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433
Educational (190/) Depa.

ORDINARY PRINTED

G.O., 433 ~~XXX~~

DATED 5-8-01
5-8-1901

INDEX

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ORIGINAL

[Despatch Abstract.]

East Museum

Reviewing the report on the work

of the during 1900-1901

The Notes
in these Proceedings have been printed.

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Government {1901} of Madras.
EDUCATIONAL.

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1901.

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ORIGINAL

G.O., No. 433, 5th August 1901.

AUGUST.

Government Museum.

Reviewing the report on the working of the — during 1900-1901.

மாதுகாப்பு பிரிவு -1

செப்பனிருவர் பெயர் : 4. பிள்ளை

செப்பனிருவதற்காக எடுத்துக்
கொள்ளப்பட்ட நாள். 25.8.09
செப்பனிட்டு முடிந்த நாள். 25.8.09

25.8.09

சரிபார்க்கும்
முதல் முநிபாள
கையொப்பம்

சரிபார்க்கும்
2ம் முநிபாள
கையொப்பம்

ஆராய்ச்சி
உதவியாளர்
கையொப்பம்

GOVERNMENT OF MADRAS.

EDUCATIONAL DEPARTMENT.

READ—the following paper :—

From EDGAR THURSTON, Esq., Superintendent, Government Museum, Madras, to the Secretary to Government, Educational Department, dated 7th July 1901, No. 26-A.

I have the honour to forward, for submission to His Excellency the Governor in Council, my report on the working of the Government Museum during 1900-1901, and to request that I may be supplied with 160 copies for distribution to other museums, etc.

ENCLOSURE.

ADMINISTRATION REPORT OF THE MADRAS GOVERNMENT MUSEUM FOR THE YEAR 1900-1901.

1. VISITORS.—The total number of visitors to the museum old building was 417,890, and to the new building 429,849 against 415,558 and 415,749 in the previous year.

	Old building.	New building.
Smallest number of visitors on any day not a holiday	144	479
Largest	14,038	15,080
Smallest number of visitors on Sunday	421	433
Largest	1,531	1,507

The largest number of visitors on a single day was 91,926 to the old and 89,465 to the new building at the feast of Pongal (January 15th). The huge crowd, largely made up of the lower classes, was thoroughly well behaved, and no theft, accident or damage to the collections occurred. The number of visitors on Sundays was 45,872 to the old and 45,794 to the new building, giving averages per Sunday of 866 and 864 against 841 and 818 in the previous year. The number of gosha visitors, on the days set apart for them, was 3,642 against 4,783 in 1899-1900.

The museum was visited in the course of the year by His Excellency the Viceroy, and by Her Highness the Maharanee Regent of Mysore and the ladies of the Zenana.

2. THEATRE.—The theatre was, owing to the death of the Queen-Empress, only used on six occasions, as follows:—

Entertainment on behalf of the Society for the Prevention of Cruelty to Animals;

Concert by the Madras Cyclist Club in aid of the Friend-in-Need Society;

Concert in aid of the Doveton Protestant Institutions;

Two concerts by the Madras Musical Association;

Concert by the Madras School of Music.

3. GROUNDS.—The grounds remained throughout the year under the management of the Agri-Horticultural Society.

4. ESTABLISHMENT.—The Taxidermist's department was remodelled as follows in accordance with G.O. No. 1042, Financial, dated 18th September 1900 :—

	Minimum.	Maximum.
	RS.	RS.
Senior Taxidermist	30	35
Second	20	25
Third	10	15

In the same Government Order the pay of the herbarium keeper was raised from Rs. 60 to Rs. 100-120 per mensem, and he was permitted to live in a vacant bungalow in the museum grounds.

5. PUBLICATIONS.—The following publications were issued during the year :—

Bulletin Vol. III, No. 1.—Notes on some of the people of Malabar, F. Fawcett; Mala Védars of Travancore, Mrs. Evans; miscellanea, E. Thurston.

Bulletin Vol. III, No. 2.—Sea fisheries of Malabar and South Canara, E. Thurston.

Bulletin Vol. IV, No. 1.—Todas of the Nilgiris; Eurasian school-boys; Meriah sacrifice post; walking through fire; Malaiālis of the Shevaroy; Scissors people; soerey in Coimbatore; Nayādis of Malabar.

Bulletin Vol. III, No. 3., containing an account of the Nayars of Malabar by Mr. Fawcett, was in an advanced stage of preparation at the close of the year. So also was Mr. R. Bruce Foote's catalogue of the pre-historic collection of the museum. Illustrated, as it will be, by thirty-five plates, reproduced from a series of excellent photographs taken by the Madras Survey department, it will prove a very important addition to the existing literature on the palæolithic, neolithic and iron ages in Southern India.

The half-tone reproductions of photographs, with which the Bulletins were illustrated, were executed to my entire satisfaction by the M. E. Publishing House, Mount Road, Madras.

6. *Anthropology.*—I was accompanied throughout my tour on the west coast by a professional photographer, who took a series of photographs of Nayars, Tiyanas, Cherumans, Mukkuvans, Mappillas, Paniyans and Nayādis. The photographer was also sent to Sriharikota in the Nellore district, to take photographs of the Yanādis in connection with a forthcoming bulletin. To the Kumara Rāja of Bobbili I was indebted for a series of photographs of the Gadabas of Vizagapatam, whose females adorn themselves with a dress-improver worn outside the cotton loin-cloth. To the ethnological album were added photographs of the nomad Lambādis and Koravas, and the Khonds of Ganjām.

In Malabar a series of measurements of Mappillas, Mukkuvans, and Paniyans were recorded. With the physique of the two former classes, which are engaged in the fishing industry, and attribute their good condition to a liberal fish dietary, I was much impressed.

The notes made during a prolonged halt at Paikāra concerning the Todas, which have been published in the Bulletin series as a supplement to my original account of this tribe (Bulletin, Volume I, No. 4, 1896), included a series of vital statistics, pastoral songs, funeral ceremonies, &c. According to the returns of the recent census, in connection with which special precautions were taken to ensure accuracy, the Todas have increased in number by thirteen during the last decade, numbering 422 males and 330 females against 427 and 312 in 1891.

The ethnological section was enriched by the addition of an interesting historic relic in the shape of a human (Meriah) sacrifice post from Baligudu in the Ganjām district. This post, which was fast being reduced to a mere shell by "white-ants" is, I believe, the only one now in existence. The post illustrates the method of sacrifice described by Major-General Campbell, who was deputed by Government to help in putting an end for ever to the inhuman and barbarous practice, and writes (1864) that "one of the most common ways of offering the sacrifice in Chinna Kimedi

is to the effigy of an elephant (*hatti mundo*) rudely carved in wood, fixed on the top of a stout post, on which it is made to revolve. After the performance of the usual ceremonies, the intended victim is fastened to the proboscis of the elephant, and, amidst the shouts and yells of the excited multitude of Khonds, is rapidly whirled round, when, at a given signal by the officiating zani or priest, the crowd rush in, seize the Meriah, and with their knives cut the flesh off the shrieking victim as long as life remains. He is then cut down, the skeleton burnt, and the horrid orgies are over."

A series was exhibited, illustrating, by means of photographs and specimens, the musical instruments, ornaments and implements of the Kotas, or artisan tribe of the Nilgiris, who furnish the music at Toda funerals in return for the carcasses of the buffaloes which are sacrificed thereat.

A further series was exhibited, illustrating the method of making fire by friction, in vogue among the Todas, Paniyans, and Nayadis. The use of matches is strictly forbidden by the Todas within the precincts of the dairy temple, and fire is kindled with the aid of two dry sticks of *Litsaea Wightiana*. Of these one, terminating in a convex extremity, is about 2 feet 3 inches long; the other, with a hemispherical cavity scooped out close to one end, about 2½ inches in length. Into the cavity the end of the longer stick fits, so as to allow of easy play. The smaller stick is placed on the ground, and held tight by firm pressure of the great toe applied to the end furthest from the cavity, into which a little finely powdered charcoal is inserted. The larger stick is then twirled vigorously between the palms of the hands by two men, turn and turn about, until the charcoal begins to glow. Fire, thus made, is said to be used at the *tiriēri* (sacred mand), the dairy-houses, and at the cremation of males. The Paniyans use, for the purpose of obtaining fire, a portion of a bamboo stem, which is split longitudinally into two equal parts. On one-half a sharp edge is cut with a knife. In the other a longitudinal slit is made through about two-thirds of its length, which is stuffed with a piece of cotton cloth. The latter is held firmly on the ground with its convex surface upwards, and the cutting edge drawn, with a sawing motion, rapidly to and fro across it by two men, until the cloth is ignited by the red-hot particles of wood in the groove cut by the sharp edge. The cloth is then blown with the lips into a blaze, and the tobacco or cooking fire can be ignited.

From Mr. T. H. Welchman I received a sample of clay, which is eaten by the coolies, chiefly females, on the Cochin hills. "They roast it", he writes, "and eat it in large quantities, about 1 or 1½ pounds. They seem to be ashamed of the habit, and, if other people see them eating it, try to hide it. After about twelve months they swell up, especially the face and abdomen, and refuse all other food, drinking only water. Eventually they die. I am told that, to stop the practice, the natives administer castor-oil to the earth-eaters, but this does not prevent them from eating more, if they can get the chance. I have known several cases of death from this cause." The practice of earth-eating is widespread in many countries, and in Zanzibar there is a disease called *safura* induced thereby.

To Mr. A. Rea, Superintendent, Archaeological Survey, I was indebted for a number of pre-historic human bones and fragments of pottery, some of which, including the articular ends of long bones, phalanges, vertebrae, portions of skulls and lower jaws, have been exhibited. "The excavations at Adichanallur", Mr. Rea writes (G.O., No. 800, Public, dated 16th August 1900) "yielded the most valuable results. Besides a very large quantity of bones and vessels in pottery, I found, at one part of the ground, a number of domestic utensils in bronze and iron. The iron articles comprise large bracketed and small chain hanging lamps, swords, spears, knives, adzes, celts, hammers, rings, bangles, etc. Those in bronze are small cups, moulded and ornamented jars, flat bowls, platters, perforated cup sieves, large fragmentary chatties, rings, bangles, and some curious lamps with surrounding curved arms supporting reflecting discs, and buffaloes with large curved flat horns, which doubtless also, when polished, would act as reflectors. In one vessel was a strip of gold leaf with dotted ornament. A great field for discovery exists here."

A small collection of pre-historic stone implements, found at Walajabad in the Chingleput district, was presented by Mr. Somu Sampson, and added to the existing collection.

Various questions relating to the ethnographic survey were discussed with the Mr. H. Risley, C.I.E., Census Commissioner, during his visit to Madras.

7. NUMISMATICS.—A large find of silver punch marked purānas or eldlings from Travancore was reported on. A find of 257 lead coins of the Andhra dynasty with horse device and symbols, of a type new to the museum collection, was discovered by a ryot when ploughing his land in the village of Bathalapalli in the Anantapur district. From the Kistna district were received ten coins of the Pallava kings, of the type figured in Elliot's 'Coins of Southern India,' which were found by a sand digger in a masonry pit in the Pēteru village of the Tenali taluk. Specimens of the coinage of the Maldivé islands were presented by Mr. C. Foster Cooper. To the North-Western Provinces Government, the Bombay branch of the Royal Asiatic Society, and the Commissioner of Behar the museum was indebted for sundry coins of Northern India.

The museum series of the Chola, Pandyan and Vijayanagar dynasties, numbering in all 440 coins, arranged and catalogued in manuscript by Mr. T. Desika Chari, were returned and incorporated in the collection.

The casts and manuscript of volume 1 of the Catalogue of South Indian Coins, dealing with the coinage of the various European Companies, Mysore, Travancore, Nawābs of the Carnatic, Pudukota, &c., was completed during the year.

8. ART AND ARCHEOLOGY.—The following pictures by native artists, purchased by the Fine Arts Society or sent in for competition in the sketching section thereof, were exhibited as a loan collection:—

Early to the fair, C. Raja Raja Varma.

Raja canal, Coimbatore, M. Dastagir Khan.

Designs for a poster of an Art Society's Exhibition, M. Valayudasari.

Studies from life, M. Valayudasari.

A quiet corner, M. Pithawalla.

A quiet corner, M. Valayudasari.

The Lohagād, one of Sivaji's fastnesses, C. Raja Raja Varma.

A gong-beater, C. Kristna Rajoo.

Vishwamitra asking Dasharatha for Ram and Laxman to punish the demons, M. V. Dhurandhar.

Still life, V. N. Mestry.

Fruits, Chunilal M. Ghodi.

In honour of baby's birthday, C. Raja Raja Varma.

A water-carrier, C. Raja Raja Varma.

A series of paintings of armour, jewels of the zamindars of Kālahasti and Karvetnagar, with sketches of the genealogical tree of their families, were received from the Collector of North Arcot.

A set of twenty-six negatives of the Gandhara sculptures from the Punjab preserved in the museum, was prepared, at the request of Dr. T. Burgess, C.I.E., by the Survey department. Photo prints of a sculptured slab from the Amaravati stupa, representing a battle scene, were sent to Mr. R. Sewell.

Two iron shots, found about a foot below the surface of the ground at Trichinopoly, near St. John's Church, were presented by the Rev. F. Penny. They are probably relics of the fighting which took place round the Fakir's rock and Fakir's tope between the French and English, 1740—50.

Three copper grants, found in the village of Vasanta in the Srungavarapukota taluk of the Vizagapatam district, were received and sent to the Government Epigraphist for translation.

9. INDUSTRIAL AND ECONOMIC.—In connection with Rouffaer and Juynboll's beautifully illustrated 'Indische Batik-kunst' reports on, and series of specimens illustrating the art of wax and coloured drawing in the manufacture of colour-printed cotton fabrics were received from the Madura, Tanjore, Tinnevely, Chingleput, North Arcot and Kistna districts. The collections thus acquired include the various forms of wax-brushes or pens, wood and metal blocks used for applying the dye, and samples illustrating the various stages of preparation from the plain cotton material to the

completed fabric. The information received from district officers in connection with the enquiry has been printed in the form of a memorandum for submission to Mr. Rouffaer.

In the compilation of a monograph on the ivory carving industry of Southern India under instructions from the Government of India, I received great assistance from Mr. H. S. Ferguson, who was good enough to prepare a detailed note on the industry in Travancore. To the Travancore and Mysore durbars thanks are due for a series of negatives of ivory carving and inlaid ivory-ware, and to the Rajah of Kollengod for the loan of his private collection of ivory carvings of animals and the Hindu pantheon. At the recent Fine Art Society's exhibition, I was fortunate enough to secure an example of an exquisite little carved figure of Vishnu at the deluge by a former Travancore carver, which was reproduced in "Photographs of Indian art-ware: Calcutta Exhibition, 1883-84. None of the more modern carvings equal this gem in artistic delicacy of treatment, and several loan exhibits at the Madras Exhibition, 1901, bore evidence to the fact that ivory carving in Southern India was formerly at a higher level of excellence than it is at the present day.

An enquiry was received from the Medical Storekeeper to Government concerning the possibility of obtaining large quantities of sea-weed suitable for the preparation of iodine and iodide of potassium. Specimens found in the Kwangtung harbour, Andamans, (a) at two or three fathoms, (b) along reefs exposed at low tide, were identified by Mr. G. Murray, F.R.S., of the British Museum as being *Enhalus Kaenigii*, a marine flowering plant of the order Hydrocharideae, and *Turbinaria decurrens*, a sea-weed in close relationship to *Sargassum*. The herbarium-keeper of the museum was deputed to Tuticorin, where, though he found no sea-weed in sufficient abundance for commercial purposes, he got together a collection, of which a duplicate set has been sent to the British Museum, Natural History, for identification.

From the Collector of Tinnevely district were received the pearls obtained from the washing of the 'oysters', on which it was decided to hold a fishery in March 1900. "Though the revenue derived by Government during the fishery was more than sufficient to cover the expenses of working, the net profit fell much below the estimated income, and the fishery cannot be said to have been on the whole a success. It proved disastrous to the poorer folk—the boatmen and the divers. It began badly by a combination among the merchants to keep down prices, and, when it became an undeniable fact that the oysters were immature and had very few pearls, a panic set in." (Proceedings, Board of Revenue, No. 880 Rev., dated 28th August 1900.)

The museum was consulted by the Board of Revenue in connection with the larva of a boring insect, which had, in the past year or two, killed a large number of date-palm trees in the Madras Presidency. It was reported to be ordinarily found working its way from the point of incision for tapping to the heart of the tree, and to be causing loss to the owners and the tapping industry, and prospective injury to the Government revenue from toddy. The insect proved to be the palm weevil *Rhynchophorus ferrugineus*, concerning which it is written (Indian Museum notes, Vol. II, page 9) that "the only remedies that have been suggested are the obvious ones of destroying the beetles wherever they are found, and of burning trees that are badly infested, to check the increase of the pest. Trees, however, that are not very badly attacked should be spared, as they are said to recover in many cases." Illustrations of the insect, in the three phases of its life-history, were widely distributed, to enable departmental officers and others to detect and destroy it.

10. BOTANICAL GALLERY.—This gallery was thrown open to the public during the year. The morphological series, illustrating the more striking features of the morphology of plants, commencing with the Phanerogams and ending with the Algae and Fungi, was completed. As a supplement to this series, a collection of fruits and seeds was arranged in two groups:—

I. Index series—

- (a) Dried fruits and seeds, illustrating their morphology;
- (b) Spirit specimens of fruits, and sections thereof.

II. Fruits and seeds arranged systematically according to their Natural Orders.

A large number of the specimens in this series were in the excellent forest collection, which was brought together by Mr. J. S. Gamble, when Conservator of Forests.

A series of illustrative plates and diagrams was arranged, to show the main diagnostic characters of the various Natural Orders, and the histology of the main groups of plants.

As an adjunct to the morphological series, two further series of herbarium specimens are being prepared, to illustrate (a) the more important genera of the various families; (b) the salient features of the flora of Southern India. Of these, the former will be exhibited in glazed frames, and the latter set apart for the purpose of study by students. For these series a number of specimens were collected during the tours on the Nilgiris, in Malabar and the Nellore district.

I was happy in securing the services of Mrs. Bishop, who very kindly volunteered to paint a series of botanical studies in the plains of Travancore and on the higher ranges of the Palni hills. The value of these paintings, of which a considerable number have already been received and exhibited, is materially enhanced by the fact that the studies are supplemented by paintings of dissections of fruit, flowers, etc.

11. MINERAL GALLERY.—Among the additions may be noted—

Asbestos from the Mysore province.

Magnesite from the rich deposit in the so-called 'chalk hills' of the Salem district, where it is now being worked commercially.

Garnetiferous leptynite from Coonoor, Nilgiris, where it is worked for metal-ling of the ghât road.

Iron pyrites from Gadikota in the Cuddapah district.

Orange mica from Travancore.

Biotite (black mica) from the Nellore mines.

A series of photographs illustrating the system of quarrying mica at the Nellore mines, and the preparation of the mineral for the market and export. The exports of mica from the port of Madras in 1900 amounted in round numbers to 950 tons, valued at Rs. 6,76,600.

A series of specimens of blue and red corundum from the Salem district. Samples of the blue mineral were reported, in the City of London, to be iolite, which is "rather uncommon, and, when in clear sound pieces of good colour, is of value as a curiosity. The samples sent are defective, and of very little value." Ceylon affords a transparent variety of iolite, in small rolled masses, of an intense blue colour, the *sapphire d'eau* of jewellers (Dana).

Garnets and mica from the Mysore province.

A collection of articles made of black clay in the South Canara district, representing in miniature sundry domestic utensils.

Charts illustrating the course of a typical cyclonic storm in the Bay of Bengal during the north-east and south-west monsoons.

12. SEA-FISHERIES INVESTIGATION.—In connection with this investigation referred to in my last report, which is controlled by me on behalf of the Board of Revenue, I visited the fish-curing yards at Tanûr, Calicut, Badagara and Tellicherry on the Malabar coast, in order to explain personally to the officer in charge the exact nature of the enquiry, which has to be systematically carried out. The main points on which information is to be obtained were summed up in a memorandum, which is reproduced in Appendix D. The enquiry has perforce, in the absence of a trained expert in applied marine zoology, to be of a less scientific and ambitious nature than that recently planned by Professor V. A. Herdman, F.R.S., for the survey or 'census' of fishing grounds, and omits systematic dragging, physical observations, examination of the plankton, etc. Nevertheless, I hope that, if the questions in the memorandum are intelligently examined into and answered by the inspecting officer, we shall add something to our existing knowledge of the fisheries and fishing folk, which will serve as a stepping-stone to something worthy of the name of practical research hereafter.

At the time of my visit to Malabar fishing operations were rather slack, and there was a general complaint of the absence of sardines. But enormous catches of prawns (*Penaeus sculptilis*, Heller) were being secured close in shore, and after salting and sun-drying, exported in large quantities to Colombo, and other places. The dearth of fish was attributed by the fishermen to their fear of coming near the coast, where the prawns would attack them with their serrated spines. To Colonel Hackett-Wilkins, I.M.S., I was indebted for specimens of the fish *Saccobranchus fossilis*, which were sent for identification. "This fish," he writes, "is supposed to be poisonous, as, when a person is bitten by one of them, gangrene gradually takes place; and, if the part is not removed above the nearest joint, it slowly and steadily goes on spreading upwards. During the last three years I have performed about eight amputations for the result of these bites, and in one neglected case I had to remove the arm above the elbow-joint. The fish is supposed to be a fresh-water one, and, when caught by the fishermen, is avoided; and, rather than touch it, they chop it into bits." In his 'Fishes of India,' Day says that wounds from the pectoral spine of this fish are dreaded, as they even occasion tetanus. As soon as captured, the offensive spine is broken off by blows with a stake. It is called in tamil theloo (scorpion).

13. NATURAL HISTORY.—To the series illustrating tegumentary structures was added a hair ball, 12.3 cm. in diameter, and weighing 22 ounces, made up of agglutinated hairs rolled into a ball by the churning action of the stomach, which was extracted from the stomach of a buffalo at Calicut. The skeleton of a kangaroo, which died in the People's Park, was prepared, to show the epipubic bones which support the marsupial pouch. The grooved and curved os penis of a bear (*Melursus ursinus*), measuring 15.5 cm. in length, and the small serrated os penis of a tiger were acquired, the former as a donation, the latter from an animal which died in the People's Park. Two specimens of the valued horny excrescence from the head of a jackal were presented. "The natives call it narri-comboo, and aver that this jackal's horn only grows on the head of the leader of the pack. The Singhalese and Tamils alike regard it as a talisman, and believe that its fortunate possessor can command the realization of every wish, and that, if stolen or lost by him, it will invariably return of its own accord. Those who have jewels to conceal rest in perfect security if, along with them, they can deposit a narri-comboo" (Tennent, Ceylon).

An Indian pangolin or ant-eater (*Manis pentadactyla*) was mounted to show how, when alive, this animal rolls itself into a ball for the purpose of defence. To Mr. A. Brown of Calicut I was indebted for the skull of a sambar deer (*Cervus unicolor*) with an aberrant frontal tine.

Among the additions to the Bird gallery collected locally, may be noted the spotted crane (*Porzana maruetta*); grey-headed lapwing (*Microsarcops cinereus*); sanderling (*Calidris arenaria*); and the curlew stint (*Tringa subarquata*). A pintail snipe (*Gallinago stenura*), with abnormally light plumage, was presented by Mr. Rosling. An edible nest of the Indian nest swiftlet (*Collocalia fuciphaga*) was collected by Mr. J. Bourne on Sacrifice Rock off the Malabar Coast.

Small collections of the land mollusca of Ceylon and Madras City were presented by Mr. Collett and Mr. V. V. Ramanan.

14. LIVE ANIMALS.—Among the additions which were alive at the end of the year were the weaver bird (*Ploceus baya*), the smaller white scavenger vulture (*Necophron ginginianus*), the fish *Saccobranchus fossilis*, and the tortoise *Testudo elegans*, half-grown and young.

The tortoises fed greedily on the red flowers of *Hibiscus rosa-sinensis*. The female of a pair of Indian antelope rats (*Gerbillus indicus*), after four years in captivity, gave birth to three young ones in March. The green whip-snake (*Dryophis mycterizans*) gave birth in October to nine young ones. A rat-snake (*Zamenis mucosus*) died covered with an ecto-parasitic arachnid. To the Python cage were attached specimens showing the rudimentary bones of the hind limbs, which terminate in an anal claw on each side of the cloaca.

15. CONNEMARA PUBLIC LIBRARY.—The total number of readers during the year was 13,284 against 14,105 in the previous year—

Smallest number of readers on any day	..	..	..	..	8
Largest	..	on	..	..	140
Smallest	..	on Sunday	..	..	27
Largest	..	on	..	..	101

The following tabular statement shows the number of applicants for books, and of the volumes given out during the last two years:—

Months.	1899-1900.		1900-1901.	
	Number of applicants for books.	Number of volumes given out.	Number of applicants for books.	Number of volumes given out.
April ..	1,330	1,886	782	1,084
May ..	916	1,420	767	1,103
June ..	1,126	1,583	640	922
July ..	992	1,444	694	1,010
August ..	910	1,257	711	979
September ..	981	1,847	814	1,455
October ..	833	1,185	752	1,127
November ..	795	1,172	599	937
December ..	1,112	1,892	1,059	1,603
January ..	1,079	1,484	1,027	1,534
February ..	813	1,312	931	1,187
March ..	901	1,254	1,288	1,606
Total ..	11,788	17,236	10,964	14,547

The total number of standard works added to the library during the year was 358, of which 310 were acquired by purchase and 48 presented. Some destruction to books was caused by the intrusion of white-ants, which gained access to the book cases both through the floor and the ceiling. The damage done by them was most severe in one of the alcoves in the half of the building which is temporarily occupied by the Madras Literary Society.

As a rough indication of the class of literature resorted to by readers, I append a list of books issued during the last two years under each of the subject catalogue heads, which, *inter alia*, shows the popularity of philosophy, dictionaries, and the Fort St. George Gazette:—

	1899-1900.	1900-1901.
Anatomy; biology; natural history; zoology	579	549
Anthropology; folk-lore	621	545
Archaeology; architecture	174	230
Arts; industries	245	270
Atlases and maps	120	101
Botany; arboriculture; horticulture	279	199
Belles lettres	547	580
Chemistry; chemical industries; agriculture	191	219
Classics	256	243
Dictionaries; encyclopædias	1,863	2,036
Economic products and economic entomology	57	111
Education; ethics; logic; metaphysics; philosophy; political economy	1,180	1,294
Exhibitions	84	95
Forestry; timbers	35	49
Geography; physical geography; physiography	100	63
Geology; palæontology	63	67
History	769	836
Jurisprudence	150	172
Microscopy	25	8
Medicine; medical jurisprudence; pathology; pharmacuetics; surgery; veterinary	283	274
Mineralogy; metallurgy; petrology	86	64
Natural philosophy	664	513
Numismatics; heraldry; medals	248	61

	1899-1900.	1900-1901.
Philology; epigraphy	194	206
Photographs	45	39
Physiology	117	158
Public health	339	263
Religion	592	448
Sports and games	342	325
Travels and foreign countries; voyages	371	384
Fort St. George Gazette (other than current issues)	690	665
Vernacular languages	..	98

The following additions to the subject index catalogues were published during the year:—

Belles Lettres. Chemistry; photography.

In appendix B is given a statement showing the number of readers in every month during each hour of the working day.

16. VALUABLE STOCK.—The necessary inventory was maintained and duly checked. The collections were all in good order at the end of the year.

[Appendices

APPENDIX A.

DONATIONS, 1900-1901.

- Anantapur, Collector—
Lead coins of the Andhra dynasty (horse type) found in the village of Bathalapalli, Dharmavaram taluk.
- Appa Row Bahadur, Mr. M. R.—
Sandalwood fan.
- Appu Menon, Mr. K.—
Kanakkan marriage umbrella.
- Baker, Mr. T. H.—
Kukri, the personal property of the late Sir Ranodeep Singh, Prime Minister of Nepal.
- Bartly, Mr. W. H.—
Clavicles (rudimentary collar-bones) of tiger and panther.
Os penis of bear.
- Bobbili, Kumara Raja—
Photographs of Gadabas of Vizagapatam.
- Bourne, Mr. J.—
Edible Bird's nest (*Collocalia fuciphaga*), sacrifice rock, Malabar.
- Bradley, Mrs.—
Wild silk moth (*Actias selene*).
- Brown, Mr. A.—
Sambar stag with aberrant tine.
- Cooper, Mr. C. F.—
Maldivian copper coins.
- Cuddapah, Collector—
Iron pyrites.
- Deane, Mr. B. O. M.—
Garnets and mica, Mysore Province.
- Doraisawmy Sastri, Mr. V. R.—
Horny growth (*narrikomboo*) from head of jackal.
- Ettiyapuram, Raja—
Chicken (monstrosity).
- Fletcher, Mr. F. E.—
Mollusc (*Ostrea* sp.).
Snake (*Dipsas trigonata*).
- Ganjám, District Magistrate—
Meriah sacrifice post from Balliguda.
- Gordon, Woodroffe & Co., Messrs.—
Red and blue corundum from the Salem district.
- Govind Doss, Mr. L.—
Whip snake (*Dryophis mycterizans*) alive.
- Hackett Wilkins, Colonel J.—
Hair ball from stomach of buffalo.
- Hatchell, Mr. D. G.—
Loris and chamæleon, alive.
- Kelly, Mr.—
Indian little Grebe (*Podiceps albipennis*) and egg.
- Kistna, Collector—
Ten Pallava coins.
- Kumarasawmi Aiyar, Mr. T. E.—
Black mica (biotite).
- MacIver, Mr. S. G. I.—
Graphite, Coonoor, Nilgiris.
- Madras Arsenal—
A stone slab commemorating the success of the British arms at Manilla in 1762.
- Muhammad Badsha Sahib & Co., Messrs.—
Photographs of the mica mines and mining in the Nellore district.

APPENDIX A—cont.

Municipal Commission, Madras—

Parakeet.

Parrot.

Malabar Langur (*Semnopithecus hypoleucus*).

Spectacle monkey.

Tiger cub.

Indian bear (*Melursus ursinus*).

Kangaroo.

Murugasen, Mr. P. R.—

Abnormal cocoanut.

Fish (*Stegostoma tigrinum*).

North Arcot, Collector—

Pictures of armour, jewels of the Zamindars of Kálahasti and Karvetnagar, with sketches of the genealogical tree of their families.

North-Western Provinces and Oudh Government—

Fifteen lead coins, thirteen silver coins, and a copper coin.

Penny, Rev. F.—

Iron shot found near St. John's Church, Trichinopoly.

Rajagopalachariar, Mr. K.—

Pearl oysters (*Avicula fucata*).

Ramachendra Mudaliar, Mr. D.—

Tendrils of a creeper.

Ramanan, Mr. V. V.—

Land and fresh water shells of Madras City.

Rea, Mr. A.—

Human bones and skulls from prehistoric tombs in the Tinnevely district.

Reger, Mr. W.—

Silk moth (*Anthera mylitta*).

Rosling, Mr. A. W.—

Snipe with abnormal plumage.

Royal Asiatic Society (Bombay Branch)—

Silver coins of Shah Alam and Muhammad Shah (Ahmadabad mint) found in the Kaira district.

Gold coin of the Khalifs found in the Ratnagherry district.

Gold coin: Padmatanka, Southern Indian, found in the Bijapur district.

Copper coins of Muzaffar II, Ahmad Shah II, Muzaffar III, found in the Ahmadabad district.

Royal Botanical Gardens, Calcutta—

One hundred and fifty sheets of botanical specimens (flowering plants).

Royappen, Mr. M.—

Mauser cartridges from the battle-field, South Africa.

Runganayakalu Chetty, Mr. S.—

Nest of Indian tailor bird (*Orthotomus sutorius*).

Sampson, Mr. S.—

Stone prehistoric implements from Walajabad.

Sim, Mr. H. A.—

Indian Pangolin (*Manis pentadactyla*).

Singara Babu, Mr. B.—

Abnormal cocoanut.

Vizagapatam, Collector—

Three copper plates found in the village of Vasanta in the Srungavarapukót k.

Welchman, Mr. T. H.—

Land shells of the Anamalai hills.

Wun district (Berar), Deputy Commissioner—

Coins of Alá-ud-din Muhammad Shah, Ghiyas-ud-din Tughlaq Shah, and Muhammad bin Tughlaq Shah.

APPENDIX B.

STATEMENT showing the total number of readers in Library in every month during each hour of the day, 1900-1901.

	7-8	8-9	9-10	10-11	11-12	12-1	1-2	2-3	3-4	4-5	5-6	Total
April	102	92	130	77	92	63	96	94	102	113	28	..
May	137	79	105	82	66	57	44	92	129	102	33	..
June	136	89	102	83	44	68	48	101	117	86	20	..
July	82	76	103	77	81	67	60	99	132	124	10	..
August	96	82	90	59	79	57	86	135	101	131	34	..
September	102	98	86	73	64	75	94	90	104	95	23	..
October	109	82	75	69	61	60	76	104	114	97	36	..
November	56	28	81	73	81	63	65	115	112	95	16	..
December	67	112	137	156	137	184	178	244	279	249	52	..
January	84	107	168	153	116	150	104	175	210	164	50	..
February	66	121	140	113	122	102	108	130	215	152	34	..
March	155	135	125	94	124	103	141	109	161	218	78	..
Total	1,192	1,101	1,342	1,109	1,067	1,049	1,102	1,488	1,779	1,631	424	13,284

APPENDIX C.

CLASSIFIED LIST OF EXPENDITURE of the GOVERNMENT MUSEUM during the year 1900-1901.

	Actuals, 1900-1901.	Revised estimate, 1900-1901.
Salaries—	RS.	RS.
Superintendent	9,600	9,600
Exchange compensation allowance	592	590
Local allowance	2,400	2,400
Total	12,592	12,590
Permanent establishment—Government Museum—		
First Assistant, second Assistant, senior, second and third taxidermists, herbarium-keeper, artist, writer, assistant writer, fifteen hamals, six gallery attendants, Superintendent's peon, door-keeper, chikledar and two peons—35 persons	6,769	6,899
Temporary establishment—Government Museum—		
Collecting taxidermist, three gardeners, three sweepers, five watchmen, water-pandal Brahmin, punkah-puller, and chockra—15 persons	980	987
Permanent establishment—Connemara Public Library—		
Sub-Librarian, three attendants and two peons—six persons	2,464	2,481
Temporary establishment—Connemara Public Library—		
Servant (sweeper)—1 person	47	47
Total, Establishment	10,260	10,414
Allowance—		
Travelling allowance	982	1,200

APPENDIX C—cont.

Classified List of Expenditure of the Government Museum during the year 1900-1901—cont.

	Actuals, 1900-1901.	Revised estimate, 1900-1901.
	RS.	RS.
Supplies and Services—		
Cost of specimens purchased on tour	913	900
Objects of interest and coins purchased at head-quarters.	691	700
Fittings, furniture, &c., for the collections	1,427	1,400
Cost of books and publications	1,059	900
Library	2,015	2,000
Lithographic plates	1,959	1,500
Ammunitions	15	15
Charges for feeding live animals	276	200
Expenses—		
Reading coins	1	10
Measurement	8	50
Total, Supplies and Services ..	8,364	7,675
Contingencies—		
Purchase of furniture	44	75
Landing, shipping and freight charges	4	20
Repairs to furniture	80	100
Cleaning charges	76	95
Postage	301	240
Telegraph	15	20
Rents, rates and taxes	3,843	3,843
Liveries and clothing of servants	85	100
Office expenses, including such articles as gum-pots, rat-traps, mixture to prevent destruction of records, brooms, nails, firewood, umbrellas for peons, mats, chalk, food for cats, soap, vinegar, water-pots, ropes, match-boxes	650	645
Tour charges	209	283
Miscellaneous	300	..
Total, Contingencies ..	5,607	5,421
Grand Total ..	37,805	37,300

APPENDIX D.

MEMORANDUM.

A.—Fish-curing yards.

Boats.—Number at each fishing centre. Different kinds of boats. Of what wood they are made (aini, mango, etc.). Nature of sail (bamboo, mat, cotton, etc.), and whether one or more sails to a boat. How many men to a boat. Distribution of crew when fishing (*i.e.*, steersman, rowers, and men to look after nets). Full equipment and value of nets (their vernacular names) for a boat or pair of boats. By whom the boats are built, paid for, and owned. Estimate of how many mackerel, sardines, etc., form a boat-load at times of shoals. How many years a boat lasts. (It varies according to the wood used.)

2. Nets.—Vernacular names. Description of the different kinds. Whether made of cotton or hemp fibre. Their length, breadth and mesh. For catching what kinds of fish each net is used. Cost of each kind of net. By whom nets are made and repaired. By whom nets are owned. Who pays for making and repairing them? Damage done to nets by sharks, skates. Weight of big catches, etc. Method of spreading the nets at the fishing-ground. Which of the nets are used for in-shore fishing, and which for "deep sea."

3. Greatest distance from land to which fishing boats go, and depth at which fishes are caught. Time which boats are absent from land. Effect of exposure to sun in causing depreciation of value of fish owing to the time taken to get from the place where fish are caught to the shore. Under this heading fishermen and curers will be able to give much information about rime, second class, and spoiled fish.

4. Relation of wind to fishing hours, *e.g.*, going out to sea with land-breeze and returning with sea-breeze. Effect of these breezes on hours at which boats leave and return to shore. Delay in returning from the fishing-ground owing to failure of sea-breeze. Local knowledge, or beliefs concerning effects of currents in relation to fisheries. Notes on unusual currents.

5. Local views concerning the causes which are favourable or unfavourable to the arrival of shoaling fishes (mackerel, sardines, etc.) and which attract shoals to or drive them away from the coast. Course of shoals along the coast. Fishermen's rules as to privileges of the first boat which detects presence of a shoal. Signs by which fishermen detect the presence of a shoal (*e.g.*, sea-birds gathered together, appearance of surface of the sea, etc.).

6. Fish oil.—Fishes used. Methods of manufacture. Condition of industry—fluctuating, increasing, or declining, and the reasons. Selling price of the oil (*a*) for local consumption, (*b*) for export. To what places exported. Uses to which the oil is put.

7. Sharkfins and fish sounds.—From what fishes sounds are obtained. Method of preparation of fins and sounds. To what places exported. Prices.

8. English translation of fishermen's songs.

9. Yards.—Number of sheds in yard. Number of ticket-holders. Their caste. How many fishermen (or their wives) are also ticket-holders. Whether a single individual has tickets for more than one shed. Conditions of rent or payment under which ticket-holders have access to the yard. By whom yard or sheds are owned. To whom rent is paid. Disputes between different castes in the yard. Notes on evasion or breach of rules, theft, black-mailing, and breaches of discipline, which come under notice, and punishment inflicted. Whether, at times of heavy catches, the principle of "first come, first served" applies in the delivery of salt, or whether any curers are, in return for money, specially favoured by the yard-officers.

10. Fish-curing.—Full details of the various methods adopted for (*a*) sun-drying, (*b*) salting and subsequent drying, etc. Proportion of salt used for different kinds of fish. Time taken to cure large and small fish. By whom gutting, curing and drying operations are carried out, and wages earned for so doing. What is done to the guts after removal from the fish. Modes of packing for train or export by steamer. How and to what places exported. Details of up-country distribution of fish by runners, etc. Effect of rain in spoiling curing operations.

11. Prices.—Full details as to the relation of fishermen to fish-curers. Prices paid for fish by the latter to the former, and by the exporting traders. In fact, the whole important question of the relation of fishermen, curers and exporters, with notes on indebtedness, poverty, etc. Maintenance and occupation of fishermen during the slack season. Whether fishermen resort to other occupations, or emigrate, owing to chance of more lucrative employment away from their homes. Contracts for fish to planters' agents and merchants at times of abundant shoals of fishes used for manure. Preparation of fish for purposes of manure.

12. Views of leading members of the fishing community as to advantage likely to be derived from permission to take out salt in the boats. Any views which the fishing community may have as to means by which the industry could be increased.

13. Any stray facts or information gathered in the course of conversation with the fishing community. Though apparently trivial, they yet may be of interest. The whole object is to make our knowledge of the fisheries and the community who live by them as thorough as possible. By community I mean both fishermen and curers.

B.—Inspections of Fish Markets (Bazaars).

The names of the kinds of fish which are most abundant, and of the other fishes for sale in the market.

2. Prices at which they are sold—singly, collectively or by weight, *e.g.*, a person, buying fish, may purchase a portion (by weight) of a big seer, kora, or shark, or an entire young seer or shark, or several nalla mathi (sardines), or a number of mullan (*Equula*). At times when shoals are abundant, the prices will naturally be less than when there are no shoals. And one object of the enquiry will be to arrive at the various prices paid for fish at different times (of plenty and scarcity of fish) at each market. It may also be ascertained, in the course of the enquiry, whether the prices of fish run higher in the big than in the small towns, *e.g.*, whether prices are higher at Calicut than at Tanur, etc. Prices paid by butlers of Europeans for fish, and what kinds. At Cannanore, contract prices for fish for soldiers.

3. Which kinds of fish are most sought after and appreciated by the buyers, and why this is so. Some kinds may be considered more nutritious, others more invigorating, etc.

4. Means adopted in the market to prevent the fish from becoming badly tainted before the day's sales are over, *e.g.*, nets against flies, salt-baths, fans, etc.

5. Whether sale transactions are in ready money, or credit is allowed to the purchaser on a system of book-keeping. If the latter, whether they have bad debts.

6. Castes of those who sell fish in the market. Rate which they pay as rent for their stall or place in the market, and conditions (e.g., of license) under which they occupy stalls or have access to the market. Who the landlords or owners of the stalls are.

7. Any information, which can be extracted, as to profits earned by fish-selling in the market, and the difficulty or ease of earning a livelihood, in busy, slack and off season (=S.-W. monsoon).

8. The relations of sellers of fish in the market to the fishing community, i.e., whether they are wives of the fishermen, etc.

9. At each market note number of fish-stalls or fish-sellers, male and female.

10. What happens to the fish which remains unsold at the end of the day.

11. Notes on price of fish-roses, shark's fins, fish-maws (i.e., sounds), livers, prawns, crabs and other products of the sea.

12. Rules, which have to be adhered to, for keeping the fish-stalls clean. Penalty for not doing so.

13. Dates of notes of market inspections to be noted in every case.

14. Grievances, real or imaginary, of the fish-sellers, so far as can be obtained by chatting with them in the markets in such a way as not to frighten them. Point out that the enquiry is being carried on in the interests of the fishing industry and not with a view to increased taxation and that we want to know as much about it as is possible.

15. Any information as to knowledge among fish-sellers of diseases of fish, e.g., from parasites ("worms," etc.).

16. Any other facts of interest, which may come out in the course of enquiry.

ORDER—No. 433, Educational, dated 5th August 1901.

The administration report of the Government Museum and Connemara library for 1900-1901 testifies to the energy of Mr. Thurston and the interest which he takes in the development of the institutions and is a record of much useful work on different lines of research. The several bulletins which were published during the year are interesting and will be of service to ethnologists and others.

2. The Governor in Council is indebted to the ladies and gentlemen who have rendered help to Mr. Thurston in various ways or presented donations.

3. The Superintendent of the Government Press will arrange to supply to Mr. Thurston the number of copies of the report which he requires.

(True Extract.)

C. J. WEIR,
Ag. Secretary to Government.

To the Superintendent, Government Museum.
" the Director of Public Instruction.
" the Accountant-General.
" the Public Department.
" the Revenue Department.
" the Superintendent, Government Press.
" Collectors of districts.
Editors' Table.

NOTES CONNECTED WITH G.O., No. 433, EDUCATIONAL, DATED
5TH AUGUST 1901.

[SUBJECT.—*Report on the working of the Government Museum.*]

From the Superintendent, Government Museum, No. 26-A, dated 7th July 1901.

The draft below may issue. The report is always very interesting, and this one is no exception to the rule.

2. I put up an extract from Binning's work on Persia which may be read in connection with the passage (p. 4 of proof) about clay-eating in Cochin; it is singular how this practice is found to crop up in different places. The disease at

Zanzibar "called * 'safura'" appears from Lane† to be a sort of jaundice which was supposed to render the face yellow: Binning alludes, it will be seen, to the

"sickly" appearance of the clay-eaters of Dálíki. The practice of eating "earth" is perhaps to be distinguished from that of eating "clay"—the former being more especially resorted to by persons in despair—slaves and the like—according to writers of a hundred years ago.

3. The Connemara library is hampered a good deal at present by the "Madras Literary Society" which is occupying a lot of room; it will be a good thing when the building which Government are going to construct for them is completed; it is not begun yet.

EXTRACT.

There was one very sickly and cadaverous personage, who * came to beg for pills, whom I found on enquiry, to be a clay-eater. In certain parts of the country, a kind of reddish clay, having a sweet and slightly acid taste, is found; and this, some imprudent persons become passionately fond of eating. The practice is a most pernicious one: the clay-eater invariably becoming emaciated and sickly: but when the habit has once been formed, it is very difficult to relinquish it; and some kill themselves by it. The famous Hojaj Ibn Yoosuff, one of the most renowned of the Moslem conquerors of this country, died of this noxious habit of eating clay. It is singular that this custom prevails in some parts of the United States of America, and the same kind of clay is to be found there. When I was in that country, I heard of the habit of clay-eating as being practised in Georgia and the Carolinas; and little expected to find a similar custom in vogue in this remote quarter of the globe.—*A Journal of two years' travel in Persia* . . . By R. B. M. Binning, London, 1857. [Volume 1, p. 165.]

A. T. PRINGLE.
24-7-01.

C. J. WEIR.
24-7-01.

It is a very interesting and pithy report.

A[MPTHILL].
1-8-01.

ISSUE.

C. J. WEIR.
5-8-01.

Educational (190/) Department.

CURRENT No. 943.

From

[Name] Edgar Thurston Esq.

[Designation] Superintendent, Govt. Museum

[Station] Madras.

No. 26 A.

Dated 7th July 1901.

Enclosures One

Received 8th July 1901.

Registered 9-7-1901.

SUBJECT.

Forwarding for submission to His Excellency the Govt. in Council, his report on the working of the Government Museum during 1900-1901 and requesting that he may be supplied with 150 copies for distribution to other museums.

BACK PAPERS.

647 Pub - 26-6-01 Cof
1042 R. 7th Jul 18-9-00
16-12-01 his Ld

66-9-2-01 S. C. Ld
313-14-26-7-00 Cof

FURTHER PAPERS.

96

The Secretary to Government,
Educational Department.

Sir,

I have the honour to forward for sub-
mission to His Excellency the Governor in Council
my report on the working of the Government Mus-
seum during 1900-1901, and to request that I
may be supplied with 160 Copies for distribution
to other Museums, etc.

I have the honour to be
Sir,

Your most obedient Servant

Idya Muns'ee
Superintendent,
Government Museum.

Proof for approval
Government {1901} of Madras.
EDUCATIONAL.

Proof

*Paid
Committee & Shikhar
7/8
21-8-01*

*12
433 11*

15-8-01

*For the Asst.
P.H.
17/8/01*

*Submitted to S.A.
for approval.*

*2 Inds no 434 may
be cancelled, vide 80
no 146 Sd. 8/12-3-01*

Recd.

Enclosures

Regd.

1901.

Spare copies

*yes. but appendices
Add Chola to be
omitted*

G.O., &c., Nos. 433, 434, 5th August 1901.

AUGUS

(Proof)

*Carefully done
17/8/01*

*yes
17/8-1*

*Sample off.
The original has been
given to the Museum
as per
17/8/01*

Government Museum.

Reviewing the report on the working of the — during 1900-1901.

GOVERNMENT OF MADRAS.

EDUCATIONAL DEPARTMENT.

READ—the following paper:—

From EDGAR THURSTON, Esq., Superintendent, Government Museum, Madras, to the Secretary to Government, Educational Department, dated 7th July 1901, No. 26-A.

I have the honour to forward, for submission to His Excellency the Governor in Council, my report on the working of the Government Museum during 1900-1901, and to request that I may be supplied with 160 copies for distribution to other museums, etc.

ENCLOSURE.

ADMINISTRATION REPORT OF THE MADRAS GOVERNMENT MUSEUM FOR THE YEAR 1900-1901.

1. VISITORS.—The total number of visitors to the museum old building was 417,890, and to the new building 429,849 against 415,558 and 415,749 in the previous year.

	Old building.	New building.
Smallest number of visitors on any day not a holiday ..	144	479
Largest ..	14,088	15,080
Smallest number of visitors on Sunday ..	421	433
Largest ..	1,531	1,507

The largest number of visitors on a single day was 91,926 to the old and 89,465 to the new building at the feast of Pongal (January 15th). The huge crowd, largely made up of the lower classes, was thoroughly well behaved, and no theft, accident or damage to the collections occurred. The number of visitors on Sundays was 45,872 to the old and 45,794 to the new building, giving averages per Sunday of 866 and 864 against 841 and 818 in the previous year. The number of gosha visitors, on the days set apart for them, was 3,642 against 4,783 in 1899-1900.

The museum was visited in the course of the year by His Excellency the Viceroy, and by Her Highness the Maharanee Regent of Mysore and the ladies of the Zenana.

2. THEATRE.—The theatre was, owing to the death of the Queen-Empress, only used on six occasions, as follows:—

- Entertainment on behalf of the Society for the Prevention of Cruelty to Animals;
- Concert by the Madras Cyclist Club in aid of the Friend-in-Need Society;
- Concert in aid of the Doveton Protestant Institutions;
- Two concerts by the Madras Musical Association;
- Concert by the Madras School of Music.

3. GROUNDS.—The grounds remained throughout the year under the management of the Agri-Horticultural Society.

4. ESTABLISHMENT.—The Taxidermist's department was remodelled as follows in accordance with G.O. No. 1042, Financial, dated 18th September 1900:—

	Minimum.	Maximum.
	RS.	RS.
Senior Taxidermist	30	35
Second "	20	25
Third "	10	15

In the same Government Order the pay of the herbarium keeper was raised from Rs. 60 to Rs. 100-120 per mensem, and he was permitted to live in a vacant bungalow in the museum grounds.

5. PUBLICATIONS.—The following publications were issued during the year:—

Bulletin Vol. III, No. 1.—Notes on some of the people of Malabar, F. Fawcett; Mala Védars of Travancore, Mrs. Evans; miscellanea, E. Thurston.

Bulletin Vol. III, No. 2.—Sea fisheries of Malabar and South Canara, E. Thurston.

Bulletin Vol. IV, No. 1.—Todas of the Nilgiris; Eurasian school-boys; Meriah sacrifice post; walking through fire; Malaialis of the Shevaroyes; Scissors people; sorcery in Coimbatore; Nayadis of Malabar.

Bulletin Vol. III, No. 3. containing an account of the Nayars of Malabar by Mr. Fawcett, was in an advanced stage of preparation at the close of the year. So also was Mr. R. Bruce Foote's catalogue of the pre-historic collection of the museum. Illustrated, as it will be, by thirty-five plates, reproduced from a series of excellent photographs taken by the Madras Survey department, it will prove a very important addition to the existing literature on the palaeolithic, neolithic and iron ages in Southern India.

The half-tone reproductions of photographs, with which the Bulletins were illustrated, were executed to my entire satisfaction by the M. E. Publishing House, Mount Road, Madras.

6. *Anthropology.*—I was accompanied throughout my tour on the west coast by a professional photographer, who took a series of photographs of Nayars, Tiyanas, Cherumans, Mukkuvans, Mappillas, Paniyans and Nayadis. The photographer was also sent to Sriharikota in the Nellore district, to take photographs of the Yanadis in connection with a forthcoming bulletin. To the Kumara Raja of Bobbili I was indebted for a series of photographs of the Gadabas of Vizagapatam, whose females adorn themselves with a dress-improver worn outside the cotton loin-cloth. To the ethnological album were added photographs of the nomad Lambadis and Koravas, and the Khonds of Ganjam.

In Malabar a series of measurements of Mappillas, Mukkuvans, and Paniyans were recorded. With the physique of the two former classes, which are engaged in the fishing industry, and attribute their good condition to a liberal fish dietary, I was much impressed.

The notes made during a prolonged halt at Paikara concerning the Todas, which have been published in the Bulletin series as a supplement to my original account of this tribe (Bulletin, Volume I, No. 4, 1896), included a series of vital statistics, pastoral songs, funeral ceremonies, &c. According to the returns of the recent census, in connection with which special precautions were taken to ensure accuracy, the Todas have increased in number by thirteen during the last decade, numbering 422 males and 330 females against 427 and 312 in 1891.

The ethnological section was enriched by the addition of an interesting historic relic in the shape of a human (Meriah) sacrifice post from Baligudu in the Ganjam district. This post, which was fast being reduced to a mere shell by "white-ants" is, I believe, the only one now in existence. The post illustrates the method of sacrifice described by Major-General Campbell, who was deputed by Government to help in putting an end for ever to the inhuman and barbarous practice, and writes (1864) that "one of the most common ways of offering the sacrifice in Chinna Kimedi

is to the effigy of an elephant (hatti mundo) rudely carved in wood, fixed on the top of a stout post, on which it is made to revolve. After the performance of the usual ceremonies, the intended victim is fastened to the proboscis of the elephant, and, amidst the shouts and yells of the excited multitude of Khonds, is rapidly whirled round, when, at a given signal by the officiating zani or priest, the crowd rush in, seize the Meriah, and with their knives cut the flesh off the shrieking victim as long as life remains. He is then cut down, the skeleton burnt, and the horrid orgies are over."

A series was exhibited, illustrating, by means of photographs and specimens, the musical instruments, ornaments and implements of the Kotas, or artisan tribe of the Nilgiris, who furnish the music at Toda funerals in return for the carcasses of the buffaloes which are sacrificed thereat.

A further series was exhibited, illustrating the method of making fire by friction, in vogue among the Todas, Paniyans, and Nayadis. The use of matches is strictly forbidden by the Todas within the precincts of the dairy temple, and fire is kindled with the aid of two dry sticks of *Litsea Wightiana*. Of these one, terminating in a convex extremity, is about 2 feet 3 inches long; the other, with a hemispherical cavity scooped out close to one end, about 2½ inches in length. Into the cavity the end of the longer stick fits, so as to allow of easy play. The smaller stick is placed on the ground, and held tight by firm pressure of the great toe applied to the end furthest from the cavity, into which a little finely powdered charcoal is inserted. The larger stick is then twirled vigorously between the palms of the hands by two men, turn and turn about, until the charcoal begins to glow. Fire, thus made, is said to be used at the tiriēri (sacred mand), the dairy-houses, and at the cremation of males. The Paniyans use, for the purpose of obtaining fire, a portion of a bamboo stem, which is split longitudinally into two equal parts. On one-half a sharp edge is cut with a knife. In the other a longitudinal slit is made through about two-thirds of its length, which is stuffed with a piece of cotton cloth. The latter is held firmly on the ground with its convex surface upwards, and the cutting edge drawn, with a sawing motion, rapidly to and fro across it by two men, until the cloth is ignited by the red-hot particles of wood in the groove cut by the sharp edge. The cloth is then blown with the lips into a blaze, and the tobacco or cooking fire can be ignited.

From Mr. T. H. Welchman I received a sample of clay, which is eaten by the coolies, chiefly females, on the Cochin hills. "They roast it", he writes, "and eat it in large quantities, about 1 or 1½ pounds. They seem to be ashamed of the habit, and, if other people see them eating it, try to hide it. After about twelve months they swell up, especially the face and abdomen, and refuse all other food, drinking only water. Eventually they die. I am told that, to stop the practice, the natives administer castor-oil to the earth-eaters, but this does not prevent them from eating more, if they can get the chance. I have known several cases of death from this cause." The practice of earth-eating is widespread in many countries, and in Zanzibar there is a disease called safura induced thereby.

To Mr. A. Rea, Superintendent, Archaeological Survey, I was indebted for a number of pre-historic human bones and fragments of pottery, some of which, including the articular ends of long bones, phalanges, vertebrae, portions of skulls and lower jaws, have been exhibited. "The excavations at Adichanallur", Mr. Rea writes (G.O., No. 800, Public, dated 16th August 1900) "yielded the most valuable results. Besides a very large quantity of bones and vessels in pottery, I found, at one part of the ground, a number of domestic utensils in bronze and iron. The iron articles comprise large bracketed and small chain hanging lamps, swords, spears, knives, adzes, celts, hammers, rings, bangles, etc. Those in bronze are small cups, moulded and ornamented jars, flat bowls, platters, perforated cup sieves, large fragmentary chatties, rings, bangles, and some curious lamps with surrounding curved arms supporting reflecting discs, and buffaloes with large curved flat horns, which doubtless also, when polished, would act as reflectors. In one vessel was a strip of gold leaf with dotted ornament. A great field for discovery exists here."

A small collection of pre-historic stone implements, found at Walajabad in the Chingleput district, was presented by Mr. Somu Sampson, and added to the existing collection.

Various questions relating to the ethnographic survey were discussed with the Mr. H. Risley, C.I.E., Census Commissioner, during his visit to Madras.

7. NUMISMATICS.—A large find of silver punch marked purānas or eldlings from Travancore was reported on. A find of 257 lead coins of the Andhra dynasty with horse device and symbols, of a type new to the museum collection, was discovered by a ryot when ploughing his land in the village of Bathalapalli in the Anantapur district. From the Kistna district were received ten coins of the Pallava kings, of the type figured in Elliot's 'Coins of Southern India,' which were found by a sand digger in a masonry pit in the Pētēru village of the Tenali taluk. Specimens of the coinage of the Maldivé islands were presented by Mr. C. Foster Cooper. To the North-Western Provinces Government, the Bombay branch of the Royal Asiatic Society, and the Commissioner of Behar the museum was indebted for sundry coins of Northern India.

The museum series of the Chola, Pandyan and Vijayanagar dynasties, numbering in all 440 coins, arranged and catalogued in manuscript by Mr. T. Desika Chari, were returned and incorporated in the collection.

The casts and manuscript of volume 1 of the Catalogue of South Indian Coins, dealing with the coinage of the various European Companies, Mysore, Travancore, Nawābs of the Carnatic, Pudukota, &c., was completed during the year.

8. ART AND ARCHEOLOGY.—The following pictures by native artists, purchased by the Fine Arts Society or sent in for competition in the sketching section thereof, were exhibited as a loan collection:—

Early to the fair, C. Raja Raja Varma.

Raja canal, Coimbatore, M. Dastagir Khan.

Designs for a poster of an Art Society's Exhibition, M. Valayudasari.

Studies from life, M. Valayudasari.

A quiet corner, M. Pithawalla.

A quiet corner, M. Valayudasari.

The Lohagād, one of Sivaji's fastnesses, C. Raja Raja Varma.

A gong-beater, C. Kristna Rajoo.

Vishwamitra asking Dasharatha for Ram and Laxman to punish the demons, M. V. Dhurandhar.

Still life, V. N. Mestry.

Fruits, Chunilal M. Ghodi.

In honour of baby's birthday, C. Raja Raja Varma.

A water-carrier, C. Raja Raja Varma.

A series of paintings of armour, jewels of the zamindars of Kālabasti and Karvetnagar, with sketches of the genealogical tree of their families, were received from the Collector of North Arcot.

A set of twenty-six negatives of the Gandhara sculptures from the Punjab preserved in the museum, was prepared, at the request of Dr. T. Burgess, C.I.E., by the Survey department. Photo prints of a sculptured slab from the Amaravati stupa, representing a battle scene, were sent to Mr. R. Sewell.

Two iron shots, found about a foot below the surface of the ground at Trichinopoly, near St. John's Church, were presented by the Rev. F. Penny. They are probably relics of the fighting which took place round the Fakir's rock and Fakir's tope between the French and English, 1740—50.

Three copper grants, found in the village of Vasanta in the Srungavarapukota taluk of the Vizagapatam district, were received and sent to the Government Epigraphist for translation.

9. INDUSTRIAL AND ECONOMIC.—In connection with Rouffaer and Jnyndbol's beautifully illustrated 'Indische Batik-kunst' reports on, and series of specimens illustrating the art of wax and coloured drawing in the manufacture of colour-printed cotton fabrics were received from the Madura, Tanjore, Tinnevely, Chingleput, North Arcot and Kistna districts. The collections thus acquired include the various forms of wax-brushes or pens, wood and metal blocks used for applying the dye, and samples illustrating the various stages of preparation from the plain cotton material to the

completed fabric. The information received from district officers in connection with the enquiry has been printed in the form of a memorandum for submission to Mr. Rouffaer.

In the compilation of a monograph on the ivory carving industry of Southern India under instructions from the Government of India, I received great assistance from Mr. H. S. Ferguson, who was good enough to prepare a detailed note on the industry in Travancore. To the Travancore and Mysore durbars thanks are due for a series of negatives of ivory carving and inlaid ivory-ware, and to the Rajah of Kollengod for the loan of his private collection of ivory carvings of animals and the Hindu pantheon. At the recent Fine Art Society's exhibition, I was fortunate enough to secure an example of an exquisite little carved figure of Vishnu at the deluge by a former Travancore carver, which was reproduced in "Photographs of Indian art-ware:" Calcutta Exhibition, 1883-84. None of the more modern carvings equal this gem in artistic delicacy of treatment, and several loan exhibits at the Madras Exhibition, 1901, bore evidence to the fact that ivory carving in Southern India was formerly at a higher level of excellence than it is at the present day.

An enquiry was received from the Medical Storekeeper to Government concerning the possibility of obtaining large quantities of sea-weed suitable for the preparation of iodine and iodide of potassium. Specimens found in the Kwangtung harbour, Andamans, (a) at two or three fathoms, (b) along reefs exposed at low tide, were identified by Mr. G. Murray, F.R.S., of the British Museum as being *Enhalus Kanigii*, a marine flowering plant of the order Hydrocharidæ, and *Turbinaria decurrens*, a sea-weed in close relationship to *Sargassum*. The herbarium-keeper of the museum was deputed to Tuticorin, where, though he found no sea-weed in sufficient abundance for commercial purposes, he got together a collection, of which a duplicate set has been sent to the British Museum, Natural History, for identification.

From the Collector of Tinnevely district were received the pearls obtained from the washing of the 'oysters', on which it was decided to hold a fishery in March 1900. "Though the revenue derived by Government during the fishery was more than sufficient to cover the expenses of working, the net profit fell much below the estimated income, and the fishery cannot be said to have been on the whole a success. It proved disastrous to the poorer folk—the boatmen and the divers. It began badly by a combination among the merchants to keep down prices, and, when it became an undeniable fact that the oysters were immature and had very few pearls, a panic set in." (Proceedings, Board of Revenue, No. 880 Rev., dated 28th August 1900.)

The museum was consulted by the Board of Revenue in connection with the larva of a boring insect, which had, in the past year or two, killed a large number of date-palm trees in the Madras Presidency. It was reported to be ordinarily found working its way from the point of incision for tapping to the heart of the tree, and to be causing loss to the owners and the tapping industry, and prospective injury to the Government revenue from toddy. The insect proved to be the palm weevil *Rhynchophorus ferrugineus*, concerning which it is written (Indian Museum notes, Vol. II, page 9) that "the only remedies that have been suggested are the obvious ones of destroying the beetles wherever they are found, and of burning trees that are badly infested, to check the increase of the pest. Trees, however, that are not very badly attacked should be spared, as they are said to recover in many cases." Illustrations of the insect, in the three phases of its life-history, were widely distributed; to enable departmental officers and others to detect and destroy it.

10. BOTANICAL GALLERY.—This gallery was thrown open to the public during the year. The morphological series, illustrating the more striking features of the morphology of plants, commencing with the Phanerogams and ending with the Algae and Fungi, was completed. As a supplement to this series, a collection of fruits and seeds was arranged in two groups:—

I. Index series—

- (a) Dried fruits and seeds, illustrating their morphology;
- (b) Spirit specimens of fruits, and sections thereof.

II. Fruits and seeds arranged systematically according to their Natural Orders.

A large number of the specimens in this series were in the excellent forest collection, which was brought together by Mr. J. S. Gamble, when Conservator of Forests.

A series of illustrative plates and diagrams was arranged, to show the main diagnostic characters of the various Natural Orders, and the histology of the main groups of plants.

As an adjunct to the morphological series, two further series of herbarium specimens are being prepared, to illustrate (a) the more important genera of the various families; (b) the salient features of the flora of Southern India. Of these, the former will be exhibited in glazed frames, and the latter set apart for the purpose of study by students. For these series a number of specimens were collected during the tours on the Nilgiris, in Malabar and the Nellore district.

I was happy in securing the services of Mrs. Bishop, who very kindly volunteered to paint a series of botanical studies in the plains of Travancore and on the higher ranges of the Palni hills. The value of these paintings, of which a considerable number have already been received and exhibited, is materially enhanced by the fact that the studies are supplemented by paintings of dissections of fruit, flowers, etc.

11. MINERAL GALLERY.—Among the additions may be noted—

Asbestos from the Mysore province.

Magnesite from the rich deposit in the so-called 'chalk hills' of the Salem district, where it is now being worked commercially.

Garnetiferous leptynite from Coonoor, Nilgiris, where it is worked for metal-ling of the ghât road.

Iron pyrites from Gadikota in the Cuddapah district.

Orange mica from Travancore.

Biotite (black mica) from the Nellore mines.

A series of photographs illustrating the system of quarrying mica at the Nellore mines, and the preparation of the mineral for the market and export. The exports of mica from the port of Madras in 1900 amounted in round numbers to 950 tons, valued at Rs. 6,76,600.

A series of specimens of blue and red corundum from the Salem district. Samples of the blue mineral were reported, in the City of London, to be iolite, which is "rather uncommon, and, when in clear sound pieces of good colour, is of value as a curiosity. The samples sent are defective, and of very little value." Ceylon affords a transparent variety of iolite, in small rolled masses, of an intense blue colour, the *sapphire d'eau* of jewellers (Dana).

Garnets and mica from the Mysore province.

A collection of articles made of black clay in the South Canara district, representing in miniature sundry domestic utensils.

Charts illustrating the course of a typical cyclonic storm in the Bay of Bengal during the north-east and south-west monsoons.

12. SEA-FISHERIES INVESTIGATION.—In connection with this investigation referred to in my last report, which is controlled by me on behalf of the Board of Revenue, I visited the fish-curing yards at Tanûr, Calicut, Badagara and Tellicherry on the Malabar coast, in order to explain personally to the officer in charge the exact nature of the enquiry, which has to be systematically carried out. The main points on which information is to be obtained were summed up in a memorandum, which is reproduced in Appendix F. The enquiry has perforce, in the absence of a trained expert in applied marine zoology, to be of a less scientific and ambitious nature than that recently planned by Professor V. A. Herdman, F.R.S., for the survey or 'census' of fishing grounds, and omits systematic dragging, physical observations, examination of the plankton, etc. Nevertheless, I hope that, if the questions in the memorandum are intelligently examined into and answered by the inspecting officer, we shall add something to our existing knowledge of the fisheries and fishing folk, which will serve as a stepping-stone to something worthy of the name of practical research hereafter.

At the time of my visit to Malabar fishing operations were rather slack, and there was a general complaint of the absence of sardines. But enormous catches of prawns (*Penaeus sculptilis*, Heller) were being secured close in shore, and after salting and sun-drying, exported in large quantities to Colombo, and other places. The dearth of fish was attributed by the fishermen to their fear of coming near the coast, where the prawns would attack them with their serrated spines. To Colonel Hackett-Wilkins, I.M.S., I was indebted for specimens of the fish *Saccobranhus fossilis*, which were sent for identification. "This fish," he writes, "is supposed to be poisonous, as, when a person is bitten by one of them, gangrene gradually takes place; and, if the part is not removed above the nearest joint, it slowly and steadily goes on spreading upwards. During the last three years I have performed about eight amputations for the result of these bites, and in one neglected case I had to remove the arm above the elbow-joint. The fish is supposed to be a fresh-water one, and, when caught by the fishermen, is avoided; and, rather than touch it, they chop it into bits." In his 'Fishes of India,' Day says that wounds from the pectoral spine of this fish are dreaded, as they even occasion tetanus. As soon as captured, the offensive spine is broken off by blows with a stake. It is called in tamil théloo (scorpion).

13. NATURAL HISTORY.—To the series illustrating tegumentary structures was added a hair ball, 12.3 cm. in diameter, and weighing 22 ounces, made up of agglutinated hairs rolled into a ball by the churning action of the stomach, which was extracted from the stomach of a buffalo at Calicut. The skeleton of a kangaroo, which died in the People's Park, was prepared, to show the epipubic bones which support the marsupial pouch. The grooved and curved os penis of a bear (*Melursus ursinus*), measuring 15.5 cm. in length, and the small serrated os penis of a tiger were acquired, the former as a donation, the latter from an animal which died in the People's Park. Two specimens of the valued horny excrescence from the head of a jackal were presented. "The natives call it narri-comboo, and aver that this jackal's horn only grows on the head of the leader of the pack. The Singhalese and Tamils alike regard it as a talisman, and believe that its fortunate possessor can command the realization of every wish, and that, if stolen or lost by him, it will invariably return of its own accord. Those who have jewels to conceal rest in perfect security if, along with them, they can deposit a narri-comboo" (Tennent, Ceylon).

An Indian pangolin or ant-eater (*Manis pentadactyla*) was mounted to show how, when alive, this animal rolls itself into a ball for the purpose of defence. To Mr. A. Brown of Calicut I was indebted for the skull of a sambar deer (*Cervus unicolor*) with an aberrant frontal tine.

Among the additions to the Bird gallery collected locally, may be noted the spotted crane (*Porzana maruetta*); grey-headed lapwing (*Microsarcops cinereus*); sanderling (*Calidris arenaria*); and the curlew stint (*Tringa subarquata*). A pintail snipe (*Gallinago stenura*), with abnormally light plumage, was presented by Mr. Rosling. An edible nest of the Indian nest swiftlet (*Collocalia fuciphaga*) was collected by Mr. J. Bourne on Sacrifice Rock off the Malabar Coast.

Small collections of the land mollusca of Ceylon and Madras City were presented by Mr. Collett and Mr. V. V. Ramanan.

14. LIVE ANIMALS.—Among the additions which were alive at the end of the year were the weaver bird (*Ploceus baya*), the smaller white scavenger vulture (*Neophron ginginianus*), the fish *Saccobranhus fossilis*, and the tortoise *Testudo elegans*, half-grown and young.

The tortoises fed greedily on the red flowers of *Hibiscus rosa-sinensis*. The female of a pair of Indian antelope rats (*Gerbillus indicus*), after four years in captivity, gave birth to three young ones in March. The green whip-snake (*Dryophis mycterizans*) gave birth in October to nine young ones. A rat-snake (*Zamenis mucosus*) died covered with an ecto-parasitic arachnid. To the Python cage were attached specimens showing the rudimentary bones of the hind limbs, which terminate in an anal claw on each side of the cloaca.

15. CONNEMARA PUBLIC LIBRARY.—The total number of readers during the year was 13,284 against 14,105 in the previous year—

Smallest number of readers on any day	..	..	..	..	..	8
Largest	"	on	"	..	..	140
Smallest	"	on	Sunday	..	..	27
Largest	"	on	"	..	..	101

The following tabular statement shows the number of applicants for books, and of the volumes given out during the last two years:—

Months.	1899-1900.		1900-1901.	
	Number of applicants for books.	Number of volumes given out.	Number of applicants for books.	Number of volumes given out.
April ..	1,330	1,886	782	1,084
May ..	916	1,420	767	1,103
June ..	1,126	1,583	640	922
July ..	992	1,444	694	1,010
August ..	910	1,257	711	979
September ..	981	1,347	814	1,455
October ..	833	1,185	752	1,127
November ..	795	1,172	599	937
December ..	1,112	1,892	1,059	1,603
January ..	1,079	1,484	1,027	1,534
February ..	813	1,312	931	1,187
March ..	901	1,254	1,288	1,806
Total ..	11,788	17,236	10,064	14,547

The total number of standard works added to the library during the year was 358, of which 310 were acquired by purchase and 48 presented (*vide* appendix D). Some destruction to books was caused by the intrusion of white-ants, which gained access to the book cases both through the floor and the ceiling. The damage done by them was most severe in one of the alcoves in the half of the building which is temporarily occupied by the Madras Literary Society.

As a rough indication of the class of literature resorted to by readers, I append a list of books issued during the last two years under each of the subject catalogue heads, which, *inter alia*, shows the popularity of philosophy, dictionaries, and the Fort St. George Gazette:—

	1899-1900.	1900-1901.
Anatomy; biology; natural history; zoology	579	549
Anthropology; folk-lore	621	545
Archæology; architecture	174	230
Arts; industries	245	270
Atlases and maps	120	101
Botany; arboriculture; horticulture	279	199
Belles lettres	547	580
Chemistry; chemical industries; agriculture	191	219
Classics	256	243
Dictionaries; encyclopædias	1,863	2,036
Economic products and economic entomology	57	111
Education; ethics; logic; metaphysics; philosophy; political economy	1,180	1,294
Exhibitions	84	95
Forestry; timbers	35	49
Geography; physical geography; physiography	100	63
Geology; palæontology	63	67
History	769	836
Jurisprudence	150	172
Microscopy	25	8
Medicine; medical jurisprudence; pathology; pharmaceuticals; surgery; veterinary	283	274
Mineralogy; metallurgy; petrology	86	64
Natural philosophy	664	513
Numismatics; heraldry; medals	248	61

	1899-1900.	1900-1901.
Philology ; epigraphy	194	206
Photographs	45	39
Physiology	117	158
Public health	339	263
Religion	592	448
Sports and games	342	325
Travels and foreign countries ; voyages	371	384
Fort St. George Gazette (other than current issues)	690	665
Vernacular languages	..	98

The following additions to the subject index catalogues were published during the year :—

Belles Lettres. Chemistry ; photography.

In appendix C is given a statement showing the number of readers in every month during each hour of the working day.

15. VALUABLE STOCK.—The necessary inventory was maintained and duly checked. The collections were all in good order at the end of the year.

[Appendices:

APPENDIX A.

Museum Old Buildings.

VISITORS from 1st April 1900 to 31st March 1901 on week days.

1900-1901.	Signatures made in											
	English.	Telugu.	Hindustani.	Tamil.	Marhatta.	Nagari.	Guzerati.	Canarese.	Chinese.	Sinhalese.	Malayalam.	Bengali.
1	2	3	4	5	6	7	8	9	10	11	12	13
April	1,116	353	395	1,256	9	..	33	18	..	..	25	51
May	1,599	678	270	1,475	19	..	14	36	..	..	19	3
June	1,586	479	182	1,566	18	..	19	19	..	..	20	..
July	1,586	492	189	1,571	11	..	24	13	3	..	16	2
August	1,348	485	181	1,284	2	..	17	20	..	..	27	9
September	1,430	451	190	1,356	13	..	35	13	..	..	25	2
October	1,408	515	194	1,550	11	..	38	7	3	..	23	4
November	1,473	461	185	1,454	7	..	20	9	..	..	25	6
December	2,874	702	317	2,471	12	..	27	33	..	..	43	8
January	2,336	712	725	2,825	9	..	28	54	..	..	35	36
February	1,342	408	148	1,337	6	..	17	15	..	..	17	3
March	1,244	411	163	1,214	14	..	31	18	..	..	21	1
Total	19,342	6,147	3,139	19,359	180	..	303	255	6	..	296	125

1900-1901.	Total number of signatures.	Unable to sign.	Total number of visitors.	Number of		Total number of visitors.
				Males.	Females.	
	14	15	16	17	18	19
April	3,255	17,037	20,292	11,193	9,099	20,292
May	4,113	18,621	22,734	12,370	10,364	22,734
June	3,889	17,597	21,486	11,465	10,021	21,486
July	3,907	18,549	22,456	12,403	10,053	22,456
August	3,373	14,409	17,782	10,501	7,281	17,782
September	3,515	13,335	16,850	9,879	6,971	16,850
October	3,753	14,632	18,385	11,357	7,028	18,385
November	3,640	12,876	16,516	9,916	6,600	16,516
December	6,487	22,865	29,352	17,307	12,045	29,352
January	6,760	146,279	153,039	73,945	79,094	153,039
February	3,293	12,682	15,975	9,250	6,725	15,975
March	3,111	14,034	17,151	9,035	8,116	17,151
Total	49,102	322,916	372,018	198,621	173,397	372,018

Museum Old Buildings.

VISITORS from 1st April 1900 to 31st March 1901 on Sundays.

1900-1901.	Signatures made in											
	English.	Telugu.	Hindustani.	Tamil.	Mahratta.	Nagari.	Guzerati.	Canarese.	Chinese.	Sinhalese.	Malayalam.	Bengali.
1	2	3	4	5	6	7	8	9	10	11	12	13
April	428	113	51	380	5	..	3	11	..	..	8	3
May	421	98	40	262	..	..	15	15	..	..	5	..
June	483	123	43	298	9	..	8	3	..	..	8	..
July	591	170	49	534	4	..	14	3	..	..	14	..
August	323	120	28	327	..	..	1	2	..	..	3	..
September	526	158	60	475	3	..	10	3	..	..	18	3
October	377	115	45	384	..	..	7	10	..	..	12	4
November	442	100	41	469	2	..	4	3	..	..	12	1
December	632	149	63	610	2	..	4	8	..	..	14	2
January	405	90	56	486	2	..	1	7	..	..	7	2
February	455	115	43	294	3	..	5	5	..	..	9	1
March	493	119	105	359	3	..	13	9	..	..	10	23
Total ..	5,576	1,470	624	4,878	37	..	85	79	..	..	120	39

1900-1901.	Total number of signatures.	Unable to sign.	Total number of visitors.	Number of		Total number of visitors.
				Males.	Females.	
	14	15	16	17	18	19
April	1,002	2,781	3,783	2,359	1,424	3,783
May	856	2,264	3,120	1,975	1,145	3,120
June	975	3,393	4,368	2,562	1,806	4,368
July	1,379	3,455	4,834	3,112	1,722	4,834
August	804	1,864	2,668	1,825	843	2,668
September	1,256	3,158	4,414	2,894	1,520	4,414
October	958	2,115	3,073	2,157	916	3,073
November	1,074	2,288	3,362	2,259	1,103	3,362
December	1,484	3,725	5,209	3,397	1,812	5,209
January	1,056	2,597	3,653	2,432	1,221	3,653
February	930	2,485	3,415	2,255	1,160	3,415
March	1,134	2,839	3,973	2,710	1,263	3,973
Total ..	12,908	32,964	45,872	29,937	15,935	45,872

Museum New Buildings.

VISITORS from 1st April 1900 to 31st March 1901 on week days.

1900-1901.	Signatures made in											
	English.	Telugu.	Hindustani.	Tamil.	Mahratta.	Nagari.	Guzerati.	Canarese.	Chinese.	Sinhalese.	Malayalam.	Bengali.
1	2	3	4	5	6	7	8	9	10	11	12	13
April	1,074	260	160	1,694	3	2	52	85	..	4	27	14
May	1,290	340	82	1,804	4	1	29	93	..	2	30	10
June	1,575	315	130	1,777	10	6	21	90	..	3	38	10
July	1,340	275	131	1,403	7	4	32	94	..	2	27	5
August	1,300	263	160	1,464	7	4	30	101	..	7	38	6
September	1,259	235	106	1,462	5	4	30	86	..	3	29	11
October	1,139	271	167	1,716	2	6	22	71	..	1	37	13
November	1,255	281	126	1,385	14	5	32	102	..	2	43	16
December	1,990	420	170	2,559	15	23	36	124	..	14	55	31
January	2,191	691	286	2,847	11	20	53	176	..	20	69	18
February	1,150	220	114	1,376	1	6	13	80	..	8	31	11
March	1,281	285	120	1,204	19	4	47	41	..	1	36	16
Total ..	16,844	3,856	1,752	20,991	98	85	397	1,143	..	67	460	160

1900-1901.	Total number of signatures.	Unable to sign.	Total number of visitors.	Number of		Total number of visitors.
				Males.	Females.	
				14	15	
April	3,375	16,530	19,905	11,315	8,590	19,905
May	3,685	17,610	21,295	11,875	9,420	21,295
June	3,975	19,755	23,730	13,420	10,310	23,730
July	3,620	20,090	23,710	12,951	10,759	23,710
August	3,380	18,459	21,839	12,235	9,604	21,839
September	3,230	17,784	21,014	11,633	9,381	21,014
October	3,445	16,540	19,985	11,286	8,699	19,985
November	3,260	17,360	20,620	11,925	8,695	20,620
December	5,437	21,973	27,410	15,837	11,573	27,410
January	6,382	141,255	147,637	70,545	77,092	147,637
February	3,010	16,355	19,365	11,510	7,855	19,365
March	3,054	14,491	17,545	9,593	7,952	17,545
Total ..	45,853	338,202	384,055	204,125	179,930	384,055

Museum New Buildings.

VISITORS from 1st April 1900 to 31st March 1901 on Sundays.

1900-1901.	Signatures made in											
	English.	Telugu.	Hindustani.	Tamil.	Mahratta.	Nagari.	Guzerati.	Canarese.	Chinese.	Sinhalese.	Malayalam.	Bengali.
1	2	3	4	5	6	7	8	9	10	11	12	13
April	330	70	37	480	..	2	2	17	..	3	7	2
May	305	55	12	373	2	2	9	18	..	..	8	1
June	360	70	28	441	..	..	..	19	..	..	4	2
July	500	75	41	579	..	1	5	17	5	..	4	3
August	270	45	22	401	..	2	..	29	..	..	4	2
September ..	465	80	23	556	3	..	2	26	..	..	13	7
October	314	93	41	341	1	..	6	10	..	..	9	2
November ..	330	60	24	419	2	2	4	16	..	2	5	3
December ..	530	105	35	544	..	..	4	35	..	1	12	9
January	406	71	32	372	2	3	4	17	..	2	9	3
February ..	335	45	15	372	2	4	6	16	..	4	8	4
March	405	67	46	424	2	9	17	21	..	4	11	7
Total ..	4,550	836	356	5,302	14	25	59	241	5	16	94	45

1900-1901.	Total number of signatures.	Unable to sign.	Total number of visitors.	Number of		Total number of visitors.
				Males.	Females.	
14	15	16	17	18	19	
April	950	2,815	3,765	2,390	1,375	3,765
May	785	2,261	3,046	1,818	1,228	3,046
June	924	3,332	4,256	2,526	1,730	4,256
July	1,230	3,618	4,848	3,006	1,842	4,848
August	775	1,896	2,671	1,771	900	2,671
September ..	1,175	3,249	4,424	2,851	1,573	4,424
October	817	2,142	2,959	2,022	937	2,959
November ..	867	2,497	3,364	2,158	1,206	3,364
December ..	1,275	3,881	5,156	3,178	1,978	5,156
January	921	2,661	3,582	2,367	1,215	3,582
February ..	811	2,901	3,712	2,455	1,257	3,712
March	1,013	2,998	4,011	2,595	1,416	4,011
Total ..	11,543	34,251	45,794	29,137	16,657	45,794

APPENDIX B.

DONATIONS, 1900-1901.

- Anantapur, Collector—
Lead coins of the Andhra dynasty (horse type) found in the village of Bathalapalli, Dharmavaram taluk.
- Appa Row Bahadur, Mr. M. R.—
Sandalwood fan.
- Appu Menon, Mr. K.—
Kanakkan marriage umbrella.
- Baker, Mr. T. H.—
Kukri, the personal property of the late Sir Ranoo-deep Singh, Prime Minister of Nepal.
- Bartly, Mr. W. H.—
Clavicles (rudimentary collar-bones) of tiger and panther.
Os penis of bear.
- Bobbili, Kumara Raja—
Photographs of Gadabas of Vizagapatam.
- Bourne, Mr. J.—
Edible Bird's nest (*Collocalia fuciphaga*), sacrifice rock, Malabar.
- Bradley, Mrs.—
Wild silk moth (*Actias selene*).
- Brown, Mr. A.—
Sambar stag with aberrant tine.
- Cooper, Mr. C. F.—
Maldivian copper coins.
- Cuddapah, Collector—
Iron pyrites.
- Deane, Mr. B. O. M.—
Garnets and mica, Mysore Province.
- Doraisawmy Sastri, Mr. V. R.—
Horny growth (*narrikombo*) from head of jackal.
- Ettiappuram, Raja—
Chicken (monstrosity).
- Fletcher, Mr. F. E.—
Mollusc (*Ostrea* sp.).
Snake (*Dipsas trigonata*).
- Ganjām, District Magistrate—
Meriah sacrifice post from Balliguda.
- Gordon, Woodroffe & Co., Messrs.—
Red and blue corundum from the Salem district.
- Govind Doss, Mr. L.—
Whip snake (*Dryophis myeterizans*) alive.
- Hackett Wilkins, Colonel J.—
Hair ball from stomach of buffalo.
- Hatchell, Mr. D. G.—
Loris and chameleon, alive.
- Kelly, Mr.—
Indian little Grebe (*Podiceps albipennis*) and egg.
- Kistna, Collector—
Ten Pallava coins.
- Kumarasawmi Aiyar, Mr. T. E.—
Black mica (biotite).
- MacIver, Mr. S. G. I.—
Graphite, Coonoor, Nilgiris.
- Madras Arsenal—
A stone slab commemorating the success of the British arms at Manila in 1762.
- Muhammad Badsha Sahib & Co., Messrs.—
Photographs of the mica mines and mining in the Nellore district.

Municipal Commission, Madras—

Parakeet.
Parrot.
Malabar Langur (*Semnopithecus hypoleucus*).
Spectacle monkey.
Tiger cub.
Indian bear (*Melursus ursinus*).
Kangaroo.

Murugasen, Mr. P. R.—

Abnormal cocoanut.
Fish (*Stegostoma tigrinum*).

North Arcot, Collector—

Pictures of armour, jewels of the Zamindars of Kálahasti and Karvetnagar, with sketches of the genealogical tree of their families.

North-Western Provinces and Oudh Government—

Fifteen lead coins, thirteen silver coins, and a copper coin.

Penny, Rev. F.—

Iron shot found near St. John's Church, Trichinopoly.

Rajagopalachariar, Mr. K.—

Pearl oysters (*Avicula fucata*).

Ramachendra Mudaliar, Mr. D.—

Tendrils of a creeper.

Ramanan, Mr. V. V.—

Land and fresh water shells of Madras City.

Rea, Mr. A.—

Human bones and skulls from prehistoric tombs in the Tinnevely district.

Reger, Mr. W.—

Silk moth (*Anthera mylitta*).

Rosling, Mr. A. W.—

Snipe with abnormal plumage.

Royal Asiatic Society (Bombay Branch)—

Silver coins of Shah Alam and Muhammad Shah (Ahmadabad mint) found in the Kaira district.

Gold coin of the Khalifs found in the Ratnagerry district

Gold coin: Padmatanka, Southern Indian, found in the Bijapur district.

Copper coins of Muzaffar II, Ahmad Shah II, Muzaffar III, found in the Ahmadabad district.

Royal Botanical Gardens, Calcutta—

One hundred and fifty sheets of botanical specimens (flowering plants).

Royappen, Mr. M.—

Mauser cartridges from the battle-field, South Africa.

Runganayakalu Chetty, Mr. S.—

Nest of Indian tailor bird (*Orthotomus sutorius*).

Sampson, Mr. S.—

Stone prehistoric implements from Walajabad.

Sim, Mr. H. A.—

Indian Pangolin (*Manis pentadactyla*).

Singara Babu, Mr. B.—

Abnormal cocoanut.

Vizagapatam, Collector—

Three copper plates found in the village of Vasanta in the Srungavarapukóta taluk.

Welchman, Mr. T. H.—

Land shells of the Anamalai hills.

Wun district (Berar), Deputy Commissioner—

Coins of Ala-ud-din Muhammad Shah, Ghiyas-ud-din Tughlaq Shah, and Muhammad bin Tughlaq Shah.

APPENDIX C.

STATEMENT showing the total number of readers in Library in every month during each hour of the day, 1900-1901.

	7-8	8-9	9-10	10-11	11-12	12-1	1-2	2-3	3-4	4-5	5-6	Total
April	102	92	130	77	92	63	98	94	102	118	38	..
May	137	79	105	82	66	57	44	92	129	102	33	..
June	136	89	102	83	44	68	48	101	117	86	20	..
July	82	76	103	77	81	67	60	99	132	124	10	..
August	96	82	90	59	79	57	86	135	104	131	34	..
September	102	98	86	73	64	75	94	90	104	95	23	..
October	109	82	75	69	61	60	76	104	114	97	36	..
November	56	28	81	73	81	63	65	115	102	95	16	..
December	67	112	137	156	137	184	178	244	279	249	52	..
January	84	107	168	153	116	150	104	175	210	164	50	..
February	66	121	140	113	122	102	108	130	215	152	34	..
March	155	135	125	94	124	103	141	109	161	218	78	..
Total	1,192	1,101	1,342	1,109	1,067	1,049	1,102	1,488	1,779	1,631	424	13,284

APPENDIX D.

LIST OF BOOKS ADDED TO THE LIBRARY.

Donations.

- Avadhani, V. V. S.—History of Sri Vidyananya (Madhavacharya). Madras, 1900, 8vo.
 Badrudin Abdulla Koor.—Silver Jubilee of His Imperial Majesty Sultan Gazi Abdul Hamid Khan II, 1900, 8vo.
 Bell, A. G.—Address upon the condition of articulation teaching in American schools for the Deaf. Boston, 1893, 8vo.
 Bhadrakamrar, H. M.—Aiteraya Upanishad with Sankarāchārya's Bhashya: Translation. Bombay, 1899, 8vo.
 Blanford, W. T.—Ariophanta Dalyi from Mysore, with a note on Mariela Dussumieri. *Illust.*, Reprint, 1899, 8vo.
 ———— Distribution of vertebrate animals in India, Ceylon and Burma. Reprint, 1900, 8vo.
 ———— On some species of shells of the Genera Streptaxis and Ennea from India, Ceylon and Burma. *Illust.*, Reprint, 1899, 8vo.
 Bride, T. F.—Letters from Victorian Pioneers: being a series of papers on the early occupation of the colony, the aborigines, etc., 1899, 8vo.
 Bunce, D.—Language of the aborigines of the colony of Victoria and other Australian districts. Geelong, 1859, 8vo.
 Collett, O.—Pearl Oysters and Pearl Fisheries. Reprint. Colombo, 1900, 8vo.
 Cotton, H. E. A.—The century in India, 1800-1900. Reprint from the Englishman. Calcutta, 1901, 8vo.
 Cust, R. N.—Memoirs of past years of a Septuagenarian, 1899, 8vo.
 Dendy, A.—Pontobolbos, a marine organism from the Gulf of Manaar. *Illust.*, Reprint, 1897, 8vo.
 Devon, United Association.—Book of Fair Devon. *Illust.*, 1899-1900.
 Elliot, Sir G.—God is Spirit: God is Love: Treatise on Spiritual Unitarianism, 1895, 8vo.
 Folkmar, D.—Leçons d'Anthropologie philosophique: ses Applications à la Morale Positive. Paris, 1900, 8vo.
 Gangá Dutt Upreti.—Hill Dialects of the Kumaun division. Almora, 1900, 8vo.
 Godwin-Austen, H. H.—Indian Mollusca: Address. Reprint, 1899, 8vo.
 Grünwedel, A.—Buddhistischen Ikonographie. *Illust.*, Reprint, 1899, 8vo.
 Hallier, H.—Versuch einer Naturlichen auf Morphologischer und Anatomischer Grundlage. Leipzig, 1893, 8vo.
 Hoernle, A. F. R.—Report on the British Collection of Antiquities from Central Asia. Text, Part I, and Plates. Reprint. Calcutta, 1899, 8vo.
 Hooker.—Icones Plantarum. 4th Ser., vol. 7, Parts 2-4, 1900, 8vo.
 Hubbard, G. G.—Story of the Rise of the Oral Method in America. Washington, 1898, 8vo.
 India.—Educational Policy of the State in India, 1900, 8vo.
 Lokacharya Svāmi, Sri.—The Vedānta Tattvatraya, No. 26. [Choukhambā Sanskrit Series.] Benares, 1900, 8vo.
 Macdonald, D.—Three new Hebrides Languages (Efatese, Eromangaw, Santo), 1889, 8vo.
 Mackenzie, A. T.—History of the Periyar Project. *Illust.*, Madras, 1899, 8vo.
 McAlpine, D.—Systematic arrangement of Australian Fungi. 1895, 4to.

- Mahamahopādhyāya Sri Gāgā Bhatta.—Bhāṭṭa Chintamani. Benares, No. 27. [The Choukambā Sanskrit Series.] Benares, 1900, 8vo.
- Malayalam.—Arabic First Reader. *Illustr.* [Laccadive Text Books.] Madras, 1899, 8vo.
- Montelius, O.—Der Orient und Europa: Einfluss der Orientalischen Cultur auf Europa bis zur mitte des Letzten Jahrtausends. *Illustr.*, 1 Heft. Stockholm, 1899, 8vo.
- Mueller, F. von.—Iconography of Australian Salsolaceous Plants. *Illustr.*, Decades 1—9, 1889—91, 4to.
- Iconography of Candelaceous Plants. 1st Decade. Melbourne, 1892, 4to.
- Select extra-tropical Plants readily eligible for Industrial culture or Naturalisation. Melbourne, 1888, 8vo.
- Key to the System of Victorian Plants. Melbourne, 1887—88, 8vo.
- Murdoch, J.—Memorandum on Indian Questions prepared for Lord Curzon, Viceroy of India. Madras, 1900, 8vo.
- Pundit Sri Parthasarathi Misra.—Nyāyaratnamālā, No. 23. [The Choukambā Sanskrit Series.] Benares, 1900, 8vo.
- Parker, T. J. and W. N.—Elementary course of Practical Zoology. *Illustr.*, 1900, 8vo.
- and W. A. Haswell.—Manual of Zoology. *Illustr.*, 1899, 8vo.
- Peckham, G. W. and G. Elizabeth.—Instincts and Habits of the Solitary Wasps. *Illustr.*, 1898, 8vo.
- Piette E. et J. de Laporterie.—Études d'Ethnographie préhistorique Fouilles à Brassempouy en 1897. Reprint. Paris, 8vo.
- Ramsay, W.—Indian University of Research. Report. Bombay, 1901, 8vo.
- Rockhill, W. W.—Journey of William, of Rubruck, to the Eastern parts of the World, 1523—55 [Hakluyt Society.] 1900, 8vo.
- Turner, Sir W.—Contributions to the Craniology of the People of India, Part II. Aborigines of Chota Nagpur and the Central Provinces; the People of Orissa; Veddahs and Negritos, 4to.
- Vijayaraghavulu Nayudu, S.—Sri Seetharamanjaneya Samvadasarasangraham. Madras, 1897, 8vo.
- Warner, G. F.—Voyage of Robert Dudley to the West Indies, 1594—95. [Hakluyt Society.] 1899, 8vo.
- Watt, G.—Memorandum on the Organization of Indian Museums, 1900, 4to.
- Wildeman, E. de and T. Durand.—Contributions à la Flore du Congo, 4to.
- Illustrations de la Flore du Congo, 4to.
- By purchase.
- Aa, J. B. van der.—Ile de Ceylon: Croquis, Mœurs et Coutumes. *Illustr.*, 2nd edition, Brussels, 1900, 8vo.
- Abney, Captain.—Evening Talks at the Camera Club on the action of Light in Photography. *Illustr.*, 1897, 8vo.
- Sir W. de W.—Instruction in Photography. *Illustr.*, 10th edition, 1900, 8vo.
- Treatise on Photography. *Illustr.* [Text-books of Science.] 9th edition, 1897, 8vo.
- A Kempis, T.—Imitation of Christ. *Illustr.*, 8vo.
- Alcock, T.—Questions on Huxley's Lessons in Elementary Physiology. 1896, 8vo.
- Arabian Nights' Entertainments.—Translation by E. W. Lane. *Illustr.*, 3 vols., 1889, 8vo.
- Augustine, S.—Confessions, 1900, 8vo.
- Bachofen, J. J.—Das Mutterrecht: Gynaikokratie der alten Welt nach ihrer religiösen und rechtlichen Natur. *Illustr.*, Basel, 1897, 4to.
- Die Sage von Tanaquil: Untersuchung über den Orientalismus in Rom und Italien. Heidelberg, 1870, 8vo.
- Bailey, L. H.—Cyclopædia of American Horticulture. *Illustr.*, 1900, 8vo.
- Balfour, Lady Betty.—History of Lord Lytton's Indian Administration, 1876—80. 1899, 8vo.
- Ball, Sir R. S.—Astronomy. *Illustr.* [London Science Class Books.] 8th edition, 1898, 8vo.
- In Starry Realms. *Illustr.*, 1895, 8vo.
- Barham, R. H.—Ingoldsby Legends. *Illustr.*, 88th edition, 3 vols., 1894, 8vo.
- Barry, J. W.—Railway Appliances. *Illustr.* [Text-books of Science.] 7th edition, 1893, 8vo.
- Bastian, A.—Völkerstämme am Brahmaputra und Verwandtschaftliche Nachbarn. *Illustr.*, Berlin, 1883, 8vo.
- Bickerdyke, J.—Sea Fishing. *Illustr.* [Badminton Library.] 1895, 8vo.
- Biedermann, W.—Electro-physiology. *Illustr.* Translation, 2 vols., 1896—98, 8vo.
- Billington, Mary Frances.—Woman in India. *Illustr.*, 1895, 8vo.
- Bingley, A. H.—Caste Hand-books for the Indian Army. Brahmans, Dogras, Rajputs, 1897—99, 8vo.
- Blaikie, W.—How to get strong, and how to remain so. *Illustr.*, 1899, 8vo.
- Boswell, J.—Life of Johnson. [Globe Edition.] 1899, 8vo.
- Bourne, G. C.—Introduction to the Study of the Comparative Anatomy of Animals. *Illustr.*, 1900, 8vo.
- Burton, J. H.—The Book-hunter, 1900, 8vo.
- Carlyle, T.—Critical and Miscellaneous Essays, 5 vols., 1899, 8vo.
- German Romance, 2 vols., 1898, 8vo.
- History of Frederic the Great, vols. 7-8, 8vo.
- Latter Day Pamphlets, 1898, 8vo.

- Carlyle, T.—Life of Schiller, 1899, 8vo.
- Wilhelm Meister, 2 vols., 1899, 8vo.
- Carus, P.—History of the Devil and the Idea of Evil from the Earliest Times to the Present Day. *Illustr.*, 1900, 8vo.
- Celli, A.—Malaria according to the New Researches. *Illustr.*, Translation, 1900, 8vo.
- Chaffers, W.—Marks and Monograms on European and Oriental Pottery and Porcelain. *Illustr.*, 1886, 8vo.
- Christy, C.—Mosquitos and Malaria: with an account of the Natural History of some Mosquitos. *Illustr.*, Bombay, 1900, 8vo.
- Collier, W. F.—History of the British Empire, 1895, 8vo.
- Collings, T. C.—Cricket. *Illustr.* [Sports Library.] 8vo.
- Constable.—Hand Gazetteer of India, 1898, 8vo.
- Coulanges, F. de.—La Cité antique: Culte, Droit, Institutions de la Grèce et de Rome. Paris, 1900, 8vo.
- Coulter, J. M.—Plant Relations: a first book of Botany. *Illustr.*, 1900, 8vo.
- De Quincey.—Collected Writings, by David Masson, 14 vols., 1896—97, 8vo.
- Deschamps, E.—Au Pays des Veddas: Ceylon. *Illustr.* Paris, 1892, 8vo.
- Donaldson, H. H.—Growth of the Brain: Study of the Nervous System in relation to Education. [Contemporary Science Series.] 1895, 8vo.
- Dutt, R. C.—History of Ancient and Modern India. *Illustr.*, 1900, 8vo.
- Dutt, R.—Ramayana: the Epic of Rama in English Verse. *Illustr.*, 1900, 8vo.
- Edridge-Green, F. W.—Memory and its Cultivation. [International Scientific Series.] 1897, 8vo.
- E.H.A.—Behind the Bungalow. *Illustr.*, 7th edition, 1900, 8vo.
- The Common Birds of Bombay. *Illustr.* Bombay, 8vo.
- Elworthy, F. T.—The Evil Eye: An Account of this Ancient and Widespread Superstition. *Illustr.*, 1895, 8vo.
- English Men of Letters, 13 vols., 1895, 8vo:—
- Vol. I.—Chaucer, Spenser, Dryden.
- II.—Milton, Goldsmith, Cowper.
- III.—Byron, Shelley, Keats.
- IV.—Wordsworth, Southey, Landor.
- V.—Lamb, Addison, Swift.
- VI.—Scott, Burns, Coleridge.
- VII.—Hume, Locke, Burke.
- VIII.—DeFoe, Sterne, Hawthorne.
- IX.—Fielding, Thackeray, Dickens.
- X.—Gibbon, Carlyle, Macaulay.
- XI.—Sidney, DeQuincey, Sheridan.
- XII.—Pope, Johnson, Gray.
- XIII.—Bacon, Bunyan, Bentley.
- Evans, E.—Botany for Beginners. *Illustr.*, 1899, 8vo.
- Facey, J. W.—Elementary Decoration as applied to Dwelling Houses, etc. *Illustr.*, 3rd edition, 1896, 8vo.
- Falkland, Viscountess.—Chow-Chow: Selections from a Journal kept in India, Egypt and Syria, 2 vols., 1857, 8vo.
- Ferrars, Max and Bertha.—Burma. *Illustr.*, 1900, 4to.
- Field, G.—Grammar of Colouring applied to Decorative Painting and the Arts. *Illustr.*, 4th edition, 1896, 8vo.
- Fitch, Sir J.—Thomas and Matthew Arnold, and their Influence on English Education, 1899, 8vo.
- Fitchett, W. H.—Deeds that have won the Empire: Historic Battle Scenes. *Illustr.*, 1899, 8vo.
- Ford, W. J.—A Cricketer on Cricket, 1900, 8vo.
- Foster, M.—Claude Bernard, 1899, 8vo.
- Physiology, *Illustr.* [Science Primer.] 1898, 8vo.
- Foster, W.—Letters received by the East India Company from its Servants in the East. Vol. IV.
- Frankland, P. F.—Our Secret Friends and Foes. *Illustr.* [Romance of Science Series.] 1899, 8vo.
- Frazer, J. G.—The Golden Bough: a Study in Magic and Religion, 2nd edit. 1900, 8vo.
- Totemism, 1887, 8vo.
- Fryer, J.—New Account of East India and Persia: being Nine Years Travels, 1672—81. *Illustr.*, 1698, 4to.
- Gadd, W. L.—Soap Manufacture: Practical Treatise. *Illustr.* [Technological Handbooks.] 1899, 8vo.
- Galton, F.—Record of Family Faculties: Tabular Forms and Directions for entering data, 1884, 4to.
- Ganong, W. F.—The Teaching Botanist. Manual of information upon Botanical Instruction, 1899, 8vo.

- Ganot.—Natural Philosophy. *Illustr.* Translation by E. Atkinson, 8th edition, 1896, 8vo.
- Gardner.—Report on Brown Scale or Bug on Coffee, 1885.
- Geikie, A.—Geology. *Illustr.* [Science Primer.] 1898, 8vo.
- Physical Geography. *Illustr.* [Science Primer.] 1898, 8vo.
- Giles, G. M.—Handbook of the Gnats or Mosquitoes, giving the Anatomy and Life History of the Culicidae. *Illustr.*, 1900, 8vo.
- Gillespie, A. L.—Natural History of Digestion. *Illustr.* [Contemporary Science Series.] 1898, 8vo.
- Goebel, K.—Organography of Plants, especially of the Archegoniata and Spermatophyta. *Illustr.* Translation, Oxford, 1900, 8vo. Part I, General Organography.
- Goldsmith, O.—Works, 4 vols., 1854, 8vo.
- Gomme, G. L.—The Village Community: with special reference to the Origin and Form of its Survivals in Britain. *Illustr.* [Contemporary Science Series.] 1890, 8vo.
- Graham, W.—English Political Philosophy from Hobbes to Maine, 1899, 8vo.
- Green, E. E.—Observations on the Green Scale Bug in connection with the Cultivation of Coffee. *Illustr.*, 1886.
- Gregory, R. A.—Exercise Book of elementary practical Physics. *Illustr.*, 1899, 4to.
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APPENDIX B.

CLASSIFIED LIST OF EXPENDITURE OF THE GOVERNMENT MUSEUM DURING THE YEAR 1900-1901.

	Actuals, 1900-1901.	Revised estimate, 1900-1901.
Salaries—	RS.	RS.
Superintendent	9,600	9,600
Exchange compensation allowance	592	590
Local allowance	2,400	2,400
Total ..	12,592	12,590
Permanent establishment—Government Museum—		
First Assistant, second Assistant, senior, second and third taxidermists, herbarium-keeper, artist, writer, assistant writer, fifteen hamals, six gallery attendants, Superintendent's peon, door-keeper, chikledar and two peons—35 persons	6,769	6,899
Temporary establishment—Government Museum—		
Collecting taxidermist, three gardeners, three sweepers, five watchmen, water-pandal Brahmin, punkah-puller, and chockra—15 persons	980	987
Permanent establishment—Connemara Public Library—		
Sub-Librarian, three attendants and two peons—six persons	2,464	2,481
Temporary establishment—Connemara Public Library—		
Servant (sweeper)—1 person	47	47
Total, Establishment ..	10,360	10,414
Allowance—		
Travelling allowance	982	1,200

APPENDIX E—cont.

Classified List of Expenditure of the Government Museum during the year 1900-1901—cont.

	Actuals, 1900-1901.	Revised estimate, 1900-1901.
Supplies and Services—	RS.	RS.
Cost of specimens purchased on tour	913	900
Objects of interest and coins purchased at head-quarters.	691	700
Fittings, furniture, &c., for the collections	1,427	1,400
Cost of books and publications	1,059	900
Library	2,015	2,000
Lithographic plates	1,959	1,500
Ammunitions	15	15
Charges for feeding live animals	276	200
Expenses—		
Reading coins	1	10
Measurement	8	50
Total, Supplies and Services ..	8,364	7,675
Contingencies—		
Purchase of furniture	44	75
Landing, shipping and freight charges	4	20
Repairs to furniture	80	100
Cleaning charges	76	95
Postage	301	240
Telegraph	15	20
Rents, rates and taxes	3,843	3,843
Liveries and clothing of servants	85	100
Office expenses, including such articles as gum-pots, rat-traps, mixture to prevent destruction of records, brooms, nails, firewood, umbrellas for peons, mats, chalk, food for cats, soap, vinegar, water-pots, ropes, match-boxes	650	645
Tour charges	209	283
Miscellaneous	300	..
Total, Contingencies ..	5,607	5,421
Grand Total ..	37,805	37,300

APPENDIX F.

MEMORANDUM.

A.—Fish-curing yards.

Boats. Number at each fishing centre. Different kinds of boats. Of what wood they are made (ain, ego, etc.). Nature of sail (bamboo, mat, cotton, etc.), and whether one or more sails to a boat. Nature of men to a boat. Distribution of crew when fishing (i.e., steersman, rowers, and men to look after the nets). Full equipment and value of nets (their vernacular names) for a boat or pair of boats. How many mackerel, sardines, etc., whom the boats are built, paid for, and owned. Estimate of lasts. (It varies according to the form a boat-load at times of shoals. How many years a boat lasts. (It varies according to the form a boat-load at times of shoals. How many years a boat lasts.)

2. Nets.—Vernacular names. Description of the different kinds. Whether made of cotton or hemp fibre. Their length, breadth, and mesh. For catching what kinds of fish each net is used. Cost of each kind of net. By whom nets are made and repaired. By whom nets are owned. Who pays for making and repairing them? Damage done to nets by sharks, skates. Weight of big catches, etc. Method of spreading the nets at the fishing-ground. Which of the nets are used for in-shore fishing, and which for deep sea.

3. Greatest distance from land to which fishing boats go, and depth at which fishes are caught. Time which boats are absent from land. Effect of exposure to sun in causing depreciation of value of fish owing to the time taken to get from the place where fish are caught to the shore. Under this heading fishermen and curers will be able to give much information about prime, second class, and spoiled fish.

4. Relation of wind to fishing hours, *e.g.*, going out to sea with land-breeze and returning with sea-breeze. Effect of these breezes on hours at which boats leave and return to shore. Delay in returning from the fishing-ground owing to failure of sea-breeze. Local knowledge, or beliefs concerning effects of currents in relation to fisheries. Notes on unusual currents.

5. Local views concerning the causes which are favourable or unfavourable to the arrival of shoaling fishes (mackerel, sardines, etc.) and which attract shoals to or drive them away from the coast. Course of shoals along the coast. Fishermen's rules as to privileges of the first boat which detects presence of a shoal. Signs by which fishermen detect the presence of a shoal (*e.g.*, sea-birds gathered together, appearance of surface of the sea, etc.).

6. *Fish oil.*—Fishes used. Methods of manufacture. Condition of industry—fluctuating, increasing, or declining, and the reasons. Selling price of the oil (*a*) for local consumption, (*b*) for export. To what places exported. Uses to which the oil is put.

7. *Sharkfins and fish sounds.*—From what fishes sounds are obtained. Method of preparation of fins and sounds. To what places exported. Prices.

8. English translation of fishermen's songs.

9. *Yards.*—Number of sheds in yard. Number of ticket-holders. Their caste. How many fishermen (or their wives) are also ticket-holders. Whether a single individual has tickets for more than one shed. Conditions of rent or payment under which ticket-holders have access to the yard. By whom yard or sheds are owned. To whom rent is paid. Disputes between different castes in the yard. Notes on evasion or breach of rules, theft, black-mailing, and breaches of discipline, which come under notice, and punishment inflicted. Whether, at times of heavy catches, the principle of "first come, first served" applies in the delivery of salt, or whether any curers are, in return for money, specially favoured by the yard officers.

10. *Fish-curing.*—Full details of the various methods adopted for (*a*) sun-drying, (*b*) salting and subsequent drying, etc. Proportion of salt used for different kinds of fish. Time taken to cure large and small fish. By whom gutting, curing and drying operations are carried out, and wages earned for so doing. What is done to the guts after removal from the fish. Modes of packing for train or export by steamer. How and to what places exported. Details of up-country distribution of fish by runners, etc. Effect of rain in spoiling curing operations.

11. *Prices.*—Full details as to the relation of fishermen to fish-curers. Prices paid for fish by the latter to the former, and by the exporting traders. In fact, the whole important question of the relation of fishermen, curers and exporters, with notes on indebtedness, poverty, etc. Maintenance and occupation of fishermen during the slack season. Whether fishermen resort to other occupations, or emigrate, owing to chance of more lucrative employment away from their homes. Contracts for fish to planters' agents and merchants at times of abundant shoals of fishes used for manure. Preparation of fish for purposes of manure.

12. Views of leading members of the fishing community as to advantage likely to be derived from permission to take out salt in the boats. Any views which the fishing community may have as to means by which the industry could be increased.

13. Any stray facts or information gathered in the course of conversation with the fishing community. Though apparently trivial, they yet may be of interest. The whole object is to make our knowledge of the fisheries and the community who live by them as thorough as possible. By community I mean both fishermen and curers.

B. Inspections of Fish Markets (Bazaars).

The names of the kinds of fish which are most abundant, and of the other fishes for sale in the market.

2. Prices at which they are sold—singly, collectively or by weight, *e.g.*, a person, buying fish, may purchase a portion (by weight) of a big seer, kora, or sh (Equula). At times when shoals are abundant, the prices will naturally be less than when there are no shoals. And one object of the enquiry will be to arrive at the various prices paid for fish at different times (of plenty and scarcity of fish) at each market. It may also be ascertained, in the course of the enquiry, whether the prices of fish run higher in the big towns, *e.g.*, whether prices are higher at Calicut than at Tanur, etc. Prices paid by butlers of Europeans for fish, and what kinds. At Cannanore, contract prices for fish for soldiers.

3. Which kinds of fish are most sought after and appreciated by the buyers, and why this is so. Some kinds may be considered more nutritious, others more invigorating, etc.

4. Means adopted in the market to prevent the fish from becoming badly tainted before the day's sales are over, *e.g.*, nets against flies, salt-baths, fans, etc.

5. Whether sale transactions are in ready money, or credit is allowed to the purchaser on a system of book-keeping. If the latter, whether they have bad debts.

6. Castes of those who sell fish in the market. Rate which they pay as rent for their stall or place in the market, and conditions (*e.g.*, of license) under which they occupy stalls or have access to the market. Who the landlords or owners of the stalls are.

7. Any information, which can be extracted, as to profits earned by fish-selling in the market, and the difficulty or ease of earning a livelihood, in busy, slack and off season (=S.-W. monsoon).

8. The relations of sellers of fish in the market to the fishing community, *i.e.*, whether they are wives of the fishermen, etc.

9. At each market note number of fish-stalls or fish-sellers, male and female.

10. What happens to the fish which remains unsold at the end of the day.

11. Notes on price of fish-roses, shark's fins, fish-maws (*i.e.*, sounds), livers, prawns, crabs and other products of the sea.

12. Rules, which have to be adhered to, for keeping the fish-stalls clean. Penalty for not doing so.

13. Dates of notes of market inspections to be noted in every case.

14. Grievances, real or imaginary, of the fish-sellers, so far as can be obtained by chatting with them in the markets in such a way as not to frighten them. Point out that the enquiry is being carried on in the interests of the fishing industry and not with a view to increased taxation and that we want to know as much about it as is possible.

15. Any information as to knowledge among fish-sellers of diseases of fish, *e.g.*, from parasites ("worms," etc.).

16. Any other facts of interest, which may come out in the course of enquiry.

ORDER—No. 433, Educational, dated 5th August 1901.

The administration report of the Government Museum and Connemara library for 1900-1901 testifies to the energy of Mr. Thurston and the interest which he takes in the development of the institutions and is a record of much useful work on different lines of research. The several bulletins which were published during the year are interesting and will be of service to ethnologists and others.

2. The Governor in Council is indebted to the ladies and gentlemen who have rendered help to Mr. Thurston in various ways or presented donations.

3. The Superintendent of the Government Press will arrange to supply to Mr. Thurston the number of copies of the report which he requires.

(True Extract.)

Ag. Secretary to Government.

To the Superintendent, Government Museum.
" the Director of Public Instruction.
" the Accountant-General.
" the Public Department.
" the Revenue Department.
" the Superintendent, Government Press.
" Collectors of districts.

Editors' Table.

ENDORSEMENT—No. 434, Educational, dated 5th August 1901.

Copy to the Government of India, Department of Revenue and Agriculture.

C. J. WEIR,
Ag. Secretary to Government.

Exd. S. J. Pereira.

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Educational Department.

Cur: No. 943, from the Supdt., Govt. Museum, No. 26-A., dated 7th July 01

Order (Press)

433
5-8-01

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To the Supdt., Govt. Museum.
,, Dir: of Pub: Insrn.
,, Acctt.-Genl.
,, Public Deptt.
,, Revenue Deptt.
,, Supdt., Govt. Press.
,, Collectors of Districts.
Editors' Table.

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I find are 2 ladies; but they may have their names

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Endt.

434
5-8-41

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Copy to the Government of

India, Department of Revenue and
Agriculture.

AS
20-7-41