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[Despatch Abstract.]

*Reviewing the
administration report
of the first Central Am.
series for 1891-92.*

GOVERNMENT OF MADRAS.

REVENUE DEPARTMENT.

READ—the following paper :—

From DR. H. WARTH, Officiating Superintendent, Government Central Museum, Madras, to the Secretary to Government, Revenue Department, dated Madras, 31st May 1892, No. 477 :—

I have the honour to submit to the Right Honorable the Governor in Council my report on the working of the Government Central Museum during 1891-92; I also have the honour to request that I may be supplied with 80 copies for distribution to other Museums, &c. I should be glad also to go through the proof of the report before it is struck off, and I will at the same time be able to add the Geological map of the Madras Presidency which is being photo-zincographed.

ADMINISTRATION REPORT OF THE GOVERNMENT CENTRAL
MUSEUM FOR THE YEAR 1891-92.

1. VISITORS TO THE MUSEUM.—The statistics of the number of visitors are given in appendix A. The total number was 361,452 against 364,542 in the previous year. This is a small decrease, considering the great amount of sickness during part of the year and the drought.

The number of gosha visitors was 1,409 against 1,457 in the previous year.

The following statement shows the number of visitors to the Museum during the last five years :—

1887-88	...	...	...	...	...	...	...	...	264,182
1888-89	...	...	...	...	...	...	...	...	337,801
1889-90	...	...	...	...	...	...	...	...	378,284
1890-91	...	...	...	...	...	...	...	...	364,542
1891-92	...	...	...	...	...	...	...	...	361,452

On two days of the year it is customary for Hindus to visit the Museum in large numbers. On the 11th January there were 12,121 visitors and on the 15th, 37,211.

Fifteen students of the Saidápet Normal School, Muhammadan Branch, visited the Museum, and prizes were given by the school authorities for the best paper on the Museum written in Hindustani.

2. DONATIONS TO THE MUSEUM.—All donations were exhibited in special glass cases in the sculpture gallery for six months previous to their being distributed over their respective galleries. A list of the donations of specimens will be found in appendix B.

Books and periodicals presented to the Library will be found in appendix C.

3. BUILDINGS AND GROUNDS.—The railing of the miscellaneous gallery upstairs being considered unsafe during a throng of visitors, was raised from 34 to 48 inches. Trouble was experienced with plaster cornices which fell in 2 galleries doing damage to butterflies and to shells. A temporary shed was erected for exhibiting the skull and jaw bones of the sperm whale (*Physeter macrocephalus*) and of a whalebone whale (*Balanoptera Indica*), because there is not room in the building.

4. PUBLICATIONS.—The catalogue of the Library has been completed in manuscript, Edgar Thurston, Esq., himself having completed this work. It is now in the Press.

A large Geological map of the Madras Presidency was made for the mineral gallery and a copy on a smaller scale was given to be lithographed by the Revenue Survey Department.

5. TOURS.—The Officiating Superintendent made the following excursions:—

To the Shevaroyes for consulting R. Bruce Foote, Esq., about the Geological map of the Madras Presidency.

To Kurnool to visit the steatite mines of Mudwaram in company of Dr. W. King, Director of the Geological Survey of India.

To Nellore twice to visit the Mica Mines.

To Chingleput for inspection of iron ore.

To Trichinopoly where a deposit of phosphatic nodules was discovered.

To Salem district to accompany T. H. Holland, Esq., of the Geological Survey, who was deputed to report on iron for the London Imperial Institute.

Some account of these journeys and of the tin district in Burma will be found in appendix D.

The taxidermists visited the Shevaroyes for birds and insects and they also accompanied a private shooting party to the Peermad Hills.

The herbarium-keeper made a collection of cotton plants and produce of the Madras Presidency for the London Imperial Institute and travelled for the purpose in the cotton-producing districts of Kistna and Coimbatore and he also went to Bangalore.

6. ART GALLERY.—Besides minor additions to the art gallery, a collection of articles was procured illustrating the ethnology of the Todas (a hill tribe of the Nilgiris).

7. ETHNOLOGY AND ANTIQUITIES.—Sculptured marbles from Amaravati in the Kistna district are now on the spot to the extent of over 300 pieces having a total superficial area of 1,200 square feet. It appears best to exhibit this large collection in the open air perhaps under the shelter of an arcade.

A few sculptured gneiss blocks were washed out by the sea on the beach of St. Thomé. They are exhibited in front of the Museum, but they bear no inscription to determine their age by. Small gold and copper coins which were also washed out do not indicate the age either.

A collection of 208 stone implements chiefly from Bellary was lent to the Museum by H. Gompertz, Esq., and is exhibited with the antiquities.

The Museum received seven copper plates with Vizianagara inscriptions which were found in the village of Satyamangalam in the Vellore taluk. They date partly from Krishnaraya Saka 1448 and Achyuta Saka 1203.

A collection was made for the Berlin Ethnological Museum of weapons, agricultural implements, of ornaments and of a boat as a model—altogether 61 samples.

Mr. C. E. Cardew discovered figures scratched on ancient pottery which he had exhumed from the tombs at Guntakal. Some of the figures have the appearance of alphabetical letters and agree well with each other, but others only consist of 2 or 3 radiating lines. It is therefore possible that the figures are owners' marks made at random and not taken from an alphabet. A copy of 20 figures with sketches of the pottery was sent to Mr. Cardew to Burma.

8. HERBARIUM.—The herbarium-keeper, as already mentioned, collected specimens of cotton plants, cotton and cotton fabrics for the Imperial Institute. He obtained 8 species and varieties of gossypium and fabrics from most of them, also other specimens for the herbarium. He went through 92 orders of plants in the herbarium and re-poisoned them. He also mounted 380 plants and arranged them; further he arranged a portion of the Egyptian plant collection.

Samples of timber were identified for the Madras Railway. They were mostly Burmese specimens and the want of a good collection of Burmese woods was felt.

Herbarium specimens of 35 orders were sent to Mr. M. A. Lawson, the Government Botanist, for revision and returned. A further batch of 22 orders was sent to him and it is expected that in the course of a few years the whole collection will thus be looked over and catalogued.

Dr. G. King, Superintendent, Royal Botanical Gardens, Calcutta, presented 86 dried specimens of plants from Assam, Malay Peninsula, Andamans, &c.; also a fruit of Talauma Hodgsoni. The head taxidermist also brought 36 plants from his tour in Travancore. Printed zinc labels were fixed to 74 trees in the Museum compound.

Mr. J. S. Gamble's collection which the Museum received during the year comprised 1,030 herbarium specimens, 920 wood specimens, 30 bamboos, 40 fibres,

350 pods, seeds and fruits, 95 specimens of gum, resin and a variety of, strictly speaking, economic produce.

9. ECONOMIC PRODUCTS.—Mr. J. S. Gamble's collection of forest produce must be mentioned also under this head. Amongst the wood specimens are many useful timber trees in slabs and in polished sections, ornamental woods of palms and ebony; also large samples of sandal and sandal-wood carvings. Bamboos are of all sizes and there is very fine basket-work of split bamboo. Gum and resins have already been mentioned, and amongst the pods, seeds and fruits are many of economic value. A number of perishable fruits are preserved in alcohol.

A large collection of economic products was received from Edgar Thurston, Esq., in all 409 specimens, derived from 117 species of plants. All parts of the plants are represented—root, wood, bark, flowers, fruits, seeds.

Further, there are fibres, gums, catechu, drugs, dyes, oils, pickled fruit.

Of cocoanut, there are many manufactured articles, brushes, sacks, ropes, mats, trays.

Jute is exhibited in many qualities. Areca catechu wood worked into dishes, cups, sticks. Bamboo worked into sieves. *Borassus flabelliformis* worked into vases, brackets, &c.

From the Inspector-General of Ordnance were received samples of fibre of the Kottayam sago palm (*Caryota urens*) which is used for brush-making.

10. MINERAL GALLERY.—The gallery was arranged so as to allow for 58 glass cases with 3,000 Indian samples and 1,350 European specimens of fossils which latter had been put by, but which were again arranged and exhibited for the benefit of students of Geology. Geological lectures were started at the Presidency College, and for this reason it is also desirable to provide a general Geological collection of the Madras Presidency and of other parts of India.

The cretaceous fossils of the Trichinopoly district, the Upper Gondwana plants presented by R. Bruce Foote, Esq., the raised reef fossils from Pamban and a few other specimens will help to make a beginning.

The mineral gallery was augmented as follows:—

A collection of black pottery and of many articles manufactured of potstone obtained from Mysore.

A glass case with crushed conglomerate from the Hyderabad Diamond mines. Steatite of superior quality from Mudwaram (Kurnool district).

Mica from Mr. E. H. Sargent's mine at Inikurti in the Nellore district. Specimens of superior quality, a clear plate 18 inches by 24 inches. Two large plates uncut, 30 inches by 30 inches and 1½ inches thick. Cleavage pieces of great mineralogical interest. A regular triangle, natural, of 60 degrees angle, 4 inches side and 1 inch thick, also rhombus, ribbons, &c.

(For details see appendix D).

Of iron ore and iron there is already so much exhibited from so many places in the Madras Presidency that very little could be added after the Officiating Superintendent's tour to the Salem district. From the Chingleput district a block of magnetic iron ore was brought weighing 4 cwt. For details see appendix.

The visit to the fossiliferous cretaceous rocks of the Trichinopoly district resulted in the discovery of a deposit of phosphatic nodules. One square mile, which was more closely examined, was estimated to contain one pound lying loose on every 10 square feet of the surface. Four specimens were analysed and found to contain phosphoric anhydride enough for 61 per cent. calcium phosphate. A general mixture from half a ton heap gave 51 per cent.

A collection of very good manganese ore was presented by H. G. Turner, Esq., from Vizagapatam. This gentleman also presented corundum from the Coimbatore district, which was in very good six-sided crystals and so much more welcome as there is much inquiry after corundum deposits of the Madras Presidency.

Messrs. Leighton and Co. of Madras presented the Museum with specimens of clay brought from depths between 300 and 310 feet below the surface at the boring at Place's Gardens near Arkonam. The clays are of dark colour and some give traces of bitumen, some of sulphur.

Further specimens were recognized as apatite (by Mr. J. H. Brougham from the Utkur Mica Mines), weathered basalt, black clay charged with vegetable matter,

garnets, quartz crystals (out of the Bellary-China clay). Eight specimens of pebbles, 55 feet below the bed of Papaghiri river (Cuddapah district), were sent by H. C. West, Esq. They proved to be mostly dolomite in a state of decomposition so as to leave a core of intact dolomite surrounded by a soft siliceous residue of the dolomite which had been deprived of all its carbonates.

The Municipality of Rajahmundry sent from the local Museum 86 specimens of recent and fossil shells, &c., for identification.

11. NATURAL HISTORY.—Beetles and butterflies were collected in the districts of Salem (Shevaroy) and Trichinopoly.

His Excellency the Governor presented the Museum with a beautiful specimen of hornet's nest (*Vespa cineta*).

A fine specimen of a spider (*Mygale species*) was presented by H. R. P. Carter, Esq.

A large collection of beetles from the Shevaroy Hills, the Nilgiri and Mysore was sent to the British Museum for identification.

The following fish, all from the Madras Coast, were preserved during the year:—

In glycerine.—*Saurida tumbil*, *Lutjanus rivulatus*, *Lutjanus decussatus*, *Chaetodon vagabundus*, *Lethrinus karwa*, *Pterois miles*.

In alcohol.—*Muraena punctata*, *Diagramma pictum*, *Echeneis naucrates*, *Dactylopterus orientalis*, *Fistularia serrata*, *Platophrys pantherina*, *Gastrotoceus biaculatus*, *Tetrodon stellatus*.

Stuffed.—*Serranus lanceolatus*, *S. salmoides*, *S. boenack*, *Lutjanus rivulatus*, *Diagramma cuvieri*, *Drepane punctata*, *Holocontrum rubrum*, *Platycephalus insidiator*, *Pseudoscarus rivulatus*, *Psettodes erumei*.

A model frame is under construction for mounting the big shark (*Rhinodon typicus*) which was referred to in last year's report, as it requires to be cured by immersion in a solution.

Snakes.—Amongst other snakes presented to the Museum was a good specimen of *Echis carinata* (Mr. Holland), also a *Daboia elegans*, Carpet snake (Col. T. Weldon).

Mounting all the mammals and birds on new stands has now been completed.

Mammals.—The following mammals were exhibited:—*Lepus nigricollis*, black-naped hare; *Gerbillus Indicus*, the Indian antelope rat; *Sciurus Indicus*, the large Indian squirrel; *Viverricula Malaccensis*, the small Indian civet; *Tupaia Elliotti*, the Madras tree-shrew (presented by Mr. W. M. Daly); *Mus Blanfordi*, the white-tailed rat (presented by the late Mr. B. Daly, Yercaud); *Steno perniger* (Elliot's Dolphin) 8 feet long.

Birds.—H. R. P. Carter, Esq., presented a rare specimen of a black bittern (*Ardeetta flavicollis*).

The following 63 species of birds from Madras and the Shevaroy Hills were stuffed and placed in the bird gallery:—

<i>Poliornis teesa</i>	...	...	...	White-eyed buzzard.
<i>Haliastur Indus</i>	...	...	...	Maroon-backed kite.
<i>Milvus Govinda</i>	...	...	...	Common Pariah kite.
<i>Syrnium sinense</i>	...	...	...	Mottled wood owl.
<i>Ninox scutellatus</i>	...	...	...	Brown hawk owl.
<i>Cypselus affinis</i>	...	...	...	Common Indian swift.
<i>Caprimulgus Indicus</i>	...	...	...	Jungle night-jar.
<i>Halcyon fuscus</i>	...	...	...	White-breasted kingfisher.
* <i>Palaornis rosa</i>	...	...	...	Rose-headed parakeet.
* <i>Picus Mahrattensis</i>	...	...	...	Yellow-fronted woodpecker.
* <i>Chrysophlogma chlorophanes</i>	...	...	...	Yellow-naped woodpecker.
* <i>Micropternus gularis</i>	...	...	...	Southern Madras rufous woodpecker.
* <i>Megalaima caniceps</i>	...	...	...	Common green barbet.
<i>Cuculus canorus</i>	...	...	...	European cuckoo.
<i>Cuculus micropterus</i>	...	...	...	Indian cuckoo.
<i>Hierococcyx varius</i>	...	...	...	Common hawk-cuckoo.
<i>Coccyzus melanoleucos</i>	...	...	...	Pied-crested cuckoo.
* <i>Dendrophila frontalis</i>	...	...	...	Velvet-fronted blue nuthatch.
* <i>Upupa nigripennis</i>	...	...	...	Indian hoopoe.
<i>Tephrodornis pondicoriana</i>	...	...	...	Common wood shrike.
* <i>Voylocivora Sykesii</i>	...	...	...	Black-headed cuckoo shrike.

Those marked * from the Shevaroy.

* <i>Graculus Macei</i>	...	...	Large cuckoo shrike.
* <i>Pericrocotus flammeus</i>	...	...	Orange minivet.
* <i>Thaptia aenea</i>	...	...	Bronzed drongo.
<i>Trochitrea paradisi</i>	...	...	Paradise flycatcher.
* <i>Cyornis banyumas</i>	...	...	Horsfield's blue redbreast.
<i>Pitta Bengalisensis</i>	...	...	Yellow-breasted ground thrush.
* <i>Geocichla cyanotus</i>	...	...	White-winged ground thrush.
* <i>Turdulus Wardii</i>	...	...	Ward's pied blackbird.
* <i>Merula simillima</i>	...	...	Nilgiri blackbird.
* <i>Pomatorhinus Horsfieldii</i>	...	...	Southern scimitar-babbler.
* <i>Malacocircus Malabaricus</i>	...	...	Jungle babbler.
* <i>Layardia subrufa</i>	...	...	Rufous babbler.
* <i>Otocompsa jocosus</i>	...	...	Red-whiskered bulbul.
* <i>Phyllornis Malabaricus</i>	...	...	Malabar green bulbul.
* <i>Iora zeylonica</i>	...	...	Black-headed green bulbul.
* <i>Irena puella</i>	...	...	Fairy blue bird.
<i>Oriolus kundoo</i>	...	...	Indian oriole.
* <i>Oriolus Ceylonensis</i>	...	...	Southern black-headed oriole.
* <i>Copsychus saularis</i>	...	...	Magpie robin.
* <i>Calobates sulphurea</i>	...	...	Grey and yellow wagtail.
* <i>Zosterops palpebrosus</i>	...	...	White-eyed tit.
* <i>Dendrocitta rufa</i>	...	...	Common Indian magpie.
<i>Acridotheres tristis</i>	...	...	Common myna.
* <i>Acridotheres fuscus</i>	...	...	Jungle myna.
<i>Temenuchus pagodarum</i>	...	...	Black-headed myna.
<i>Munia Malacca</i>	...	...	Black-headed munia.
<i>Estrela amandava</i>	...	...	Red wax-bill.
<i>Passer Indicus</i>	...	...	Indian house sparrow.
<i>Aldaia gulula</i>	...	...	Indian sky-lark.
* <i>Turtur Suratensis</i>	...	...	Spotted dove.
* <i>Chalcophaps Indicus</i>	...	...	Emerald ground dove.
* <i>Galloperdix spadiceus</i>	...	...	Red spur fowl.
<i>Coturnix communis</i>	...	...	Large grey quail.
<i>Squatarola helvetica</i>	...	...	Grey plover.
<i>Ardeetta flavicollis</i>	...	...	Black bittern.
<i>Anas poecilorhyncha</i>	...	...	Spotted billed duck.
<i>Kroicocephalus ichthyatus</i>	...	...	Great black-headed gull.
<i>Xema brunicephala</i>	...	...	Brown-headed gull.
<i>Sterna hirundo</i>	...	...	European tern.
<i>Thalasseus cristatus</i>	...	...	Large sea-tern.
<i>Thalasseus Bengalisensis</i>	...	...	Smaller sea-tern.

Those marked * from the Shevaroy.

12. NUMISMATICS.—During the year the Museum has received an unprecedented accession of South Indian coins, the collection of the late Mr. T. M. Scott of Madura having been offered for sale. This valuable collection, the fruit of life-long patient labour of an ardent numismatist, was made over to the Government Epigraphist, Dr. Hultzsch, and under his superintendence Mr. C. Rajagopalachari examined it very carefully. The good coins were mixed up with a great many useless ones, which swelled the whole number to 12,000. Dr. Hultzsch recommended the purchase of 508 coins distributed as follows:—

Gold coins—Fanams	...	...	...	...	3
Silver coins—Buddhist	...	...	...	...	1
Fanam	...	...	...	...	1
Copper coins—					
Buddhist	...	...	...	...	41
Pallava	...	...	...	...	17
Ceylon	...	...	...	...	24
Chola	...	...	...	...	40
Pandya, Madura Nayakas	...	...	...	...	107
Setupati	...	...	...	...	37
Srivira	...	...	...	...	157
Vijayanagara	...	...	...	...	37
Walajah	...	...	...	...	11
So-called Chera	...	...	...	...	6
Miscellaneous	...	...	...	...	26
Total	...	...	...	...	508

Dr. Hultzsch remarks on the coins as follows:—

"The sets of Buddhist, Ceylon, Chola, Pandya and Setupati coins are specially valuable on account of their completeness. Among the Chola coins I would note specimens with the legends Gangoi-Konda-Chola, Rajendra-Chola and Uttama-Chola.

Among the Pandya coins are six good specimens of the Boar-type of Sundara-Pandya, and among the issues of the Nayakas of Madura three different types of Visvanatha. The Pallava coins are not numerous, but part of them bear well preserved legends. Among the Vijayanagara coins are two unpublished issues of Sadasiva, and two of Mallikarjuna. Even those coins of the present list, which are already represented in the Government Central Museum collection, will form a valuable addition to it as most of them are in an unusually good preservation."

As will be found in the list of donations (appendix B), the Museum is indebted to the Asiatic Society of Bengal and to its Bombay Branch for many coins of Northern India received during the year.

General G. G. Pearse also handed over a donation of 24 Arracan coins from the collection of the late Colonel Fryer, Madras Army.

13. LIBRARY.—The number of visitors to the Library during the year was 6,298 against 6,235 in 1890-91.

The additions to the Library were as follows:—

	Works.	Volumes.
* Donations of standard works	80	194
* Donations of periodicals	13	155
Reports and other papers presented by Government	85	133
Purchased standard works	149	189
Purchased periodicals	33	487
Publications of the British Museum	8	8
Oriental series of Trubner	2	2
Papers of the Patent Office	4	93
Records of the Master of the Rolls	11	13
Parliamentary Blue-books	86	44
Total ...	439	1,330

* For a list of all donations to the Library see appendix C.

GOVERNMENT CENTRAL MUSEUM,
EGMORE,
Madras, 31st May 1892.

(Signed) H. WARTH,
Offg. Supt., Govt. Central Museum.

APPENDICES.

A.

Visitors to the Government Central Museum during the year 1891-92.

Total number of visitors in each month:—

April	24,805	November	28,399
May	29,937	December	34,328
June	28,218	January	73,437
July	32,241	February	24,911
August	22,513	March	28,836
September	20,173		
October	19,154	Total ...	361,452

Of these were men and boys 52 per cent., women and girls 48 per cent.

Of these 361,452 visitors, the following numbers signed their names in—

English	27,251	Nagari	86
Tamil	25,021	Maharatta	71
Telugu	7,733	Bengali	59
Hindustani	8,699	Chinese	15
Canarese	719	Singalese	3
Malayalam	671		
Goojeratti	662	Total ...	65,990

The remaining (82 per cent.) could not write their names.

B.

LIST OF SPECIMENS PRESENTED TO THE GOVERNMENT CENTRAL MUSEUM DURING THE YEAR.

Augustin, E., Pillai, M.R.Ry.—

Palæornis rosa (the rose-headed parrakeet); *Megalaima caniceps* (the common green barbet); *Pericrocotus flammeus* (the orange minivet); *Phyllornis Malabaricus* (the Malabar green bulbul).

Brougham, J. H. B., Esq., District Forest-officer, Nellore—

The following minerals from the Mica Mines in the Nellore district: Apatite, Mica, Tourmaline, Garnet. Fibre material. Fibre of the common alce, of *Sida acuta*, of *Calotropis gigantea*. Also Venapullaloo root (*Aristida* species).

Cardew, A. G., Esq., C.S.—

Nests of the following birds from the Nilgiris. *Oreocincla Nilgiriensis* (the Nilgiri thrush); *Trochalopteron cacinnaans* (the Nilgiri laughing thrush).

Carter, H. R. P., Esq., Chetput.—

A very rare specimen of the black bittern (*Ardetta flavicollis*), an owl, a flying lizard (*Draco dussumieri*), a spider (*Mygale* species), a number of insects from the Palni Hills. Two white ant queens; a specimen of wood (*Berrya ammonilla*).

Daly, B., Esq., Maryland estate, Shevaroy Hills—

Tupaia Elliotti (the Madras tree-shrew); *Mus Blanfordi* (the white-tailed rat); *Hierococcyx varius* (the common hawk-cuckoo); *Irena puella* (the fairy blue bird); *Oriolus Ceylonensis* (the southern black-headed oriole); *Orocopus chlorogaster* (the southern green pigeon); *Uhalophaps Indicus* (the bronze winged dove).

Daly, William Mahon, Esq.—

Collection of snakes, lizards, frogs, &c., from the Mysore Province.

Dunlop, J., Esq., Civil Apothecary, Yercaud—

Zosterops palpebrosus (the white-eyed tit).

Duraisawmy, A. S., Pillai, M.R.Ry., Head Taxidermist, Govt. C. Museum, Madras—

Thirty-six plants collected at Wagamund, Travancore.

Gaye, W., Esq.—Holi sicca rupee.

Haller, J., Esq., Assistant Superintendent of Survey, Mercara—

Eight logs of wood as specimens of South Indian trees.

Havell, E. B., Esq., Superintendent, School of Arts—

China clay from Tievandrum; quartz crystals from Bellary.

His Excellency Lord Wenlock, G.C.B., Governor of Fort St. George—

Nest of hornet (*Vespa cineta*).

Holland, T. H., Esq., Assistant Superintendent, Geological Survey of India—

2 Mammals—

Macacus sinicus (The bonnet monkey). *Pteropus medius* (The Indian flying fox).

34 Specimens of birds of the following species:—

Haliastur indus (The maroon-backed kite). *Athene brama* (The spotted owl). *Merops viridis* (The Indian bee eater). *Coracias indica* (The Indian roller). *Palæornis torquatus* (The rose-ringed parrakeet). *Xanthblaema indica* (The crimson-breasted barbet). *Centropus rufipennis* (The common coucal). *Upupa nigripennis* (The Indian hoopoe). *Lanius Lahtora* (The Indian grey shrike). *Tchitrea paradisi* (The paradise fly-catcher). *Malacocircus griseus* (The white-headed babbler). *Otocompsa jocosa* (The red-whiskered bulbul). *Pyononotus haemorrhous* (The Madras bulbul). *Oriolus kundoo* (The Indian oriole). *Acridotheres tristis* (The common myna). *Turtur Suratensis* (The spotted dove). *Himantopus candidus* (The stilt). *Ardeola leucopetra* (The pond heron).

2 Reptiles (snakes)—*Tropidonotus quincunciatus*. *Echis carinata*.

Honorary Secretary, Bombay Branch, Royal Asiatic Society, Bombay—

Gold fanam, gold coin (Padmatanka), 3 silver coins, coin of mixed metal.

Honorary Secretary, Asiatic Society of Bengal—

Coin of impure gold of kida type, North-West Provinces.

6 Coins found in the Buldana district.

12 Silver rupees of the Moghul Emperors of Delhi.

13 Silver Moghul rupees. 4 Silver Afghan rupees.

6 Silver coins, 2 copper coins.

Inspector-General of Ordnance, Fort St. George—7 Samples of brush-making materials.

Iyah Pillai, Mrs. E.—Nest of *Munia striata* (the white-backed munia).

Iyah Pillai, Mr. M. S., Hospital Assistant, Yercaud—

Dendrophila frontalis (The velvet-fronted blue nuthatch). *Malacocircus Malabaricus* (The jungle babbler). *Otocompsa Jocosus* (The red-whiskered bulbul). *Pycnonotus haemorrhous* (The Madras bulbul). *Zosterops palpebrosus* (The white-eyed tit).

Joss, W., Reverend—

Magnetite and pleonast sand and rice shaped quartz sand from the sea-shore near Cape Comorin.

King, Dr. G., Superintendent, Royal Botanical Garden, Calcutta—

86 Herbarium specimens of plants from Assam, the Malay Peninsula, Andamans, &c.

A specimen of the fruit of *Talauma Hodgsoni*.

Kistna District, Collector of—50 Pewter coins.

Kristnasawmy Mudaliyar, M.R.Ry., St. Thomas' Mount—

Homraius bicornis (Head of great horn-bill).

Leighton, D. W., Esq., Madras—

Clay from the boring near Arkonam between 300 feet and 310 feet from the surface.

Mahomed Kasim—A garnet.

Middlemast, E. W., Esq.—*Lycodon aulicus* (A snake from Madras town).

Monsieur Jules de la Fon, Villupuram—

Ascaris labiota (A parasite of the eel).

Municipal Commission, Madras, the President—

A leopard (*Felis pardus*), the Tasmanian *sarcophilus*, a South Indian hedgehog (*Echinaceus micropus*), and a cockatoo.

Pearse, General G. G.—24 Silver coins from Aracan (from the collection of the late Colonel Fryer, Madras Army).

Post Master General, Madras—Madras Presidency map, 8 feet by 9 feet.

Rahm, C., Esq., Yercaud—

Palæornis rosa (The rose-headed parakeet). *Megalaima caniceps* (The common green barbet). *Phyllornis Malabaricus* (The Malabar green bulbul). *Oriolus Ceylonensis* (The southern black-headed oriole). *Dendrocitta rufa* (The common Indian magpie). Ant's nest, centipede, scorpion.

Sargent, E. H., Esq.—

Specimens of Mica from his mines at Inikurti in the Nellore district. Kaolin and felspar from the same.

Smart, Major, R.E.—

Garnets in hornblende schist.

Smith, C. A., Esq.—*Ceryle rudis* (The pied kingfisher).

South Arcot District, Collector of South Arcot—Silver coins.

Taylor, R. S. M., Mr., Poodoopet—Copper coin.

Turner, A. W., Esq.—

Specimens of decomposing felspar, siliceous rock and peaty soil from Devikolam, North Travancore, 5,678 feet above sea level. Quartz from Marior Ghât.

Turner, H. G., Esq., C.S.—Numerous specimens of manganese ore from the Vizagapatam district. Corundum from Coimbatore.

Venkatagiri, ex-Rajah of Venkatagiri—

38 gold, silver and copper coins from St. Thomé.

Venkatarungam, A., Naidu, M.R.Ry.—A caterpillar of a moth.

Weldon, Colonel T., Commissioner of Police, Madras—*Daboia elegans* (Carpet snake).

West, H. C., Esq.—

Worm (*Filaria papillosa*) from the eye of a pony.

O.

DONATIONS TO THE LIBRARY.

Standard works.

Agricultural Department, Bulletins, Nos. 19 to 22—Tinnevely cotton, gingelly crop, Italian rice, Telugu proverbs.

American Museum of Natural History, Bulletin, 1890.

Archæological drawings—52 Plates and Texts, 1889—91.

Asiatic Society, Bengal—General Rules and Library Rules, 1888 and 1889.

Barclay, A.—New Fungus *Acidium Esculentum*, 1890.

Belding, L.—California Academy. Land birds, Pacific district, 1890.

Bigot.—Diptera of the Oriental Region, Indian Museum, 1891.

Brazier, J.—Marine Shells of Australia and Tasmania (Cephalopoda), 1892.

Brazier, J.—Cephalopoda in Sydney Museum, 1892.

Brendel, R.—List of Models concerning Vegetable Morphology, 1891.

Canadian Institute Proceedings, 2 volumes, 1889-90.

Canadian Institute Transactions, 3 numbers, 1889—91.

Cloghorn, H. F. C.—Directions for collecting and preserving Botanical Specimens.

Cole, Captain H. H.—Preservation of National Monuments, 1882.

Cope, E. D.—Geological Survey of Canada, Palæontology, 1891.

Cotos, E. C., Indian Museum—Economic Entomology, Locusts of Bengal, Madras, Assam and Bombay, White insect wax, Wild silk insects—4 volumes, 1891.

Dallas, W. L.—Cyclone Memoirs, Part 4, from 1648 to 1889.

Day, C. E.—Music and Musical Instruments of Southern India and Deccan, 1891.

Distant, W. L.—Oriental Cicadidæ in the Indian Museum, Calcutta, 1891.

Dutt, R. C.—History of Civilization in Ancient India, People's Edition, 1891.

Eigenmann, C. H. and R. S.—California Academy, South American Nematognathe, 1890.

Eliot, J. J.—Indian Meteorological Memoirs, Vol. 4, Part 7, 1891.

Eliot.—Monthly Weather Review, January to June 1891, 6 copies.

Elizabeth, G. W., and Peckham, G.—Sexual selection in Spiders, Family Attidæ, 1890.

Fleming, S.—Time Reckoning for the Twentieth Century, 1890.

Fuhrer, A.—Archæological Survey of India, North-Western Provinces and Oudh, 1891.

Holy Bible—Revised version, 1887.

Hutton, Captain F. W.—Classification of the Moas, 1891.

Imperial Museum—List of Photographic Negatives of Ancient Buildings, 1890, 5 copies.

Indian Army Regulations, Commissariat Transport, 1891.

Indian Museum Notes—Vol. 1, 1889—91.

India Office List, 1891.

India Office Records—Press list from the earliest date to 1630, 1891.

Jacob, C. S. S., Jeypore—Port-folio of Architectural Details, Parts 1 to 6, 1890.

Jaeger, G.—Health Culture, 1891.

Janeiro—Museum papers (Geological) for 1887.

Jones, T. R.—Canadian Micro-Palæontology, Part 3, 1891.

Lucknow Museum—Minutes of the Managing Committee, 1889.

Madras Agri-Horticultural Society's Catalogue of Plants, 1884.

Madras Agri-Horticultural Society's Proceedings, 1891.

Madras Observatory—Meridian Circle observations, 1868 to 1873, 2 volumes.

Madras Survey Office—List of maps for sale, 1891.

Markoff, A. De.—Registre General Des Monnaies Orientales, 1891.

Markow, A. K.—Coins, St. Petersburg, 1892 (In Russian).

Medicus, Dr. L.—Chemical Analysis, 1887 (In German).

Merriam, Dr. C. H.—North American Fauna, No. 5, 1891, 3 copies.

Meteorological observations at Simla, 1841—45, Vol. 2nd, 1877.

Miskin, W. H.—Annals of Queensland Museum, 1891.

Mohideen Sheriff Khan Bahadoor, of Madras—Materia Medica, Vol. 1st, 1891, 2 copies.

Moore, F.—Lepidoptera Indica, Parts 6 to 8, 1891, 3 copies.

Mukharji, T. N.—Art manufactures of India, 1888.

Murray's Avifauna of British India, Labels.

Naples.—Natural History Society of Naples, Bulletin, 1891.

Netto, L.—Le Museum National De Rio-De Janeiro, 1889.

Oates, E. W.—Fauna of British India, Ceylon and Burma Birds, 2 volumes, 1891.

Oliver, C. P.—Voyage of Francois Leguat, 2 volumes, 1891.

Prain, D.—List of Laccadive and Diamond Island plants, Angami Nagas, Note on Lokoa, 3 volumes, 1890-91.

Pratapa Chandra Ray.—Mahabharata, Parts 62 to 70, 1891.

Rajendralala Mitra.—Notices of Sanskrit manuscripts, 3 parts, 1888—89.

Ramsay, E. P.—Australian birds in the Australian Museum, Sydney, Part 3, 1891.

Ramsay, E. P.—Records of the Australian Museum, Sydney, 5 numbers, 1891.

Rea, A.—Archæological Survey of Southern India. Ancient Monuments, 1891, 4 copies.

Rea, A.—List of photographs of ancient buildings and antiquities, 1889, 5 copies.

Rice, W. R.—Memoirs by Medical officers (Indian Army), 3 parts, 1891.

Royal Gardens, Kew.—Bulletin of miscellaneous information, 1890.

Royal Irish Academy.—"Cunningham Memoirs"—Morphology of the Duck and the Awk Tribes, 1890.

Do. Proceedings, 1891. Do. Transactions, 2 parts, 1891.

Sarat Chandra Mitra.—Uses and advantages of an insectarium.

- Solator, W. L.—Catalogue of Mammalia in the Indian Museum, Part 2, 1891.
 Do. Indian Museum notes. Economic importance of birds in India, Vol. 2, No. 5, 1891, 2 copies. Do. List of snakes in the Indian Museum.
 Smithsonian report, Washington, 1888 and 1889.
 Stearns, F.—List of Marine Mollusca, &c., in Japan, 1889-90.
 Theobald, F. V.—An account of British flies (Diptera), 2 parts, 1891-92.
 Tromso, Museum Tromso—Norway annual publication, 1891.
 United States.—National Museum, Proceedings, 1890.
 United States.—National Museum, Report, 1888.
 Wartmann.—Annual Report, Natural History Society, St. Galle Switzerland, 1890 and 1891.
 Watson, Dr. F.—Report on Tobacco.
 Watt, G. A.—Dictionary of Economic products of India, Vol. 5, 1891.
 Whiteaves, J. F.—Geological and Natural History, Survey of Canada, Vol. 1, part 3, 1891.

Periodicals.

- Asiatic Society of Bengal—Journal, 6 parts, and Proceedings, 8 parts.
 Bombay Natural History Society—Journal, 4 parts.
 Dutch Colonial Museum Department, 7 parts, 1889-90.
 Epigraphia Indica, 3 parts.
 Fort St. George Gazette, 50 issues.
 Geological Survey of India, Memoirs, 2 parts, and Records, 5 parts.
 Indian Antiquary, 16 issues.
 Indian Art Journal, 5 parts.
 London Royal Society.—Proceedings, 8 parts.
 Madras Ports.—Imports and Exports, 12 numbers.
 Musical Herald.—8 issues, 1891-92.
 Oesterreichische Monatsschrift für den orient, 8 parts.
 Pandit.—Sanskrit literature, 13 monthly issues.

D.

NOTES ON MINERALS.

Tin.

As previously mentioned, a collection of specimens was exhibited from the Burmese Tin Regions. They come from the southern half of the district of Mergui which forms the upper end of the Malayan Peninsula. The tin-bearing deposits are of two kinds. There is firstly the tin gravel which is found in all or most of the valleys, a mixture of rough white quartz pebbles with sand, garnet, black tourmaline and grey cassiterite. The thickness of the gravel varies from 1 to 6 feet and the yield of cassiterite may be put down as at least $\frac{1}{4}$ per cent. or 1 pound of cassiterite (tin dioxide) in 400 pounds of gravel. There are washings going on at many places, but some valleys have been more or less exhausted. The work suffers also under the disadvantage that the greater part of the country is quite uninhabited, that food has to be brought from a distance and that there is always danger of sickness. Chinamen are the chief workers. The second kind of tin-bearing deposit is the original eruptive rock which is weathered so that it is possible to wash out the grains of whitish cassiterite which it contains. I visited the principal deposits of this kind near Malewun in July 1891. I took samples from several excavations and washed them. The results are stated with the samples in the collection. The mean is a yield of only 0.04 per cent. of impure wash tin. Thus one pound of impure tin dioxide requires 2,500 pounds of weathered rock. The rock is traversed by a series of parallel veins of white quartz indicating the origin of all the white quartz pebbles in the tin-bearing gravels, these gravels being nothing but the accumulation, during probably thousands of years, of the washings from the elevated outcrops of tin-bearing eruptive rock. The original tin-bearing deposit of weathered rock is being and has been washed since a good many years. It requires a very good supply of water and very large deposits, otherwise the labour would be far too great and such works could not compete with those in the gravels. Amongst the rock specimens of the district are also grey limestones from Mount Tampra 3 days canoe journey from Lenya. This mountain I found fringed with caves which most likely owe their origin to the action of the sea. As they are now 160 feet above the sea, it appears that the land has been raised that much in comparatively recent time. If so, then the time during which most of the tin gravels formed was also comparatively limited.

Kurnool Steatite.

I accompanied Dr. W. King, Director of the Geological Survey of India, when he inspected the steatite mines in the Kurnool district. They are situated 7 miles from the Southern Mahratta Railway station of Batamcherla, near the village of Mudwaram, and about 21 miles south or south-south-east of Kurnool town. The neighbourhood is within the area of Dr. King's Cuddapah Series of unfossiliferous palaeozoic rocks. Scattered over half a mile, there are excavations in a dolomitic rock which contains thin layers of steatite. Some of the dolomite is grey and massive, but in the mine which we visited the whole of the rock was a white chalky dolomite, very soft and easily pulverized, a poor material for the support of the roof of the mine. The mine consisted of an inclined heading of 100 feet length and the steatite had thinned down at the end to 8 inches, whilst the miners had before obtained blocks of 6 inches thickness. The steatite is of highly superior quality. It feels greasy and is semi-transparent at the edges. This steatite had been decided on by the Geological Survey and later on by experts in London as yielding the best stone for the manufacture there of gasburners (see Dr. W. King's remarks in the Geological Survey Records, Part I of 1892). The presence of so much dolomite and in a peculiar powdery state has very likely a connection with the formation of the steatite.

The Mica mines in the Nellore district.

With the permission of the Madras Government, Revenue Department, I paid a visit to Mr. E. H. Sargent's mica mine at Inikurti and also to similar mines near Utkur, situated respectively 19 miles west-south-west and 25 miles south-west of Nellore station. As a glance at the Geological map of the Madras Presidency will show, the mines lie within the area of metamorphic rocks. They are in intrusions which occur in the mica schists and consist of mica, quartz and a white felspar, probably oligoclase. The three minerals either form a coarse grained granite, or else they form large separate masses, the blocks of quartz having 30 feet diameter, the felspar 15 feet, and the masses of mica 5 feet diameter. Mr. Sargent has worked out mica in compact blocks of 150 cubic feet each. I saw the remains of a continuous layer of mica, 85 feet long and 2 feet thick.

Mr. Sargent's mine is an open pit of horse-shoe shape. The depth is 60 feet or more in the centre, the mean length is 200 feet and the total width 100 feet. The pit encloses a mass of quartz which is not worked out and gives it the shape of a horse-shoe. The large mica appears chiefly associated with the felspar. Mr. Sargent obtained from the pit 20 tons of pure ready-cut mica during two years' working. Some of the felspar in Mr. Sargent's pit is weathered into snow-white kaoline. I did not see such entirely weathered felspar at any of the Utkur pits.

It appears that the first indication of this valuable deposit was the ridge of quartz which stands 8 feet above the surface of the surrounding ground. It is very likely that similar deposits exist in the neighbourhood, but this can only be proved by trial excavations. The other mines which are situated near the village of Utkur form quite a group of more or less successful excavations. The mica is associated with the same white quartz and whitish felspar. I saw very large masses of either of these rocks being blasted away in the hope of the mica being found underneath them. There was also one large worked-out pit, called Palaman, 100 by 100 feet, and with a depth of about 50 feet. It was also somewhat of horse-shoe shape, a large mass of felspar having been left standing in the middle. In other pits of this group blasting was going on in bulky deposits of quartz and in others of felspar, showing the confidence which the people had of getting into good mica. One mine called Sukhagini (Black stained mine) produces mica stained black and brown through thin layers of magnetite (it has been found that the very thin layers of magnetite are brown in transmittent light). Very beautiful slabs of mica, 27 by 32 inches, without any cracks were rendered almost worthless by magnetite. The sorting of the mica is of much importance. Of the mica brought to Mr. Sargent's stores at Inikurti, only about 23 per cent. are finally selected for export. Everything else is rejected, and at the mines there are other huge waste heaps of mica left. It is a pity that this material cannot be utilized for some other purpose. The selected pieces of good quality are all cut after certain standard patterns. Pieces of the same pattern are tied in bundles and so sent to England. The larger the pieces are, the higher is the price per pound which they fetch at the brokers' auctions in London. From the sale accounts which Mr. Sargent allowed me to see, I calculated the following approximate rule. The mica fetches per pound weight as many times two pence as the pieces have square inches area. This equation holds good between 10 and 100 square inches.

The cracks which pass through the mica are sometimes straight and make certain angles with each other, most often 60° and 120°. This is the consequence of a property of the mica to give way to pressure in agreement with the crystallization, producing a kind of cleavage or rather sliding planes. There is ample opportunity for studying this phenomenon on a large scale at these mines. Regular triangles, rhombus of 60° and ribbons or long-drawn rhombus occur in large size and in great numbers. On some plates different figures are combined, being separated by narrow twinning bands. Very good specimens of this kind have been presented

by Mr. Sargent not only to the Madras Museum, but also to the Indian Museum at Calcutta and the Imperial Institute in London (for a longer report see G.O., 23rd January 1892, No. 448 and 448A).

Iron industry in the Salem District.

In company with Mr. T. H. Holland, Assistant Superintendent, Geological Survey, I visited some of the seats of iron industry in the Salem district. I saw the deposits of iron ore near Namgiripet at the foot of the Kolimallais, near Nahempatti on the slope of Perumallai hill and near Singapuram. Inexhaustible as the supply of excellent ore is, I was somewhat surprised to find the great bulk of it banded with quartz in about equal volume. This produces a mixture containing two-thirds of its weight of magnetite. Layers of pure ore, 6 inches thick, were comparatively speaking rare. Excavations would no doubt reveal a greater number of pure layers, but for use on a large scale the ore would probably be crushed and mechanically separated from the quartz. The present industry on the small scale rejects altogether the bands and layers of solid magnetite and uses weathered magnetite shist which is found lying about the foot of the hills below the great iron seams. The weathered shist is quite soft, and the people are able to separate the grains of magnetite much more completely from the matrix than they could do with crushed banded magnetite. The smelting of the ore into blooms of wrought iron has often been described. The furnaces are 4 feet high and the blooms weigh 15 lb. The small scale of the work enables the people to get on with the most rudimentary appliances, but they did not seem to know any reasons for their various practices. All was done in a mechanical way. As a minor produce a kind of steel was obtained. Along with the blooms a kind of shot of carburized iron was found in the charcoal of the furnaces. This shot was collected and about two pounds of it melted. The blast was directed upon the melted mass and a portion of the carbon and impurities oxidised, leaving a small cake of raw refined steel. This is quite a different product and method from the so-called Wootz steel, which is a cast steel obtained by melting wrought iron and charred wood together in small crucibles. I saw the above method of steel making at Namgiripet. This is the largest iron manufacturing place which we saw. Here the work went on in February 1892, whilst at other places (Karipatti, Nahempatti, Tamampatti, Chandrapatti) it had come to a temporary standstill owing to the prevailing drought and scarcity. In one instance it appeared that the magnetic sand was also used which is almost everywhere noticed as a residue of the weathering gneiss. Such magnetic sand might be collected at almost every village of the metamorphic area without really representing a real iron ore deposit.

I also visited Chingleput and inspected with Mr. T. H. Holland a seam of magnetic iron ore which shows at the surface on the slope of a hill 3 miles south of the station. It occurs in the metamorphic area in garnetiferous gneiss. As already mentioned, a block of the ore weighing 4 cwt. was brought to the Museum. It is magnetite in which no foreign admixtures are visible and must be at least one yard in thickness, but it may be more as no regular exploration has taken place. This seam differs from the much larger seams examined in the Salem district. The small seam near Chingleput consists of massive ore throughout, whilst the large seams of Salem which are 50 and 100 feet thick are to the greater part a banded mixture of quartz and magnetite.

Phosphatic nodules of the Trichinopoly District.

In January 1892, I went to Trichinopoly for the purpose of collecting fossils for the Government Central Museum from the area of cretaceous rocks, which will be noticed on the Geological map of the Madras Presidency as a patch of green. I found that the lower strata of the cretaceous rocks contained besides fossils a very large quantity of phosphatic nodules. Near Naekolum they were 2 inches long, but near Nambikurehi they attained very large size, some 6 inches long and 3 inches in diameter. They were scattered over the ground in great abundance. As a result of centuries of weathering the clay and lime were washed away leaving the phosphates lying on the surface. I estimated one pound weight of nodules for every 10 square feet over an area of one square mile lying east of Nambikurehi, 21 miles north-east from Trichinopoly station. It remains to be seen how far the deposit extends over the rest of the cretaceous rocks and I hope to make a further examination during the coming cold season. I have obtained chemical analysis of 4 single specimens of nodules and of a mixture taken at random from a heap of half a ton. The single nodules contained phosphate of lime as follows: 57, 58, 64, 67 per cent., which gives a mean of 61 per cent.; the sample from the half ton 51 per cent. These nodules must have developed on the floor of the cretaceous sea in the same way as phosphatic nodules are forming in the sea at this present day. Nodules dredged by the Challenger south of the Cape of Good Hope from 900 feet depth contained 44 per cent. calcium phosphate and from 11,400 feet they contained 51 per cent. An expected complete analysis of the Trichinopoly nodules will show how far the composition is favorable as regards the presence of iron and alumina. The area of cretaceous rocks in Trichinopoly is a mere trifle compared with the area of such rocks in Arracan, Assam and Afghanistan, and after the present discovery it would not be surprising if these other places would also yield phosphates.

CLASSIFIED List of Expenditure of the Government Central Museum during the year 1891-92.

	Actuals, 1891-92.	Revised estimate, 1891-92.
Superintendent	6,850	8,725
Permanent establishment—		
First Assistant, Second Assistant, First, Second and Third Taxidermists, Herbarium-keeper, Artist, Writer, Librarian, Assistant Librarian, Head humal, Superintendent's peon—12 persons.	4,881	4,881
Travelling allowance	1,225	1,000
Cost of specimens, including also postal and telegram charges, office expenses and miscellaneous.	3,741	
Temporary establishment—		5,496
11 Humals, chickledar, 4 gardeners, collecting taxidermist, 2 sweepers, 3 watchmen, water-pandal, brahmin, office peon, 2 punkah pullers, 26 persons	2,140	
Fittings and furniture	2,998	3,000
Books and publications	2,487	1,800
Purchase and repair of furniture	197	200
Binding books and lithographing plates	576	800
Rents, rates and taxes	1,098	1,098
Total ...	26,193	27,000

READ—official memorandum from the Secretary to Government, Revenue Department, to the Superintendent, Government Central Museum, dated 5th July 1892, No. 136.

ABSTRACT.—Requesting the Superintendent, Government Central Museum, to report how he has arrived at the figure Rs. 6,850 as the actual pay of the "Superintendent for 1891-92."

READ—G.O., dated 18th July 1892, R. No. 1599, Revenue.

ABSTRACT.—Recording letter from the Superintendent, Government Central Museum, dated 13th July 1892, No. 587, stating that a reference would be made to the Accountant-General as to the figure Rs. 6,850 given as the pay of the Superintendent.

READ—the following letter from Dr. H. WARTH, Officiating Superintendent, Government Central Museum, to the Under Secretary to Government, Revenue Department, with the Governor, Stonehouse Hill, dated Egmore, 18th July 1892, No. 611:—

In continuation of my letter, No. 587, of 13th July 1892, I have the honour to enclose, herewith, a statement in original furnished me by the Accountant-General showing particulars of Rs. 6,850 as actuals of the Superintendent's salary for 1891-92.

ENCLOSURE.

STATEMENT showing particulars of Rs. 6,850, being pay of the Superintendent, Government Central Museum, Madras, paid during the year 1891-92.

Date of payment.	Amount.	Particulars.
1st April 1891	Rs. 750	Pay of Dr. E. Thurston for March 1891.
1st May "	750	Do. do. for April "
1st June "	750	Do. do. for May "
1st July "	750	Do. do. for June "
1st October "	350	Pay of Dr. H. Warth from 16th to 30th September 1891.
2nd November "	700	Pay of Dr. H. Warth for October 1891.
1st December "	700	Do. do. for November "
4th January 1892	700	Do. do. for December "
1st February "	700	Do. do. for January 1892.
1st March "	700	Do. do. for February "
Total ..	6,850	

N.B.—The pay of Dr. Thurston from 1st July to 15th September 1891 was paid at Calcutta.

ORDER—dated 3rd August 1892, No. 802, Revenue.

Miscellaneous.

The Superintendent's report shows that the administration of the Museum continued to be satisfactory. There was

again a decrease in the number of visitors to the institution, but it was only slight and was possibly due, as the Superintendent suggests, to the bad season and the prevalence of sickness during the year. The number of visitors to the library showed a small increase as compared with the previous year's figure.

2. A sample of the phosphatic nodules found by the Superintendent in the Trichinopoly district has been sent to England to be analysed by an agricultural chemist and should the analysis be favorable, the discovery may prove of value to agriculturists in the shape of a cheap chemical manure.

3. The expenditure during the year amounted to Rs. 26,193 or Rs. 1,054 less than that incurred in the previous year and Rs. 807 less than the revised estimate. The decrease occurred chiefly under the head of the Superintendent's salary as explained in the enclosure to the last of the papers read in this Proceedings.

4. His Excellency the Governor in Council desires to take this opportunity of thanking those members of the public who assisted the Museum with donations of specimens and books.

(True Extract.)


Secretary to Government.

To the Superintendent, Government Central Museum, with 80 copies.
,, the Public Department.
,, the Commissioners of Land Revenue.
,, the Commissioner of Revenue Settlement, Land Records and Agriculture.
,, the Surgeon-General with the Government of Madras.

No. 802A.

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

(Signed) C. A. GALTON,
Secretary to Government.

Exd. A. Aubert.

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AUGUST.

Government Central Museum,
Madras.

Reviewing the administration report of the —
for 1891-92.

WITH ORDER

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