutta; Prof. E. L. Bouvier; Mr. Th. Delachaux; Mr. R. Gurney; Dr. B. Parisi; Dr. W. M. Tattersall.

Arachnida and *Myriopoda*.—Eton College Museum.

Echinoderma.—Prof. W. K. Fisher; Dr. T. Mortensen; Mr. W. K. Spencer.

Worms.—Mr. G. A. Williamson.

Protozoa.—Prof. W. J. Sollas, F.R.S.

(b) *Exchanges.*

Exchanges have been made with the following museums and individuals:—

Miscellaneous.—Prof. A. Dendy, F.R.S.

Mammalia.—Madrid Museum; Perth Museum, Western Australia; Frère Apollinaris-Maria.

Reptilia.—Mr. A. Loveridge.

Pisces.—Prof. C. H. Eigenmann.

Mollusca.—Mr. S. S. Berry; Commander F. H. Fitzroy; Mr. G. K. Gude; Mr. A. W. Stelfox.

Echinoderma.—Dr. Th. Mortensen.

Polyzoa.—Dr. M. J. Barroso.

Coelenterata.—Prof. Max Weber.

III.—*Departmental Library.*

The acquisitions to the Library of the Departments of Zoology and Entomology, including the Walsingham Library, obtained by purchase, presentation and exchange during the year, consist of 81 separate works and pamphlets in 107 volumes, and 1,982 parts of periodicals and works in progress.

Two hundred and thirty-two volumes have been bound, including those belonging to the Walsingham Library.

The work of collating, stamping, press-marking and entering all additions in the Catalogue has been performed as usual.

All the entries of Zoological Works in the portion of the General Catalogue of Books which has been printed during the year have been checked.

The following acquisitions are worthy of special mention:—

Mathews, G. M. *The Birds of Australia*. Vol. VIII., pts. 1-5; and Supplement No. 1. *Presented by G. M. Mathews, Esq.*

Oberthür, Ch. *Etudes de Lépidoptérologie comparée*. Fasc. xvii. Text and Pls. *Presented by Monsieur Ch. Oberthür.*

Rusconi, M. *Histoire naturelle, développement et métamorphose de la Salamandre terrestre . . . ouvrage posthume publié par . . . J. Morganti*. fol. Pavie, 1854. Purchased.

Latham, J. [Six volumes of original water-colour drawings upon which Latham founded the descriptions in his "General Synopsis of Birds" and "Index Ornithologicus," containing many figures of birds that formed the types of Latham's species.] Purchased.

The following is a list of Donors to the Departmental Library during the year 1920:—

Agricultural Adviser, Government of India, Pusa, Behar, British India.

Agricultural and Mechanical College, Mississippi, U.S.A.

Agricultural Research Institute, Pusa, Behar, British India.

Austen, Major E. E., D.S.O.

Avicultural Society.

Bannerman, D. A.

Barbero, Dr. Andrés.
 Barnes, Dr. W.
 Baylis, H. A.
 Boscà Seytre, Prof. A.
 Boutan, L.
 British Ornithologists' Union.
 British Waterworks Association.
 Bureau of Fisheries, Department of Commerce, Washington,
 U.S.A.
 Calderón, V. M.
 Carazzi, Prof. D.
 Casey, T. L.
 Coastguards and Fisheries Service, Cairo, Egypt.
 Conchological Society of Great Britain and Ireland.
 Conseil permanent International pour l'Exploration de la Mer.
 Cooper Ornithological Club, California.
 Dehaut, E. G.
 Department van Landbouw, Nijverheid en Handel, Buitenzorg,
 Java.
 Department of Agriculture, Edmonton, Alberta, Canada.
 Department of Agriculture, Federated Malay States.
 Department of Agriculture, Fiji.
 Department of Agriculture, Madras.
 Department of Agriculture, New South Wales.
 Department of Agriculture, Ottawa, Canada.
 Department of Agriculture, Regina, Saskatchewan.
 Department of Agriculture, South Australia.
 Department of Agriculture, Union of South Africa.
 Department of Agriculture, Victoria, Australia.
 Department of Agriculture, Washington, D.C., U.S.A.
 Department of Fisheries, New South Wales.
 Director of Agriculture, Manila, P.I.
 Dixon, W.
 Doello-Jurado, M.
 Dognin, P.
 Donisthorpe, H.
 Edwards, F. W.
 Eecke, R. van.
 Entomological Society of London.
 Entomological Society of Nova Scotia.
 Entomological Society of Ontario, Canada.
 Ewart, Prof. J. Cossar., M.D., F.R.S.
 "Field," Editor of.
 Fisheries Department, Madras.
 Fishery Board for Scotland.
 Foreign Bird Club.
 Fraser, C. McLean.
 Godwin-Austen, Lt.-Col. H. H., F.R.S.
 Government Publications Office, Cairo, Egypt.
 Gray, Dr. R. W.
 Guérin-Ganivet, Dr. J. E.
 Hamlyn, J. D.

Hawaiian Sugar Planters' Association, Honolulu.
 Herdman, Prof. W. A., C.B.E., F.R.S.
 Imperial Bureau of Entomology.
 Imperial Department of Agriculture, Bridgetown, Barbados.
 Imperial Department of Agriculture, India.
 Imperial Museum, Tokyo.
 Indian Museum, Calcutta.
 Indian Research Fund Association, Simla, India.
 Iredale, T.
 Janse, A. J. T.
 Junta para Ampliacion de Estudios, Madrid.
 Kaburaki, T.
 Kansas State Agricultural College.
 Koeniglich Ungarisches Ornithologisches Institut, Budapest.
 Kommissionen for Havundersogelser, København.
 Laboratorio di Zoologia Generale e Agraria della R. Scuola
 d' Agricoltura in Portici.
 Linnean Society of London.
 Lord, C. E.
 Lucas, Dr. F. A.
 McClymont, J. K.
 McGregor, R. C.
 Marine Biological Association, Plymouth.
 Mathews, G. M.
 Ministry of Agriculture and Fisheries.
 Ministry of Public Works, Cairo, Egypt.
 Museum of Comparative Zoology, Harvard College, Cambridge,
 Mass.
 Naef, Dr. A.
 Navás, R. P. Longinos, S. J.
 Oberthür, Ch.
 Paganetti-Hummler, G.
 Penard, E.
 Provincial Secretary, Province of British Columbia, Canada.
 Public Health Service, United States Treasury Department.
 Redfield, C. L.
 Regia Università di Palermo.
 "Revista de Agricultura"; Sao Paulo; Director-Redactor.
 Reynell, A.
 Rockefeller Foundation, New York.
 Rothschild, Hon. N. C.
 Royal Society for the Protection of Birds.
 Scherdlin, P.
 Schmidt, K. P.
 Schwetz, J.
 Selater, W. L.
 Scott, H. H.
 Secretary of State for India.
 Sherborn, C. D.
 Shiraki, Dr. T.
 Smithsonian Institution, Washington, D.C., U.S.A.
 Société Entomologique de France.

State Museum, University of Washington.
 Stationery Office.
 Stempell, Dr. W.
 Sund, O.
 Superintendent of Government Printing, India.
 Swann, H. Kirke.
 Tattersall, Dr. W. M.
 Tropical Diseases Bureau, London.
 Tufts College, Mass., U.S.A.
 Under-Secretary of State for the Colonies.
 University of Cornell.
 University of Illinois, Agricultural Experiment Station.
 University of Pennsylvania.
 Zoological Museum, Copenhagen.
 Zoological Society of London.
 Zoological Society of New York.
 Zoological Society of Philadelphia.
 Zoological Society of Tokyo.

IV.—*Publications.*

In addition to the official catalogues and other volumes published by the Trustees (see p. 92), the following reports and descriptive papers, based on the collections, have been published:—

Mammalia.

By OLDFIELD THOMAS, F.R.S. :—

- “Scientific Results from the Mammal Survey, No. XXI.”
 Journ. Bombay Nat. Hist. Soc., xxvi., p. 933.
 “Two new species of *Sylvilagus* from Colombia.” Ann.
 Mag. Nat. Hist. (9) v., p. 31.
 “A new Shrew and two new Foxes from Asia Minor.” *Ib.*,
 p. 119.
 “The generic positions of ‘*Mus nigricauda*, Thos., and
woosnami, Schwann.’” *Ib.*, p. 140.
 “A new *Taphozous* from the Soudan.” *Ib.*, p. 142.
 “A new Marmoset from the Peruvian Amazons.” *Ib.*,
 p. 134.
 “A further collection of Mammals from Jujuy.” *Ib.*,
 p. 188.
 “Some notes on *Babirussa*.” *Ib.*, p. 135.
 “Two new Asiatic Bats of the genera *Tadarida* and *Dyacop-*
terus. *Ib.*, p. 283.
 “Four new Squirrels of the genus *Tamias*.” *Ib.*, p. 304.
 “On Neotropical Bats of the genus *Eptesicus*.” *Ib.*, p. 360.
 “New species of *Reithrodon*, *Abrocoma* and *Scapteromys*
 from Argentina.” *Ib.*, p. 473.
 “A new Fat-tailed Gerbil (*Pachyuromys*) from Western
 Algeria.” *Novitates Zoologicae*, xxvii., p. 313.
 “Scientific Results from the Mammal Survey, No. XXII.”
 Journ. Bombay Nat. Hist. Soc., xxvii., p. 25.

- “*Notoryctes* in North-west Australia.” *Ann. Mag. Nat. Hist.* (9), vi., p. 111.
- “A new genus of *Echimyinae*.” *Ib.*, p. 113.
- “On Mammals from near Tinogasta, Catamarca, collected by Señor Budin.” *Ib.*, p. 116.
- “A new Tuco-tuco from Tucuman.” *Ib.*, p. 243.
- “On Mammals from the Lower Amazons in the Goeldi Museum, Para.” *Ib.*, p. 266.
- “On small Mammals from the Famatina Chain, North-western Rioja.” *Ib.*, p. 417.
- “On Mammals from Ceram.” *Ib.*, p. 422.
- “New small Mammals from New Guinea.” *Ib.*, p. 533.
- “A note on the type-locality and geographical races of the Gundi (*Ctenodactylus gundi*, Rothm.)” *Novitates Zoologicae*. xxvii., p. 506.
- By OLDFIELD THOMAS, F.R.S., and MARTIN A. C. HINTON:—
- “On the group of African Zorils represented by *Ictonyx libyca*.” *Ann. Mag. Nat. Hist.* (9), v., p. 367.
- “Captain Angus Buchanan’s Air Expedition. 1. On a series of small mammals from Kano.” *Novitates Zoologicae*. xxvii., p. 315.
- By MARTIN A. C. HINTON:—
- “Scientific Results from the Mammal Survey, No. XVIII., Report on the House Rats of India, Burma and Ceylon, Part IV.” *Journ. Bombay Nat. Hist. Soc.*, xxvi., p. 906.
- “Three new sub-species of *Spalax monticola*.” *Ann. Mag. Nat. Hist.* (9), v., p. 312.
- “The sub-species of *Paraverus flavivittis*, Peters.” *Ib.*, 308.
- “The Irish Otter.” *Ib.*, p. 464.
- “The species of *Pedetes* inhabiting Angola.” *Ann. Mag. Nat. Hist.* (9), vi., p. 102.
- “Three new Mammals from Northern Rhodesia.” *Ib.*, p. 239.
- “Note on the Duikers hitherto referred to *Cephalophus maxwelli*.” *Ib.*, p. 529.
- By MARTIN A. C. HINTON and P. S. KERSHAW:—
- “On a collection of Mammals from the Dinka Country, Bahr-el-Djebel.” *Ib.*, p. 94.
- By R. C. WROUGHTON:—
- “Summary of the Results from the Indian Mammal Survey of the Bombay Natural History Society.”
- Part V.—*Journ. Bombay Nat. Hist. Soc.*, xxvi., p. 955.
- Part VI.—*Op. cit.*, xxvii., p. 57.
- Part VII.—*Ib.*, p. 301.
- By R. C. WROUGHTON and WINIFRED M. DAVIDSON:—
- “Bombay Natural History Society’s Mammal Survey of India, Burma and Ceylon. Report No. 30, Dekhan, Poona District, and No. 31, Nilgiris.” *Journ. Bombay Nat. Hist. Soc.*, xxvi., p. 1025.

By R. C. WROUGHTON and MAJOR R. E. CHEESMAN:—

“A new species of *Mellivora* from Somaliland.” *Ann. Mag. Nat. Hist.* (9), v., p. 197.

Aves.

By N. B. KINNEAR:—

“A new form of Nuthatch from Burma.” *Bull. B.O.C.*, xl., p. 142.

By C. CHUBB:—

“Descriptions of new forms of South and Central American birds.” *B.O.C.*, xl., p. 73.

“Descriptions of new genera and new sub-species of South and Central American birds.” xl., p. 107.

“Descriptions of South American birds.” xl., p. 155.

By D. A. BANNERMAN:—

List of the Birds of the Canary Islands, with detailed reference to the Migratory Species and the Accidental Visitors. Part V. *Ibis*, 1920, pp. 97–132, 323–360, 519–569, pls. xv. and xvi. and sketch-map.

A Review of the African *Dicruridæ* in the British Museum. *Ibis*, 1920, pp. 439–445.

Reptilia and Batrachia.

By G. A. BOULENGER, F.R.S.:—

“A Monograph of the American Frogs of the genus *Rana*.” *Proc. Amer. Acad. Arts Sci. Boston.* lv. (9), p. 413.

“A Monograph of the South Asian, Papuan, Melanesian and Australian Frogs of the genus *Rana*.” *Rec. Ind. Mus.* xx., p. 1.

“A List of the Snakes of West Africa from Mauritania to the French Congo.” *Proc. Zool. Soc.* 1919, p. 267.

“A List of the Snakes of North Africa.” t.c., p. 299.

“Descriptions of two New Frogs from Brazil.” *Ann. Mag. Nat. Hist.* (9), v., p. 122.

“Descriptions of a New Gecko and a New Snake from Sumatra.” t.c., p. 281.

“Descriptions of three New Frogs in the Collection of the British Museum.” *Ib.*, vi., p. 106.

“Descriptions of Four New Snakes in the Collection of the British Museum.” t.c., p. 108.

“Description of a New Snake of the genus *Contia* B. and G., from Persia.” *Journ. Bombay Nat. Hist. Soc.* 1920, p. 1.

“Reptiles and Batrachians Collected in Korinchi, W. Sumatra, by Messrs. H. C. Robinson and C. Boden Kloss. *Journ. Fed. Malay Mus.*, viii., p. 286.

“Observations sur un Batracien Urodèle d'Asie.” *Bull. Soc. Zool. Paris.* 1920, p. 98.

“Une tortue extraordinaire: *Testudo loveridgii*, sp. n.” *C. R. Acad. Sci. Paris.* 170, p. 263.

“Sur le Gavial fossile de l'Omo.” *Ib.*, p. 913.

By JOAN B. PROCTER:—

“On the variation in the number of Dorsal Scale-rows in our British Snakes.” *Proc. Zool. Soc.* 1919, p. 357.

“On a collection of tailless Batrachians from East Africa made by Mr. A. Loveridge in the years 1914–1919.” *Ib.*, 1920, p. 411.

“On the type-specimen of *Rana holsti* Boulenger.” *t.c.*, p. 421.

By ARTHUR LOVERIDGE:—

“Notes on East African Lizards collected in 1915–1919, with descriptions of a new genus and species of Skink, and a new sub-species of Gecko.” *Proc. Zool. Soc.* 1920, p. 131.

Fishes.

By G. A. BOULENGER, F.R.S.

Poissions recueillis au Congo Belge par l'expédition du Dr. C. Christy. *Ann. Mus. Congo. Zool. Ser. 1, vol. ii., Fasc. 4.*

By C. TATE REGAN, M.A., F.R.S.:—

The Classification of the Fishes of the Family Cichlidæ.—
1. The Tanganyika Genera. *Ann. Mag. Nat. Hist.* (9), v., p. 33.

A new Cichlid Fish of the Genus *Limnochromis*. *t.c.*, p. 152.

A Revision of the African Cichlid Fishes of the Genus *Tylochromis*. *t.c.*, p. 163.

Freshwater Fishes from Madagascar. *t.c.*, p. 419.

Three new Fishes from the Tanganyika Territory. *Ib.* vi., p. 104.

A Revision of the Flatfishes (Heterosomata) of Natal. *Ann. Durban Mus.* ii., p. 205.

Fishes collected in Korinchi, West Sumatra, by Messrs. H. C. Robinson and C. Boden Kloss. *Journ. Fed. Malay States Mus.* viii., p. 307.

Mollusca.

By W. T. CALMAN, D.Sc., F.R.S.:—

“Notes on Marine Wood-boring Animals.—1. The Shipworms (Teredinidæ).” *Proc. Zool. Soc.* 1920, p. 391.

By G. C. ROBSON, B.A.:—

“On the anatomy of *Paludestrina jenkinsi*.” *Ann. Mag. Nat. Hist.* (9), v., p. 425.

“Observations upon the succession of *Paludestrina ulvæ* and *ventrosa* in brackish water.” *Ann. Mag. Nat. Hist.* (9), vi., p. 525.

By HUGH WATSON, M.A.:—

“The anatomy of two species of *Helicarion* from tropical Africa.” *Proc. Malac. Soc.* xiv., p. 91.

Arachnida.

By A. S. HIRST:—

“Revision of the English Species of Red Spider (Genera *Tetranychus* and *Oligonychus*.)” Proc. Zool. Soc. July, 1920, p. 49.

“Notes on Acari parasitic on Birds, with descriptions of Two new Species.” Ann. Mag. Nat. Hist. (9), vi., p. 121.

Crustacea and Pycnogonida.

By W. T. CALMAN, D.Sc., F.R.S.:—

“A new crab of the genus *Sesarma* from Basra.” Ann. Mag. Nat. Hist. (9), v., p. 62.

“A whale barnacle of the genus *Xenobalanus* from Antarctic Seas.” *Op. cit.* (9), vi., p. 165.

“On a collection of Pycnogonida from the South Orkney Islands.” *Ib.*, p. 244.

“A new species of the Isopod genus *Serolis*.” *Ib.*, p. 299.

“Cumacea of the Canadian Arctic Expedition, 1913–1918.” Rep. Canad. Arct. Exped., vii., pt. c.

By OSCAR SUND:—

“The ‘Challenger’ Eryonidea.” Ann. Mag. Nat. Hist. (9), vi., p. 220.

Platyhelminthes and Nemathelminthes.

By H. A. BAYLIS, M.A.:—

“Observations on the Genus *Crassicauda*.” Ann. Mag. Nat. Hist. (9) v., p. 410.

“*Oxyuris paronai* v. Linst., and its Association with another Oxyurid in the same Host.” Ann. Mag. Nat. Hist. (9), vi., p. 123.

“Notes on some Parasitic Worms from East Africa.” *Ib.*, p. 283.

“A new Siamese Nematode of the Genus *Falcaustra*.” *Ib.*, p. 408.

“On the Classification of the Ascaridæ.—I. The Systematic Value of certain Characters of the Alimentary Canal.” Parasitology, xii., 3, p. 253.

By H. A. BAYLIS, M.A., and LT.-COL. CLAYTON LANE, M.D.:—

“A Revision of the Nematode Family Gnathostomidæ.” Proc. Zool. Soc., 1920, p. 245.

V.—Acquisitions.**MAMMALIA.**

The accessions during the past year have been both numerous and important. Chief among them, perhaps, are the fine collections made for the Bombay Natural History Society's Mammal Survey in Persia, Assam and North Burma by Colonel J. E. B. Hotson, Mr. J. P. Mills and Messrs. F. Kingdon Ward and P. M. Leonard; and the important collections of Siamese and Malayan

Mammals presented by Mr. E. G. Herbert and the Federated Malay States Museum.

The following is a list of the more important acquisitions arranged in geographical order:—

Europe.

2 Badgers, 3 Otters and a Marten from the West of Ireland; purchased.

The 5th thoracic vertebrae of a Blue Whale (*Balaenoptera musculus*) stranded on the N.W. Shore of Colonsay Island, Hebrides; presented by Murdoch M'Neill, Esq.

The tympanic bone of the same Blue Whale; presented by Philip Mair, Esq.

A number of Cetacean tympanic bones from the Harris Whaling Station; presented by Carl F. Herlofson, Esq.

Head of a Common Dolphin (*Delphinus delphis*) stranded at Hayle Bay, N. Cornwall; head, paddles and tail-fin of a Pilot Whale (*Globicephala melana*) stranded at Balmedie; a Risso's Dolphin (*Grampus griseus*) stranded at Wembury, S. Devon; and jaws and paddles of various small Cetacea stranded on the British Coasts; presented by the Board of Trade.

Asia.

2 blades of baleen of a Rorqual (*Balaenoptera* sp.) stranded at Viziadrug, Bombay; presented by N. B. Kinnear, Esq.

A few bones of a *Balaenoptera* from Khanduli Peninsula, Siam; presented by the Federated Malay States Museum.

A skull with antlers of a Sambar (*Rusa unicolor*) from Central India; presented by Lieut.-Col. Eric H. Sharman.

4 Mammals from Sumatra, including a new Fruit Bat (*Dyacopterus brooksi*); presented by Cecil J. Brooks, Esq.

10 Mammals collected by Mr. G. Forrest in Yunnan; presented by Col. Stephanson R. Clarke, C.B.

7 skulls of Malayan Mammals from the collection of the late Dr. A. R. Wallace, F.R.S.; purchased.

109 Mammals from Ceylon; presented by W. W. A. Phillips, Esq.

51 Mammals collected by Col. J. E. B. Hosson at Shiraz, Persia; presented by the Bombay Natural History Society.

Skin and skeleton of a Père David's Deer (*Elaphurus davidianus*); presented by the Zoological Society.

25 Mammals from the Naga Hills, collected by Mr. J. P. Mills, and 59 Mammals from Assam collected by Mr. H. W. Wells; presented by the Bombay Natural History Society.

58 Mammals from Siam; presented by E. G. Herbert, Esq.

39 Mammals from Ceram, including 6 new species of rodent and a new Marsupial (*Rhynchomeles prattorum*); purchased.

26 Mammals from North Burma collected by Messrs. F. Kingdon Ward and P. M. Leonard, including the types of five new species; presented by the Bombay Natural History Society.

Skull, with record horn, of Rhinoceros (*Rhinoceros sondaicus*) and two frontlets with horns of *Bibos banteng* from Java; presented by *M. Maxwell, Esq.*

78 Mammals from the Garo Hills, Assam, collected by Mr. H. W. Wells; presented by the *Bombay Natural History Society.*

88 Mammals from Siam, including the types of nine new forms of *Callosciurus*; presented by the *Federated Malay States Museum.*

Skull of *Bubalus bubalis macroceros* from Assam (second in Rowland Ward's list); bequeathed by the late *Arthur Forbes, Esq., I.C.S., C.S.I.*

Africa.

A human skull and mandible from Mt. Ugi, Nigeria; presented by *Capt. R. Wolseley.*

A mandible, imperfect, and other portions of a human skeleton embedded in tufa from "Cleopatra's tomb"; presented by *W. Louis Collins, Esq.*

A collection of pelves, sterna, tympanic bones and baleen, representing the Sei Whale (*Balaenoptera borealis*), Fin-whale (*B. physalus*), Bryde's Whale (*B. brydei*), Humpback (*Megaptera nodosa*) and Sperm Whale (*Physeter catodon*), taken at the Saldanha Bay Whaling Station; presented by *Arthur F. Bearpark, Esq.*

A skeleton of Bryde's Whale (*Balaenoptera brydei*) from the Saldanha Whaling Station; presented by the *Union Government of South Africa.*

Skull of a Bottle-nosed Dolphin (*Tursiops truncatus*) found in the desert W. of Fayum; presented by *H. Carter, Esq.*

2 blades of baleen from Bryde's Whale (*Balaenoptera brydei*) from Durban; presented by *H. W. Bell Marley, Esq.*

The heads of 12 Antelopes from the Sudan; presented by *C. B. Russell, Esq.*

22 Mammals from British Ruanda; collected and presented by *Capt. J. E. Philipps, M.C.*

8 Mammals from the N.E. Transvaal; presented by *Maj. J. Stevenson Hamilton.*

A new Fat-tailed Gerbil (*Pachyuromys duprasi faroultii*) from Western Algeria; presented by *Lord Rothschild, F.R.S.*

91 Mammals from Nigeria and Sierra Leone; collected by *W. P. Lowe, Esq.*

Skulls of 8 Antelopes and a Wart Hog from Katanga and N.W. Rhodesia; presented by *Mrs. Peck.*

42 Mammals collected by *Maj. J. Stevenson Hamilton* in the Southern Sudan; presented by the *Wellcome Laboratory, Khartoum.*

56 Mammals, including 9 specimens of Varian's Sable Antelope and 6 Zebras (one mounted) from Angola; collected and presented by *Gilbert Blaine, Esq.*

13 Mammals from South Tunis; presented by *M. Blanc.*

16 Mammals from the Southern Sudan; collected and presented by the *Rev. A. Shaw.*

76 Mammals collected by Mr. H. H. Swinny; *presented by Col. Cosens.*

51 Mammals collected in Algeria by Dr. K. Jordan; *presented by Lord Rothschild, F.R.S.*

22 Mammals from Darfur; *presented by Capt. H. Lynes, C.B., R.N.*

232 small Mammals from N. Rhodesia; collected by Capt. Guy C. Shortridge.

22 Mammals from N. Rhodesia; *presented by Col. Stephenson R. Clarke, C.B.*

America, North.

8 skulls of Reindeer from Baffin Land; *presented by the Sabellum Trading Co., Ltd.*

America, South.

499 Mammals from Argentina, comprising 143 from the province of Jujuy, 127 from the province of Catamarca, 68 from N.W. Rioja, all collected by Senor E. Budin; and 161 collected by Mr. H. E. Box; *presented by Oldfield Thomas, Esq., F.R.S.*

9 Mammals from Peru; purchased.

A Tuco-tuco (*Ctenomys talarum*) from La Plata; *presented by Dr. C. Bruch.*

69 Mammals from Amazonia, including the types of ten new forms; *presented by the Para Museum.*

7 Mammals from Bolivia; *presented by Walter Goodfellow, Esq.*

39 Mammals from Paraguay; *presented by the Marquis de Wavrin.*

3 human skulls from a cave in the Bolivian Andes; *presented by J. L. Wheeler, Esq.*

3 skulls of Sierionis Indians from El Kuachi Forest, E. Bolivia; *presented by Walter Goodfellow, Esq.*

Antarctica.

2 paddles of the Southern Right Whale (*Balaena australis*) and 2 foetuses of the Humpback Whale (*Megaptera nodosa*) from South Georgia; *presented by Johan Rasmussen and Alex. Lange, Esqrs.*

A collection of Cetacean ear- and pelvic-bones, and a portion of the jaw of the rare Beaked Whale *Berardius*, from the South Shetlands; *presented by Sir W. Douglas Young, K.B.E., C.M.G., Governor of the Falkland Islands.*

AVES.

The acquisitions number 6,885. Of these the most noteworthy are as follows:—

Europe.

9 birds from Norfolk; *presented by S. L. Whympere, Esq.*

93 eggs of Birds from Macedonia; *presented by Mrs. Montague.*

4 eggs, 2 of *Grus monachus* and 2 of *G. leucauchen* (habitat E. Siberia), laid in confinement at Scampston Hall, Yorks., previously unrepresented in the collection; presented by *W. H. St. Quintin, Esq.*

Asia.

The type of *Cotile riparia indica* from the Punjab; presented by *H. Whistler, Esq.*

4 Birds from Siam, including the types of *Picus rubricollaris*, *Nigravis herberti*, and *Schœniparus rufigularis major*; presented by *E. G. Herbert, Esq.*

The type of *Pellorneum ruficeps minus* from N.W. Himalayas; presented by *A. E. Jones, Esq.*

41 Birds from Mesopotamia and Persia; presented by *P. A. Buxton, Esq.*

37 Birds from Ceylon; presented by *W. W. A. Phillips, Esq.*

172 Birds and 69 eggs from Palestine and Mesopotamia; presented by *Capt. C. R. S. Pitman.*

163 Birds from China; presented by *E. B. Howell, Esq.*

608 Birds from Sumatra; presented by *Messrs. H. C. Robinson and C. B. Kloss.*

3 Birds from Sind, Baluchistan and Mesopotamia, types of *Crateropus canorus sindianus*, *Pycnonotus leucotis mesopotamica*, and *Ianthocincla lineata ziaratensis*; presented by *Dr. C. B. Ticehurst.*

A nest and 5 eggs of the Mesopotamian Sparrow (*Passer moabiticus mesopotamicus*); presented by *Maj. R. E. Cheesman.*

Africa.

19 Birds from Kordofan; presented by *Maj. Claude Graham.*

A restoration of the Bourbon Dodo or White Dodo (*Didus borbonicus*); presented by the Trustees of the Rowland Ward Bequest.

608 Birds from Sierra Leone and Nigeria; collected by *W. P. Lowe, Esq.*

A male West African Ostrich (*Struthio camelus*) from the Gold Coast; presented by the Trustees of the Rowland Ward Bequest.

261 Birds and 114 eggs from Uganda; presented by *L. M. Seth-Smith, Esq.*

727 Birds from Darfur and Kordofan, including types of the following: *Mirafra rufa*, *Anthus sordidus jebelmarrae*, *Amadina fasciata furensis*, *Saxicola torquata jebelmarrae*, *Myrmecocichla æthiops sudanensis*, *Prionops concinnata ochracea*, *Micropus æquatorialis furensis*, and *Fringillaria striolata jebelmarrae*; presented by *Capt. H. Lynes, C.B., R.N.*

569 Birds from Cameroons; presented by *G. L. Bates, Esq.*

248 Birds from Cameroons; purchased.

133 Birds from Rhodesia, including the type of *Lybius chaplini*; presented by *Col. Stephenson R. Clarke, C.B.*

395 Birds from the Canary Islands; purchased from *D. A. Bannerman, Esq.*

14 Birds from Nyasaland; *presented by Rodney C. Wood, Esq.*

America, South.

56 Birds from Paraguay; *presented by the Marquis de Wavrin.*

270 Birds and 923 eggs from Argentina; *presented by Mrs. Ernest Gibson.*

55 Birds from Para; collected by the late Dr. A. R. Wallace; purchased.

85 Birds from Bolivia; *presented by Walter Goodfellow, Esq.*

66 Birds from Western Ecuador; purchased.

840 Birds from the district of Lima, West Peru; *presented by Lord Brabourne.*

REPTILIA.

The accessions total 1,833; 1,722 were presented, 64 purchased and 47 received in exchange. Of this number 1,631 specimens belong to the magnificent private collection presented by Monsieur Fernand Lataste. This collection includes Reptiles from all parts of the world, but is especially rich in African species; it contains the types of the species described by the donor and many rarities.

The other accessions worthy of notice are:—

Europe.

3 Skinks from Cannes; *presented by M. Gaston de Witte.*

Asia.

8 Reptiles from Persia, including the types of a new snake (*Zamenis hotsoni*) and a new Tortoise (*Testudo buxtoni*); *presented by the Bombay Natural History Society.*

17 Snakes from S. India and Ceylon; *presented by Lt.-Col. F. Wall.*

The types of two new Snakes (*Rhinophis porrectus* and *R. drummond-hayi*); *presented by Lt.-Col. F. Wall.*

A very rare Gecko (*Teratolepis scabriceps*) from Madras; *presented by P. W. Devanesen, Esq.*

6 Reptiles from the Burma-Siam Border; *presented by Maj. C. H. Stockley.*

The type of a new Sea-Snake (*Hydrophis klossi*) from Selangor; *presented by the Federated Malay States Museum.*

23 Reptiles from Sumatra; *presented by C. J. Brookes, Esq.*

The type of a new Sea-Snake (*Hydrophis cyanosoma*) from the Philippines; *presented by Lt.-Col. F. Wall.*

Australasia.

9 Reptiles from Ceram, including the type of a new Snake (*Typhlops ligorostris*); purchased.

Africa.

47 Reptiles from E. Africa, including the types of the remarkable new ribless Tortoise (*Testudo loveridgii*), of a new Lizard

(*Scolecoseps boulengeri*), and of a new race of Gecko (*Lygodactylus capensis mossambica*); received in exchange from A. Loveridge, Esq.

29 Lizards from Teneriffe; purchased.

America.

The type of a new Snake from W. Ecuador (*Leptognathus hammondi*), collected by Mr. G. Hammond; purchased.

12 Reptiles from Bolivia, including a Lizard (*Ophiognomon trisanale*) new to the collection; presented by W. Goodfellow, Esq.

BATRACHIA.

1,473 specimens were added to the collection, 1,449 by presentation, and 24 by purchase.

Nearly the whole of the accessions belong to the splendid collection presented by Monsieur Fernand Lataste, which totals 1,334 specimens from all parts of the world, including many types and rare species.

The following also deserve special notice:—

Europe.

A very young Lungless Salamander (*Spelerpes fuscus*), born in London, the second recorded specimen of the young of this species; presented by Miss J. B. Procter.

Asia.

32 Batrachians from India, including the type of a new Frog (*Rana amandalii*); presented by the Indian Museum.

Tadpoles of the new Frog (*Nyctibatrachus sanctæ-palustris*) from Mysore; presented by C. R. Narayan Rao, Esq.

Australasia.

13 Batrachians from Ceram, including the types of a new Frog (*Rana grisea ceramensis*), and 6 Tree Frogs (*Hyla amboinensis*) new to the collection; purchased.

2 specimens of a rare Tree Frog (*Batrachopsis melanopyga*) from New Guinea collected by the Messrs. Pratt; purchased.

Africa.

4 examples of a rare Frog (*Anhydrophryne rattrayi*) from Cape Colony; presented by the Albany Museum.

28 Frogs from E. Africa, including the types of 2 new Tree Frogs (*Rappia platyrhinus* and *Megalixalus loveridgii*), and 3 specimens of a Frog (*Arthroleptis stenodactylus*) new to the collection; presented by A. Loveridge, Esq.

America.

13 Frogs from E. Bolivia, including the type of a new Tree Frog (*Hyla goodfellowi*); presented by W. Goodfellow, Esq.

PISCES.

The accessions number 1,832; 1,400 were presented, 24 purchased, 184 received in exchange, and 224 formed a special collection.

The following are worthy of notice:—

One-spined and two-spined examples of the Three-spined Stickleback (*Gastosteus aculeatus*) from Staffordshire; presented by *B. Bryan, Esq.*

2 Hog-backed Trout (*Salmo trutta* var.) from Sutherlandshire; presented by *P. M. Boase, Esq.*

A large hybrid Roach and Rudd (*Rutilus rutilus* and *Scardinius erythrophthalmus*) from the Wensum; presented by *R. Marsham, Esq.*

The head of a very large Pike (*Esox lucius*) from Lough Conn; presented by *R. B. Marston, Esq.*

31 Fishes from the Lousy Bank, taken at depths of 108-200 fms., and a very large Plaice (*Pleuronectes platessa*) from Iceland; presented by the *Ministry of Agriculture and Fisheries.*

2 Rays (*Raia radiata*) from the Faroes; presented by *R. M. Thomson, Esq.*

31 Fishes from Palestine, including a specimen of *Caranx fuscus*, new to the collection; presented by *I. Aharoni, Esq.*

300 Fishes from Basra, including examples of 5 species (*Discognathus rufus*, *Cyprinion macrostomus*, *Alburnus sellal*, *A. mossulensis* and *Acanthobrama arrhada*) new to the collection; collected and presented by *Major C. Christy.*

37 Fishes from the Inlé Lake and Seistan, including co-types of 5 new species (*Schizothorax zarudnyi*, *Barilius auropurpureus*, *Nemachilus brunneanus*, *Adiposia macmahoni* and *Chaudhuria caudata*) described by *Dr. Annandale*; presented by the *Zoological Survey of India.*

12 Freshwater Fishes from Burma and Siam; presented by *Major C. H. Stockley.*

83 Fishes from Siam; presented by *H.R.H. Prince Abhakara of Chumpon.*

25 Fishes from China; presented by *J. D. La Touche, Esq.*

358 Fishes from Lake Tanganyika and the Congo, including the types of 22 new species; collected by *Dr. L. Stappers*; presented by the *Congo Museum, Tervueren.*

100 Fishes from the Ubanghi and Gribingui Rivers; collected and presented by *Monsieur A. Baudon.*

13 Fishes from Cameroon, including the types of 3 new species (*Mormyrus macrops*, *Mormyrus jae* and *Barilius batesii*); collected by *G. L. Bates*; purchased.

72 Fishes from Sierra Leone, including a specimen of *Ephippus goreensis*, new to the collection; collected and presented by *W. P. Lowe, Esq.*

87 Fishes from the Tanganyika Territory, including the types of 3 new species (*Labeo loveridgei*, *Barbus aphantogramma* and *Pareutropius micristius*); collected and presented by *A. Loveridge, Esq.*

66 Fishes from the coast of Natal, including the types of 3 new species (*Chætodon marleyi*, *Cynoglossus durbanensis* and *Lepadichthys coccinotænia*) and examples of 6 others new to the collection; collected and presented by Romer Robinson, Esq., and H. W. Bell Marley, Esq.

31 Marine Fishes from Delagoa Bay (including *Apogon lineolatus* and *Lethrinus borbonicus*, new to the collection) and 47 freshwater Fishes from Madagascar (including *Doryichthys millepunctatus*, *Atherina alaotrensis* and *Bedotia madagascariensis*, new to the collection); presented by the Transvaal Museum, Pretoria.

19 Fishes from the West Indies and West Africa, co-types of species recently described by the donor; presented by Dr. J. Metzelaar.

224 Fishes from Tobago, including specimens of apparently new species of *Atherinichthys* and *Clinus* and examples of 5 other species new to the collection (*Holocentrum retrospinis*, *Upeneus parvus*, *Glyphidodon rudis*, *Scarus squalidus* and *Batrachus cryptocentrus*); collected by P. L. Guppy, Esq.

184 Fishes from Colombia and Ecuador, including several paratypes; received in exchange from Prof. C. H. Eigenmann.

15 Fishes from the Falklands and South Shetlands; presented by A. G. Bennett, Esq.

TUNICATA.

The additions to the collection total 14.

MOLLUSCA.

The accessions total 39,298, of which over 33,000 are Pteropods collected by the "Terra Nova." Others deserving special mention are:—

Europe.

4 complete examples and an egg-cluster of *Alderia modesta* from Leigh-on-Sea, Essex; collected and presented by G. C. Robson, Esq.

3 Shells of *Patulastra balmei* from Glasnevin, Co. Dublin; received in exchange from A. W. Stelfox, Esq.

2,500 land and freshwater Shells from Serbia and Macedonia; presented by Prof. P. S. Pavlović.

Asia.

56 Shells from Palestine; presented by I. Aharoni, Esq.

57 complete examples of land and freshwater Mollusca from Palestine; presented by Capt. P. J. Barraud.

3 Cephalopoda from Siam; presented by H.R.H. Prince Abhakar of Chumpon.

637 land and brackish-water Shells from the Soela Archipelago, including a remarkable series of *Xesta citrina*; collected by Mr. W. Frost; purchased.

Australia.

4 valves (co-types) of *Edentallina coralensis* from Queensland; presented by Charles Hedley, Esq.

Africa.

50 fixed and preserved examples of *Isidora contorta* and *Planorbis boissyi* from Egypt (economic research material); presented by Dr. E. Hindle.

73 examples of *Isidora contorta*, *I. dybowskii* and *Planorbis boissyi* from the Sudan (economic research material); presented by the Assistant Director, Wellcome Tropical Research Laboratory, Khartoum.

131 complete land and freshwater Mollusca from Accra, Gold Coast; presented by Dr. J. W. McFie.

A Shell of *Euonyma gouldi* from Griqualand; presented by Major M. Connolly.

8 Shells of *Limnæa* sp. from Northern Rhodesia; presented by H. E. Hornby, Esq.

8 Shells (including 3 types) from South Africa; presented by H. C. Burnup, Esq.

4 complete examples of *Cochlitoma zebra* from South Africa; presented by Mrs. Longstaff.

America.

A string of egg-capsules containing young examples of *Busycon perversum* from Florida; presented by Mrs. E. P. Bryant.

63 land and freshwater Shells from Colorado, Utah and Wyoming; presented by J. Henderson, Esq.

300 marine and land Shells from Peru; presented by Dr. H. O. Forbes.

Antarctic and Subantarctic Islands.

1,270 marine Mollusca from the Falklands, South Georgia and the South Shetlands, collected by A. G. Bennett, Esq.; purchased.

An exceedingly fine egg-mass of *Natica* sp. from Scotia Bay, South Orkneys; presented by A. G. Bennett, Esq.

MYRIOPODA.

The accessions number 24; none is of special interest.

ARACHNIDA.

654 specimens of Arachnida were received during the year; the following are of interest:—

272 Ticks and Mites from various localities; presented by the Imperial Bureau of Entomology.

Numerous specimens of a new Mite (*Pygmephorus tarsalis*) found on the surface of cultivated mushrooms; presented by Prof. H. Maxwell-Lefroy.

Numerous specimens of Mites parasitic on poultry, including the rare species *Dermoglyphus elongatus*; collected and presented by A. S. Hirst, Esq.

A co-type (microscopical preparation) of a Mite (*Geckobiella (Hirstiella) trombidiformis*); presented by Prof. A. Berlese.

CRUSTACEA AND PYCNOGONIDA.

588 Crustacea and 12 Pycnogonida have been added to the collection during the year. The following are the more important of the accessions:—

10 syntypes of a recently described Crustacean (*Bathynella chappuisi*) of exceptional interest, from Switzerland; presented by M. Th. Delachaux.

4 deep-water Crustacea from the North Atlantic; presented by the Ministry of Agriculture and Fisheries.

145 freshwater Crustacea from India; presented by J. Omer-Cooper, Esq.

30 freshwater Decapoda from India and Mesopotamia; presented by R. Gurney, Esq.

6 freshwater Decapoda from Mesopotamia; presented by the Bombay Natural History Society.

7 freshwater Crustacea from Bagdad; presented by Capt. T. P. Buist, R.A.M.C.

5 Decapoda from the coast of Palestine; presented by I. Aharoni, Esq.

25 Decapoda from Sierra Leone; presented by W. P. Lowe, Esq.

A syntype of a remarkable new Crustacean (*Typhlocaris lethæa*) from the Cave of Lethe in Cyrenaica; presented by Dr. B. Parisi.

76 freshwater Shrimps from Madagascar; presented by the Hon. Paul A. Methuen.

16 Syncarida from Australia and Tasmania; received in exchange.

8 freshwater Crustacea from West Australia; presented by the Director of the West Australian Museum.

11 Crustacea from Torres Straits; presented by F. A. Potts, Esq.

6 Cumacea (including 4 syntypes of a new species) from the Antarctic; presented by the Australian Antarctic Expedition.

77 Crustacea and 6 Pycnogonida from the South Shetlands and South Orkneys; presented by His Excellency the Governor of the Falkland Islands.

45 Crustacea and 6 Pycnogonida from the South Shetlands and South Orkneys; purchased.

54 parasitic Crustacea from Whales, from South Georgia; presented by Messrs. J. Rasmussen and Alex. Lange.

ECHINODERMA.

The accessions numbered 108, of which 93 were presented, 13 purchased and 2 received in exchange. The following are of interest:—

68 specimens from Lousy Bank, Lat. 60° 20' N. Long. 12° 40' W. 108-200 fms., collected by Capt. F. M. Davis; presented by the Ministry of Agriculture and Fisheries.

13 specimens (species new to the collection) from the South Shetland and South Orkney Islands; collected by A. G. Bennett, Esq.; purchased.

WORMS.

The total number of Parasitic Worms registered during the year was 627; among the more important of these were the following:—

Europe.

Examples of 8 species of Nematodes parasitic in Equidæ, including co-types of 5 forms described as new by the donor; presented by Prof. Warrington Yorke, M.D.

85 parasitic worms, being duplicates of species collected at the Prosectorium from animals that had died in the Society's Gardens; presented by the Zoological Society of London.

Asia.

Examples of a number of species of the Nematode family Gnathostomidæ from India and Ceylon (some of them new to science); presented by Lt.-Col. Clayton Lane, M.D.

Africa.

A collection of 230 parasitic worms from East Africa; presented by A. Loveridge, Esq.

Other worms numbered 62, including the following:—

5 specimens of *Dichogaster jaculatrix* (co-types), from the Ituri Forest, Belgian Congo; presented by the Tervueren Museum.

5 examples of *Phreaotolithrix cantabrigiensis* (co-types), from a well at Chittering, Waterbeach, Cambridge; presented by the University Museum of Zoology, Cambridge.

The type of *Trichodrilus icenorum* from Pulham St. Mary, Norfolk; presented by C. Candler, Esq.

22 worms, including examples of *Leocrates atlantica*, *Pontobdella muricata* and *Hyalinœcia* sp.; collected by Capt. F. M. Davis; presented by the Ministry of Agriculture and Fisheries.

BRACHIOPODA.

The accessions total 42; none is of special importance.

POLYZOA.

The accessions total 24, including 8 specimens from the coast of Spain, received in exchange from Dr. M. J. Barroso.

CeLENTERATA.

The accessions number 73.

The most important is a series of Pennatulidæ from the Indo-Australian Archipelago collected by the "Siboga"; received in exchange from Prof. Max Weber.

Collections from the Bahamas and from the Lousy Bank are also worth mention.

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PORIFERA.

The total number of accessions is 274, of which 90 were presented, 3 purchased, and 181 received in exchange; the more important are:—

90 mounted preparations of Norwegian Sponges of the A. M. Norman collection; *presented by L. E. Crawshaw, Esq.*

181 specimens and preparations from the Indian Ocean and Ceylon, including many types; received in exchange from Prof. A. Dendy, F.R.S.

5 specimens from Lousy Bank; *presented by the Ministry of Agriculture and Fisheries.*

PROTOZOA.

The accessions number 710, including 706 slides of Rhizopoda, Heliozoa and Infusoria, including many types and other specimens described by Dr. E. Penard; purchased.

Summary of the Acquisitions in the Department of Zoology during 1920.

	Donations.	Purchases.	Exchanges.	Special Collections.	Totals.
Mammalia (General)...	1,675	164	16	323	2,178
Mammalia { Anthropology ...	8	—	—	—	8
(Skeletons) { Cetacea ...	50	—	—	—	50
{ Other Mammals ...	3	—	—	—	3
{ Skins ...	4,166	766	—	608	5,540
{ Nests ...	2	—	—	—	2
Aves { Eggs ...	1,333	—	—	—	1,333
{ Skeletons ...	10	—	—	—	10
Domesticated animals ...	12	—	—	—	12
Reptilia...	1,722	64	47	—	1,833
Batrachia ...	1,449	24	—	—	1,473
Pisces ...	1,400	24	184	224	1,832
Tunicata ...	6	8	—	—	14
Mollusca ...	37,232	2,066	—	—	39,298
Myriopoda ...	24	—	—	—	24
Arachnida ...	654	—	—	—	654
Crustacea ...	520	52	16	—	588
Pycnogonida ...	6	6	—	—	12
Echinoderma ...	93	13	2	—	108
Vermes { Chaetopoda, etc. ...	62	—	—	—	62
{ Parasitic Worms ...	627	—	—	—	627
Brachiopoda ...	42	—	—	—	42
Polyzoa ...	11	5	8	—	24
Cœlenterata ...	52	9	12	—	73
Porifera...	90	3	181	—	274
Protozoa ...	4	706	—	—	710
Totals ...	51,253	3,910	466	1,155	56,784

The following donors presented specimens to the Department of Zoology during the year 1920:—

Abhakara of Chumpon, Prince	Albany Museum, Grahamstown
Agriculture and Fisheries,	Allen, Major W. H.
Ministry of	Andrews, Dr. C. W., F.R.S.
Aharoni, I.	Austen, Major E. E., D.S.O.

Australasian Antarctic Expedition	Clark Maxwell, Rev. Prebendary
Baker, Mrs. E.	Clarke, Col. Stephenson R., c.B.
Baker, E. C. Stuart	Collins, W. L.
Balston, Miss E. M.	Colombo Museum
Barclay, F. H.	Congo Museum, Tervueren
Barnard, T. T.	Connolly, Major M.
Barraud, Capt. P. J.	Cooke, Rev. Dr. A. H.
Bates, G. L.	Cooke, Dr. W. E.
Baylis, H. A.	Corfield, Mrs. Wilmot
Bearpark, A. F.	Cosens, Capt. C. P.
Beeson, C. F. C.	Cosens, Col.
Bennett, A. G.	Cotton, Dr. H. H. P.
Berlese, Prof. A.	Cousens, H. S.
Besant, E.	Crampton, G. C.
Billard, Prof. A.	Crawshay, L. R.
Blackett, N. A.	Cunnington, Dr. W. A.
Blaine, Gilbert	Dalton, William, and Sons
Blair, K. G.	Davison, Capt. J. F.
Blair, W. N., Jun.	Dawson, Guy H.
Blake, Ralph	Delachaux, Th.
Blanc, Monsieur	Demidoff, H.H. Prince E.
Blanc, Brigadier-General C. F., c.M.G.	Devanesen, D. W.
Blundell, E. G.	Dobb, Dr. F. C.
Board of Trade	Duncan, C. C.
Boase, P. M.	Dukinfield Jones, E.
Bombay Natural History Society	Durban Museum
Bosworth, Dr. T. O.	Eastern and Associated Tele- graph Companies
Boulenger, Dr. C. L.	Egyptian Zoological Service
Bowring, Col. F. S., c.B.	Entomology, Imperial Bureau of
Brabourne, Lord	Falkland Islands, His Excel- lency the Governor of
Brand, Commander J., R.N.	Federated Malay States Museums
Brooke, H. C.	Fell, Capt. M. E.
Brooks, C. J.	Fenton, E. W.
Brown, A. W.	Flower, Major S. S.
Brown, G. F.	Forbes, A., the late, c.S.I.
Bruch, Dr. C.	Forbes, Dr. H. O.
Bryan, B.	Forrest, Viner
Bryant, Mrs. E. P.	Fox, Sir F.
Buist, Capt. T. P.	Fryer, J. C. F.
Bunting, R. H. E.	Fuller, Capt. A. W. F.
Burnup, H. C.	Gabriel, C. J.
Burr, Malcolm	Garman, Dr. S.
Buxton, Capt. P. A., R.A.M.C.	Gibson, Mrs. Ernest
Candler, C.	Gilchrist, Dr. J. D. F.
Cardinall, A. W.	Godman, Miss E.
Carter, H.	Gold Coast Colony, Department of Agriculture
Cheesman, Major R. E.	
Christy, Major C.	
Clark, R. S.	

Goodfellow, W.	Loveridge, A.
Gosse, Dr. P.	Lowe, W. P.
Graham, Major Claude	Luddington, Miss E.
Gray, Melville	Lynes, Capt. H., C.B., R.N.
Griffith, F. L.	McFie, Dr. J.
Gunstone, E. F.	McNeill, M.
Gurney, R.	Mair, P.
Haagner, A. K.	Mallock, Mrs. L. Raymond
Hadden, N. G.	Manchester Museum, Keeper of
Hall, Mrs. E. M.	Manuelle, Miss
Hamilton, C. A.	Marley, H. W. Bell
Hamilton, Major J. Stevenson	Marriott, Alfred L.
Hedley, C.	Marriott, Brig.-Gen. John
Henderson, J. G.	Marsham, R.
Herbert, E. G.	Marston, R. B.
Herlofson, C. F.	Martin and Archer, Messrs.
Hess, Dr. Alois	Maxwell, M.
Hickson, Prof. S. J., F.R.S.	Maxwell-Lefroy, Prof. H.
Hillier, Dr. W. T.	Maynard, G.
Hindle, Dr. E.	Meggitt, F. J.
Hirst, A. S.	Meinertzhagen, Col. R.
Hirst, Dr. L. F.	Methuen, the Hon. P. A.
Hodson, A.	Metzelaar, Dr. J.
Hogan, F.	Miller, L. J.
Hopkinson, Dr. E.	Ministry of Agriculture and
Hornby, A. H.	Fisheries
Howell, E. B.	Montague, Mrs.
Illingworth, Mrs.	Murrell, H. C.
Imperial Bureau of Entomology	Nairobi Museum
Imperial College of Science	Natal Government Museum
Imperial Institute, The Director	National Museum of Wales
Iredale, T.	Nutting, Prof. C. C.
Jessop, Lt.-Commander J. de	Omer-Cooper, J.
B., D.S.O., R.N.	Owen, J. H.
Jewell, Miss F.	Palaccio, C.
Jobson, W. P.	Pará Museum
Jones, A. E.	Parisi, B.
Kaburaki, Dr. T.	Patmore, Capt. F. J.
Kendrick, P.	Pavlović, Prof. P. S.
Kinnear, N. B.	Pearl, R. T.
Klein, S. T.	Peck, Mrs.
Kloss, C. Boden	Peile, Lt.-Col. A. J., R.A.
Knutsford, Lady	Phillips, Capt. J. E., M.C.
La Touche, J. D.	Phillips, W. W. A.
Lane, Lt.-Col. Clayton, M.D.	Pitman, Capt. C. R. S.
Lange, Alex.	Pollard, A.
Larken, Major P. M.	Pollen, Miss A.
Lataste, F.	Portal, Major M.
Leonard, J. H.	Porter, H. W.
Leigh, Capt. J. Hamilton	Potts, F. A.
Longstaff, Mrs.	Poulton, Prof. E. B., F.R.S.
	Procter, Miss J. B.

- Railliet, Prof. A.
 Rao, C. R. N.
 Rasmussen, J.
 Reinwaldt, E.
 Renouf, L. P. W.
 Rhodes, Col. J. E.
 Rhynhart, J. G.
 Ritchie, Dr. James
 Ritchie, J., Jun.
 Robinson, H. C.
 Robinson, R.
 Robson, G. C.
 Rogers, C. G.
 Rowland Ward Bequest,
 Trustees of the
 Royal Botanic Gardens, Kew,
 Director of
 Royal College of Surgeons
 Rush, E. W.
 Rushton, W.
 Russell, C. E.
 Ruthven, Dr. A. G.
 Sabellum Trading Co., Ltd.
 St. Quintin, W. H.
 Sandwith, Major L.
 Scott-Macfie, J. W.
 Scott, Mrs. Ross
 Seth-Smith, L. M.
 Sharman, Lt.-Col. Eric H.
 Shaw, Rev. A.
 Sheppard, P. A.
 Sheringham, H. T.
 Sherrin, T. V.
 Sikes, F. H.
 Sloan, Miss M. V.
 Smith, C.
 Smith, Dr. H. Hammond
 Smith, Dr. Malcolm
 South Africa, Government of
 the Union of
 South Africa, Union of, Veter-
 inary Department
 South African Museum
 Sowerby, A. de C.
 Stadt, J. L.
 Stammwitz, P.
 Stelfox, A.
 Stockley, Major C. H.
 Strafford, Rt. Hon. Cora, Coun-
 tess of
- Sviridenko, Dr. P. A.
 Terrot, R.
 Thomas, Oldfield, F.R.S.
 Thomas, P. Haig
 Thompson, F. Tyler
 Thompson, Major W.
 Thomson, Prof. J. A.
 Thomson, J. W.
 Thomson, R. M.
 Tiechurst, C. B.
 Tomlin, J. R. le B.
 Transvaal Museum
 Tresidder, Dr. M. E.
 Trevor, Major W.
 Uganda Natural History
 Society, The Secretary
 U.S. Department of Agriculture
 University Museum of Zoology,
 Cambridge
 Unwin, E. E.
 Varian, Capt. H. E.
 Varriale, Capt.
 Venning, Lt.-Col. F. E. W.
 Wall, Lt.-Col. F.
 Waterston, J.
 Wavrin, Marquis de
 Weber, Prof. Max
 Wellcome Bureau of Scientific
 Research, Director-in-Chief
 Wellcome Tropical Research
 Laboratory, Khartoum
 West Australian Museum,
 Director of
 Wheeler, J. L.
 Whistler, H.
 White, E. E.
 Whitehouse, R. H.
 Whympster, L. S.
 Wilmer, Col. W.
 Wilson, Mrs.
 Wilson Barker, Commander
 Sir D., R.D., R.N.R.
 Wintle, Brother W. J.
 Witte, G. F. de
 Wolseley, Capt. R.
 Wood, Rodney C.
 Yorke, Prof. Warrington, M.D.
 Zoological Society of London
 Zoological Survey of India

VI.—*Economic Zoology.*

The main work of the Department, the determination, conservation and arrangement of collections of animals, is the foundation of economic research, which depends on a knowledge of species and their distribution. This is more particularly evident in the case of groups such as the Parasitic Acari and Parasitic Worms, each of which has occupied the full time of an assistant. Museum work on Fishes and other marine animals is closely related to fishery development, and collections dealt with during the year include one from a new British fishing ground, received from the Ministry of Agriculture and Fisheries, and others sent for determination by the fishery authorities in Natal.

Members of the staff have answered many enquiries on economic subjects and have determined a number of specimens sent in connection with economic work; the following are examples:—

I. MAMMALIA.

Bats which attacked a grove of *Araucaria* in the Gold Coast Colony, stripping the trees of their bark, were determined as the common fruit Bat, *Eidolon helvum*.

Information was given as to the possibility of establishing trade in the skins of West African Otters.

Rats and Mice, in relation to the public health and general economics, have again received much attention. Information and advice have been given in response to requests received from many public bodies and private individuals.

II. MOLLUSCA.

A large number of Shipworms and other marine Mollusca destructive to timber have been determined for a Committee of the Institution of Civil Engineers which is conducting an inquiry into this subject, and a report on a part of the collection has been published.

Advice was given with regard to water-pipes choked by the growth of Mussels.

The operculum of a Gastropod is the source of a native dye extensively used and traded in E. Africa; the species was determined.

Advice has been given in connection with work on tropical diseases in the West Indies.

Several determinations of Molluscs injurious to crops, trees, etc., have been made for the Imperial Bureau of Entomology.

Applications for specimens of the Gastropods concerned in the transmission of Schistosomiasis (= Bilharziasis) having been received, steps were taken to obtain a supply, and a new form, acting as intermediate host, was discovered.

III. ARACHNIDA.

Mites (*Carpoglyphus anonymus*) infesting jam; the species was determined and advice was given.

Furniture Mites (*Glycyphagus domesticus*) infesting houses; advice and information were given.

A Mite (*Tyroglyphus longior*), infesting larder, was determined and advice was given.

A Mite (*Tyroglyphus longior*), destroying packets of egg-powder in shops, was determined and advice was given.

A Mite (*Pygmephorus tarsalis*, sp.n.), found in very large numbers on the surface of cultivated mushrooms, was described.

A Mite (*Aleurobius farinæ*), found in the faeces of miners suffering from ankylostomiasis, was determined.

An enquiry on the habits of "Harvest Bug" (*Leptus autumnalis*) was answered.

Poultry Mites were determined for the U.S. Department of Agriculture.

A Mite (*Liponyssus bursa*), found on a Chinese patient at Hôko-tô Island, Formosa, was determined.

IV. CRUSTACEA.

Marine Isopoda destructive to timber have been studied and a report has been prepared for publication.

Woodlice reported to be damaging Mushroom-beds have been determined.

V. WORMS.

Human parasites, and parasites of domestic animals, have been named on several occasions, and enquiries from numerous correspondents, including various Public Health Officers and agricultural institutions, have been answered.

Assistance has been given to the Wellcome Bureau of Scientific Research, in connection with work on the parasites of rats.

VI. CŒLEENTERATA.

Correspondence took place between the Museum and the Imperial Institute with reference to possible economic uses for the "Organ Pipe" coral *Tubipora*.

VII.—*Students and Visitors.*

The number of visits paid to the Zoological Department during the year 1920 by students and other persons requiring assistance or information amounted to 8,973. This number includes the visits paid by students holding tickets entitling them to do special work in the Exhibition Galleries.

In the 10 previous years the numbers were as follows, including from 1910 to 1912 the visits to the Entomological Section, which was made a separate Department in 1913:—

7,459	in the year	1919.
5,553	"	1918.
6,314	"	1917.
7,018	"	1916.
8,020	"	1915.
9,235	"	1914.
9,982	"	1913.
12,564	"	1912.
12,175	"	1911.
12,443	"	1910.

C. Tate Regan.

DEPARTMENT OF ENTOMOLOGY.

I.—Arrangement and Conservation.

Exhibition Series.—A few additional dissections, with illustrative drawings, have been added to the series in the Public Insect Gallery, while in the North Hall the exhibits dealing with Insect Pests of Tropical crops have been, in part, revised and added to, and faded and worn specimens replaced.

Study Series.—In the **Coleoptera** the identification and re-arrangement of the Carabidæ have made further progress, with the help of Mr. H. E. Andrewes and other specialists. Oriental species determined by Mr. Andrews, Australian species determined by Mr. T. G. Sloane, and Palæarctic species determined by Dr. Jeannel, have been incorporated. The Staphylinidæ have also been considerably expanded and arranged, and important collections of species named or described by Dr. M. Cameron incorporated. A large collection of Erotylidæ from Indo-China made by M. Vitalis de Salvaza has been named, and numerous species described as new. A number of West Indian crop-pests belonging to the genus *Lachnosterna* have been described, and revisions of the Melononthine genera *Ectinohoplia* and *Dichelomorpha* have also been prepared for publication. Mr. G. E. Bryant has incorporated the collection of Australian Phytophaga made by him, finished the incorporation of the Halticinae, and determined several collections. Work on the Mordellidæ and Meloidæ has also been continued, the palæarctic species of these families being arranged, together with *Camaria* and allied genera of Tenebrionidæ. Collections of Heteromera from Mesopotamia, Syria, Macedonia, Tonkin, and the Philippine Islands have been determined and incorporated. The Heteromera of the Dollman Collection from Rhodesia have also been worked out and incorporated.

In the **Lepidoptera** the expansion, rearrangement, and cataloguing of the family Hesperidæ, sub-family Pamphilinæ, of the Rhopalocera has been continued, all accessions, especially those of the Godman-Salvin Collections, being incorporated in the process; a certain amount of similar work has been done with the Lycænidae, sub-family Theclinæ. The Dollman Collection has been worked out, all available duplicates required for the General Collection have been incorporated, and a paper prepared. The collections made by Mr. Godfrey in Siam have been worked out with his co-operation, and a selection comprising nearly every known Siamese species and some 30 Types has been made from them for the Museum and a paper on the collections got out. Most of the numerous minor accessions in all families received during the year have been incorporated, and a number of collections have been identified in exchange for specimens. Copies have been made of Plotz's unpublished figures of (unidentified) Hesperidæ, from copies kindly lent by Col. Swinhoe. A card index has been started of all described Rhopalocera for reference

purposes, and the years 1907 to 1916 nearly completed. Mr. H. T. G. Watkins has given considerable assistance by voluntarily rearranging the Pierine genera *Pieris*, *Colias*, and *Gonepteryx*, and incorporating all accessions at the same time.

In the Heterocera the classification and rearrangement of the Anerastiinae have been continued, the Dioptidae rearranged, and the collection of the Lasiocampidae expanded. A large collection of moths made by Mr. E. J. Godfrey in Siam has been worked out.

In the Tineina and Pterophorina much unarranged material has been catalogued, determined and incorporated, and types and typical material have been identified and labelled. The large collection of separata presented to the Walsingham Library by Sir George F. Hampson has been catalogued and the exact references indicated (over 4,000).

In the **Diptera** the African Tipulidae, determined by Dr. C. P. Alexander, and the exotic Psychodidae, determined by M. A. Tonnoir, have been received back and reincorporated; the large collection of exotic Anthomyiidae has been sent to Mr. J. R. Malloch for determination; the collection of British Rhyphidae, Psychodidae, Ptychopteridae and Limnobiinae has been arranged; the spirit collection of Dipterous larvae and adults has been rearranged in filing cabinets. A series of Tabanidae, chiefly from Africa and North Russia, has been worked out, described and incorporated. A series of named Nearctic and Neotropical Muscoidea, received in exchange from the United States National Museum, has been labelled and incorporated, while a small series of economically important Australian Calliphorinae and Muscinae has been determined and also incorporated. A large number of miscellaneous accessions have also been made to the General Collection. The official "Instructions for Collectors," Nos. 4, 5, 6, and 7, have been revised and edited (for a new edition of "Handbook for Collectors"), while during the year "A Handbook of British Mosquitoes" has been published.

In the **Hymenoptera** the parasitic families Chalcididae and Haltichellidae have been arranged, and the Agaonidae and Eurytomidae partially completed. Work has also been done on isolated genera belonging to various families. In the Ichneumonoidea the Australian genus *Pæcilocryptus* has been arranged and monographed in conjunction with Mr. R. E. Turner. The African genus *Oneilella* has also been arranged. Several collections of general Hymenoptera—particularly from Eastern War areas—have been determined. Parasites of the Frit-fly, Wheat Pests, Forest Pests, pests affecting the Cabbage and Turnip, *Calliphora*, *Musca*, and *Glossina*, have been determined and described. In the Tenthredinidae the Rev. F. D. Morice has completed the rearrangement of the family, and Prof. T. D. A. Cockerell has kindly assisted in incorporating a set of Apidae presented by the United States National Museum.

R

In the **Rhynchota** the incorporation of the Distant Collection has been continued and completed, and named collections of American Tingidæ and Aradidæ have been incorporated. Many minor collections from various localities have been similarly dealt with. In the Coccidæ, collections from various parts of the world have been worked out, and good progress has been made with the rearrangement of the family. In the Aphidæ and Aleurodidæ, many small collections have been determined and incorporated.

In the **Orthoptera** valuable help in the arrangement and identification of species and genera was received during the second half of the year from Mr. B. Uvaroff, Assistant in the Imperial Bureau of Entomology.

Mr. Herbert Campion, also of the Imperial Bureau, has voluntarily rendered considerable service from time to time by the determination and description of **Odonata**.

In the **Thysanoptera** most of the unmounted material of the unnamed microscopic species has been transferred to slides, ready for determination.

In the **Mallophaga** and **Anoplura** the Denny and General Collections have been mounted on slides for study purposes, and are now being revised and catalogued. Several odd collections have also been worked out.

IMPERIAL BUREAU OF ENTOMOLOGY.

The Collections of the Entomological Department continue to benefit by the work done by the Imperial Bureau of Entomology. During the year this organisation presented some 8,000 specimens, mostly named, and including the types of 71 new species. The assistance given by members of the staff of the Bureau in naming and arranging parts of the Museum collection has been referred to above. As a considerable part of the work of the Bureau is carried on, and needs to be carried on, within the Museum, it is much to be regretted that it has not yet been found possible to increase the accommodation provided for the work of its staff in the Museum. The Entomological Department itself suffers equally through want of the necessary space.

II. *Duplicates and Exchanges.*

(a) *Duplicates.*

The following Institutions have been presented with duplicate specimens:—Glasgow Veterinary College; Hope Department of Zoology, Oxford; Marischal College, University of Aberdeen; Musée d'Histoire Naturelle, Brussels; Muséum d'Histoire Naturelle, Paris; War Office Entomological Laboratory, Sandwich, Kent. The following gentlemen, who have rendered service to the Museum by naming specimens, have been presented with duplicate specimens:—Mr. H. E. Andrewes, Major F. C. Fraser, Dr. K. M. Heller, Dr. R. Jeannel, Mr. K. J. Morton, Rev. R. P. Longinos Navás, S.J., and M. A. d'Orchymont.

(b) Exchanges.

Exchanges of specimens have been carried out with the following:—Leyland Stanford Junior University, California; Muséum d'Histoire Naturelle Paris; United States National Museum; University Museum of Zoology, Cambridge; Mr. C. P. Alexander; Dr. G. Enderlein; Dr. E. W. Ferguson; Dr. R. Frey; Rev. F. D. Morice; M. A. S. Nicolay; Prof. H. M. Parshley; M. Maurice Pic; Lord Rothschild; Prof. Y. Sjöstedt; Dr. H. Skinner; Dr. R. J. Tillyard; Mr. H. T. G. Watkins; Mr. Sydney Whicher.

III. *Departmental Library.*

As the Library has continued to be worked in conjunction with that of the Zoological Department, particulars in reference to it will be found included under the corresponding head in the return made by the Keeper of Zoology.

IV. *Publications.*

In addition to the official publications issued by the Trustees (see pp. 92-94), the following papers have been published in connection with the different branches of the collection.

Coleoptera.

By G. J. ARROW:—

- A Contribution to the Classification of the Coleopterous family Endomychidæ. *Trans. Ent. Soc. Lond.*, 1920, pp. 1-83.
- A list of the Endomychid Coleoptera of Indo-China, with Descriptions of new Species. *Ann. Mag. Nat. Hist.*, (9) 5, 321-326.
- A remarkable new Genus of Lamellicorn Beetles. *Ibid.* (9) 6, pp. 431-434.
- A peculiar new Genus of Australian Beetles. *Ibid.*, pp. 434-437.
- A new Genus of Clavicorn Beetles. *Ibid.*, pp. 437-440.
- On the Oriental Members of the Group Macroductylides (Melolonthidæ). *Ibid.*, pp. 441-455.

By K. G. BLAIR.

- Further Notes on the Fabrician Types of Heteromera in the Banks Collection. *Ann. Mag. Nat. Hist.* (9) 5, pp. 153-163.
- Notes on the Coleopterous Genus *Ischalia*, Pasc., with descriptions of two new species from the Philippine Islands. *Ent. Mo. Mag.* (3) 6, pp. 133-135.
- Notes on the Australian Coleopterous Genera *Palæstra*, Cast., *Tmesidera*, Westw., and *Palæstrida*, White. *Ibid.*, pp. 28-32.
- Notes on the Australian Genus *Cestrinus*, Er. (Tenebrionidæ) and some allied Genera. *Proc. Linn. Soc. New South Wales*. Vol. 44., pp. 529-535.

By G. C. CHAMPION:—

Notes on Various African and Asiatic Species of *Hapalochrus*, Er., with an account of their accessory male characters. *Ann. Mag. Nat. Hist.* (9) 6, pp. 177-201, 249-266, 305-327, 537-539.

On some Eastern Xylophilids (Coleoptera). *Ibid.* (9) 5, pp. 393-406.

Some new Coleoptera from Costa Rica. *Ent. Mo. Mag.* (3) 6, pp. 220-224.

Lepidoptera.

By SIR G. F. HAMPSON:—

On the New Genera and Species of Lepidoptera Phalænæ, with the Characters of two New Families. *Nov. Zool.* 26, pp. 253-282, 1920.

New Moths collected by Mons. A. Avinoff in W. Turkestan during his journeys in 1909-1912. *Trans. Ent. Soc. Lond.* 1920, pp. 431-434.

Diptera.

By F. W. EDWARDS:—

Mosquito Notes. *Bull. Ent. Res.* Vol. 10, Pt. 2, pp. 129-137.

Notes on the Mosquitoes of Madagascar, Mauritius and Réunion. *Ibid.* Vol. II., Pt. 2, pp. 133-138.

On the British Species of *Simulium*.—2. The early stages, with additions and corrections to Part 1. *Ibid.* xi., pt. 3, pp. 211-246.

A new *Trichocera* from Siberia. *Ann. Mag. Nat. Hist.* (9) 5, pp. 431-432.

On the use of the generic name *Ceratopogon*, Meigen (Diptera, Chironomidæ). *Ibid.* (9) 6, pp. 127-130.

Scent-organs (?) in female midges of the *Palpomylia* group. *Ibid.* (9) 6, pp. 365-368.

Dimorphism in the antennæ of a male midge. *Ent. Mo. Mag.* (3) 6, pp. 135-136.

Some records of predaceous Ceratopogoninæ (Diptera). *Ibid.*, pp. 203-205.

The British Chaoborinæ and Dixinæ (Diptera, Culicidæ). *Ibid.*, pp. 264-270.

A new British Mosquito. *Scottish Naturalist*, pp. 91-92. May-June, 1920.

The nomenclature of the parts of the male hypopygium of Diptera Nematocera, with special reference to mosquitoes. *Ann. Trop. Med.* Vol. 14, pp. 23-40.

By DR. C. P. ALEXANDER:—

An undescribed species of *Ptychoptera* from W. Africa (*Ptychopteridæ*, Diptera). *Entomologist*, 53, pp. 101-102.

Undescribed African Crane-flies in the British Museum (Tipulidæ, Diptera). *Canadian Entom.*, June, 1920, pp. 145-160.

Undescribed species of African Crane-flies in the collection of the British Museum (Natural History): Tipulidæ, Diptera. Pt. 1. Sub-family Limnobiinæ. Ann. Mag. Nat. Hist. (9) 6, pp. 1-44.

By M. A. TONNOIR:—

Notes sur quelques Psychodidæ africains. Revue Zool. Africaine, 8, pp. 127-147.

By J. R. MALLOCH:—

Some new species of the genus *Lonchæa* (Diptera, Lonchæidæ). Canadian Entom. 52, pp. 246-247.

By MAJOR E. E. AUSTEN:—

1. A Contribution to Knowledge of the Tabanidæ of Palestine. Bull. Ent. Res. 10. Pt. 3, pp. 277-321. Figs. 1-18.
2. The Percy Sladen Trust Expedition to the Indian Ocean in 1905 and 1907-1909, under Mr. J. Stanley Gardiner, M.A. Diptera: Tabanidæ. *Ibid.*, 11. Pt. 1, pp. 43-45.
3. Notes on the Nomenclature of Certain African Tabanidæ (Sub-family Pangoniinæ), with Descriptions of a New Genus and New Species. *Ibid.*, 11. Pt. 2, pp. 139-152.

Hymenoptera.

By R. E. TURNER and J. WATERSTON:—

A Revision of the Ichneumonid Genera *Labium* and *Pænicryptus*. Proc. Zool. Soc., 1920, pp. 1-26.

By J. WATERSTON:—

Notes on Fig Insects, including Descriptions of three new Species and a new Blastophagine Genus. Trans. Ent. Soc. Lond., pp. 128-136.

A new Blastophagine Genus and Species from E. Africa. Ent. Mo. Mag., 3rd ser., 6, pp. 197-200.

On a new polyembryonic Encyrtid (Chalcidoidea) *Copidosoma tortricis*, sp.n., bred from the Strawberry Tortrix moth. Ann. Appl. Biol. 7, pp. 1-5.

By R. E. TURNER:—

On Indo-Chinese Hymenoptera collected by R. Vitalis de Salvaza. Ann. Mag. Nat. Hist. (9) 5, pp. 84-98.

Notes on the Ichneumonidæ in the British Museum—3. On a new Tasmanian Species. *Ibid.*, pp. 150-151.

Notes on Fossorial Hymenoptera. On new Species in the British Museum. *Ibid.*, pp. 265-271.

Rhynchota.

By W. L. DISTANT:—

Cicadidæ from Indo-China. Ann. Mag. Nat. Hist. (9) 5, pp. 336-337.

Some Undescribed Ethiopian Cicadidæ. *Ibid.*, pp. 369-376.
 Rhynchota from New Caledonia. *Ibid.* (9) 6, pp. 143-164.
 Descriptions of a new Genus and Species of Cicadidæ from
 Cuba. *Ibid.*, pp. 455-456.
 Rhynchota from New Caledonia. *Ibid.*, pp. 456-470.
 On a small collection of Homoptera from British Guiana.
 The Entomologist, 53, pp. 124-126.
 Description of a New Species of Neotropical Cicadidæ.
Ibid., p. 169.

By F. LAING:—

On the Genus *Atheroides*, Halid.(Aphidæ). Ent. Mo. Mag.
 (3) 6, pp. 38-45.
 Two Species of *Eupteryx* (Homoptera) new to Britain. *Ibid.*,
 pp. 196-197.
 Two Species of British Aphides. *Ibid.* 5, pp. 272-274.

Neuroptera.

By H. CAMPION:—

Some new or little-known Gomphine Dragon-flies from South
 America. Ann. Mag. Nat. Hist. (9) 6, pp. 130-141.

V.—Acquisitions.

The number of specimens added to the Insect Collection
 during the year is 94,353, made up as shown in the following
 table:—

	Donations.	Purchases.	Exchanges.	Totals.
Coleoptera	50,927	707	212	51,846
Lepidoptera	6,689	1,059	239	7,987
Hymenoptera	15,356	—	—	15,356
Diptera	8,655	—	414	9,069
Rhynchota	2,971	4,395	20	7,386
Orthoptera	895	—	—	895
Neuroptera	733	—	79	812
Other orders	670	—	—	670
Larvæ, pupæ, etc.	332	—	—	332
	87,228	6,161	964	94,353

The most important of these accessions are the following:

Various localities.

28,250 Coleoptera, mainly Oriental and South American;
 presented by G. E. Bryant, Esq.

8,004 specimens of various orders; presented by the Imperial
 Bureau of Entomology.

1,388 specimens, mainly Diptera; presented by Dr. W. C. C.
 Pakes.

421 specimens of various orders; presented by Dr. P. A.
 Buxton.

416 specimens, mainly Coleoptera; *presented by G. C. Champion, Esq.*

The tenth instalment of the Distant collection, containing 4,395 Rhynchota and 705 Coleoptera.

Europe.

965 British Diptera and larvæ; *presented by F. W. Edwards, Esq.*

905 specimens of various orders from Macedonia and Britain; *presented by J. Waterston, Esq.*

579 specimens of various orders from Finland and Esthonia; *presented by Bassett Digby, Esq.*

543 British Diptera; *presented by W. R. Ogilvie-Grant, Esq.*

408 Rhopalocera from South France and Switzerland; *presented by F. Pinhey, Esq.*

400 Lepidoptera from Crete and Macedonia, collected by the late P. D. Montague, Esq.; *presented by Mrs. Montague.*

350 British Diptera; *presented by Miss Ricardo.*

200 British Rhopalocera; received in exchange.

500 British Lepidoptera; purchased.

Asia.

9,413 Hymenoptera Aculeata from India, including about 200 types; *presented by Lt.-Colonel C. G. Nurse.*

1,292 specimens, mainly Coleoptera, from Indo-China; *presented by Mons. R. Vitalis de Salvaza.*

700 Coleoptera from Celebes and Japan; *presented by H. J. Carter, Esq.*

558 specimens, mainly Coleoptera from Siam; *presented by E. J. Godfrey, Esq.*

500 Rhopalocera from Ceylon; *presented by W. Ormiston, Esq.*

479 Coleoptera from Formosa; *presented by Dr. T. Shiraki.*

346 specimens of various orders from Sumatra; *presented by C. J. Brooks, Esq.*

311 Rhynchota from Indo-China; *presented by W. L. Distant, Esq.*

309 specimens, mainly Coleoptera, from Philippine Islands and Borneo; *presented by Prof. C. F. Baker.*

232 specimens, mainly Diptera, from Federated Malay States; *presented by Dr. H. P. Hacker.*

202 Rhopalocera from Darjiling; *presented by Capt. E. C. Linton, R.A.M.C.*

169 Rhopalocera from West Sumatra; *presented by the Federated Malay States Museum.*

Africa.

6,795 specimens of various orders from Cape Peninsula; *presented by R. E. Turner, Esq.*

475 specimens of various orders from Nigeria and Sierra Leone; *presented by Willoughby P. Lowe, Esq.*

262 Lepidoptera Tineina from Madagascar; *presented by Lord Rothschild, F.R.S.*

America.

710 specimens of various orders from the West Indies; *presented by W. E. Broadway, Esq.*

600 Heterocera from Jamaica; *presented by Dr. F. W. Jackson.*

572 specimens, mostly Lepidoptera from California and Brazil; *presented by E. Dukinfield Jones, Esq.*

400 Diptera from North and Central America; *presented by Dr. L. O. Howard.*

328 specimens of various orders from Ecuador; *presented by Gilbert Hammond, Esq.*

209 specimens, chiefly Diptera, from the West Indies; *presented by St. George Gray, Esq.*

150 Heterocera from South America; *presented by W. J. Kaye, Esq.*

150 Diptera from United States of America; in exchange.

160 Rhynchota from North America; in exchange.

468 Lepidoptera from Honduras; purchased.

Australasia.

226 Coleoptera including many co-types; *presented by A. M. Lea, Esq.*

VI. *Economic Entomology.*

Correspondence dealing with matters of an economic nature has shown a very great increase over previous years. The enquiries have been very varied and of wide scope, those having reference to pests of stored products and of wood predominating. Where it was thought that correspondence would not be quite satisfactory, visits were paid and examinations carried out on the spot. The series illustrating injurious and beneficial insects and the card catalogue of economic literature have been frequently consulted by students. The economic series is expanding rapidly, but progress is considerably hampered by lack of space. Pamphlets on the Furniture Beetles and the House-fly have been published, a new edition of the previous pamphlet on the latter subject has been prepared, the one on Mosquitoes revised, and one dealing with the Cockroach is on its way through the press.

Amongst the subjects on which information or advice has been sought, and so far as possible given, the following may be mentioned:—

COLEOPTERA.

- (1) Woodworms.—Many pieces of damaged wood have been received and reported upon. One of the most interesting was a piece of Scots Pine from a City church riddled with the borings of *Xestobium tessellatum*. This species had not, hitherto, been suspected of attacking coniferous woods.

- (2) *Anthrenus fasciatus*, Hbst., destroying the bristles of brushes from Alexandria.
- (3) *Necrobia rufipes*, De G., destroying bundles of China bristles.
- (4) *Dermestes vulpinus* F., destroying hides arriving at various seaports.
- (5) *Ceuthorrhynchus sulcicollis*, the Turnip Gall-weevil. Judged by the number of enquiries received regarding it, this pest must have been causing severe damage during the summer.
- (6) *Phaedon cochleariae*, causing severe damage to Mustard in several counties in the East of England.
- (7) *Phyllotreta undulata*, *P. nemorum*, *P. consobrina*, *P. cruciferae*, all injuring turnips. The first species would appear to be the most serious and widespread.
- (8) *Meligethes aeneus*, F., attacking turnips.
- (9) *Tetropium gabrieli*, Ws., doing serious damage to Larch-trees.
- (10) *Crepidodera aurata*, and *Galerucella lineola*, ruining osier beds.
- (11) *Anthonomus grandis* (The Mexican Boll-weevil). Request for methods of control from Mexico.
- (12) *Longitarsus ater*, F., causing serious injury to the Flax industry in Ireland.
- (13) *Ptinus tectus*. This species, once so rare and still a comparatively recent arrival in this country, has become very widespread, and many cases of its damage to food-stuffs have been reported during the year.
- (14) *Carpophilus hemipterus*, frequently reported as damaging dried fruits.
- (15) *Cryptophagus saginatus*, Sturm., found in numbers in Stilton cheese.
- (16) *Henoticus californicus*, breeding in jam. The remedy lay in keeping the jam free from mould.
- (17) *Calandra granaria*, *C. oryzae*, *Tribolium castaneum*, *Rhizopertha dominica*, *Silvanus surinamensis*, *Sitodrepa panicea*, *Trogosita mauritanica*, all found in grain. Many enquiries were received regarding these species, several from warehousemen, many from medical officers of health. Perhaps the most remarkable case was that received from a firm of shippers, regarding *C. oryzae*, which appears to have swarmed in such numbers in the hold of a sailing vessel carrying maize that the ship had to put into the nearest port.

LEPIDOPTERA.

- (18) *Hyponomeuta padella*. This species was very prevalent during the past summer, plum-trees being badly attacked. Much work was entailed in consequence.
- (19) *Tortrix (Archips) lecheana*, *T. rosana*, *Argyresthia ephippella*, all damaging plum-trees.

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- (20) *Lithocolletis messaniella* Z., damaging ornamental oaks.
- (21) *Tortrix viridana*. The damage to oak-trees caused by this species, though still severe, did not appear to be quite so extensive as in the two previous years.
- (22) *Phyllocnistis suffusella*, damaging the leaves of a valuable hybrid poplar in a nursery.
- (23) *Platyedra gossypiella*, Saund. Information asked for from Mexico and Java, as to the measures of control adopted in Egypt and elsewhere.
- (24) *Ephestia elutella*, *E. cautella*, infesting cocoa-beans in store and also in chocolate, cotton-bolls (Egypt), stored cotton seeds (Madras), earth-nuts (Alexandria), dates and stored apricots (Bagdad), pomegranate (Cyprus), dates (Basra and Egypt), peas (Italy).
- (25) *Corecya cephalonica*, Stn., attacking stored cotton seeds (Madras).
- (26) *Arenipeses sabella*, Hmpn., attacking dates in London, probably imported from Algeria.
- (27) *Myelois ceratoniae*, Z., attacking dates in Egypt.
- (28) *Tinea pellionella*, damaging leather goods.
- (29) *Tineola biselliella*, attacking skins (Cambridge), and ostrich plumes (S. Africa).

DIPTERA.

- (30) *Phytomyza albiceps*, mining and ruining the leaves of Cinerarias.
- (31) *Calliphora erythrocephala*, breeding in Stilton cheese.
- (32) *Drosophila melanogaster*, breeding in stored fruit which had been allowed to ferment.
- (33) *Chloropisca notata*, *Musca autumnalis*, *Pollenia rudis*, *Pyrellia eriophthalma*, *Fucomyia frigida*, all causing a nuisance on account of their numbers in houses.

RHYNCHOTA.

- (34) *Scaptocoris talpa*, Champ., damaging sugar-cane in Guatemala.
- (35) *Calocoris norvegicus*, damaging flax in Ireland.
- (36) Bugs infesting various Government hutments.
- (37) Various species of green-fly attacking different plants in Britain. The Plum Aphid (*Aphis pruni*) caused a very great deal of damage in the early spring, but the trees recovered well later in the year.
- (38) *Aleurodes vaporariorum*, infesting greenhouses.
- (39) *Chermes cooleyi*, attacking Douglas Firs in England. This species threatens to become a very serious danger to this tree in Britain.

MISCELLANEOUS.

- (40) Rubber pests.—Many enquiries by men taking up posts on rubber plantations.
- (41) Thrips.—Damaging various species of plants.
- (42) *Trichodectes subrostratus*, infesting dogs.

- (43) *Clothilla pulsatoria* and *Atropos divinatoria*, swarming in houses.
- (44) *Glycyphagus domesticus*.—Many enquiries from upholsterers and householders.
- (45) *Tyroglyphus longior* in dried fruits and packets of soup.
- (46) *Aleurobius farinæ* in cheese and prepared flour.
- (47) Earwigs, fleas and ants swarming in houses and constituting a nuisance.
- (48) The protection of books against the ravages of insects in the Tropics.

VII.—*Students and Visitors.*

The number of visits paid to the department during the year by students and other persons seeking information or assistance was 4,088.

C. J. Gahan.

DEPARTMENT OF GEOLOGY.

I.—Arrangement and Conservation.

Mammalia (Galleries 1 and 2).—The bone implement from Piltdown has been added to the exhibition in table-case 1, and plaster casts of the fossil human skull from Talgai, Queensland, have been mounted in pier-case 3.

The Lewis Abbott collection of mammalian remains from a fissure at Ightham, Kent, has been incorporated, and a selection of the more important specimens has been labelled and arranged for exhibition in pier-case 2.

A skeleton of *Canis dirus* from the asphalt of California has been mounted and placed in pier-case 3.

Plaster casts of cervical vertebræ of *Baluchitherium osborni* have been prepared and mounted in pier-case 8.

Number of specimens of *Mammalia* registered, 2,646.

Aves (Gallery 2).—A plaster cast of the skeleton of *Diatryma steini* from the Lower Eocene of Wyoming, U.S.A., has been mounted and temporarily placed for exhibition on the top of wall-case 23.

An egg of *Struthiolithus* from China has been mounted in case EE.

Number of specimens of *Aves* registered, 64.

Reptilia and Batrachia (Galleries 3, 4, 5, 11).—The slip catalogue has been continued, and the sections of *Batrachia*, *Anomodontia* and *Dinosauria* have been completed.

During the preparation of the slip-catalogue, the unexhibited collections of *Anomodontia* and *Dinosauria* in the basement have been examined and more satisfactorily arranged and labelled.

Wall-case 6, gallery 4, has been cleaned and rearranged to admit some new bones of *Iguanodon*.

The carapace, plastron, and limbs of a large turtle, *Protostega gigas*, from the Chalk of Kansas, have been prepared and mounted in wall-case 18, gallery 5.

Number of specimens of *Reptilia* and *Batrachia* registered, 1,528.

Pisces (Gallery 6).—The collection of Devonian fish-remains from Granite Harbour, Antarctica, has been registered and labelled.

The Mesozoic *Elasmobranchii* in table-cases 4–8 have been revised and partly rearranged and re-labelled during the preparation of the supplement to the Catalogue.

Selected series of teeth of the Eocene sharks, *Odontaspis elegans* and *O. macrota*, have been mounted in table-case 6 to illustrate their arrangement in the jaws.

All recent accessions have been registered and incorporated, and the more important specimens have been mounted for exhibition.

The preparation of the fish-remains in drawers, to reduce the specimens in size, is still in progress.

Number of specimens of Pisces registered, 250.

Mollusca (Galleries 7, 8, and Workroom).—The accessions registered, labelled and incorporated include Cambrian and Ordovician Gastropoda from Newfoundland (Spath coll.); Carboniferous Gastropoda and Lamellibranchia from Durham and Newcastle (Trechmann and Hazzledine Warren colls.); Devonian Gastropoda and Lamellibranchia from Iowa (Fenton coll.); Oxfordian Lamellibranchia from Villers-sur-mer (Rakowski coll.); Jurassic, Cretaceous, and Tertiary Lamellibranchia from France (Lowe coll.); Cretaceous Lamellibranchia from Colorado (Colorado Univ.), and from Kansas (Sternberg coll.); Albian Lamellibranchia from Surrey (Tinne coll.); Tertiary Lamellibranchia from Italy (J. Wright coll.); Tertiary Gastropoda and Lamellibranchia from British East Africa (J. Parkinson coll.); Eocene Lamellibranchia from Flanders (Campbell Smith coll.); Eocene Gastropoda from Egypt (Beadnell coll.); Miocene Gastropoda and Lamellibranchia from Jamaica (Worthington Wilmer coll.); Pliocene Lamellibranchia from Corfu (Sordina coll.), and Egypt (Petrie coll.); Post-Pliocene Gastropoda and Lamellibranchia from Sardinia (Dehaut coll.); and Holocene Gastropoda from Ightham, Kent (Lewis Abbott coll.).

Additions to the exhibited series of Gastropoda and Lamellibranchia include the holotype of *Trechmannia trochiformis*, Longstaff, 1912, from the Carboniferous Limestone of Durham (C. T. Trechmann coll.); *Inoceramus intermedius* from the Chalk of Hunstanton, figured 1829, Ann. Mag. Nat. Hist., vol. ii., p. 296; an example, three feet in diameter, of *Inoceramus platinus* from the Chalk of Kansas (Sternberg coll.); a series of opalised fossils of Upper Cretaceous age from New South Wales, described R. B. Newton, 1915, Proc. Malacol. Soc., vol. xi., pl. vi. (St. John Thackeray bequest); and an example of *Scala rugulosa* from the Miocene of Patagonia (Gostling coll.).

The accessions of Cephalopoda registered, labelled, and incorporated include Triassic Ammonoidea, Nautiloidea, and Belemnoidea from Timor (Wanner coll.); Triassic Ammonoidea and Nautiloidea from Bosnia (Hawelka coll.), the United States and New Zealand (Trechmann coll.); Triassic and Jurassic Ammonoidea from Spitsbergen (Garwood and Gregory coll., W. T. Reynolds coll.); Liassic Ammonoidea from Glamorganshire and *Liparoceras pseudostriatum* from Lyme Regis (Trueman coll.); Oxfordian Ammonoidea from Villers-sur-mer (Rakowski coll.); Jurassic Belemnites and Cretaceous Scaphites from the United States (Colorado Univ.); Cretaceous Ammonoidea from Nigeria (Falconer, Kitson, and Temple colls.).

Additions to the exhibited series include *Nautilus* cf. *darwensis* from the Turonian of Burghclere, Berks. (Withers coll.); *Hercoglossa aegyptiaca*, from the Eocene of Mokattam (C. T. Taylor coll.); *Aturia aturi* from the Miocene of Western Australia, described by R. B. Newton, 1919.

The names of the specimens of Triassic Ammonites have been revised and a large series placed on exhibition. A similar revision of the Upper Lias Ammonites is in progress.

The slip-catalogues of the historical specimens and exhibited specimens have been continued.

Number of Mollusca registered:—Cephalopoda, 1,987; Gastropoda, 1,209; Lamellibranchia, 505. Total, 3,701.

Arthropoda (Gallery 8 and Workroom).—The accessions registered, labelled and incorporated include Cambrian Trilobites from British Columbia (Cutler coll. and Walcott coll.), and from Newfoundland (Spath coll.); Middle Cambrian Arthropods from British Columbia (Walcott coll. per Ward); Ordovician Ostracods and Phyllocarids from Girvan, Ayrshire (Gray coll.); an extensive series of Arthropods mainly from the Palæozoic Rocks of North America (G. J. Hinde coll.); Miocene Insects from Florissant, Colorado (Cockerell coll.); Miocene (Amber) Insects from Burma (Swinhoe coll.); Quaternary Cirripedes from Peru (Bosworth coll.).

Oligocene and Carboniferous Insects, Jurassic Odonata, Jurassic Decapods, and Carboniferous Millipedes have been selected, re-registered where necessary, and despatched for determination by various specialists.

Tertiary Cirripedes from S. America, India, and New Zealand, Cretaceous Cirripedes from America and England, and Jurassic Cirripedes from England, have been determined, arranged and labelled.

Additions have been made to the exhibited series of Ordovician and Silurian Trilobites, of Tertiary Cirripedia, and of Carboniferous and Tertiary Insects.

The slip-catalogues of exhibited specimens, of amber insects, of new genera, and of additions to various series, have been continued.

Number of specimens of Arthropoda registered, 2,310.

Echinoderma (Gallery 8).—The accessions registered, labelled and incorporated include a large collection of Cystidea from the Ordovician of Girvan (Gray coll.); Cystids and Crinoids from the Lower Palæozoic Rocks of N. America (Ward); Blastoids from the Devonian and Mississippian of the United States (Greger coll. and Ward); Crinoids from various divisions of the Mississippian series in the United States (T. A. Worthen coll.), from the Burlington Limestone and St. Louis group of Missouri (Greger coll.), from the Carboniferous of Malahide, co. Dublin (L. B. Smyth coll.), from the Trias of Bosnia (Hawelka coll.), from the Turonian of Germany (Jaekel coll.), and from the Senonian of Surrey (Withers coll.); Crinoids, Asteroids, and Echinoids from the Portlandian Hartwell Clay of Aylesbury (Hollis coll.); Echinoids from the Jurassic of England (Corfield coll.), from the Chalk of France (Mullins coll.) and England (Withers coll.), and from the Miocene of Anguilla and Antigua (J. W. Gregory coll.).

The specimens of *Herpetocrinus* from the Wenlock Limestone have been revised, registered, and re-labelled. The revi-

sion of the labels of the exhibited type-specimens of Echinoidea has been completed; other Jurassic and Cretaceous Echinoids of England have been re-registered and re-labelled; and the whole of the exhibited series of British Echinoids has been re-arranged. Specimens illustrating some of the Girvan Cystids have been exhibited. The revision of the Palæozoic Asteroidea continues. Various Echinoderms preserved in pyrites have been treated and soaked in melted paraffin to check decomposition.

The slip-catalogues of specimens studied or exhibited, of all Blastoids, and of genera and species of other classes, have been continued.

Number of specimens of Echinoderma registered:—Echinoidea, 297; Asteroidea, 19; Crinoidea, 442; Blastoidea, 90; Cystoidea, 599; Total, 1,447.

Annelida (Gallery 8 and Workroom).—The accessions registered, labelled and incorporated include specimens of *Ottoia*, *Selkirkia*, and *Canada* from the Middle Cambrian of British Columbia (Walcott coll.); *Tentaculites* from the Ordovician, Silurian, and Devonian of N. America (G. J. Hinde coll.); *Conchicolites* from the Silurian of Gotland (Bather coll.); *Spirorbis* from the Upper Devonian of Iowa (Fenton coll.); *Serpula* from the Oxfordian of Villers-sur-mer (Rakowski coll.). A number of *Tentaculites* have been re-registered on their transference from Mollusca.

A specimen of *Protoscolex latus*, a new Oligochaet from the Lower Ludlow Beds, has been placed on exhibition.

The slip-catalogues of specimens exhibited and of genera have been continued.

Number of specimens of Annelida registered, 111.

Brachiopoda (Gallery 8 and Workroom).—The accessions registered, labelled, and incorporated include specimens from the Silurian of Newfoundland (Spath coll.); Devonian of China (J. L. Smith coll.), India (Younghusband coll.), and the United States (Fenton coll.); Carboniferous Limestone of Derbyshire (Bather coll.); Mississippian of Missouri (Greger coll.); and the Miocene of Malta (Mullins coll.).

Number of specimens of Brachiopoda registered, 645.

Polyzoa (Gallery 8 and Workroom).—Upper Devonian Polyzoa from North America (C. L. Fenton coll.), have been registered, labelled, and incorporated.

Number of Polyzoa registered, 85.

Anthozoa and Hydrozoa (Gallery 10 and Workroom).—Palæozoic (mostly North American) Corals of the G. J. Hinde coll.; Devonian Corals and Hydrozoa from North America (C. L. Fenton coll.); Carboniferous Corals from Australia (Stanley Smith coll.); and Hydrozoa from the Trias of Timor (Wanner coll.); have been registered, labelled, and incorporated.

Number of Anthozoa and Hydrozoa registered, 2,288.

Porifera and Protozoa (Gallery 10).—Sponges from the G. J. Hinde collection, mostly Cretaceous, have been registered and incorporated.

Number of Porifera and Protozoa registered, 999.

Plantæ (Gallery 10).—A representative series of Tertiary and Quaternary plants, including many specimens figured by Heer, Ettingshausen and others, has been arranged and exhibited, with printed labels, in wall-cases 10 and 11.

The Whymper collection of Greenland plants has been sorted, labelled, re-registered where necessary, and incorporated.

The extensive Ettingshausen collection of Tertiary plants, chiefly from Austria, has been re-registered, labelled, arranged and indexed, and many of the specimens reduced in size, thereby saving much space. The collection includes over 100 type and figured specimens which had not previously been noted.

Eocene plants from Belgium and the Paris basin have been re-examined and sorted, and a commencement has been made with the arrangement of the British Tertiary plants.

Other specimens registered, labelled and incorporated include Miocene plants from Colorado (Cockerell coll.), slides of coccospheres, etc. (G. J. Hinde coll.), and Jurassic and Tertiary plants from Spitsbergen (Reynolds coll. and Gregory coll.).

Additions have been made to the collection of microscope-slides by the cutting of sections of fossil woods and by the preparation of leaf cuticles. The card index of fossil plants has been extended.

Number of specimens of *Plantæ* registered, 1,243.

II.—*Duplicates and Exchanges.*

Duplicate fossils have been exchanged with the United States National Museum, Washington; Prof. O. Jaekel, University of Greifswald; and Dr. Robert Kidston, F.R.S.

III.—*Departmental Library.*

The additions to the Library which have been registered, stamped, catalogued, and press-marked, comprise 178 new works and pamphlets, of which 56 were purchased and 122 presented; 1,005 parts of serials in progress, of which 169 were purchased and 836 presented. 111 sheets of maps were acquired, 14 by purchase and 97 by presentation. 7 photographs were presented. 43 volumes and pamphlets were obtained by transfer from other Departments.

91 volumes have been bound, press-marked and returned to the shelves. 829 geological maps have been mounted on linen, and 220 pamphlets have been put into covers.

1,679 visits were made to the Library by students and others during the year.

The following is a list of personal donors to the Library:—

Andrews, Dr. C. W.	Cockerell, Prof. T. D. A.
Bather, Dr. F. A.	Dall, W. H., Esq.
Bell, A., Esq.	Fischer, Dr. K.
Bensley, Dr.	Freudenberg, Dr. W.
Blumer, Dr. E.	Gonzaga de Campos, Dr.
Broom, Dr. R.	Gray, Mrs. R.

Gregory, Prof. J. W.	Piaz, Prof. Dal.
Hayashi, Prof.	Rendle, Dr. A. B.
Hinde, Mrs. G. J.	Reynell, A., Esq.
Jackson, J. Wilfrid, Esq.	Rohwer, S. A., Esq.
Jillson, Prof. W. R.	Roig, Dr. M. S.
Kerr, Mrs. R.	Sherborn, C. D., Esq.
Kilian, Prof. W.	Stopes, Dr. M. C.
Kitchin, Dr. F. L.	Tillyard, Dr. R. J.
Lambert, Dr. J.	Whitehouse, W., Esq.
North, Dr. F. J.	Wilson, Mrs.
Osborn, Prof. H. F.	Woodward, Dr. A. S.
Petronievics, Dr. B.	

IV.—*Publications.*

Progress has been made with the printing of the third volume of the Catalogue of Cretaceous Bryozoa, and with the preparation of the MS. of the Supplement to the Catalogue of Fossil Fishes.

Apart from the official publications of the Trustees, the following descriptive papers dealing with different parts of the collection have been contributed to scientific journals during 1920:—

By DR. A. S. WOODWARD.

1. On the Dentition of the Petalodont Shark, *Climacodus*. Quart. Journ. Geol. Soc. vol. lxxv., pp. 1-6, pl. i.

By DR. F. A. BATHER.

1. Fossils and Life: Address to the Geological Section. Rep. Brit. Assoc., Cardiff, 1920.
2. *Protoscolex latus*, a new "Worm" from the Lower Ludlow Beds. Ann. Mag. Nat. Hist. (9) vol. v., pp. 124-132.
3. *Pholocidaris anceps*, a Correction. *Loc. cit.*, pp. 271-273.
4. Echinoid or Crinoid? Geol. Mag. 1920, pp. 371-372.

By MR. R. B. NEWTON.

1. On some Freshwater Fossils from Central South Africa. Ann. Mag. Nat. Hist. (9), vol. v., pp. 241-249, pl. viii.

By DR. C. W. ANDREWS.

1. Note on Two new Species of Fossil Tortoises. Ann. Mag. Nat. Hist. (9), vol. v., pp. 145-150.
2. Remains of the Great Auk and Ptarmigan in the Channel Islands. *Loc. cit.*, vol. vi., p. 167.
3. A Description of New Species of Zeuglodont and of Leathery Turtle from the Eocene of Southern Nigeria. Proc. Zool. Soc. 1919 (1920), pp. 309-319, pls. i., ii.

By MR. T. H. WITHERS.

1. The Cirripede Genus *Stramentum* (*Loricula*): its History and Structure. Ann. Mag. Nat. Hist. (9) vol. v., pp. 65-84, pls. iii., iv.
2. The Cirripede Subgenus *Scillaelepas*: its probable Occurrence in the Jurassic Rocks (*S. gaveyi*, *sp. n.*). *Loc. cit.*, pp. 258-264, pl. xiii.

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By Miss D. M. A. BATE.

1. Note on a New Vole and other Remains from the Ghar Dalam Cavern, Malta. *Geol. Mag.*, 1920, pp. 208-211.

By Mr. D. M. S. WATSON.

1. On the Cynodontia. *Ann. Mag. Nat. Hist.* (9) vol. vi., pp. 506-524.

By Prof. T. D. A. COCKERELL.

1. A Therevid Fly in Burmese Amber. *Entomologist*, vol. liii, pp. 169-170.
2. Fossil Arthropods in the British Museum. Parts I.-IV. *Ann. Mag. Nat. Hist.* (9) vol. v., pp. 273-279, 455-463, pl. xvi.; loc. cit. vol. vi., pp. 65-72, 211-214.

By Mr. H. Sr. J. K. DONISTHORPE.

1. British Oligocene Ants. *Ann. Mag. Nat. Hist.* (9) vol. v., pp. 81-94, pl. v.

By Mr. W. B. R. KING.

1. Notes on the Genus *Sphaerocoryphe*. *Geol. Mag.*, 1920, pp. 532-534, pl. xiii.

By Dr F. J. NORTH.

1. On *Syringothyris*, Winchell, and Certain Carboniferous Brachiopoda referred to *Spiriferina*, D'Orbigny. *Quart. Journ. Geol. Soc.*, vol. lxxvi., pp. 162-227, pls. xi.-xiii.

By Mr. L. F. SPATH.

1. On a new Ammonite Genus (*Dayiceras*) from the Lias of Charmouth. *Geol. Mag.*, 1920, pp. 538-543, pl. xv.

V.—Acquisitions.

A.—By Donation.

Mammalia.—Portion of mandibular ramus of *Palaeotherium* from the Bembridge Limestone, Sconce Point, I. of Wight (collected by S. L. Wood, Esq.). *Mrs. T. D. A. Cockerell*.

Portion of mandible with milk-teeth, a deformed incisor tooth and a metacarpus of *Myotragus balearicus* from Majorca. *Miss D. M. A. Bate*.

Remains of *Hippopotamus minutus* from the Pleistocene of Cyprus. *C. Godfrey Gunther, Esq.*

Horn-core of *Bison* from Pleistocene gravel, Mitcham, Surrey. *W. S. Oulds, Esq.*

Caudal vertebra of a giant ground-sloth from the Jurua River, Amazon. *E. Stanley Sutton, Esq.*

The collection of vertebrate remains discovered by Mr. W. J. Lewis Abbott in a fissure near Ightham, Kent, including the mammalian and avian remains described by E. T. Newton, *Quart. Journ. Geol. Soc.*, vol. 50 (1894), and the mammalian remains described by S. H. Reynolds, "British Pleistocene

Mammalia," vol. ii. (Pal. Soc.), and by M. A. C. Hinton, Ann. Mag. N.H. (8), vol. vi. (1910), and Sci. Proc. Roy. Dublin Soc. n.s., vol. xii. (1909). *Sir Henry H. Howorth, K.C.I.E., F.R.S.*

Portion of antler of Irish Deer (*Cervus megaceros*) from Great Northern Railway ballast pits near Lolham, Northamptonshire. *Vernon B. Crowther-Benyon, Esq., F.S.A.*

Section of molar of *Equus* from the beach near Minster, Sheppey. *W. H. Shrubsole, Esq., F.G.S.*

Aves.—A feather from the Miocene of Florissant, Colorado. *Prof. T. D. A. Cockerell.*

The egg of an extinct Struthious bird (*Struthiolithus*) from China. *Rev. H. M. Clark.*

Reptilia.—Wax model of the skull of *Lysorophus* made by the donor's method of serial sections. *Prof. W. J. Sollas, F.R.S.*

Portion of Ichthyosaurian rostrum from the highlands N. of Grahamstown, S. Africa. *Miss Edyth Walton.*

Two vertebrae and two phalangeals of a Plesiosaurian collected by the late F. J. Barnes, Esq., from the Portland Stone, I. of Portland. *The family of the late F. J. Barnes, Esq.*

Mandibular ramus of *Homoeosaurus major* from the Middle Purbeck, Durlston Bay, Swanage. *Miss Grace Pickford.*

Pisces.—Three fish-remains (*Cheirolepis*, *Gyroptychius* and *Coccosteus*) from the Old Red Sandstone, Edderton Burn, Tain, Ross-shire. *Miss Annie C. Jackson.*

A collection of remains of a new Palæoniscid fish (*Elonichthys* sp.) and a new Dipnoan, collected by the donor from the Lower Carboniferous, Deer Lake, Newfoundland. *T. Landell-Mills, Esq., F.G.S.*

A specimen of *Cleithrolepis minor* from the Upper Karoo, Caledon River, Orange River Colony. *Dr. Robert Broom, F.R.S.*

Nine Otoliths from the Portlandian Hartwell Clay, Aylesbury. *E. Hollis, Esq.*

The type-specimen of *Mesodon barnesi*, A. S. Woodward, Proc. Dorset Field Club, vol. 27 (1906), p. 187, pl. B.; a fin-spine of *Ischyodus townsendi* descr. and figd., *loc. cit.*, p. 181, pl. A.; a splenial bone of *Mesodon damoni* and three other fish-remains; all collected by the late F. J. Barnes, Esq., from the Portland Stone, I. of Portland. *The family of the late F. J. Barnes, Esq.*

Tooth of *Oxyrhina mantelli* from the Chalk of Beer, Devon. *P. B. Richards, Esq.*

Five fish-remains from the Lower Eocene (Cernaysian), Reims, France. *Rev. Prof. P. Teilhard, S.J.*

A collection of teeth of Lamnid sharks (including *Odontaspis elegans*, *O. macrota* and *O. trigonalis*) from the Middle Eocene, Lee-on-Solent. *C. Bevous Smith, Esq.*

Two fishes from the Miocene Shales of Florissant, Colorado. *Prof. T. D. A. Cockerell.*

A series of bones of *Platax woodwardi* from the Norwich Crag, Easton Bavent, Suffolk. *H. Skrimshire, Esq.*

A cranium of a Teleostean fish from the phosphates of N. Africa. *H. Dixon Hewitt, Esq., F.I.C.*

A tooth of *Oxyrhina* from the Patagonian formation, Beagle Bluff, Santa Cruz. *Leonard Cooper, Esq.*

Vertebrae and portions of skulls of a large fossil perch (*Lates niloticus*) collected by the donor on a sand-spit at the north end of Lake Rudolf, Sudan. *Major L. F. I. Athill, R.F.A.*

Mollusca.—Eleven Carboniferous Goniatites from Staffordshire and Cheshire. *The late Dr. Wheelton Hind, F.G.S.*

A *Bellerophon* from the Carboniferous Limestone, Weston-super-Mare. *Geoffrey E. O. Mullins, Esq.*

Three Gastropoda from the Carboniferous Limestone, Stanhope-in-Weardale, including *Trechmannia trochiformis*, Longstaff, Quart. Journ. Geol. Soc., vol. lxxviii., pl. xxx., and *Tropidostropha punctata*, Longstaff, *ibid.*, pl. xxvii. Two small blocks from the Upper Coal Measures, Claxheugh, co. Durham, with specimens of *Ancylus vinti*, figd. by the donor in the Geol. Mag., 1919, pl. v., figs. 1, 2. Six Ammonites from the Trias of Austria. Five Nautiloids and eighty Ammonites from the Trias of the United States. Six Ammonites and four Nautiloids from the Upper Trias of New Zealand, noticed, and two figured by the donor in Quart. Journ. Geol. Soc., vol. lxxiii. (1918), p. 165, pl. xvii. *Dr. C. T. Trechmann, F.G.S.*

Three Gastropoda (*Naticella*, &c.) from the Dolomite of Predazzo, S. Tyrol. *R. Kirkpatrick, Esq.*

Twelve Ammonites and six Lamellibranchs from the Lower Lias of South Wales; also the type-specimen of *Liparoceras pseudostriatum*, Trueman, Quart. Journ. Geol. Soc., vol. lxxiv. (1919), p. 272, fig. 4, from the Lias of Dorset. *Dr. A. E. Trueman, F.G.S.*

Twenty Lamellibranchs, one Gastropod and ten Cephalopods, from the Oxfordian of Vaches Noires, Calvados, France. *Monsieur R. J. F. Rakowski.*

Twelve specimens of *Dentalium* from the Portlandian Hartwell Clay of Aylesbury. *E. Hollis, Esq.*

A *Pecten* from the Portland Stone, I. of Portland. *The family of the late F. J. Barnes, Esq.*

Ten Jurassic Mollusca from Wyoming; two Cretaceous Mollusca from Texas; and 69 Cretaceous Mollusca from Colorado. *University of Colorado, per Mr. Junius Henderson, Curator of Museum.*

Remains of Gastropods, probably Cretaceous, from near Komgha village, S. Africa. *Dr. Arthur W. Rogers, F.R.S.*

About fifty fossils, chiefly Lamellibranch shells, from the Upper Cretaceous of Persia. *J. V. Harrison, Esq.*

Seventeen fragments of Ammonites collected by the donor, 1912, from the Cretaceous of Enyiba, S. Nigeria. *A. E. Kitson, Esq., C.B.E.*

Two Ammonites from the Upper Cretaceous of Seebe, Alberta. *W. E. Cutler, Esq., F.G.S.*

An Ammonite in flint from the Mount of Olives. *Miss Winifred K. Baird.*

Two Nautili from the Chalk of Kent and Berks. *T. H. Withers, Esq., F.G.S.*

The type-specimen of *Inoceramus intermedius* J. de C. Sowerby, Mag. Nat. Hist., vol. ii. (1829), p. 296, fig. 83, from the Chalk of Norfolk; also three specimens of the same species. *L. F. Spath, Esq., F.G.S.*

Eight specimens of *Ostrea lunata* from the Åhus Sandstone, Scania, Sweden. *Prof. Karl A. Grönwall.*

A Nautilus (*Hercoglossa aegyptiacus*) from the Eocene of Mokattam, near Cairo, Egypt. *Charles Taylor, Esq., M.D.*

A shell of *Fusus serratus* from the Lutetian (Middle Eocene) of Seine-et-Oise. *R. N. C. Hunt, Esq.*

Fifty-six natural casts of Mollusca from the Miocene Limestone, Mandeville, Jamaica. *Col. L. Worthington Wilmer.*

Eight valves of *Ostrea* from a Tertiary (probably Miocene) formation in British East Africa. *C. W. Hobley, Esq., C.M.G.*

Thirty Lamellibranchs from the Tertiary of South Kurdistan. *J. V. Harrison, Esq.*

An oyster from the phosphates of N. Africa. *H. Dixon Hewitt, Esq., F.I.C.*

A *Scala* from the Patagonian Formation of Santa Cruz. *Asa Gostling, Esq.*

A collection of land-shells obtained by the donor from a fissure near Ightham, Kent. *W. J. Lewis Abbott, Esq., F.G.S.*

Fifteen terrestrial and marine shells from an ossiferous breccia and caverns in Sardinia, noticed in the donor's works, "Nat. Hist. Zool. Paléont. de la Corse et de Sardaigne," fasc. 5 (1914), p. 72, and "Contrib. Étude Vie Vert. Insul. Médit. Occid." (1920), p. 54. *Monsieur D. G. Dehaut.*

Arthropoda.—Eleven specimens of *Marrella splendens* from the Middle Cambrian (Burgess Shale), Burgess Pass, Field, British Columbia. *Dr. C. D. Walcott.*

Three pieces of Lower Ludlow rock with *Ceratiocaris*, from Mocktree, Herefordshire. *Dr. Herbert L. Hawkins, F.G.S.*

Two slabs of *Estheria* collected by the donor from the Lower Carboniferous, Deer Lake, Newfoundland. *T. Landell-Mills, Esq., F.G.S.*

Nineteen Insects, including among other type-specimens a reverse of the type of the Ichneumid, *Tryphon explanatum*, from the Miocene of Florissant, Colorado. *Prof. T. D. A. Cockerell.*

Sixty-nine pieces of Amber from the Miocene of Burma, containing the remains of Arthropods and including the type-specimens of *Burmitembia venosa*, *Aleurodiscus burmiticus*, *Micropteryx pervetus*, *Johannsenomyia swinhoei*, *Psylloneura* (?) *parantiqua*, *Garypus burmiticus*, *Epyris atavellus*, *Psilocephala electrella*, *Labidura electrina*, and *Eophlebotomus connectens*, described by Prof. T. D. A. Cockerell. *Rodway C. J. Swinhoe, Esq.*

Three specimens of *Balanus tintinnabulum* var. *concinna*, and two of *B. laevis* var. *nitida*, from raised beaches near Payta, Peru. *Dr. T. O. Bosworth, F.G.S.*

Echinoderma.—A plaster cast of the type-specimen of *Eucalyptocrinus proboscidalis* from the Silurian, Pontiac, Ohio. *Dr. Aug. F. Foerste*.

Thirty-four Crinoids and two Blastoids from the Lower Carboniferous of Malahide, Dublin. *Louis B. Smyth, Esq., B.Sc.*

An Ophiurid arm from the Rhaetic, near Frome. *T. H. Withers, Esq., F.G.S.*

A piece of Crinoid Limestone (with *Isocrinus*) and two Echinoids (*Hemipedinia* and *Diademopsis?*) from the Lower Lias of Charmouth, Dorset. *Dr. W. D. Lang*.

Fifty-six Echinoid, sixteen Ophiurid and sixty-two Crinoid remains from the Portlandian Hartwell Clay of Aylesbury. *E. Hollis, Esq.*

Two Echinoids (*Hemiaster*) from the Cretaceous of Wady-el-Tib, near Ajul, Ephraim, Palestine; and four Echinoids from the Lower Senonian, near Abancourt, France. *Geoffrey E. O. Mullins, Esq.*

Nine Echinoids and eighteen Crinoid remains from the Chalk of Surrey. *T. H. Withers, Esq., F.G.S.*

Four stem-fragments of *Balanocrinus* collected by the donor from the Eocene of Biarritz. *E. Heron-Allen, Esq., F.R.S.*

A *Clypeaster* from the Oligocene of Cerro La Fuerta, Tophila, northern Vera Cruz, Mexico. *John M. Muir, Esq.*

An Echinoid (*Clypeaster aegyptiacus*) from the Miocene, Mussendum, Persian Gulf. *Mrs. Kossman*.

A fragment of Echinoid (*Schizaster*) from the Coralline Crag, Broom's Hill, Gedgrave. *Alfred Bell, Esq.*

A Crinoid, *Holopus rangi*, from a depth of 60 fathoms in the sea off Barbados. *Dr. C. T. Trechmann, F.G.S.*

Annelida.—Three Annelids from the Silurian of Gotland. *Dr. F. A. Bather, F.R.S.*

A large slab of Sandstone with worm-like tracks, from the base of the Carboniferous, near Kirkby Lonsdale. *Major Gibson*.

A Triassic (Carnian) worm, *Terebellina mackayi*, from the Misol Archipelago. *Director of the Geological Institute, University, Bonn, Germany*.

Five *Serpulæ* from the Oxfordian of Vaches Noires, Calvados. *Monsieur R. J. F. Rakowski*.

Brachiopoda.—Two internal casts of Palæozoic Brachiopods from near Huanuni, Bolivia, 13,000ft. above the sea. *William T. Rennie, Esq.*

Two Brachiopods from the Lower Senonian, near Abancourt, France. *Geoffrey E. O. Mullins, Esq.*

Polyzoa.—A Polyzoan from the Wenlock Limestone, Pen-y-lan, Cardiff. *Dr. F. A. Bather, F.R.S.*

A Polyzoan from the Lower Greensand of Folkestone. *L. F. Brady, Esq.*

Two Polyzoa from the Senonian Åhus Sandstone, Scania, Sweden. *Prof. Karl A. Grönwall*.

Coelentera.—Twenty Carboniferous Corals from New South Wales and Queensland, described by the donor in Proc. Linn.

Soc. N. S. Wales; two Corals from the Carboniferous Limestone of Northern England; and two sections of *Orionastraea ensifer* from the Carboniferous Limestone of Wrington, Somerset. *Dr. Stanley Smith, F.G.S.*

Two Corals from the Miocene Limestone of Mandeville, Jamaica. *Col. L. Worthington Wilmer.*

Porifera.—A Sponge from the Chalk Marl of Arlese, Bedfordshire. *Prof. T. D. A. Cockerell.*

A portion of a Sponge (*Ventriculites*) in flint. *Miss Joan Chapman.*

Protozoa.—Five sections of *Nummulites* from the Bracklesham Beds, Bracklesham, Sussex. *H. A. Moncrieff, Esq.*

A piece of Foraminiferal limestone from the Tertiary of South Kurdistan. *J. V. Harrison, Esq.*

Two microscope-slides of Radiolarian earth from Barbados. *Lieut.-Gen. Sir Nicholas Yermoloff, K.C.B.*

Miscellaneous Invertebrata, etc.—A collection of 166 fossils from Spitsbergen, made chiefly by W. J. Reynolds, Esq., namely:—Permo-Carboniferous and Permian fossils from Mimer Bay and Ekman Bay; Triassic fossils from Sassen Bay; Triassic and Jurassic fossils from Van Keulen's Bay; Kimmeridgian fossils from Green Harbour; Jurassic plants from various localities; ammonites and *Aucella* from Cape Delta; Aptian fossils from Whale's Head, &c.; and belemnites from various localities. *Messrs. Beeby Thompson and Partners.*

About eighty Upper Cretaceous fossils (Gastropoda, Lamellibranchia, Brachiopoda, Polyzoa, and Echinoids), collected by the donor in Persia. *J. V. Harrison, Esq.*

About a hundred and ninety Tertiary fossils (Mollusca, Crustacea, Echinoids, Corals, &c.) collected by the donor in Persia. *B. K. N. Wyllie, Esq.*

Four Corals, three Polyzoa, one Annelid, two Brachiopods and five Mollusca from the Miocene of Malta. *Geoffrey E. O. Mullins, Esq.*

About eighty Tertiary fossils (Corals, Echinoids, Mollusca, &c.) from Mombasa, British East Africa. *C. W. Hopley, Esq., C.M.G.*

One Coral, three Crustacean remains, three Lamellibranchs, six Gastropods, two rock-specimens and one piece of resinous substance from the Tertiary of Corosal Quarry, Trinidad. *R. J. Faulkner, Esq.*

Plantæ.—Two Coal-balls from the Coal Measures, Romsée, near Liège, Belgium. *Prof. Armand Renier.*

A specimen of the Permo-Carboniferous *Gangamopteris* from Bald Hill, Bacchus Marsh, Victoria, Australia. *Dr. C. T. Trechmann, F.G.S.*

Three specimens of *Halymenites major* from the Cretaceous of Colorado. *University of Colorado, per Mr. Junius Henderson, Curator of the Museum.*

A silicified rock containing *Chara* and remains of Gastropods, with two microscope-sections of the same, probably Cretaceous, from near Komgha village, South Africa. *Dr. Arthur W. Rogers, F.R.S.*

Sixteen Plants from the Miocene of Florissant, Colorado. *Prof. T. D. A. Cockerell.*

Two fossil Plants from Miocene leaf-beds, Ormond, Poverty Bay, New Zealand. *W. Hill, Esq.*

Leaf-impressions in porcellanite from Trinidad. *C. B. Williams, Esq.*

Five microscope-slides of diatomaceous earth from Lompoc, Santa Barbara Co., California. *Lieut.-Gen. Sir Nicholas Yermoloff, K.C.B.*

A piece of laminated mud with seeds, &c., deposited in 1913 by flood at Dayton, Ohio. *Dr. Aug. F. Foerste.*

Rock-specimens.—A piece of chert worn into the shape of a vertebra, from Stonebarrow Hill, Charmouth, Dorset. *Mrs. Cecil Bagot.*

B.—By Purchase.

Mammalia.—A molar and two vertebræ of *Tetrabelodon*; a molar of *Rhinoceros*; a right maxilla, a sacrum and a caudal vertebra of *Brachyodus*; an axis vertebra of a Carnivore; and a portion of the jaw of *Cyrtodelphis*; collected by Lieut. Lamb from the Lower Miocene of the Libyan desert.

Mammalian remains from the Pleistocene and later deposits round Peterborough (Leeds Coll.).

A collection of ten portions of skulls and lower jaws of small mammals, chiefly Rodentia, from the Caves of Cuba and Indian shell-mounds of Porto Rico.

Reptilia.—About twenty-eight reptilian remains from the Oxford Clay of Peterborough (Leeds Coll.).

A skull and portion of another skull of *Tomistoma dowsoni*, collected by Lieut. Lamb from the Lower Miocene of the Libyan Desert.

Pisces.—Fifteen fish-remains from the Oxford Clay of Peterborough (Leeds Coll.).

A piece of rostrum of *Pristis* collected by Lieut. Lamb from the Lower Miocene of the Libyan Desert.

Mollusca.—Lower Cambrian Scaphopoda and sixty-four Ordovician Gastropoda from Newfoundland.

A hundred and seventeen Cephalopoda from the Trias of Timor (J. Wanner Coll.).

Mollusca from the Cretaceous of Gosau, Austria (Schrammen Coll.).

A very large *Inoceramus* from the Chalk, Kansas (Sternberg Coll.).

A *Nautilus* from the Barton Clay.

Arthropoda.—Sixty-eight Lower Cambrian Trilobites from Newfoundland.

Echinoderma.—Seventeen Cystids, twelve Blastoids and forty-three Crinoids from the Palæozoic of N. America.

Four specimens of the Carboniferous Crinoid *Agaricocrinus*.
A fossil Echinoid (*Clypeaster*) showing internal structure.

Brachiopoda.—Twenty-five Lower Cambrian Brachiopoda, and seventeen Silurian fossils, chiefly Brachiopoda, from Newfoundland.

Polyzoa.—Two hundred Polyzoa from the Chalk of Worthing.

Coelentera.—Corals from the Cretaceous of Gosau, Austria (Schrammen Coll.).

Porifera.—Sixteen Porifera from the Trias of Timor (J. Wanner Coll.).

A thousand Sponges from the Jurassic and Cretaceous chiefly of Hanover (Schrammen Coll.).

Miscellaneous Invertebrata.—The first instalment of the Gray Collection of Girvan fossils, including seven hundred type and figured specimens.

Seven hundred and forty Devonian Invertebrata from N. America, chiefly Iowa.

Problematical fossils.—Eleven problematical fossils from the Middle Cambrian, Burgess Pass, Field, British Columbia.

C.—By Exchange.

Fifteen remains of a Crinoid, *Drepanocrinus sessilis*, from the Cretaceous of Mülheim-am-Rhein, Germany.

Two pieces of chert with petrified plant-remains from the Devonian of Rhynie, Aberdeenshire.

The total accessions during 1920 are as follows:—

	Donations.	Purchases.	Exchanges.	Total.
Vertebrata -	3,042	73	—	3,115
Invertebrata -	1,518	16,235	15	17,768
Plantæ -	18	—	2	20
Rocks -	5	—	—	5
	<hr/> 4,583	<hr/> 16,308	<hr/> 17	<hr/> 20,908

The total number of specimens registered is 17,317.

VI.—Students and Visitors.

The number of visits paid to the Department by Students and other persons for the purpose of consultation or study during 1920 was 4,920.

Arthur Smith Woodward.

DEPARTMENT OF MINERALOGY.

I.—*Arrangement.*

The specimens of limonite have been re-arranged in the case-tops, and those of proustite in a special light-proof case provided with a wooden lid which can be raised in order to view the specimens.

Photomicrographs of micro-sections of some of the more important types of rocks have been placed in the cases containing the species-collection of rocks.

Series of minerals and rocks have been arranged for the use of students, and descriptive labels have been prepared for them.

Forty-eight boxes of mineral and rock specimens have been received, unpacked, and examined; and fifty-two boxes have been packed and dispatched.

II.—*Registration, Indexing, and Cataloguing.*

All the specimens of minerals, rocks, and meteorites acquired during the year have been registered, numbered, provided with permanent labels, and incorporated in the collection. In this connection many specimens have been examined and determined, and localities have been checked.

The preparation of the slip-catalogues of the mineral specimens in the collection, species by species, and of permanent labels giving all available information for each specimen, has been continued for the Division of the Oxides, and has been commenced for that of the Sulphates. In this connection slips and permanent labels have been prepared for opal, valentinite, cervantite, kermesite, and the remaining species up to the end of the Oxides.

The slip-catalogue of species is being utilised for the preparation of a complete and detailed topographical index of all specimens in the Mineral Collection, giving on cards the names of the species represented from each locality; and at the same time a topographical list of localities for each species is being prepared. This work has been completed as far as the end of the Sulphides and Sulpho-salts, and 2,670 locality cards have been written and 154 species dealt with.

All the described specimens in the collection of rocks of the "Discovery" Antarctic Expedition, and the specimens of rocks described in the reports of the National Antarctic Expedition of 1907-9, have been provided with permanent labels, and the names have been included in the list of rock-names.

The preparation of a new descriptive and alphabetical list of the meteorites represented in the collection has been in progress.

Two copies of the new periodical publication, "Mineralogical Abstracts," issued by the Mineralogical Society, have been cut up when received and arranged for reference in the Department.

III.—*Preparation.*

Two hundred and thirty-three micro-sections of minerals, meteorites, and rocks have been prepared.

Coloured plaster casts have been made of the Appley Bridge meteorite.

IV.—*Investigation.*

The crystallographic and optical investigation of the series of crystals of lead and copper minerals from Red Gill, Cumberland, and Leadhills, Lanarkshire, in the Trechmann Collection, has been completed, and a description has been prepared for publication.

Among other species which have been examined for purposes of identification or other reasons may be mentioned, minerals from Tanganyika Territory, Northern Nigeria (zircon, corundum, etc.), Ceylon (zircon, fibrolite, etc.), and Madagascar (chrysoberyl, betafite, columbite, etc.); crystals of tin compounds from tin furnaces (tin sulphide, iron stannide, tin arsenide); fibroferrite from Cyprus; manganite from Cumberland.

The investigation of the metamorphic rocks represented in the collections of the "Terra Nova" Antarctic Expedition has been in progress, and descriptions have been prepared of rocks from Evans Cove, McMurdo Sound, and Granite Harbour.

Rock-specimens from Islands off the coast of Peru, from Darfur, and from Somaliland; specimens of riebeckite-rhyolite from Kordofan; and of "blood-rain" and sands from the Canaries, have been examined, and descriptions have been prepared for publication.

In the Chemical Laboratory a complete quantitative analysis has been made of the Ensisheim meteorite. Many minerals have also been qualitatively analysed.

V.—*Departmental Library.*

Cataloguing and Press-marking.—All the accessions, including 809 plates, have been catalogued and stamped; 69 volumes have been pressmarked or re-pressmarked.

Proofs of the General Library Catalogue (Supplement) have been read and checked against the slip-catalogue in the Department.

Accessions.—31 volumes of separate works, 80 periodicals, 351 pamphlets, 21 mining and survey reports, and 12 sheets of maps have been added to the Library.

Binding.—96 volumes have been bound.

VI.—*Publications.*

A new short guide to the Mineral Gallery has been prepared for press.

The following papers relating to specimens in the Collection have been published in the Mineralogical Magazine and Journal of the Mineralogical Society, 1920, vol. xix.:—

The classification of Meteorites: by G. T. Prior (p. 51).

New crystal-forms on Pyrites, Calcite, and Epidote: by L. J. Spencer (p. 1).

Fibrolite (=Sillimanite) as a gem-stone from Burma and Ceylon: by L. J. Spencer (p. 107).

A curious crystal from the Binn Valley, Switzerland: by G. F. Herbert Smith (p. 40).

Riebeckite-rhyolite from northern Kordofan, Sudan: by W. Campbell Smith (p. 48).

VII.—*Acquisitions.*

1,758 specimens have been acquired, namely, 500 minerals, 621 rocks, 540 micro-sections of rocks, 93 meteorites, and 4 artificial products.

Exchanges of specimens have been arranged with the Royal Ontario Museum of Mineralogy, Toronto, Canada; the Museum of Practical Geology, London; and the United States National Museum, Washington, D.C.

The following mineral names added to the Museum List were previously not represented in the collection:—

Amosite, creedite, ferrazite, inyoite, manganapatite, phosphoferrite, phosphophyllite, phosphosiderite, schoharite, temiskamite, uvanite.

The specimens acquired by presentation (arranged alphabetically according to donors) and by exchange, and a selection of the more important of those obtained by purchase are as follow:—

Minerals.

By Presentation.

Chalcedony, as an encrustation on the surface of the desert, Fayûm, Egypt: by *Dr. C. W. Andrews, F.R.S.*

Further instalments from the donor's collection of zeolites, namely, 103 specimens, representing 46 localities; 33 specimens (aragonite, barytes, galena, hemimorphite, pyrites, vanadinite, witherite, etc.) from Wanlockhead, Dumfriesshire, some of them recently collected by the donor; cerussite from Weardale, Co. Durham; bayldonite from Tsumeb, S.W. Africa; a zoned crystal of green corundum from Siam: by *F. N. Ashcroft, Esq.*

Sapphire crystals in matrix from Mogok, Upper Burma: by *A. L. Bacon, Esq.*

A series of 25 specimens of Australian minerals, mainly from the mining districts of north Queensland, including good crystals of chillagite, chessylite, scheelite, cassiterite, molybdenite, topaz, etc.: by *Rev. C. C. Barclay.*

A scalenohedron of calcite: by *S. F. Barnes, Esq.*

A series of 13 specimens (galena, pyrites, blende, quartz, calcite, aragonite, and pseudomorph of hemimorphite after calcite) from Wanlockhead, Dumfriesshire: by *Robert Brown, Esq.*

A small collection of minerals, mainly fragments of gemstones from Ceylon (including fibrolite, zircon, corundum, etc.): by *Lt.-Col. C. F. Call, late R.E.*

Stalactites from a cave on Mangaia Island, Cook Islands, Pacific: by *Mr. and Mrs. F. W. Christian.*

A large, well-formed scalenohedral crystal of calcite, from Millclose mine, Derbyshire; a large specimen of fluor from Wear-dale, Co. Durham; barytes from Mexico; altered biotite from Spain; and calamine crystals from Rhodesia: *by H. F. Collins, Esq.*

Two large sheets of mica (4 ft. by 2 ft.) from Tanganyika Territory: *by the Under-Secretary of State, Colonial Office, Downing Street (through Arnold Bradley, Esq.)*

Magnetite from Chamonix, Haute-Savoie: *by F. E. Coulet, Esq.*

Ferrazite, a "fava" from the Brazilian diamond-washings (a new species named after the donor): *by Dr. J. B. de Araujo Ferraz.*

Various rare-earth, radioactive, and gem-minerals from Madagascar: *by E. H. Florens, Esq. (through Franklin White, Esq.)*

Allophane from Argenta, British Columbia: *by Thomas French, Esq.*

Amethyst crystal, showing zonal banding, from Brazil: *by Rev. J. M. Gordon.*

Fluor (purple and green) pebble from the River Avon, Banffshire: *by Mrs. M. Smith Grant.*

Jasper from Nunkirchen, Rhenish Prussia, some artificially stained to imitate lapis-lazuli: *by Albert G. F. Gregory, Esq.*

Amosite, a new variety of asbestos, from Transvaal: *by A. L. Hall, Esq.*

Crystals of calcite on oolite from Cotswold Hills, Gloucestershire: *by M. C. Hampton, Esq.*

Hornblende crystals in hornblende-andesite from Vic-sur-Cère, Central France: *by Mrs. Ernest Harrington.*

Gypsum from Algeria: *by Miss C. F. Harrison.*

Rock-crystal grading into quartzite, from Diamantina, Minas Geraes, Brazil: *by Messrs. Adam Hilger, Ltd.*

Kyanite, epidote, and garnet from British East Africa: *by C. W. Hobley, Esq., C.M.G.*

Pickeringite from Cobriza, Peru: *by W. C. Holden, Esq.*

Chrysotile in dolomite, hæmatite crystals, "jarrowite" pseudomorphs, and diaspore, illustrating Japanese mineral occurrences: *by Prof. Kotora Jimbō.*

A suite of specimens of sapphire from New Mine, Yogo Valley, Montana, U.S.A., comprising two matrix specimens, loose rough stones, and four cut stones: *by Messrs. Johnson, Walker and Tolhurst, Ltd.*

Gypsum nodules from the Wealden beds at the Gypsum mines, Mountfield, Robertsbridge, Sussex: *by L. C. Kemp, Esq.*

Melanterite stalactites from Abertysswg colliery, Monmouthshire: *by W. C. Kendrick, Esq.*

Chalcedonic flint from the Kentish Rag at Ightham, Kent: *by A. S. Kennard, Esq.*

Crystals of betafite and specimens of kornerupine from Madagascar: *by Prof. A. Lacroix.*

Gold found during excavation in the City of Cuyabá, Brazil: by *T. H. Lee, Esq.*

Fluor, kyanite, and actinolite from the River Avon, Banffshire: by *W. McPherson, Esq.*

A very large and finely crystallised specimen of blende with calcite from New Glencrieff mine, Wanlockhead, Dumfriesshire: by *John Mitchell, Esq.*

An interesting series of specimens of ruby, fibrolite, sapphire, and diopside, from the Burma Ruby mines, Mogók, Upper Burma: by *A. H. Morgan, Esq.*

"Star Pyrites" (dendritic crystallisations of pyrites between layers of shale) from Lightmoor colliery, Cinderford, Gloucestershire: by *William Morgan, Esq.*

Herderite from Auburn, Maine, U.S.A.: by *W. D. Nevel, Esq.*

"Kurokō" (Black ore) and radioactive barytes from Japan: by *Prof. R. Ōhashi.*

Large crystallised specimen of inyoite from Hillsborough, New Brunswick, Canada: by *Hon. Chas. J. Osman.*

Specimens of inyoite and gypsum from Hillsborough, New Brunswick, Canada: by *C. W. Osman, Esq.*

Stannite from Anaconda mine, Butte, Montana: by *Dr. Richard Pearce.*

Gypsum from Central Arabia: by *St. J. B. Philby, Esq., C.I.E.*

Cone-in-cone structure from Barf Hill, Keswick: by *J. Postlethwaite, Esq.*

Gaylussite crystals from the Salt Pan near Pretoria, Transvaal; vanadinite crystals from Marico district, Transvaal: by *Dr. A. W. Rogers, F.R.S.*

Limonite pseudomorphous after pyrites from the Chalk quarries, Portsdown Hills, Hampshire: by *Messrs. H. Rogers and Sons.*

Stibnite and cinnabar from China; cassiterite from Western Australia; and copper-pyrites from Tasmania: by *H. A. H. Russell, Esq.*

Quartz from Bristenstock, Switzerland: by *W. Schmassmann, Esq.*

Hornblende enclosed in blende from Norway; and villamannite, portions of the original material used for analysis: by *Dr. W. R. Schoeller.*

Cassiterite from Katanga, Congo: by *Dr. A. Schoep.*

Gearksutite (some of the original material recently described by the donor) from Gingin, Western Australia: by *Dr. E. S. Simpson.*

Allophane from Barcelona: by *Club Muntanyenc, Barcelona, Spain (through Señor Mateo Sust).*

Pyromorphite, galena, and crystallised slags, from Pontgibaud, Puy-de-Dôme, France; native bismuth and scheelite crystals from Wheal Friendship, Tavistock, Devonshire; hæmatite and dolomite from Brazil: by *Arthur Taylor, Esq.*

Calcite concretions from Sherika, Khargeh Oasis, Egypt: *by Dr. Charles Taylor.*

Rock-crystal grading into quartzite, and diamond matrix and associated minerals, collected by the donor in Brazil, 1919: *by Robert R. Walls, Esq.*

Ores (blende, galena, tetrahedrite, ankerite, etc.) from the Combe Martin silver-lead mines (worked from about 1200 to 1880), North Devon; gold, iridosmine, and platinum from South Africa: *by Franklin White, Esq.*

Native bismuth, zircon, and corundum from Northern Nigeria: *by A. Stanley Williams, Esq.*

By Exchange:

A series of specimens of zinc phosphate minerals from the new find at Salmo, British Columbia, viz., two specimens of spencerite as crystals (a new species); hopeite and parahopeite with spencerite; hemimorphite, crystals and mamillated, and pseudomorphous after spencerite.

Crystallised willemite from Broken Hill, Rhodesia.

By Purchase:

A series of large show specimens of various minerals (axinite, blende, chessylite, copper, copper-pyrites, polybasite, sphærosiderite, wavellite, quartz pseudomorphous after barytes, etc.) selected from an old collection made by the late Charles Walker.

Miscellaneous specimens illustrating British mineral occurrences, including:—cerussite, acicular crystals, from Weardale, Co. Durham; tennantite crystals from St. Just, Cornwall; native silver, botryoidal blende, pinite, dufrenite, halloysite, etc., from Cornwall; caledonite with lanarkite from Leadhills, Lanarkshire.

A series of minerals from the asbestos mines of Val Malenco, Lombardy, including asbestos (a mass of long fibres), actinolite, albite, tourmaline, penninite, quartz, magnesite.

Covellite, large brilliant blue plates, from Sardinia.

Linarite and paratacamite, well-crystallised, from Chili.

Serpierite, a fine crystallised specimen from Laurion, Greece.

Minerals from Germany, comprising:—new occurrences of phosphate minerals in pegmatite at Hagendorf and Pleystein, Bavaria, including the new species phosphophyllite, phosphoferite; various minerals from Thuringia, including native gold with pyrophyllite, bournonite with caledonite, etc.; a large crystalline mass of chalcantite from the Harz Mountains; crystals of kainite and kieserite.

Minerals from the Otavi district in S.W. Africa, *e.g.*, otavite, phosgenite, anglesite, cuprodescloizite.

New Canadian mineral occurrences, including:—polished slabs showing the association of breithauptite, niccolite, smaltite, and native silver in the veins at Cobalt, Ontario; spencerite, parahopeite, orthoclase crystals, and sodalite from British Columbia; temiskamite (a species new to the collection).

New occurrences in the United States, including:—creedite and uvanite (new species); strontianite from California; phosphorites from Wyoming and South Carolina; riebeckite from Colorado.

Cupro-scheelite and scheelite, spessartite, and chessylite crystals, from New South Wales.

Alunite from Japan.

Graphite from Greenland.

Rocks.

By Presentation:

Dust which fell on 8–11 Feb., 1920, at the Canary Islands; volcanic tuffs and basalt from the Canary Islands: *by D. A. Bannerman, Esq., M.B.E.*

Rock-specimens collected by the donor in the South American Antarctic Islands: *by A. G. Bennett, Esq.*

Kaolinized quartz-porphry from Cornwall: *by Charles H. Bowser, Esq.*

Sandstone from South Orkneys; volcanic bomb from Deception Island, South Shetlands; *by the Governor of the Falkland Islands.*

Marble and porphyrite from British Somaliland: *by Miss E. M. Godman.*

Polished specimen of porphyrite from near Ballantrae, Ayrshire: *by Rev. J. M. Gordon.*

Shell-sand and 'Red rain' from Gran Canaria: *by S. H. M. Head, Esq.*

Glacial boulders and pebbles from the neighbourhood of Toronto, Canada; opicalcite blocks showing 'Eozoon Canadense' structure from Quebec; 164 miscellaneous micro-sections mostly of sedimentary rocks from various localities: *by the family of the late Dr. G. J. Hinde, F.R.S.*

Rounded scoria of olivine-basalt from near Old Meroe, Egypt: *by Lt.-Col. Sir Herbert W. Jackson, C.B., Governor of Dongola, Egypt (through Dr. P. Chalmers Mitchell, C.B.E., F.R.S.).*

Serpentine, trachyte, and limestone, from Raska, Serbia, collected by the donor 1918-19: *by Miss A. L. Lang.*

A series of 49 specimens collected by the donor in 1920 from the province of Darfur, Sudan: *by Capt. Hubert Lynes, C.B., C.M.G., R.N.*

Pebbles of various rocks from the River Avon, Banffshire: *by W. McPherson, Esq.*

Limestone impregnated with oil, basalt coated with asphalt, and gilsonite, from Vera Cruz, Mexico: *by John M. Muir, Esq.*

A series of 125 specimens, with the corresponding micro-sections, of metamorphic rocks from British East Africa: *by John Parkinson, Esq.*

11 specimens from Central Arabia: *by St. J. B. Philby, Esq., C.I.E.*

Erratic boulders from the foot of the cliffs between Cromer and Overstrand, Norfolk; 50 specimens collected by the donor: *by Dr. G. T. Prior, F.R.S.*

Erratic boulders, including 2 rhomb-porphyrines and 3 fossiliferous limestones, collected by the donor from the foot of the cliffs between Cromer and Overstrand, Norfolk: *by Mrs. G. T. Prior.*

A series of 260 specimens from southern Abyssinia and Somaliland, collected by Dr. R. Koettlitz and Lord Lovat in 1898, and described by the donor in 1903: *by Dr. Catherine A. Raisin.*

9 rock specimens from the nickel-ore deposits at Talnotry, Kirkcudbrightshire, and three other miscellaneous Scottish rocks, collected by the donor: *by W. Campbell Smith, Esq., M.C.*

Sandstone and limestone from the Combe Martin mines, North Devon: *by Franklin White, Esq.*

A small set of specimens collected by the donor on his journey through Chitral, western Himalayas: *by Lt.-Col. Sir Francis Younghusband, K.C.S.I., K.C.I.E.*

By Purchase:—

Minverites, granites, spilite, etc., from Cornwall; foraminiferal limestone from Yorkshire.

Two polished specimens of devitrified rhyolite showing very large spherulites.

A set of 134 micro-sections of rocks from Abyssinia and Somaliland.

43 miscellaneous micro-sections of rocks.

METEORITES.

By Presentation:—

Mount Ayliff, Griqualand East, South Africa, a fragment weighing 189 grams from the mass of iron known in 1907; also a coloured plaster cast of the whole mass:

Simondium, Paarl, Cape Colony, fragments weighing together 204 grams of the stone found in 1907:

A fragment of metallic iron (pseudo-meteorite) from *Elandsberg*, South Africa:

By the Public Museum of King William's Town, South Africa (through the Director F. A. O. Pym, Esq.)

Karee Kluff, Hofmeyer, Cape Province, South Africa, a piece weighing 38.6 grams and 7.2 grams of filings of this meteoric iron: *by the Trustees of the Port Elizabeth Museum, South Africa (through the Director, F. W. FitzSimons, Esq.)*

By Exchange:—

Cumberland Falls, Whitley Co., Kentucky, two crusted fragments, weighing respectively 379 and 261 grams, of this brecciated stone which fell on April 9th, 1919.

By Purchase:—

Apple Bridge, Wigan, Lancashire, the main mass, consisting of two pieces, fitting together and weighing respectively 10,900 and 1,900 grams (total 28 lb. 3½ oz.), of the stone which fell on October 13th, 1914. Coloured plaster casts have been made in the Department.

Cookeville, Putnam Co., Tennessee, a polished and etched slice weighing 135·6 grams of the iron found in 1913.

Cabeza de Mayo, Murcia, Spain, a fragment, weighing 61 grams, of the stone which fell on August 18th, 1870.

Mount Ayliff, Griqualand East, South Africa, a polished and etched slice weighing 95 grams of the iron known in 1907.

Richardton, Stark Co., North Dakota, four complete stones weighing respectively 478, 372, 413, 166 grams of the shower of June 30th, 1918.

A series of fragments of 74 meteorites previously represented in the collection, acquired for purposes of investigation and exchange.

Of the above meteorites those of which the names are printed in italics belong to falls hitherto unrepresented in the Museum Collection.

The following artificial products have been presented:—

Crystals of aluminium-copper alloy: *by Miss Constance F. Elam.*

Magnetite crystals from the hearth of a copper furnace near Salt Lake City, Utah: *by Dr. Richard Pearce.*

A cast of an Italian renaissance medal (about A.D. 1500) showing on the obverse a representation of Mt. Vesuvius; probably the earliest representation of a volcano in eruption: *by C. Davies Sherborn, Esq.*

VIII.—*Donations of Duplicates.*

Duplicate specimens of minerals have been given to Professor A. Lacroix and Mr. C. B. Newton.

IX.—*Demonstrations.*

A demonstration on "Forms of Silica" was given to the Geologists' Association.

X.—*Students and Visitors.*

The number of visits recorded as made to the Department for purposes of consultation or study is 625. Many specimens of minerals and rocks have been determined for visitors and correspondents.

G. T. Prior.

DEPARTMENT OF BOTANY.

I.—*Arrangement and Conservation.*

During the past year 12,722 specimens have been incorporated with the Herbarium. This number includes 11,625 Flowering Plants, 6 Ferns, 431 Mosses, 132 Hepatics, 52 Algæ, 209 Fungi, and 267 Lichens.

Flowering Plants.—Collections acquired during the year have been mounted and incorporated wholly or in part; and unincorporated material of the families of Polypetalous Dicotyledons and of the Orchidaceæ, Cyperaceæ and Gramineæ has been sorted and in part arranged in genera and species. Work of revision and incorporation has been done in various families and genera, especially Orchidaceæ, Euphorbiaceæ, and the families of Apetalous Dicotyledons. Several genera have been rearranged in accordance with recent monographs. In the British and European Herbarium progress has been made with the selection and incorporation of the named material, and with the formation of a collection of British seeds. A large number of duplicate specimens have been sorted and arranged for purpose of exchange.

Cryptogams.—The important collection of West Indian Ferns by Mr. R. V. Sherring has been sorted and in part compared with the Herbarium, and work of revision has been done in the genus *Hymenophyllum*. Work of incorporation has been done in various groups, especially the Sphagnum mosses, Welwitsch's Angolan fungi, and the microfungi generally. The selection of the Stirton collection of lichens has been completed, and progress has been made with the formation of an Herbarium of Extra-European Lichens.

Exhibition Series.—Work of maintenance has been done in the various series in the Public Gallery, and new specimens have been added and labelled. Four large photographs illustrating the vegetation of the Ruwenzori Range in Central Africa, presented by Lord Rothschild, have been placed on exhibition. A number of specimens of British and cultivated plants have been specially collected and prepared for exhibition.

Catalogues and Guides.—Volume IV. of the *Flora of Jamaica* by Mr. Fawcett and Dr. Rendle has been published, and steady progress has been made with the preparation of Volume V. A *Handbook of British Lichens* has been prepared by Miss A. Lorrain Smith and in part printed.

II.—*Investigations.*

Collections have been investigated and determined from the following localities and collectors:—Macedonia (various collectors), Dardanelles (Cheesman), Palestine (Dinsmore), N.W. Himalaya (G. E. Benham), Annam (Kloss), Papua (White), Java, Sumatra and New Guinea (H. O. Forbes), Middle Atlas

and Darfur (Lynes), British Somaliland (Miss E. Godman), French Soudan (Buchanan), Nyasaland (Mrs. Shinn), Rhodesia (Eyles, Rogers), Transvaal (Rand), Belgian Congo (Burt-Davy), Portuguese Congo (Gossweiler), Cameroons (Bates), West Australia (Sargent), and New Caledonia (Compton). Work of determination and investigation has been done on the types of Loureiro's Cochin China plants, and in various families and genera, especially Orchidaceæ, Pandanaceæ, Liliaceæ, Leguminosæ, Compositæ, Rubiaceæ, Amarantaceæ, *Vellozia*, *Campynema*, *Rhynchosia*, and *Baphia*. Also in various genera of Algæ, especially from the Cape and the Pacific and Antarctic Oceans, and of micro-fungi. Numerous cases of diseases caused by fungi have been investigated, including diseases of timber, and various cultivated plants, such as potato, tomato, onion, tulip, narcissus, peony, calla, heaths, etc. Assistance to students and collectors has been given in determination of specimens, and various matters of economic importance have been investigated. In connection with work done in the Department, collections have been generously lent by the Government of Jamaica; the Director of the Royal Gardens, Kew; the Regius Keeper of Botany, Edinburgh; the Curator of the Bristol Museum; the Chief, Division of Botany, Union of South Africa; the Director of the Natal Herbarium; the Director of the South African Museum; the Director of the Jardin Botanique de l'Etat, Brussels; the Director of the Botanic Garden, Zurich; the Director of the Botanic Garden, Upsala; the Director of the Botanic Garden, Dahlem (Berlin); and the Director of the New York Botanic Garden.

Material has been lent for determination and critical study as follows:—58 specimens of *Acacia* to Director, Botanic Gardens, Sydney, N.S.W.; 5 Asiatic specimens of *Sedum* to Mr. R. Lloyd Praeger, National Museum, Dublin; 1 slide of Diatoms to Mr. N. E. Brown, Kew; 5 specimens of *Acacia*, and 10 specimens of *Alchemilla* to the Director, Jardin Botanique de l'Etat, Brussels; 5 specimens of *Baphia* from Tropical Africa to Mr. L. V. Lester-Garland; 12 specimens of *Canavalia* to Mr. S. T. Dunn, Royal Gardens, Kew; 50 specimens of *Desmodium* from Central America to Dr. A. K. Schindler, Minden, Westf.; 4 specimens of Tropical African Ebenaceæ to Mr. W. P. Hiern, F.R.S., Barnstaple.

III.—Departmental Library.

1. *Arrangement, Cataloguing, and Pressmarking.*—The registering, stamping, and cataloguing of additions to the library has been carried out. A rearrangement in several of the sections has been effected; by this means the space rendered available by the transfer to the New Herbarium of many of the books dealing with European botany has been utilised. A set of shelves has been added to accommodate the larger works of reference. Departmental assistance in connection with the Official Catalogue of the Library has been continued. A collection of water-colour drawings of Orchids by J. N. Fitch has been arranged and labelled.

2. *Accessions*.—31 volumes and 19 pamphlets were acquired by donation and 95 volumes and 3 pamphlets by purchase; in all 126 volumes and 22 pamphlets. These numbers include 29 volumes of periodicals in parts presented, and 75 volumes of periodicals in parts purchased. The following is a list of the principal donors:—

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|---|--|
| Oakes Ames, Esq., Botanical Gardens, Harvard University, U.S.A. | Director, Rijks Herbarium, Leiden |
| Kolonial Instituut, Amsterdam | Linnean Society, London |
| Prof. L. H. Bailey | Miss G. Lister |
| R. T. Baker, Esq. | G. C. Lloyd, Esq. |
| Royal Botanical Society, Belgium | J. H. Maiden, Esq., F.R.S., F.R.S. |
| Paul Bertrand | Editor, Philippine Agricultural Review, Manila |
| Prof. J. W. Bews | Secretary, Advisory Council of Science and Industry, Melbourne |
| James Britten, Esq. | Prof. Dr. Mereschkovsky |
| Director, Jardin Botanique de l'Etat, Brussels | Director, Missouri Botanic Garden, St. Louis |
| Director, Institut Leo Errera, University of Brussels | Spencer le M. Moore, Esq. |
| Director, Dept. van Landouwinverheid en Handel, Buitenzorg | Nederlandsche Botanische Vereeniging |
| Director, Royal Botanic Gardens, Calcutta | Director, Royal Botanic Gardens, Peradeniya |
| Government of Chosen, Korea | Director, Agricultural Research Institute, Pusa |
| Director, Botanical Library, University of Copenhagen | Dr. A. B. Rendle, F.R.S. |
| Director, Cornell Agricultural Experimental Station | H. N. Ridley, Esq., C.M.G., F.R.S. |
| Director, Botanical School, Trinity College, Dublin | Lord Rothschild, F.R.S. |
| Regius Keeper, Royal Botanical Gardens, Edinburgh | Director, Botanic Gardens, Singapore |
| William Fawcett, Esq. | Harald Smith, Esq. |
| Miss L. S. Gibbs | Director, Dept. of Agriculture, Union of South Africa |
| Director, Gray Herbarium, Cambridge, Mass., U.S.A. | Botanical Institute, Tokyo |
| Dame Helen Gwynne-Vaughan | Tokyo Botanical Society |
| Dr. Bunzo Hayata | Director, Carnegie Institute, Washington |
| Miss Ida M. Hayward | Director, U.S. National Museum, Washington |
| Mrs. G. J. Hindle | Secretary, Watson Botanical Exchange Club |
| Director, Experimental Station, H.S.P.A., Honolulu | C. T. White, Esq. |
| Royal Horticultural Society | Osborn Botanical Laboratory, Yale University |
| Director, Royal Botanic Gardens, Kew | Director, Botanic Garden and Museum, Zurich |
| Secretary, Kew Guild | |

The donations also include 405 water-colour drawings of Orchids, originals of plates in Williams' Orchid Album, by J. N.

Fitch, presented by the Right Hon. Lord Rothschild. The following have been acquired by purchase:—14 drawings of British Plants by Miss B. Corfe, and 9 drawings of Cactaceæ by Miss H. Coley.

3. *Binding*.—66 volumes have been bound and 17 volumes repaired.

IV.—*Publications.*

(1) *Issued by the Trustees*.—Flora of Jamaica, Vol. IV. By Dr. Rendle and Mr. W. Fawcett.

Instructions for Collectors: No. 10. Plants. Edition 5. By Dr. Rendle.

(2) *Issued by permission of the Trustees*.—Some segregates of *Erodium cicutarium* L'Herit. By Mr. E. G. Baker and Mr. C. E. Salmon. (Journal of Botany.)

Dewevrella congensis sp. nov.; and Tropical African Rubiaceæ, XIII. By Dr. H. F. Wernham. (Journal of Botany.)

Alabastra Diversa XXXII., XXXIII. By Mr. Spencer Moore. (Journal of Botany.)

A new Species of Coupoui. By Mr. J. Ladbrook. (Journal of Botany.)

(3) *By Students of the Collections other than members of the Staff*.—On the occurrence of Diatoms on the Skin of Whales. By A. G. Bennett and E. W. Nelson. (Proc. Royal Society.)

Some Early Cape Botanists and Collectors. By Mr. J. Britten. (Journal of the Linnean Society.)

Schrankia microphylla; and *Eugenia lucida* Banks. By Mr. J. Britten. (Journal of Botany.)

Rhaphidostegium cespitosum Sw. and its allies. By Mr. H. N. Dixon. (Journal of Botany.)

The phytogeography and flora of the Mountain Summit plateaux of Tasmania (determinations by Mr. Ramsbottom and Miss A. Lorrain Smith). By Miss L. S. Gibbs. (Journal of Ecology.)

The Botany of the Moroccan Middle Atlas. By Mr. L. V. Lester-Garland. (Journal of Botany.)

The Marine Algæ of Guernsey. By Miss Lilian Lyle. (Journal of Botany.)

New or Rare Microfungi. By Miss A. Lorrain Smith. (Transactions of the British Mycological Society.)

Papers read at the Banks Celebration at the Linnean Society on June 17. Sir Joseph Banks as a Traveller, a Patron of Science and a Botanist. By Dr. B. D. Jackson, Dr. Rendle, and Mr. James Britten. (Proceedings of the Linnean Society, 1920.)

V.—*Acquisitions.*

(1) *By Donation.*

Additions to the British Herbarium have been received from the following donors:—Miss D. M. Chitty, a Small Collection of

British Plants; Rev. E. F. Linton, M.A., Herbarium of British Plants; Miss B. Reid, 32 Samples of Seeds of British Plants; Rev. H. J. Riddelsdell, 22 Phanerogams (Hort Herbarium); C. E. Salmon, Esq., 20 Phanerogams and 1 Chara; Watson Botanical Exchange Club (through J. E. Little, Esq.), 118 Phanerogams.

The following donations have been made to the General Herbarium:—

Europe.

Dr. Grantham, 13 Cryptogams from Archangel; C. C. Lacaite, Esq., 9 Phanerogams from Italy; Major C. Norman, a small collection of Phanerogams from the Auvergne; Mrs. R. R. Pusey, Plants from Iceland and elsewhere; Miss P. Tindall Lucas, 128 Phanerogams from Serbia; A. W. Trehewy, Esq., 34 Phanerogams from Norway.

Asia.

C. J. Brooks, Esq., 180 Phanerogams from Sarawak and Sumatra; Mrs. Cheesman, 8 Phanerogams from the Dardanelles, collected by Major Cheesman; J. E. Dinsmore, 17 Phanerogams from Palestine, in return for determination; Miss L. S. Gibbs, 9 Phanerogams from Dutch N.W. Guinea; Miss Octavia Gosset, 67 Ferns from Simla; Mrs. E. K. N. Lane, 29 Phanerogams from Central Provinces, India; Miss E. Lloyd Oswell, 205 Ferns from Darjeeling, India; Royal Horticultural Society, 27 Samples of Seeds from China; Sir Everard in Thurn, 48 Phanerogams from Fiji; C. T. White, Esq., 26 Specimens of Scitamineæ from Papua.

Africa.

G. L. Bates, Esq., 424 Phanerogams from Bitye, Cameroons; Capt. A. Buchanan, 37 Phanerogams and 1 Cryptogam from French Soudan, 2 Phanerogams from Nigeria, fruiting specimen of *Adenium sp.* from West Africa; J. Burt-Davy, Esq., 283 Phanerogams and 9 Cryptogams from Belgian Congo, etc.; R. A. Dummer, Esq., 109 Phanerogams and 10 Cryptogams from Uganda; F. Eyles, Esq., 96 Phanerogams from Rhodesia; Miss E. Godman, 161 Phanerogams and 11 Cryptogams from Somaliland; Capt. Willoughby Lowe, 23 Phanerogams and 7 Ferns from Nigeria; Capt. H. Lynes, R.N., 101 Phanerogams and 5 Ferns from Darfur; N. S. Pillans, Esq., 32 Lichens from Cape Peninsula, South Africa; Dr. F. Rand, 195 Phanerogams from the Transvaal; P. A. Talbot, Esq., 17 Phanerogams from Nigeria; Dr. E. de Wildeman, 10 Species of *Baphia* and 9 photographs of *Acioa* from Tropical Africa.

Australasia.

Dr. R. S. Rogers, 21 Species of Orchids from West Australia; O. H. Sargent, 49 Phanerogams from West Australia.

America.

Spencer le M. Moore, Esq., 13 Cryptogams from Paraguay; Fred Perry, Esq., 2 Phanerogams from Vancouver, B.C.; Earle E. Sherff, Esq., 4 species of North American Compositæ.

Oceanic Islands.

A. G. Bennett, Esq., 22 Phanerogams and 70 Cryptogams from Falkland and South Shetland Islands; Sir W. Douglas Young, 3 tubes of Fungi from Deception Island.

Cultivated Plants.

H. J. Elwes, Esq., F.R.S., 6 Phanerogams; J. Jolliffe, Esq., Fruiting specimen of *Dracana*; Hon. N. C. Rothschild, 27 specimens of *Crocus*, 58 species and varieties of *Iris*; Sir N. Yermoloff, K.C.B., 11 Phanerogams from French Riviera.

General.

D. A. Bannerman, Esq., 6 Photographs illustrating the vegetation of Teneriffe; H. Bickham, Esq., Collection of European and Foreign Phanerogams and 43 Cryptogams; W. H. Carter, Esq., Portion of decayed stem of Cypress, showing branching; Cecil Carus-Wilson, Esq., Specimens of root of Oak with embedded flints; Miss Caroline C. Haynes, 2 species of Hepaticæ; Lord Pembroke, a very fine cross section, 6 ft. 6 in. diameter, of Cedar of Lebanon; Curator, Sheffield Museum, Collection of British and North American Phanerogams; Mrs. G. S. West, 7 slides of Diatomaceæ.

(2) *By Purchase.*

British Isles.

The Botanical Exchange Club, 39 Phanerogams.

Europe.

H. Dahlstedt, 29 specimens of Scandinavian *Taraxacum*; F. Petrak, 850 specimens of Fungi from Bohemia, Moravia, Bosnia and Poland; A. Zahlbruckner, Lichenes rariores exsiccata: Nos. 188-207.

Through Dulau & Co.—Ascomycetes by Rehm, *Fasc.* 56, 57; Mycotheca Germanica, 200 specimens, by Sydow.

Through T. O. Weigel.—100 specimens of European *Salix* by Toepffer.

Asia.

Arnold Arboretum, U.S.A., 1,290 specimens of Chinese Plants by Wilson.

America.

E. Bartholomew, 600 specimens Fungi Columbiani, and 1,200 specimens North American Uredinales.

Australasia.

W. A. Weymouth, 562 Tasmanian Cryptogams.

General.

A. Kneucker, 150 specimens of Grasses; J. R. Martindale, 5,313 British and European Lichens.

(3) By Exchange of Duplicates.

Curator, Botanical Museum, Christiania, Norway, 335 European Plants, including 51 Ferns; Miss A. Eastwood, Academy of Science, San Francisco, California, 312 specimens from California and Colorado, and 200 specimens (including 27 Vascular Cryptogams) from Galapagos Islands; the Director, Goëldi Museum, Para, Brazil, 301 Brazilian Plants; Director, Botanic Garden, Harvard University, Cambridge, Mass., U.S.A., 104 Malayan Orchids; F. C. Hoehne, Instituto de Butantan, San Paulo, Brazil, 72 Brazilian plants; Director, Royal Botanic Gardens, Kew, 25 species of West Indian Grasses, 299 Malayan Plants, 46 Macedonian Plants, and 1 Fern from Malacca; Mr. L. V. Lester-Garland, 11 Critical species of Bavarian Plants, and 18 Indian Plants; Dr. Merrill, Bureau of Science, Manila, Philippine Islands, 3,113 Philippine plants (including 159 Cryptogams), and 339 plants from Amboina; Chief, Division of Botany, Pretoria, South Africa, 34 South African species of Aloc, and 26 Cape Marine Algae; Director, Botanic Gardens, Sydney, Australia, 24 Australian plants; Curator, Department of Agriculture, Washington, U.S.A., 300 specimens of North American Grasses; Dr. A. Zahlbruckner, Hofmuseum, Vienna, 360 Cryptogams; Director, Botanisches Museum, Zurich, 38 Tropical African Leguminosæ.

VI.—Students and Visitors.

The number of visits to the Department for consultation and research was 3,443.

VII.—Demonstrations.

Demonstrations on the collections have been given to students from the Birkbeck College, the Lambeth Natural History Society, and others.

A. B. Rendle.