

PROCEEDINGS
OF THE
ASIATIC SOCIETY OF BENGAL.

EDITED BY

THE HONORARY SECRETARY,



JANUARY TO DECEMBER,
1901.



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PROCEEDINGS
OF THE
ASIATIC SOCIETY OF BENGAL,
FOR JANUARY, 1901.

The Monthly General Meeting of the Society was held on Wednesday, the 2nd January, 1901, at 9 P.M.

L. DE NICÉVILLE, Esq., F.E.S., C.M.Z.S., in the chair.

The following members were present:—

Mr. J. Bathgate, Dr. T. Bloch, Mr. F. Finn, The Revd. E. Francotte, S.J., Mr. T. H. Holland, Mr. H. E. Kempthorne, Mr. W. A. Lee, Kumar Rameshwar Malliah, Mr. J. Nicoll, Mr. I. G. Schwaiger, Mahamahopadhyaya Haraprasad Shastri.

The minutes of the last meeting were read and confirmed.

Nineteen presentations were announced.

Pandit Ramavatar Pande, B.A., I.C.S., Dr. U. C. Mookerjee, M.B., C.M.; Lieut.-Col. G. F. A. Harris, I.M.S., Mr. C. A. Radice, I.C.S., Mr. K. J. Badshah, B.A., I.C.S., Mr. Duncan Campbell and Babu Karttik Chandra Mitra, M.A., B.L., were balloted for and elected Ordinary Members.

The Revd. Thomas Foulkes and Raja Pearymohan Mukerjee expressed a wish to withdraw from the Society.

The Chairman announced that up to date no essays had been received in competition for the Elliott Prize for Scientific Research for 1900.

The General Secretary reported that the Society had received for the information of intending observers, two copies of an official hand

book describing the climatological conditions, etc., of the tract of moon's shadow across the Malay Archipelago during the Solar Eclipse of May 17-18, 1901.

Mr. F. Finn exhibited a living specimen of a Guinea-fowl showing a feathered tassel on the throat.

Mahamahopadhyaya Haraprasad Shastri exhibited Photographs of certain ancient writings on Palm-leaves.

The following paper was read:—

1. *An additional note on the identification of Vesali.*—By DR. W. HOEY.

LIBRARY.

The following additions have been made to the Library from 7th December, 1899 to 5th December, 1900.

TRANSACTIONS, PROCEEDINGS AND JOURNALS,

presented by the respective Societies and Editors.

- Adelaide. Roy. Geogr. Soc., Address, 1900.
- Amsterdam. K. Akad. Wetensch., Jaarb., 1898; Proc., Vol. I; Verhandl., 1^e Sectie, Dl. VI, Nos. 6-7; 2^e Sectie, Dl. VI, Nos. 3-8; Versl., Afd. Natuurk., Dl. VII.
- Angers. Soc. d'Etudes Scient., Bull., T. XXVIII.
- Baltimore. Johns Hopkins Univ., Circulars, Vol. XIX, No. 143; Register, 1898-99.
- Batavia. Genootsch. Kunst en Wetensch., Notulen, Dl. XXXVII, Nos. 3-5; Tijdschr. Ind. T. L en Vk., Dl. XLI, Nos. 5-6., XLII, 1-4, 6; Verh., Bd. LI, Nos. 2-4.
- Bellary. Astrol. Mag., Vol. IV, Nos. 1-7.
- Berlin. Entom. Zeitschr., Bd. XXV, Nos. 1., XXVI, 2., XXVIII, 1., XXXV, 1-2., XXXVI, 1., XXXVIII, 3., XXXIX, 1-2., XL, 1-4., XLIV, 1-4; Kongl. Bibliothek, Handschriften-Verzeichnisse, T., XXII, XXXIII, Pts. 1-2; K. Preuss. Akad. Wissensch., Sitzb., Nos. 39-53, 1899., 1-38, 1900; Labor. et Mus., Nos. 1-2, 7-8, 1900; Sem. f. Orient. Sprachen, Mittheil., Bd. III; Zeitschr. für Ethnol., Nos. 2-3, 1899., 1-3, 1900.

- Bombay.** Anthropol. Soc., Journ., Vol. V, Nos. 1-2; Bombay Br. Roy. Asiat. Soc., Journ., Vol. XX, No. 55., Extra No. of 1900; Ind Antiquary, Vols. XXVIII, Pts. 359, No. 2., XXIX, 360-71.
- Bordeaux.** Soc. Linn., Actes, T. LIII.
- Boston.** Amer. Phil. Assoc., Trans. and Proc., Vol. XXX; Soc. Nat. Hist., Proc., T. XXIX, Nos. 1-8.
- Braunschweig.** Ver. für Naturw., Jahresb., 1897-98., 1898-99.
- Brisbane.** Agri. Journ., Vols. V, Nos. 5-6., VI, 1-6., VII, 1-5., Supp. to No. 1; Depart. Agri., Rep., 1898-99; Roy. Soc., Proc., Vol. XV.
- Brussels.** Acad. Roy. Sci., Annuaire, 1898-99; Bull., 3^{me} Sér., T. XXXIV-XXXVI; Tables Générales, T. I-XXX; Mem., T. LIII; Tables Générales, 1872-97; Mem. Cour., T. XLVIII, Pt. 2., LV, LVII; Mem. Cour. et des Savants étrangers, T. LV-LVI; Mus. du Congo, Ann., Bot., Sér. I, T. I, Nos. 3, 6., II, I, 2 (2nd part); Zool., Sér. I, T. I, No. 5; Soc. Entom., Ann., T. XLIII; Soc. Roy. Malac., Ann., T. XXXI, No. 2., XXXIII.
- Budapest.** Acad. Hongr. Sci., Rep., 1898; Aquila, Bd. VI, Nos. 1-3; Magr. Tud. Akad., Ert. a nyelv-es szept. Köreből, K. XVII, Nos. 1-2; Math. und Naturw. Berichte aus Ungarn, Bd. XV; Nyelvtud. Közlemenyek, K. XXVIII, Nos. 3-4., XXIX, 1-2.
- Buenos Aires.** Mus. Nac., Comunic., T. I, Nos. 5-6.
- Buffalo.** Soc. Nat. Sci., Bull., T. VI, Nos. 2-4.
- Caen.** Soc. Linn., Bull., 5^e Sér., T. I, Nos. 2-4., T. II; Mem., T. XIX.
- Calcutta.** Agri. Ledger, Nos. 9-12, 1899., 1-18, 1900; Agri. Horti. Soc. Ind., Proc. and Journ., October 1899 to September 1900; Geol. Sur. Ind., Genl. Rep., 1899-1900; Mem., Vols. XXIX, XXX, Pts. 1-2; Palæontologia Indica, Ser. IX, Vols. II, Pts. 2., XV, III, 1-2; Ind. and Eastern Engr., New Series, Vols. V, Nos. 6., VI, 1-6., VII, 1-5; Ind. Engineering, Vols. XXVI, Nos. 24-27., XXVII, 1-26., XXVIII, 1-23; Ind. Gardening and Planting, Vol. VI, Nos. 15-17; Ind. Lancet, Vols. XIV, Nos. 12., XV, 1-12., XVI, 1-2, 7-8, 11; Ind. Meteor. Mem., Vols. VI, Pts. 6-7., XI, 1-2., XII, 1; Indian Weather Rev., Ann. Sum., 1899; Mahabodhi Soc., Journ., Vols. VIII, Nos. 8-12., IX, 1-7; Monthly Weather Rev., June 1899 to July 1900; Photo. Soc. Ind., Journ., Vols. XII, Nos. 2., XIII, Nos. 1-5, 7-12.
- Cambridge.** Univ. Lib., Report, 1899.
- Cape Town.** S. Afr. Mus., Ann., Vols. I, Pts. 3., II, 1-2, 4; S. Afr. Phil. Soc., Trans., Vol. XI, Pt. 1.
- Chicago.** Field Columbian Mus., Publication, Nos. 39-42.
- Christiania.** Vid. Selsk., Forhandl., Nos. 1-5, 1898., 2-4, 1899; Oversigt, 1899; Skrifter, Nos. 2-3, 5, 1898., 4-5, 1899.

- Cincinnati, Ohio. Lloyd Lib., Bull., No. 1, 1900.
- Copenhagen. Nord. Oldk. og. Hist., Aarb., Bd. XV, No. 2; Soc. Roy. Antiqu. du Nord., Mem., 1899.
- Dresden. Entom. Zeitschr., Bd., XII, Nos. 2., XIII, 1; K. Ethn. Mus., Pub., Bd. XII; K. Zool. u. Anthr.-Ethn. Mus., Abhandl. u. Ber. Bd. VII-VIII.
- Dublin. Roy. Dublin Soc., Econ. Proc., Vol. I, Pt. 1; Sci. Proc., Vol. IX, Pt. 1; Sci. Trans., 2nd Ser., Vol. VII, Pts. 2-7; Index, Proc., Vols. I-VIII and Trans., Vols. I-VI; Roy. Irish Acad., Proc., 3rd Ser., Vol. V, Nos. 3-5.
- Edinburgh. Roy. Phy. Soc., Proc., Vol. XIV, Pt. 2; Roy. Soc., Proc., Vol. XXII; Trans., Vol. XXXIX, Pts. 2-4.
- Florence. Arch. per l'Antrop. e la Etnol., T. XXIX, Nos. 1-3.
- Frankfurt a. O. Naturw. Ver. für Reg. Bez., Helios, Bd. XVII; Societatum Litterae, Bd. XIII, Nos. 1-12.
- Geneva. Soc. Phys., C. R., Nos. 1-16.
- Graz. Naturw. Ver., Mittheil., 1899.
- The Hague. K. Inst. v. T. L. en Vk., Bijdragen, 6^e Volgr. Bd. VII, Nos. 1, 3-4; Nat. Tijdschr. voor Ned. Ind., Dl. LIX; Tijdschr. v. Entom., T. XLII, Nos. 4., XLIII, 1-2.
- Halifax. N.S. Inst. Sci., Proc. and Trans., Vol. X, Pt. 1.
- Hamburg. Naturh. Mus., Mittheil., Bd. XVI; Naturw. Ver., Abhandl., Bd. XVI; Verhandl., 1899.
- Hamilton. Ham. Assoc., Journ. and Proc., No. 15.
- Havre. Soc. Geogr. Com., Bull., T. XVI, Nos. 4., XVII, 1.
- Helsingfors. Finska Vetensk-Soc., Bidrag, No. 58; Förhandl., Bd. XL-XLI; Soc. Finno-Ougrienne, Journ., T. XVII-XVIII; Mem., T. XIII-XV; Soc. p. Fau. et fl. Fenn., Acta, T. XV, XVII.
- Honolulu. Bernice Pauahi Bishop Mus., Fauna Hawaiiensis, Bd. II, Pts. 1-3.
- Indianapolis. Dept. Geol. Nat. Res., Rep., 1898.
- Ithaca. Cornell Univ., Rep., 1898-99; Studies, Nos. 11-12.
- Königsberg. Phy.-ökonom Gesellsch., Schriften, Bd. XL.
- Lawrence, Kansas. Univ. Quart., Vol. VIII, No. 1.
- Leipzig. Deutsche Morgenländ. Gesellsch., Abhandl., Bd. XI, Nos. 2-3; Zeitscher., Bd. LIII, Nos. 3-4., LIV, 1-3; Register, XLI-L; Kgl. Sächs. Gesellsch., Abhandl., Math.-phys. cl., Bd. XXV, Nos. 4-7., XXVI, 1-3; Phil.-hist. cl., Bd. XX, Nos. 1-2; Verhandl., Math.-phys. cl., No. 2, 1900; Allgem Theil, 1899; Math. Theil., No. 6, 1899; Naturw. Theil, 1899; Phil.-hist. cl., Nos. 4-5, 1899., 1-3, 5-7, 1900.
- Liège. Soc. Geol., Ann., T. XXVI, Nos. 4., XXVII, 1, 3.

- Liverpool. Lit. Phil. Soc., Proc, No. 53.
- London. Academy, Nos. 1438-1489; Anthrop. Inst., Journ., New Series, Vol. II, Nos. 1-4; Athenaeum, Nos. 3761-3775, 3777-3812; Geol. Soc., Geol. Literature, 1899; Quart Journ., Vol. LVI, Pts. 1-4; Inst. Civil Engr., Proc., Vols. CXXXVI-CXXXIX; Index, Vols. CXIX-CXL; Member-List, 1899; Inst. Elect. Engr., Journ., Vol. XXIX, Nos. 142-146; Member-List, 1900; Inst. Mech. Engr., Proc., Nos. 1-4, 1899., 1, 1900; Linn. Soc., Journ., Bot., Vols. XXVI, Nos. 178., XXXIV, 240; Zool., Vols. XXVII, Nos. 172-178., XXVIII, 179; Member-List, 1899-1900; Trans., Bot., 2nd ser., Vol. V, Pts. 11-12; Zool., 2nd ser., Vol. VII, Pts. 5-11; Nature, Vols. CLI, Nos. 1569-1591., CLII, 1592-1620; Periodical, No. XI; Roy. Asiat. Soc., Journ., Pts. 1-4, 1900; Roy. Astron. Soc., Monthly Notices, Vol. LX, Nos. 1-10; Roy. Geogr. Soc., Journ., Vols. XIV, Nos. 6., XV, 1-6., XVI, 1-5; Roy. Micro. Soc., Journ., Pts. 3-6, 1899., 1-4, 1900; Roy. Soc., Phil. Trans., Vols. CLXXXVIII A, CLXXXIX A and B, CXC A and B, CXCI A; Proc., Vols. XLV, Nos. 416-419, 421-423., LXVI, 424-434; Year-Book, 1899; Member-List, 1898; Roy. Stat. Soc., Journ., Vols. LXII, Pts. 2-3., LXIII, 1-2; Zool. Soc., Proc., Pts. 4, 1899., 1-2, 1900; Trans., Vol. XV, Pt. 4; Member-List, 1899-1900.
- Lyon. Soc. Anthropol., Bull., Vol. XVII, Nos. 1-2.
- Lübeck. Geogr. Gesellsch. u. des Naturh. Mus., Mitteil., Bd. II, Nos. 12-13.
- Madison, Wiss. Acad. Sci., Trans, Vol. XII, Pt. 1.
- Madras. Astrol. Mag., Vol. IV, Nos. 8-12; Govt. Mus., Bull., Vol. III, Nos. 1-2; Ind. Journ. Education, April-June, September, 1900.
- Manchester. Lit. Philos. Soc., Mem. and Proc., Vol. XLIV, Pts. 1-5.
- Melbourne. Roy. Soc., Proc., Vols. XII, Pts. 2., XIII, 1.
- Mexico. Inst. Geol., Bol., Nos. 12-13; Soc. Alzate, Mem., T. XII, 9-12., XIV, 1-4.
- Montevideo. Mus. Nac., Ann., T. II, Nos. 12., III, 13-14.
- Moscow. Soc. Imp. Nat., Bull., Nos. 1-4, 1899.
- Munich. K. b. Akad. Wissensch., Sitzungsber., Math.-phys. Cl., Nos. 1-2, 1900; Phil. u. hist. Cl., Bd. II, Nos. 1, 3, 4., No. 1, 1900; Ornith. Ver., Jahresb., 1897-98.
- Mussoorie. Ind. Forester, Vols. XXV, Nos. 11-12., XXVI, 1-8, 10-11.
- Nantes. Soc. Sci. Nat. Ouest, Bull., T. IX, Nos. 2-3.
- New Haven. Amer. Orient. Soc., Journ., Vol. XX, No. 2; Yale Rev., Vols. VIII, Nos. 3-4., IX, 1-2; Yale Univ., Cat., 1899-1900; Obituary Rec. Graduates, June 1900; Rep., 1899-1900; Stud. in English, No. 8; Stud. Psych. Lab., Vol. VII.

- Newport. Nat. Hist. Soc., Proc., No. 9.
- New York. Amer. Mus. Nat. Hist., Bull., Vol. XI, Pt. 2.
- Nürnberg. Naturh. Ges., Abhandl., Bd. XI-XII.
- Ottawa. Geol. Sur., Contri. Can. Pal., Vol. IV., Pt. 1; Rep., Vol. X, and Maps; Roy. Soc., Proc and Trans., 2nd Series, Vol. IV.
- Para, Brazil. Mus. Paraense, Bol., T. III, No. 1.
- Paris. Acad. Nat. Sci., Actes, 3^e Sér., T. LVIII; Journ. Asiat., T. XIV, Nos. 2., XV, 2-3; Mus. Guimet, Rev. Hist. Rel. T. XXXIX, Nos. 1-3., XL, 1-2; Soc. d'Anthropol., Bull., 4^e Sér., T. X, Nos. 2-3; Soc. Geogr., Bull., No. 4, 1899; C. R. Sci., No. 7, 1899; La Géogr., Nos. 1-10, 1890; Soc. Philom., Bull., 9^e Sér., T. I, Nos. 3-4., II, 1; Soc. Zool., Bull., T. XXIV; Mem., T. XII.
- Philadelphia. Acad. Nat. Sci., Proc., Pts. 2-3, 1899; Amer. Acad., Ann., Vol. XV, Nos. 1-3, and Supp., XVI, 1-2 and Supp. to No. 1; Amer. Philos. Soc., Proc., Vol. XXXVIII, Nos. 159-160; Trans., Vol. XX, Pt. 1; Franklin Inst., Journ., Vols. CXLVIII, Nos. 6., CXLIX, 1-6., CL, 1-2; Pennsylvania Univ., Bull., Vol. IV, Nos. 3-6; Catalogue, 1899-1900; Contri. Bot. Lab., Vol. II, No. 1; Rep., 1897-1898.
- Pisa. Soc. Tosc. Sci. Nat., Process Ver., Vols. XI, pp. 159-177., XII, 1-60.
- Prague. K. K. Sternwarte, Mag. Meteorol. Beobach., 1899.
- Raleigh, n. c. Elisha Mitchell Sci. Soc., Journ., Vol. IX, Pt. 2.
- Rio de Janeiro. Observatorio do Rio de Janeiro, Bol. Mensal, January to April, 1900.
- Rome. R. Acad. dei Lincei, Atti Rendiconti, Cl. di Sc. Fish. Math. Nat., 5^e Sér., 1^o Sem., T. IX, Nos. 1-12., 2^o Sem., IX, 1-8., 10-12; Cl. di Sc. Mor. Stor. e Fil., 5^e Sér., T. VIII, Nos. 9-10., IX, 1-6; Soc. Spettr. Ital., Mem., T. XXVIII, Nos. 9-12., XXIX, 1-6.
- San Francisco. Acad. Sci., Oc. Papers, No. 6; Proc., Bot., Vols. I, Nos. 6-9.; Geol., Vol. I, Nos. 5-6.; Zool., Vol. I, Nos. 11-12.
- Schaffhausen. Schweiz. Entom. Gesellsch., Mittheil., Bd. X, Nos. 6-7.
- Shanghai. China Br. Roy. Asiat. Soc., Journ., Vol. XXXI.
- Simla. U.S. Inst. Ind., Journ., Vol. XXIX., Nos. 138-141.
- Springfield, Ill. Newberry Lib., Rep., 1898-99; State Labor. Nat.-Hist., Bull., Vols. IV, Nos. 6-7., V, 1-11.
- St. Louis. Missouri Bot. Garden, Rep., 1890.
- St. Petersburg. Acad. Imp. Sci., Ann. Mus. Zool., Nos. 3-4, 1899., 1-2, 1900; Bull., V^e Sér., T. VIII, Nos. 5., IX, 1-5., X, 1-4; Mem., T. VII, Nos. 4., VIII, 1-5; Cl. Hist. Phil., 8^e Sér., T. III, Nos. 3-5; Comite Geol., Bull., T. XVIII, Nos. 3-10; Mem., T. VII, Nos. 3-4., IX, 5., XV. 3; Horti. Petrop., Acta, T. XV, Nos. 2., XVII, 1-2.

- St. Petersburg. Russ. Imp. Geogr. Soc., Proc., T. XXXV, Nos. 5-7., XXXVI, 1-2; Russ. Kaiserl. Mineral. Gesellsch., Verhandl., 2^e Sér., Bd. XXXVII, Nos. 1-3.
- Stettin. Entomol. Zeit., Vols. LII—LVI, LVIII.
- Stockholm. Entomol. Tidskr., Bd. XX, Nos. 1-4; Kongl. Vetensk. Akad., Antiqv. Tidskrift, Bd. XIII. Nos. 1-3., XIV, 1-3., XV, 1-2., XVI, 1-4; Bihang, Abth. I, Bd. XXV., II., XXV, III, XXV., IV, XXV; Handl., Bd. XXXII; Meteor. Iaktt, 1894; Ofversigt, Bd. LVI; Kongl. Vitterhets Historie och Antiquitets Akad., Manadsblad, Bd. XXIII-XXIV.
- Stuttgart. Ver. Vaterl. Naturk., Jahres., Bd. LVI.
- Sydney. Linn. Soc., Proc., Vols. XXI, Pts. 4., XXV, 1-3; Roy. Soc., Journ. and Proc., Vol. XXXIII; Sci., New Ser., Vols II, Nos. 10-12., III, 1-9.
- Taiping. Perak Govt. Gaz., Vols. IV, Nos. 1-3., XII, 34-40., XIII, 1-37.
- Tokyo. Deutschen Gesellsch. für Natur-und Völkerk. Ost., Mittheil., Bd. VIII, No. 1; Imp. Univ., Journ. Coll. Sci., Vols. XI, Pts. 4., XII, 4., XIII, 1-2; Mittheil. des Med. Fac., Vol. IV, No. 6.
- Toronto. Canadian Inst., Proc., Vol. II, Pt. 3; Trans., Vol. VI, Pts. 1-2.
- Trencsen. Naturwissenschaft. Ver., Jahres., 1898-99.
- Tring. Novitates Zool., Vols. VI, 3-4., VII, 1-2.
- Turin. R. Acad. Sci., Atti, T. XXXV, Nos. 1-15; Mem., 2^e Sér., T. XLIX; Osserv. Meteor., 1899.
- Upsala. Geol. Inst., Bull., Vol. IV, Pt. 2; K. Hum. Vet. Samf., Skrifter, Bd. VI.
- Valparaiso. Deutschen Wissensch. Ver., Verhandl., Bd. IV, Nos. 1-2.
- Vienna. Anthropol. Gesellsch., Mittheil., Bd. XXVIII, Nos. 5-6., XXIX, 1-3, 5; K. Akad. Wissensch., Almanach, 1898; Archiv f. Österr. Gesch., Bd. LXXXV, Nos. 1-2., LXXXVI, 1-2; Denkscher., Mathem-Naturw. Cl., Bd. LXV., LXVI, Nos. 1-2., LXVII; Fontes, Abth. II, Bd. L; Sitzb., Mathem-Naturw. Cl., Abth. I, Bd. CVII, Nos. 6-10; Abth. II A, Bd. CVII, Nos. 3-10; Abth. II B, Bd. CVII, Nos. 4-10; Abth. III, Bd. CVII, 1-10; Phil.-hist. Cl., Bd. CXXXVIII-CXL; K. K. Geol. Reich., Jahrb., Bd. XLVIII, Nos. 3-4., XLIV, 1-3; Verhandl., Nos. 11-18, 1899., 1-10, 1900; K. K. Naturh. Hofmus., Ann., Bd. XIII, Nos. 1-3; K. K. Zool. Botan. Gesellsch., Verhandl., Bd. XLIX, Nos. 9-10., L, 1-7.
- Washington. Acad. Sci., Proc., Vols. I, pp. 111-347., II, 1-340; Biol. Soc., Proc., Vol. XIII, pp. 91-158; North Amer. Fauna, Nos. 17-19; Smithson. Misc. Collection, Vol. XLI, No. 1173.

- Washington. U.S. Dept. Agri., Bull., Nos. 12-13; Year-Book, 1899; U.S. Nat. Mus., Rep., 1897.
- Wellington. New Zealand Inst., Trans. and Proc., Vol. XXXI-XXXII; Polynes. Soc., Journ., Vols. VIII, Nos. 4., IX, 1-2.
- Yokohama. Asiat. Soc., Trans., Vol. XXVII, Pts. 1-4, and Supplement.
- Zagreb. Hrv. Arh. Drustva, Vjesnik, Vol. IV; Kr. Hrv.-slav.-dalm. zun Arkiva, Vjestik, Vol. II, Nos. 1-4.

MISCELLANEOUS PRESENTATION.

- ABDUL KARIM. Muhammadan Education in Bengal.
- ADAMS, LT.-COL. ARCHIBALD. Western Rajputana States: a Medico-Topographical and general account of Marwar, Sirohi, Jaisalmir.
- AIYAR, T. S. KUMARASWAMI. Velapuri or a peep into the past of Vellore.
- American Historical Association. Report. 1898.
- Archæological Department, Burma. Publications. No. 1.
- Archæological Survey Reports:—India, New Imperial Series, Vols. XXIX, XXXI; Southern India. 1899-1900; Western India. 1898-99.
- AYER, S. APPADORAI. The Cherumars of Malabar.
- BHADKAMKAR, H. M. Aitareya Upanishad, with Sankaracharya's Bhashya. Translation.
- Bibliotheca Buddhica, No. 2. Çikshāsamuccaya compiled by Çāntideva. Edited by C. Bendall.
- BLOOMFIELD, M. The Atharvaveda.
- BOLLACK, LEON. Abridged Grammar of the Blue Language.
- Botanical Survey of India. Report. 1899-1900.
- BOWER, A. G. Family History of the Bansberia Raj.
- Briefe von Johannes Müller an Anders Retzius.
- British Association for the Advancement of Science. Report. 1899.
- British Museum. Catalogue of Cretaceous Bryozoa. Vol. I; Catalogue of the Cuneiform Tablets in the Kouyunjik Collection. Vol. V; Catalogue of the Lepidoptera Phalænæ. Vol. II, and Plates; Catalogue of Welwitsch's African Plants. Vol. II, Part. 1; Hand-List of Birds. Vol. 1; List of the Genera and Species of Blastoidea; Monograph of Christmas Island; Syriac and Karshuni MSS. 1899.
- Calcutta Sanskrit College. Catalogue. No. 11.
- Chemical Examiner's Department, Bengal. Report. 1899.
- Civil Lists:—Assam, January to October 1900; Bengal, April to October 1900; Burma, April to October 1900; Central Provinces, January to October 1900; Hyderabad Administration, April to October, 1900.

- Civil Lists :—Mysore, July 1899, January to July 1900 ; North-Western Provinces and Oudh, April to October 1900 ; Punjab, April to October 1900.
- Coorg Commission Gradation List. January to October 1900.
- CORY, CHARLES. Birds of Eastern North America Parts 1-2.
- CUST, ROBERT NEEDHAM. Life Memoir. 1821-1899.
- Dagh Register gehonden int Easteel Batavia vant passerende daer ter plaetse als over geheel Nederlandts-India, Anno 1637.
- Den Norske Nordhavs-Expedition, 1876-1878. Nos. XXV-XXVII.
- DEY, NUNDO LAL. The Geographical Dictionary of Ancient and Mediæval India.
- Epigrapia Indica. Vols. V, Parts 8., VI, 1-2.
- FOSTER, WILLIAM. Letters received by the East India Company from its servants in the East. Vol. IV.
- Gazetteer of the Montgomery District. 1898-99.
- Geological Survey of Canada. Descriptive note on the Sydney Coal Field, and maps; Preliminary Report on the Klondike Gold Fields.
- GODWIN-AUSTEN, LT.-COL. H. H. Anatomy of Hemiplecta Floweri, Smith.
- Government Botanical Gardens, Saharanpur and Arnigadh. Report. 1900.
- Government Horticultural Gardens, Lucknow. Report. 1900.
- Government Museum and Connemara Public Library. Report on the Administration. 1899-1900.
- GRÜNWEDEL, ALBERT. Mythologie des Buddhismus in Tibet und der Mongolei.
- HAECKEL, ERNST. Kunst Formen der Natur. Nos. 4-5.
- HAHN, REVD. FRED. Kurukh Grammar.
- HAMILTON, R. C. Outline Grammar of the Dafia Language.
- HANDLIERSCH, ANTON. Carcinocoris, ein neues Hemipteren-Genus, und Bemerkungen über die Raubbeine der Insecten ; Classando Rincoti di Candia von Gino Olivi ; Die Verwerthung überschüssiger Spermatozoen im organismus Weiblicher Insecten ; Monographie der Phymatiden ; Ueber Phimophorus spissicornis, Berger ; Wie viele Stigmen haben die Rhynchoten? ; Zur systematischen Stellung der Hemipterengattung Phimophorus Bergroth ; Zwei neue Phymatiden.
- HENDLEY, COL. THOMAS HOLBEIN. General Medical History of Rajputana.
- HOLLAND, T. H. Rock-Weathering and Serpentinization.
- HOYLAND, JOHN. Historical Survey of the customs, habits and present state of the Gypsies.

- Imperial Academy of Sciences, St. Peterburg. Das Mānava-Çrauta-Sūtra von Dr. Friedrich Knauer, Book 1; Die Alttürkischen Inschriften der Mongolei von Dr. W. Radlof. Zweite Folge; Versuch eines Wörterbuches der Türk-Dialecte von Dr. W. Radloff. Elfte Lieferung.
- Imperial Library, Calcutta Press List of ancient documents preserved, 1755-1756.
- Indian Museum. Guide to the Zoological Collections exhibited in the Bird Gallery; Guide to the Zoological Collections exhibited in the Fish Gallery; Illustrations of the Shallow-water Ophiuroidea collected by the Royal Indian Marine Survey Ship "Investigator." List of photographic negatives of Indian antiquities; Report. Vol. XXX with Index.
- Inscriptions collected in Upper Burma.
- Inspector General of Civil Hospitals, Bengal. Catalogue of Books in the Office Library. Parts 1-2.
- JHA, GANGANATH. Chhandogya Upanishad and Sri Sankara's Commentary. Translation. Vols. III-IV.
- Johns Hopkins University, Baltimore. Twenty-nine Dissertations for the Degree of Doctor of Philosophy.
- JUKES, A. Dictionary of the Jatki or Western Punjabi Language. Kodaikanal and Madras Observatories. Report, 1899-1900.
- LACROIX, DÉSIRÉ. Numismatique Annamite, and plates. List of Archæological Reports which are not included in the Imperial Series of such reports.
- List of Civil officers holding gazetted appointments under the Government of India, July 1899, January to July 1900.
- L'Université de Paris. Rapport du Conseil. 1898-99.
- Madras Meridian Circle Observations. Vol. IX.
- Manual of Mensuration and Surveying for Mandals and Patwaris in Assam.
- Marine Survey of India. Programme. 1900-1901.
- Meteorology of the Bombay Presidency. Sketch. 1899-1900.
- Meteorological Department of the Government of Bengal. Administration Report. 1899-1900.
- Meteorological Department of the Government of India. Memorandum on Snowfall, 1899; Report. 1899-1900.
- Meteorological Department of the Government of Mysore. Report on the Rain-fall Registrations in Mysore. 1899.
- Monograph on the silk Industry of the Punjab. 1899.
- MORSE, E. S. A. Bubble-Blowing Insect.
- MÜLLER, F. MAX. Sacred Books of the East. Vol. XLIV.

- MURDOCH, DR. JOHN. Indian Educational Reform. A Letter.
- Musée des Antiquités Nationales de Stockholm. Catalogue sommaire publié au nom de l'Académie Royale des belles-lettres d'histoire et d'Archéologie; Numi Cufici regii numophylacii holmiensis quos omnes in Terra sueciae repertos disgressit et interpretatus est Dr. C. J. Tornberg; Teckningar ur Svenska Statens Historiska Museum. Parts I-II.
- Nagpur Experimental Farm. Report. 1898-99.
- NATH, BAIJ. Hinduism: Ancient and Modern.
- OBADULLAH, MAULVI. Reciprocal influence of Mahomedan and European learning and inference therefrom as to the possible influence of European learning on the Mahomedan mind in India. .
- OUNG, THA DO. Grammar of the Pali Language. Vol. III.
- PANK, LIEUT.-COL. P. DURRELL. Medico-Topogaphical Account of Ajmere, Rajputana.
- Pearl Oysters and Pearl Fisheries.
- POLK, WILLIAM M. Leonidas Polk. Bishop and General. Vols. 1-2.
- PORTMAN, M. V. History of our relations with the Andamanese. Vols. I-II.
- POUSSIN, LOUIS DE LA VALLÉE. Bouddhisme. Notes et Bibliographie; Une Pratique des Tantras.
- RIBBENTROP, B. Forestry in British India.
- ROCKHILL, WILLIAM WOODVILLE. Journey of William of Rubruck to the Eastern Parts of the World. 1253-55. (Hakluyt Society.)
- ROGERS, LEONARD. Report on an experimental investigation of the methods of inoculation against Binderpest.
- Royal Geographical Society of Australia. Map showing the explorations and discoveries in South Australia and Western Australia made by the Elder Scientific Exploring Expedition, 1891-92.
- Royal Observatory, Greenwich. Magnetical and Meteorological Observations. 1897.
- Royal Society, London. Reports to the Malaria Committee, 1899-1900.
- Selections from the Records of the Government of India, Home Department. Nos. 371, 374, 376.
- Sind Official List. January to July 1900.
- SPIRO, JEAN. Les Yezidi ou les adorateurs du diable.
- St. Xavier's College Observatory, Calcutta. Meteorological Observations. July to December, 1899., January to June 1900.
- Survey of India. General Report. 1898-99.
- Tagore Law Lectures. 1897.
- THOLAL, BISHAMBHAR NATH. History of the Sombansi Raj and Estate of Partabgarh in Oudh.

- TUUK, DR. H. N. VAN DER. *Kawi-balineesch-Nederlandsch Woordenboek*. Deel. II.
- United States Geological Survey. *Monographs*, Vols. XXIX, XXXI and plates, XXXV.
- United States National Museum. *Proceedings*, Vol. XXI.
- UPRETI, GANGA DATT. *Hill Dialects of the Kumaun Division*.
- WARNER, GEORGE F. *Voyage of Robert Dudley to the West Indies*. 1594-1595. (Hakluyt Society.)
- WATT, GEORGE. *Memorandum on the organization of Indian Museum*.
- WEBER, ALBR. *Vedische Beiträge*. 8. Zu Mandala II der Rik Samhita.
- WILSON, C. R. *Early Annals of the English in Bengal*. Vol. II, Part I.
- WILSON, J. *Grammar and Dictionary of Western Punjabi*.
- Yale Forest School. *Report*. 1900-1901.
- Yale University. *Inauguration of Arthur Twining Hadley*, LL. D.
- Besides Annual Government Reports on Administration (7); Asylums and Reformatories (4); Customs (1); Dispensaries and Medical Institutions (3); Education (3); Emigration (2); Excise (2); Forest (1); Jails (2); Land Revenue Settlement (2); Legal and Judicial (3); Municipal (2); Police (3); Private Estates (2); Registration (3); Salt (1); Sanitation (3); Tide (1); Trade and Traffic (14); Vaccination (2); Wrecks and Casualties (1); and 34 Parliamentary Blue books.

PERIODICALS PURCHASED,

- Berlin. *Deutsche Litteraturzeitung*, Bd. XIX, Nos. 46-49., XX, 28-52., XXI, 1-37; *Journ. für Math.*, Bd. CXX, Nos. 4., CXXI, 1-4., CXXII, 1-3; *Orient. Bibliographie*, Vols. XII, Nos. 2., XIII, 1; *Zeitschr. für Ethnol.*, Nos. 6, 1899., 2-3, 1899., 1-3, 1900.
- Braunschweig. *Jahresber. f. Chem. u. s. w.*, Nos. 6, 1892., 1-7, 1893., 3, 1896.
- Calcutta. *Buddh. Text Anthropol. Soc., Journ.*, Vols. VI, Pts. 4., VII, 1; *Cal. Rev.*, Vols. CX, Nos. 219-220., CXI, 221-222.
- Cassel. *Bot. Centrabl.*, Bd. I-IV., LXXVI, Nos. 9-11., LXXX, 1-13., LXXXI, 1-13., LXXXII, 1-13., LXXXIII, 1-11; *General Register*, Bd. I-LX; *Beihefte*, Bd. I-VIII., IX, Nos. 1-5.
- Chicago. *Journ. Geol.*, Vols. VII, Nos. 8., VIII, 1-6.
- Geneva. *Archiv. Sci. Phys. et Nat.*, T. VIII, Nos. 11-12., IX, 1-6., X, 7-10.
- Göttingen. *Kgl. Gesellsch. Wissensch., Gött. Gel. Anz.*, Nos. 11, 1898., 6-12, 1899., 1-5, 1900; *Nachrichten, Geschäftl. Mittheil.*, No. 1, 1899., 1, 1900; *Math.-phys. klasse*, Nos. 2-3, 1899., 1, 1900; *Philolog.-histor. klasse*, Nos. 2-4, 1899., 1, 1900.

Leipzig. Ann. d. Phys. u. Chem., Nos. 12, 1899., 1-10, 1900; Beibl., Nos. 11-12, 1899., 1-9, 1900; Literarisches Centralbl., Nos. 46-49, 1898., 28-52, 1899., 1-22, 24-36, 1900.

Leyden. Int. Arch. für Ethn., Bd. XII, Nos. 2-3.

London. Ann. Mag. Nat. Hist., 7th Ser., Vols. II, No. 12., IV, 20-24., V, 25-30., VI, 31-32; Asiat. Quart. Rev., 3rd ser., Vols. VII, Nos. 16., IX, 17-18., X, 19; Chem. News, Vols. LXXVIII, Nos. 2034-2037., LXXX, 2069-2092., LXXXI, 2093-2118., LXXXII, 2119-2129; Entom. Monthly Mag., 2nd ser., Vols. IX, Nos. 108., X, 116-120., XI, 121-129; Entom., Vols. XXXI, Nos. 423-427., XXXIII, 440-448; Ibis, 7th Ser., Vols. V, Nos. 20., VI, 21-23; Journ. Bot., Vols. XXXVI, Nos. 432., XXXVIII, 440-444., XXXVIII, 454-454; Journ. Conch., Vol. IX, Nos. 8-11; Mess. Math., Vols. XXIX Nos. 1-12., XXX, 1-3; Numism. Chron., Pts. 2, 1899., 1-4, 1900; Numism. Cir., Vol. VIII, Nos. 85-96; Phil. Mag., Vols. XLXI, Nos. 283., XLVIII, 291-295., XLIX, 296-301., L, 302-304; Quart. Journ. Math., Vol. XXXI, Nos. 121-124., XXXII, 125; Quart. Journ. Micr. Sci., Vols. XLI, Pts. 3., XLII, 3-4., XLIII, 1-3; Notes and Queries, 9th Ser., Vols. IV, Nos. 82-105., V, 106-42; Smith Rhopalocera Exotica, Pts. 50-53.

New Haven. Amer. Journ. Sci., 4th Ser., Vols. VI, Nos. 36., VIII, 44-48., IX, 49-55., X, 56-57.

Paris. Ann. de Chim. et de Phys., December 1898., August-December 1899., January-September 1900; Acad. Sci. C. R., T. CXXVII, Nos. 19-22., CXXIX, 1-9, 11-16, 18-26., CXXX, 1-26., CXXXI, 1-9; Journ. des Savants, November 1898., July-December 1899., January-June 1900; Rev. Crit., T. XLVI, Nos. 46-49., XLVIII, 27-51., XLIX, 1-26., L, 27-34; Rev. Ling., T. XXXII, Nos. 3-4; Rev. Scient., 4^e Ser., T. X., Nos. 21-24., XII, 3-27., XIII, 1-26., XIV, 1-10.

Vienna. Orient. Journ., Vol. XIII, Nos. 2-3.

BOOKS PURCHASED.

BEAL, SAMUEL. Life of Hien-Tsiang.

BETTANY, G. T. World's Inhabitants.

BICKMORE, ALBERT S. Travels in the East Indian Archipelago.

BÜHLER, GEORGE. Grundriss der Indo-Arischen Philologie und Altertumskunde. Band I, 1. Heft, A., II, 1. Heft, B., III, 9. Heft.

CAMPBELL, A. Santali-English Dictionary. Part 2.

DAVIDS, CAROLINE A. F. RHYS. Buddhist Manual of Psychological Ethics.

HULME, F. EDWARD. Natural History Lore and Legend.

- HUNTER, SIR WILLIAM WILSON. Indian Empire. New and Revised Edition.
- Indian Army List. April to October 1900.
- KIRBY, W. F., AND WYTSMAN, P. J. Hübner Exotische Schmetterlinge. Parts 35-37.
- MALLESON, COL. G. B. History of the French in India. New Edition. Minerva. Jahrbuch der Gelehrten Welt. 1899-1900.
- OATES, EUGENE W. Manual of the game Birds of India. Parts 1-2.
- RAFFLES, SIR THOMAS STAMFORD. Life and Journals. Vols. I-II.
- RYLEY, J. HORTON. Ralph Fitch. England's Pioneer to India and Burma.
- RIPLEY, W. Z. Races of Europe, and Supplement.
- SETON-KARR, WALTER SCOTT. Grant of Rothiemurchus: a memoir of the services of Sir John Peter Grant.
- SHARPE, EMILY MARY BOWDLER. Monograph of the Genus Teracolus. Parts 1-7.
- Wealth of India. Vols. V, Parts 7-12., VI, 1-12., VII, 1-6.
- WELLBY, M. S. Through unknown Tibet.
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PROCEEDINGS
OF THE
ASIATIC SOCIETY OF BENGAL,
FOR FEBRUARY, 1901.

The Annual Meeting of the Society was held on Wednesday, the 6th February, 1901, at 9 P.M.

HIS HONOR SIR JOHN WOODBURN, M.A., K.C.S.I., President, in the chair.

The following members were present :—

Major A. Alcock, I.M.S., The Hon. Mr. E. N. Baker, Mr. J. Bathgate, Dr. T. Bloch, Rai Chunilal Bose Bahadur, Babu Nagendranath Bose, Mr. B. Chaudhuri, Mr. J. Eliot, F.R.S., Mr. A. U. Fanshawe, Mr. C. L. Griesbach, C.I.E., Surgeon-General R. Harvey, Mr. E. B. Havell, Col. T. H. Hendley, C.I.E., Mr. S. C. Hill, Mr. T. H. Holland, Mr. D. Hooper, Dr. A. von Krafft, Mr. G. W. Kuchler, Mr. W. A. Lee, Mr. L. de Nicéville, Mr. J. D. Nimmo, Mr. F. E. Pargiter, Mr. A. Pedler, F.R.S., Captain L. Rogers, I.M.S., Mr. C. Saunder, Mr. I. G. Schwaiger, Mr. M. J. Seth, Mahamahopadhyaya Haraprasad Shastri, Pandit Yogeshchandra Shastri.

Visitors :—Babu Bhubanmohan Chatterjee, Babu Nandalall Chatterjee, Mr. E. C. Cotes.

The President in an opening address expressed on behalf of the Society the feeling of sorrow with which they had learned of the death of Her Majesty the Queen. His Honor briefly reviewed the work of the past year, and then called upon the General Secretary to read the Annual Report.

ANNUAL REPORT FOR 1900.

The Council of the Society have the honor to submit the following Report on the state of the Society's affairs during the year ending 31st December, 1900. As regards the work accomplished during the year, time only will permit of judgment; but with regard to the two essential conditions in the life of every association, namely, membership and finances, the Society is to be congratulated on a state of affairs more satisfactory than has been the privilege of Council to report for very many years.

Member List.

Our number of Ordinary Members now stands at 311, which is higher than in any year since 1887.

44 Ordinary Members have been elected, but we have at the same time lost 34, namely, 9 by withdrawal, 5 by death, 4 by removal under Rule 9, 14 by removal under Rule 38 and 2 by removal under Rule 40. At the close of the year there were also 7 gentlemen's names before the Society as candidates for membership. According to the operation of Rule 5 it sometimes takes nearly two full months between the date of application and the election of a member, which is sometimes an inconvenient amount of delay. As the main loss has been due to the removal of names of members who have been in arrears for some years, the actual change of membership is more satisfactory than appears in the tabular comparison of the last with the previous six years.

The following table gives the statistics for the last six years:—

YEAR.	PAYING.				NON-PAYING.				GRAND TOTAL
	Resident.	Non-Resident.	Foreign.	Total.	Life.	Absent.	Special Non-Subscribing.	Total.	
1895	108	122	12	242	23	31	1	55	297
1896	105	119	11	235	23	35	1	59	294
1897	106	115	9	230	22	35	1	58	288
1898	122	108	11	241	23	35	1	59	300
1899	120	119	13	252	21	27	1	49	301
1900	116	124	18	258	22	30	1	53	311

The names of the Ordinary Members whose death we regret are, Dr. John Anderson, F.R.S., Babu Aghore Chandra Bhaduri, H.R.H. The Duke of Edinburgh, Babu Rajani Kanta Gupta and Babu Guru Prasad Sen.

We have to lament also the death of a very distinguished Honorary Member, Professor The Right Hon. F. Max Müller.

The lists of Special Honorary Centenary Members, Corresponding Members and Associate Members continue unaltered from last year, their numbers standing at 4, 1 and 12 respectively.

During the year two members, Sayid Ali Bilgrani, A.R.S.M., LL.B., F.G.S., and Mr. J. W. A. Grieve compounded for their future subscriptions.

Indian Museum.

Mr. R. D. Oldham ceased to be a Trustee under section 3, clause 5, of the Indian Museum Act IV of 1887 and was succeeded by Mr. T. H. Holland. The other Trustees who represent the Society are Mr. A. Pedler, F.R.S., Dr. Mahendralal Sircar, C.I.E., Mr. G. W. Küchler, M.A., and The Most Revd. Archbishop P. Goethals, S.J.

Finance.

The Accounts of the Society are shown in Statement No. 1 in the appendix under the usual heads.

Statement No. 8 contains the Balance Sheet of the Society and of the different Funds administered through it.

The Budget Estimate for 1900 was taken at the following figures:—Receipts Rs. 16,730-0-0; Expenditure 16,078-0-0. The actual results were found to be:—Receipts Rs. 20,530-5-3; Expenditure Rs. 12,790-7-10.

The receipts thus show an excess of Rs. 3,800-5-3, while the expenditure shows a saving of Rs. 3,237-8-3 on the Budget Estimate. In addition to this an unusually large sum, Rs. 1,700, has been added to the Reserve Fund on account of the exceptional number of entrance fees paid during the year.

There is an increase in Receipts under the heads of *Subscriptions*, *Sale of Publications* and *Government Allowances*. *Subscriptions* were estimated at Rs. 7,000 while the actuals were Rs. 8,852-1-6, the excess being due to some of the arrear subscriptions from members having been realized. Owing partly to the sale of the Society's *Journal, Part I, Extra No. 2 of 1899* (Dr. M. A. Stein's Memoir on Maps illustrating the Ancient Geography of Kashmir) *Sale of Publications* shows an increase of Rs. 237-15-6. During the year, two years' contribution by the

Assam Government towards our Anthropological publications were received, and there is thus an increase of Rs. 2,000.

On the Expenditure side the items of *Lighting, Municipal Taxes, Meetings, Books, Journal Part II* and *Printing Circulars*, show an excess. Owing to the settlement of some old outstanding gas-bills *Lighting* shows an increase of Rs. 15. *Municipal Taxes* were estimated at Rs. 846, while the actuals have been Rs. 884-4. This was due to the increased valuation of the Society's premises and the increased assessment. Charges for *Meetings* show a slight excess of Rs. 6-13 due to advertisement charges for the Simla Meeting. Owing to the adjustment of certain old bills from Messrs. R. Friedländer & Sohn, for supplying publications to the Society the account for new *Books* shows a slight increase of Rs. 35-2-2. *Journal, Part II*, has exceeded the budget by Rs. 172-7. This is due to the payment of printing charges for certain numbers of 1899. During the last year a number of circulars were printed in connection with the proposed reorganization of the Society and thus there is an excess of expenditure of Rs. 36-6 under the head *Printing Circulars*.

There were three extraordinary items of expenditure during 1900, under the heads of *Furniture, Royal Society's Catalogue* and *Catalogue of Coins* not provided for in the Budget. Rs. 265-10 was spent in cleaning and renovating certain pictures belonging to the Society, and the cost of a platform for the Society's Meetings. The expenditure on the *Royal Society's Catalogue* has been Rs. 382-13. The balance of Rs. 362-8 for cataloguing the Society's coins by the late Mr. C. J. Rodgers was paid to Mrs. Rodgers. Out of Rs. 1,000 budgetted for the Society's Library Catalogue, Rs. 100 has been paid to Mr. H. B. Perie, the compiler, on account. Owing to extra work involved, it may be necessary to enhance the compiler's remuneration to possibly Rs. 1,300, and the balance, Rs. 1,200, has consequently been budgetted for as an extraordinary expenditure. Besides, Rs. 6,000 has been budgetted for *Repairs* to the Society's premises under the same head. To meet this expenditure permission has been given to draw Rs. 10,000 from the Reserve Fund; but the savings of the past year will to a great extent meet this call without trespassing on the Reserve Fund.

The Budget Estimate of probable ordinary Receipts and Expenditure for 1901 has been fixed as follows:—Receipts Rs. 17,430; Expenditure Rs. 16,126-4. On the receipt side *Government Allowances* have been increased by Rs. 1,000, being contribution due from the Assam Government for our Anthropological publications. The item *Miscellaneous receipts* is based upon the actuals of the last year.

On the expenditure side, the estimate under the head of *Salaries*

has been increased by Rs. 363-7 owing to certain increments] sanctioned to the office staff. *Municipal Taxes* and *Meetings* have also been slightly increased. A sum of Rs. 15 has been allotted for *Registration fee* for 1900 and 1901, covering the fee for filing a copy of the Society's revised rules.

BUDGET ESTIMATE FOR 1901.

		Receipts.					
		1900.		1900.		1901.	
		Estimate.		Actuals.		Estimate.	
Subscriptions	... Rs.	7,000	0 0	8,852	1 6	7,000	0 0
Sale of Publications	...	600	0 0	837	15 6	600	0 0
Interest on Investments	...	5,500	0 0	5,530	0 0	5,530	0 0
Rent of Rooms	...	1,200	0 0	1,200	0 0	1,200	0 0
Government Allowances	...	2,000	0 0	4,000	0 0	3,000	0 0
Miscellaneous	...	400	0 0	110	4 3	100	0 0
Total Rs.		16,730	0 0	20,530	5 3	17,430	0 0
		Expenditure.					
Salaries	... Rs.	3,600	0 0	3,436	9 0	3,800	0 0
Commission	...	425	0 0	416	10 9	425	0 0
Pension	...	52	0 0	52	0 0	52	0 0
Stationery	...	120	0 0	113	5 6	120	0 0
Lighting	...	60	0 0	75	0 0	60	0 0
Municipal Taxes	...	846	0 0	884	4 0	884	4 0
Postage	...	550	0 0	445	2 0	550	0 0
Freight	...	70	0 0	32	8 6	60	0 0
Meetings	...	50	0 0	56	13 0	60	0 0
Contingencies	...	300	0 0	295	5 11	300	0 0
Books	...	1,500	0 0	1,535	2 2	1,500	0 0
Binding	...	750	0 0	495	4 0	750	0 0
Journal, Part I.	...	2,100	0 0	346	14 0	2,100	0 0
" " II.	...	2,100	0 0	2,272	7 0	2,100	0 0
" " III.	...	2,000	0 0	1,275	8 0	2,000	0 0
Proceedings	...	1,000	0 0	652	1 0	1,000	0 0
Printing Circulars, &c.	...	200	0 0	236	6 0	200	0 0
Registration Fee	...	5	0 0	.....		15	0 0
Advertisers' Fee	...	100	0 0	100	0 0	100	0 0
Petty Repairs	...	250	0 0	69	3 0	50	0 0
Total Rs.		16,078	0 0	12,790	7 10	16,126	4 0

Extraordinary Expenditure.

Library Catalogue ...	Rs. 1,000 0 0	100 0 0	1,200 0 0
Repairs ...	.....	.....	6,000 0 0
Furniture ...	.....	265 10 0	.....
Royal Society's Catalogue	.....	382 13 0	.....
Catalogue of Coins ...	.....	362 8 0	.....
Total Rs.	1,000 0 0	1,110 15 0	7,200 0 0

Agencies.

Our London Agency is still in the hands of Messrs. Luzac & Co., and though we have not yet received a detailed account from them, we have remitted £60 on account. The value of the publications sent to them during the year amounts to £24 representing 300 numbers of the *Journal and Proceedings* and Rs. 350-14 representing 503 components of the *Bibliotheca Indica*. From them we have received books and papers of the value of £39-19-2.

Our Continental Agent is Mr. Otto Harrassowitz to whom we have sent publications valued at £27-14 and Rs. 282-6 of which £18-10-10 and Rs. 149-11-10 have been recovered by sales.

Library.

The total number of volumes or parts of volumes added to the Library during the year was 2,328, of which 705 were purchased and 1,623 presented or received in exchange for the Society's publications.

In consequence of enquiries made by the Government of Bengal, the General Secretary examined the records of the Society for the purpose of ascertaining the exact terms under which the valuable collection of manuscripts and books were transferred to the Society on the break-up of the Fort William College Library in 1836. As it required some considerable time to trace the history of the transaction, it will probably be of use to the members to record briefly a summary of the facts so far as obtainable:—The Asiatic Society having learnt that it was the intention of Government to transfer the major part of the Library of the College of Fort William to the Curators of the Calcutta Public Library, wrote to Government on the 8th (? 6th) of February, 1836, offering accommodation for the remainder, namely, the oriental works in the Fort William College Library; and, on condition that Government gave assistance towards the staff necessary to keep the collection in order, agreed (1) to provide for the accessibility of the books to students whether or not members of the Society, and (2) to

recognize the Government's proprietary right to the volumes in question.

On the 24th February, 1836, Mr. Secretary H. T. Prinsep wrote to the Society to state "that the Governor of Bengal accepts the offer of "the Asiatic Society to provide rooms for the accommodation of, and "to hold accessible to the public, the oriental portion of the late "Library of the College of Fort William, and has ordered the books "to be made over on the following conditions:—The books are to be "the property of the Government until the Honourable Court of Directors shall decide whether they shall be made over absolutely or not, "the Society to be ruled of course by their decision. The Government "to allow the Asiatic Society a monthly sum of Rs. 78 (stated by the "the Secretary of the College to be the minimum expense for custody "of the books), in consideration of the Society providing for establishment and keeping the books clean and in proper repair. All "other charges to be provided by the Society. The above allowance to "cease, in case of the property in the books being made over to the "Society."

Arrangements were made consequently for the reception of the books by this Society, and our Secretary was requested to take measures for receiving the books and granting receipts for the same in the course of their daily transfer, which took place during the month of March, 1836. On the 6th of April the Secretary of the Society announced that he had received 1,130 Sanskrit and 2,676 Arabic and Persian volumes from the Fort William College; but the only catalogue then in existence was that which had been prepared by the College officers, and which, having been checked by the Secretary of the Society, was returned to Captain Ouselay, Secretary to the College of Fort William, with a covering letter, dated 18th April, 1836. The Secretary of Government was informed of this transaction in a letter from the Secretary of the Society, dated 4th June, 1836, which was acknowledged by Government letter No. 836 of the 15th June, 1836.

Subsequently the Court of Directors, through the Government, requested the Society to send them the duplicates of the manuscript works which were previously in the possession of the Society, and the Secretary of the Society consequently selected and packed, for transmission to the Court of Directors, the duplicates of the Sanskrit, Arabic and Persian manuscripts transferred from the College Library. The Secretary of the Society in advising the despatch of the three cases of these manuscripts in a letter to the Secretary, Government of India, dated 7th April, 1837, transmitted also a catalogue of the duplicate manuscripts pointing out at the same time that the general catalogue of late

College Library was already in the possession of Government. In 1838 complete catalogues of the manuscripts in the Society's Library were prepared and printed, but they included the works previously in the possession of the Society as well as those obtained from the College of Fort William, and no mark was made in these catalogues to distinguish the former from the latter collection.

The whole of the above transactions had reference to the transfer of manuscript books from the College to this Society. But at about the same time the Society, having learnt that a number of *printed* oriental books had been transferred from the College Library to the Calcutta Public Library, approached the Curators of the latter institution for the purpose of securing the transfer of such printed books to this Society, and the transfer having received the sanction of Government, the books, to the number of about 300, were transferred; and the list of them forwarded by the Deputy Librarian of the Public Library having been checked, signed and receipted by the Secretary, was returned to the Curators of the Public Library with a covering letter dated 27th July, 1836. These books were received by the Asiatic Society on terms precisely similar to those already agreed to in connection with the manuscript works, and the Society continued to receive the Government grant of Rs. 78 per month until August, 1846, when the Court of Directors approved of the transfer of the whole collection of books to the Asiatic Society and the monthly grant of 78 Rupees, allowed by Government for the custody of the books, was withdrawn. The books and manuscripts have ever since been maintained in order at the expense of our members.

The compilation of a new edition of the Society's Library Catalogue having been completed, the Council referred the manuscript to a Sub-Committee composed of Major A. Alcock, Dr. T. Bloch, Mahamahopādhyāya Haraprasad Shastri, Mr. S. C. Hill and Mr. T. H. Holland to make a detailed inspection of the work before printing. The Sub-Committee has not yet completed its task.

On the recommendation of the two Philological Secretaries, Babu Charu Chandra Bhattacharya was appointed Pandit for the Oriental Library in the place of late Pandit Annada Prasad Sarasvati, deceased.

Proposed Reorganization of the Society.

At the instance of Col. T. H. Hendley, I.M.S., C.I.E., the following five proposals were laid before the Council Meeting of March 28th.

1. That two of the monthly meetings of the Society, *viz.*, on the

first Wednesdays in September and October (on which days no meetings are held in Calcutta) should be held in Simla.

2. That these meetings should for the present be ordinarily devoted to the reading of papers, the general business of the Society being conducted as usual in Calcutta.

3. That Rule 1 of the Society, which shows that almost all branches of knowledge relating to the Eastern Hemisphere were included in its original operations, should be interpreted in its widest sense, and that papers and discussions should therefore be welcomed on such subjects as Indian Art, Forestry, Horticulture, &c., which have lately been either ignored or have been dealt with elsewhere.

4. That in order to make the Journals more popular and interesting to the general public, they should appear regularly and contain extracts from, and abridgments of, current literature.

5. That if these suggestions are approved they should be brought before the next monthly meeting of the Society and a Sub-Committee be then appointed to give practical effect to them.

The first two proposals were carried, but the discussion on the rest opened wider questions, and the following Committee was appointed to consider them:—Col. T. H. Hendley, C.I.E., I.M.S., A. Pedler, Esq., F.R.S., F. E. Pargiter, Esq., I.C.S., T. H. Holland, Esq., F.G.S., with subsequent addition of Major A. Alcock, I.M.S., L. de Nicéville, Esq., and Mahāmahopādhyāya Haraprasad Shastri. As a result of the deliberations of this Committee and subsequent discussion in Council, it was decided to submit a scheme for the reorganization of the Society to the general body of Ordinary Members. The scheme, outlined by 9 definite proposals, was discussed at the General Meeting of the 5th December, and afterwards circulated in the usual way to the members, whose votes will be counted at the Annual General Meeting to be held in February next.

Repair of Premises.

At the request of the Council, Mr. E. Thornton kindly made a survey of the Society's premises and submitted a report to Council. The Council having agreed with Mr. Thornton as to the necessity of immediate repairs, appointed a Sub-Committee consisting of Major A. Alcock, Mr. C. L. Griesbach, Mr. E. Thornton, Mr. W. K. Dods and Mr. T. H. Holland to determine the details more urgently necessary, and to discuss the question of establishing a permanent Repairs Fund for future contingencies. The Committee having submitted a report the Council laid the question before a General Meeting and at the same time requested permission to withdraw Rs. 10,000 from the Permanent Reserve

Fund for present repairs and for the purpose of starting the proposed "Repairs Fund." The proposal was submitted to the whole body of ordinary members under rules 64(c), 64A and 65 and the votes recorded were 111 "for" and 1 "against" the proposals. Messrs. Martin & Co. submitted an estimate for repairing the Society's premises, which was accepted as revised by the Repairs Committee, Rs. 6,000 being assigned, and the work, which was taken up at once, has now made considerable progress.

On account of the marked improvement made in the financial position of the Society during the past year, the Council thinks the scheme for a Repairs Fund can this year be definitely shaped, and that we shall be in a position to devote the amount, Rs. 1,200, now received annually as rent for rooms leased to the Photographic Society, towards keeping the premises in an efficient state of repair. The Council takes this opportunity of thanking Mr. Thornton for his assistance and advice.

On a report of an inspection of the Society's pictures kindly made by Mr. E. B. Havell, and the Honorary General Secretary, Council ordered the picture of a "Ghat at Benares" and the portraits of D. J. Patterson, F. Stoliczka and Dwarkanath Tagore to be repaired and varnished at a cost of Rs. 97.

Exchange of Publications.

During the last year, the Council accepted four applications for exchange of publications with other Societies, *viz.*, (1) from the Naturhistorische Gesellschaft, Nürnberg, the Society's *Journal, Parts II and III*, being exchanged for their *Abhandlungen*, (2) from the Illinois State Laboratory of Natural History, the Society's *Journal, Part II*, and *Proceedings* being exchanged for its *Bulletin*, (3) from the Berliner Entomologischer Verein, the Society's *Journal, Part II*, being exchanged for their *Journal*, (4) from the Seminar für Orientalische Sprachen, Berlin, the Society's *Journal, Part I*, and *Proceedings* being exchanged for its *Mittheilungen*.

Secretaries and Treasurer.

There were two changes among the officers of the Society. Mr. F. Finn resigned the office of Natural History Secretary in February and Mr. L. de Nicéville was appointed. Lieut.-Col. L. A. Waddell requested to be relieved of the duties of Anthropological Secretary on his transfer from Calcutta, and Mr. F. E. Pargiter, I.C.S., kindly consented to undertake the work of editing *Journal, Part III*. The

unavoidable interruption in the publication, of this part of the *Journal* will, it is hoped, not be repeated in future, and the Editor has now in the press a series of papers which it is anticipated will fulfil our obligations to the Local Governments which have generously guaranteed a grant for publishing papers on Anthropology.

The duties of the Philological Secretary have been shared during the year by Dr. T. Bloch, in charge of *Journal, Part I*, and the Coins, and Mahamahopadhyaya Haraprasad Shastri in charge of the *Bibliotheca Indica* and the work of collecting Sanskrit and Vernacular Manuscripts.

The office of General Secretary has been held throughout the year by Mr. T. H. Holland, whilst the Society is indebted to Mr. W. K. Dods for continuing the duties of Treasurer during the period under report.

Publications.

There were published during the year ten numbers of the *Proceedings* (Nos. 10 & 11 of 1899 and Nos. 1-10 of 1900), containing 160 pages of letter-press; one number of the *Journal, Part I* (No. 1 of 1900), containing 92 pages of letter-press; four numbers of the *Journal, Part II* (No. 4 of 1899 and Nos. 1-3 of 1900), containing 580 pages of letter-press and a plate of 1898. There were also published a catalogue of the Society's Sanskrit books and MSS., Part II, and the Index to *Journal, Part II* for 1899.

Journal, Part I.

Of the first part of the Society's *Journal* only two numbers have been published during the past year, each of about a hundred pages. Of these, No. 1 was issued in August last, and No. 2 is just being printed off and will shortly be published.

It is in keeping with the traditions of our Society that of the papers published during the last year, not less than five deal with inscriptions. Of these inscriptions, three are published for the first time, while the remaining two are second and improved editions of documents already known. The first paper to be noticed is an edition by Babu Nagendranatha Vasu of a new copper-plate inscription of Madanapāla the original of which was presented to our Society by Mr. N. K. Bose, C.S., and exhibited to the Society at its Annual Meeting in 1899. The plate was found in the Dinajpur District, the old stronghold of the Pāla Kings of Bihar and Western Bengal. It gives us a long list of kings belonging to this dynasty, not less than seventeen, down to Madanapāla, who must have lived somewhere near the beginning of the 12th century A.D. It was a happy coincidence that some of the names of these kings, all previously unknown to us, were

found at the same time in an interesting literary work, the discovery of which is due to Mahamahopadhyaya Haraprasad Shastri. This work is called *Rāmacaritam* and is a poem of double meaning, each verse being applicable both to the history of the mythical hero Rāma and also to the historical kings Rāmapāla and his predecessors. Its value lies in this that it is the first historical poem found in Eastern India, being of the same class as the biography of Harṣa of Kanauj by Bana, the history of the Paramāra king Navasāhasānka of Malwa, and the poem written by Bilhaṇa, a Kashmiri pandit, in honour of the Calukya king Vikramāditya, all of which come from the West. It is hoped that the learned discoverer will soon find leisure to publish this most valuable find of his.

The copper-plate of Madanapāla which has just been referred to is interesting also from a sociological point of view. We know that all the Pāla Kings were followers of the Buddhist religion and that it was during their reign that Buddhism flourished for the last time in India. Now, the grant recorded in the plate was made by Madanapāla to a Brahman as a *dakṣhiṇā* or honorarium for having read the Mahābhārata to the queens of the king's harem. This is one more fact, in addition to others previously known, showing the intimate connexion that existed in the time of those Buddhist kings between Buddhism and Hinduism, a connexion that resulted in the former losing more and more its ground against the latter, and that thus prepared the way for the final destruction of Buddhism by the Muhammadan invaders.

During the last decades of the reigns of the Pāla kings, there rose to power in Bengal another family of Hindu princes who came from the South and were Kṣatriyas of the Lunar race, the Sena kings. Of them Lakṣmaṇasena, the great friend of poets, still lives in the memory of the people. Of him, too, a new copper-plate inscription was published in the Journal of last year by Babu Akshay Kumar Maitra. It is interesting as a document coming from this famous king, but does not add much new information to what we already know with regard to his period and history. The third inscription belongs to a king Jayāditya who lived in the 9th century A.D. Its discovery is due to Dr. Hoey; and it has been published by Dr. Bloch in an Appendix to a paper by Dr. Hoey, which is referred to below. The plate was found in the Gorakhpur District, and to the north of this district we have to look for the dominion of this king, as in an inscription of his father—the only other document of this dynasty known to us—his capital, Vijayanagara, is described as situated on the slopes of the Himalayas. As with other dynasties of Indian kings, scarcely more than the names of the kings of this dynasty are known to

us, and we must await further discoveries before we can say anything with regard to their history, the extent of their dominions, and their relations with other contemporary rulers.

With regard to these matters the case stands much better in Orissa. There from the time of the conquest of that country by the Gaṅga kings, who came from the south, history begins to dawn, and a complete series of historical data is known to us both from inscriptions and other sources. Babu Mano Mohan Chakravartti, who, having been stationed in Orissa for some years, has made this part of Indian history his special study, has again in the Journal of last year contributed a new and valuable addition to our knowledge of Orissan history in a paper in which he publishes a long inscription of Kapilendra Deva, one of the Orissa kings—by the way, the earliest known specimen of writing in modern Uriya character—and in which he deals with the chronology of the last rulers of that country up to Mukunda Deva who was overthrown by Kalapahar, the general of the Afghan king Sulaiman. The same learned author, when stationed at Gaya, took the opportunity to procure a good copy of an inscription at the KṛṣṇaDvārikā temple there, and has contributed his reading and translation of the same to our Journal. The inscription refers itself to the time of Nayapāla, one of the predecessors of Madanapāla who is referred to above. It has now been read completely, while previous editors were able to decipher only portions of it.

More general questions touching on Epigraphy and Palaeography are dealt with in a paper by Dr. Hoernle which was read before the Society as long ago as 1898. Dr. Hoernle has made a searching inquiry into the various writing materials used in India, *viz.*, Palm-leaf, Birch-bark, and Paper, and it led him to certain conclusions as to the localities and times in which these materials were in use. From this he proceeds further. It is now generally accepted that the ancient Indian alphabet, as we find it first in the inscriptions of Aśoka, was borrowed from the Phoenicians. The date fixed for this is approximately the 8th century B.C. Now, as certain changes, which the Phoenician letters had to undergo when taken over by the Indians, are best explained if we suppose that they were adapted to a writing material such as palm-leaf, and, moreover, as we know the palm-tree, the leaves of which were used for writing purposes, is indigenous in Southern India, Dr. Hoernle concludes that it was the South, and not the North, of India, where the Phoenician alphabet first came into use. There certainly existed an ancient trade through the Arabian Sea between Phoenicia and Southern India, witnesses of which are some words of Dravidian origin that crept into the ancient languages of Western Asia

at an early date, and Dr. Hoernle's theory is in keeping with this fact and contributes to it some additional strength.

The paper by Dr. Hoey mentioned above takes us into another department, the ancient Geography of India. Dr. Hoey tries to fix the sites of some places famous to us from Buddha's history, especially Vesali and the place where Buddha entered Nirvāṇa, Kusinara. He believes he has found those sites in the modern districts of Chupra and Saran. The latter place, Kusinara, he identifies with a locality now called Sewan in the Saran District. This would lead us much further south than where Kusinara is now generally searched for. After the identification of the true site of Buddha's birthplace, Kapilavastu, by the help of the Aśoka pillar discovered in 1896 near Paderia in the Nepalese Terai, it is now generally believed, on the strength of the directions given in the Chinese itineraries, that Kusinara will be found in the Terai somewhere to the north of the modern district of Champaran, but we must await further discoveries before the point can be definitely settled, and we have to thank Dr. Hoey, who has rendered many valuable services to Indian Archæology, for having given the discussion a new start.

Of the last four papers to be mentioned two are devoted to the later Muhammadan period of Indian History, while the other two deal with the non-Aryan languages of India. The first is by Mr. Irvine, the great authority on the history of the later Mughal Emperors. It is an edition and translation of a Hindi poem composed by a Brahman of Allahabad, by name S'ridhar Murlidhar, describing the struggle between Farrukhsiyar and the other pretenders to the Mughal throne that ended in the success of the former. Mr. Beveridge has contributed a short note on the tomb of Badaoni, the famous historian of Akbar, which he was successful in discovering when he visited Badaon in December 1899. The tomb was pointed out to him near the village of Atapur, but it is a plain tomb, without any inscription, and only tradition still preserves the memory of it.

To the knowledge of the non-Aryan languages of India, the Revd. H. Francke, a Moravian Missionary at Leh in Ladakh, has contributed an interesting collection of Tibetan proverbs obtained by him in Ladakh, which are of value, not only to the student of folk-lore, but also to the linguist, being, specimens of a little known dialect of the Tibetan language. Lastly, mention should be made of a paper contributed by the Revd. F. Hahn, a German Lutheran Missionary at Lohardagga, on the language of the Asurs. They are a small aboriginal tribe in Chutia Nagpur, consisting of not more than 2,500 persons, and speaking a language of their own. He has also contributed, in

the introduction to his paper, an interesting note on their social habits and religious beliefs.

Journal, Part II.

Four parts containing over 500 pages of the Journal, Vol. lxxix, Part II, which is devoted to Natural Science, were issued during the current year. They comprise nineteen papers, and fully sustain the high scientific value of the Journal of the Society.

The first paper of 87 pages is No. 11 of Sir George King's "Materials for a Flora of the Malayan Peninsula," and contains an account of the order *Melastomaceæ*. One genus, *Sonerila*, has been written by Dr. O. Stapf, First Assistant in the Royal Herbarium, Kew. The sub-orders *Melastomeæ*, *Astroniæ* and *Memecyleæ* are characterised. No new genera, but 61 new species and 11 new varieties are described. All the previously described species in the orders are re-described by Messrs. King and Stapf, the paper thus forming a complete monograph of the order.

With No. 2 was issued a coloured plate of certain larvæ and pupæ of butterflies, from the Ké Archipelago, to illustrate Mr. de Nicéville's paper on the butterflies of those islands published in Vol. lxxvii, Part II, of the Journal for 1898.

The second paper by Mr. W. P. Masson deals with four rare mammals occurring in the neighbourhood of Darjeeling.

The third paper is by Babu Promothonath Dutt, and is entitled "On a new method of treating the properties of the circle and analogous matters," and is illustrated by five woodcuts in the text.

The fourth paper is a "Note on a method of detecting free Phosphorus" by Professor P. Mankerji, who gives an account of the apparatus used and the method of carrying out the test.

In the fifth paper Captain H. J. Walton, I.M.S., records the occurrence of the Desert Rose-Finch (*Rhodospiza obsoleta*, Licht.) in the Tochi Valley, which is the first record of the occurrence of this bird within the limits of the Indian empire.

In the sixth paper Col. C. T. Bingham and Mr. H. N. Thompson give a list with copious and very interesting notes of the Birds collected and observed in the Southern Shan States of Upper Burma. Three hundred and one species are catalogued. No new species are described.

The seventh paper is by Mr. F. Finn, and is devoted to re-describing the form of Cormorant inhabiting the Crozette Islands. The bird was first described by Mr. Blyth in our Journal, and the type specimen is still in the collection of the Indian Museum, Calcutta, Mr.

Finn points out that if the species is a distinct one it will stand as *Phalacrocorax melanogenys* (Blyth).

In the next paper Mr. Finn in conjunction with Lieut. H. H. Turner gives a note on two rare Indian pheasants from the Chin Hills of Upper Burma.

In the ninth paper Mr. Finn records "Notes on the Structure and Function of the Tracheal Bulb in male *Anatidæ*." He describes the structure of the trachea in four drakes, and the sound made by both sexes of nine species of ducks.

In the tenth paper Mr. Lionel de Nicéville records a "Note on *Calinaga*, an aberrant genus of Asiatic Butterflies." Different structural characters are described, and notes on the geographical distribution of the five known species are added. He thinks it probable that the genus should be placed in the family *Nymphalidæ*, and in the subfamily *Dumetinae*, near the genus *Radena*.

The eleventh paper is by Captain H. J. Walton, who gives copious notes on 157 species of birds collected or observed by him in Kumaon in the months of April to July.

Major D. Prain in the twelfth paper describes twelve new plants from Eastern India, and in the thirteenth gives a list of the Asiatic species of *Ormosia*. A key to these plants is given, also a table of distribution of the South-Eastern-Asiatic species of the genus, 22 in all.

The fourteenth paper is by Mr. Lionel de Nicéville, and consists of a list of the known food-plants of the butterflies of the Kanara District of Southern India, and a revision of the species of butterflies there occurring. In part I, 194 species of plants are named, and the names of the butterflies which feed on them in the larval state are given under each. In part II, 245 species of butterflies known to occur in Kanara are listed, with the plants noted under each name on which their larvae feed. This is the first time such lists have ever been published out of America, and should prove of interest both to the botanist and to the entomologist. Incidentally a list of the butterflies of the family *Lycænidæ* is given which in the larval or pupal stages or both are attended by ants, 27 species of butterflies in all. Descriptions are also given for the first time of the transformations of many of the butterflies. Similar lists are given of a few butterflies and their food-plants from the Western Himalayas and Kashmir.

In the fifteenth paper the editor of this part of the Journal gives a note on the synonymy of the avian genus *Harpactes*, Swainson, which name, being pre-occupied, will have to fall before *Pyrotrogon*, Bonaparte, when used for birds.

The sixteenth paper of 177 pages by Major A. Alcock entitled

“Materials for a Carcinological Fauna of India, No. 6. The *Brachyura Catometopa*, or *Grapsoidæ*.” The paper, like its predecessors, not only contains descriptions of all the families, genera, and species of Indian *Catometopa*, but is also a systematic monograph of the genera of the entire group. The *Catometopa* are here divided into nine families, all of which are newly characterized, and among them the *Palicidæ*, the systematic position of which has long puzzled carcinologists, are included. 136 species are described, 31 of which are new to science: they fall into 55 genera, of which 3 are new. The large number of new species is probably explained by the fact that the paper covers the large collections of the R.I.M. Survey Ship “Investigator”—collections made for the most part in depths that lie outside the reach of ordinary collectors. By the publication of this paper the total number of species of Brachyurous Crustacea recorded for the Indian region is raised to 606, exclusive of the freshwater *Telphusidæ*.

The seventeenth paper by Captain L. Rogers, M.D., I.M.S., is a very important one, and is entitled “The relationship of the water-supply, water-logging, and the distribution of *Anopheles* Mosquitos respectively, to the prevalence of Malaria north of Calcutta.” This paper is illustrated by a map, which unfortunately is not ready, but will be issued with a subsequent number of the Journal. The conclusions Dr. Rogers arrives at are that the quality of the water drunk by the people has chiefly to do with the prevalence of malaria in them, and that in India at any rate mosquitos by their bites or stings are not the prime cause of malaria, though they may play a part by taking the malarial parasite back from their human hosts to the water drunk by the people, but that a good water-supply is an important prophylactic measure in lessening the prevalence of malaria.

Dr. P. C. Ray contributes the eighteenth paper, “Further Researches on Mercurous Nitrite and its Derivatives,” and “On Mercurous Iodide and a new Method of its Preparation.” A woodcut is given of the apparatus used for the first of these experiments.

The nineteenth and last paper is by Mr. J. S. Gamble and Major D. Prain, and describes a new genus and species of plant of the Western Himalayas of the order *Orobanchaceæ*, the genus being named *Gleadovia* after the first finder of it, Mr. F. Gleadow.

Journal, Part III.

The number of papers read in the Anthropological Section during the year was three, and they were on—“The Coorgs and Yeruvās, an ethnological contrast” by Mr. T. H. Holland, ‘The Vēlamā Caste in Bernar’ by Captain Wolseley Haig, and ‘Ancient Stone implements in

the Santāl Parganas' by Rev. P. O. Boddling. The first was read at the January meeting, and the two others at that in November.

In the first paper Mr. Holland gives details of measurements made on the two largest tribes in the province of Coorg, and compares them with previously published results for other tribes in South India. The Yeruvas, like the Kurumbas, Irulas, Paniyans and other aboriginal tribes, are thick-lipped, wavy-haired, black-skinned, platyrhine and short of stature. The Coorgs, on the contrary, stand out amongst the people of South India by reason of their comparatively fair skin, great stature (168.5 cm.), mesorhine (72.1) nose, sub-brachycephalic cranium (79.9) and in many physical characters generally presented by races of the so-called higher types. The much disputed question of Coorg caste is discussed, and, assuming the Brahmans of South India to represent the highest caste, that is, to lay claim to the purest Aryan relationship, the Author recommends the Coorgs to follow Mr. Richter's advice and despise all notions of caste.

In the second paper Captain Haig describes a caste, which is numerous in the north-eastern districts of the Madras Presidency and in the Nizām's Dominions, and has spread into Berar, and which, though agricultural now, claims a war-like ancestry.

Mr. Boddling narrates in his paper how he chanced to discover the existence of ancient stone implements among the Santāls under the name of 'thunderbolts.' They believe that such stones fall from the sky with lightning and attribute great medicinal virtues to them. He describes with the aid of plates the stones which he has succeeded in collecting and explains their supposed virtues. His discovery is interesting in that it furnishes a ready clue towards finding similar articles elsewhere, by enquiring simply about 'thunder-bolts.'

The publication in the Anthropological or Third part of the *Journal* for the year 1900 will be that of one paper, Col. Waddell's 'Wild Tribes of the Brahma-putra Valley.' It was read at the November meeting in 1899, but there has been a most regrettable delay in issuing it, for, when the paper was being printed, the Author was ordered away to join the expedition to China during the middle of the year and has been absent ever since, and the publication has been greatly impeded. It is hoped, however, that he will be able to finish it soon. The paper gives a description of the tribes, their divisions, manners, customs and religious ideas, and also copious anthropometrical information; and it will be embellished with a large number of photographic illustrations.

The difficulty which has attended this paper has delayed other papers, but they will be issued early during the present year.

Coins.

During the last year the Society has been presented with 30 new coins. Of these, 15 are small pieces of lead, with hardly any mark on them, so that one is led to question their nature as coins. The Society possesses already a large number of similar pieces. One gold coin is a so-called *padmaṣāṅkā* (because it is shaped like a lotus). It has been attributed to the Kādamba kings of the North-Western Dekhan and Northern Mysore, of about the 5th or 6th century A.D., but the shape of some Nāgari characters occurring on it leads one to put it down to a considerably later period. From Southern India also came 8 small gold coins, so-called *ḥanams*, presented to us by Lieut.-Col. Bain. It is difficult to say to which dynasty or period they belong, and very little is known about them. Lastly, we have received 6 Muḥammadan coins, viz., 1 each of Alāuddīn *Khiljī* and *Ghiyāsuddīn Tughlaq* and 2 of Muḥammad ibn Tughlaq, all Delhi Emperors of the 13th and 14th centuries A.D., and one rupee each of the Mughal Emperors Muḥammad Shāh and Shāh Ālam, the former being from the Surat Mint.

Bibliotheca Indica.

Twenty fasciculi have been published during the course of the year at a cost of Rs. 8,780-4-9. Of this sum the printing charges amount to Rs. 5,360-12-9 and the editing charges to Rs. 3,399-8-0, the average cost of publishing each fasciculus being Rs. 439. Of these twenty fasciculi, one is in the Tibetan and nineteen in the Sanskrit Series; none is in the Arabic-Persian series. The following is a descriptive catalogue of the works which have been either commenced or finished during the year.

WORKS THAT HAVE COME TO A CLOSE.

TIBETAN SERIES.

Sher Phyin is a literal translation of the *Çatasāhasrikā Prajñāpāramitā* in Tibetan. *Prajñāpāramitā* is the great work of the Mahāyāna School. Nāgārjuna the great preacher of Mahāyāna, who flourished in the second century of the Christian Era is said to have brought the *Prajñāpāramitā* from the nether regions. It has several recensions of various extent. One is called the *Svalpākṣarā*, a recension in a few words very recently discovered in Nepāl. The second is in seven hundred *çlokas* known as *Saptaçatikā Prajñāpāramitā*. The third is *Açtasāhasrikā Prajñāpāramitā* in 8,000 *çlokas*. This has already been published in this series. The fourth is *Pañcaviṃçatisāhasrikā Prajñāpāramitā* in 25,000 *çlokas*. The fifth and the largest is the *Çatasāhasrikā*

Prajñāpāramitā, and of this the work published is a Tibetan translation. The work has been edited by Babu Pratāpacandra Ghoṣa, a gentleman whose connexion with the Society began in the early sixties. He has successfully brought the difficult and arduous work he had undertaken to a successful close, and the credit of editing and publishing the largest work in Tibetan belongs to him. This is perhaps the first time that a Tibetan work on Buddhism has been published in its entirety.

SANSKRIT SERIES.

Tattvacintāmaṇi, the great work of the Amalgamated Nyāya-vaīṣeṣika School, which is the property and glory of Eastern India and which has been exercising an immense influence on the brahmanic mind for the last seven or eight centuries, has been practically completed during the year. The last fasciculus containing indices has been printed but not yet published. It is in four parts called Khaṇḍas, each part treating of one pramāṇa or method of proof. The pramāṇas, according to this school, are four, namely, perception, inference, analogy and testimony; and there are parts treating of each of these. The second part, that on inference, has a subdivision entitled Īcvarānumāna, i.e., inference of the existence of a Creator. The work has been edited by Paṇḍita Kāmākhyānātha Tarkavāgiṣa, the Professor of Hindu Philosophy in the Sanskrit College, Calcutta, on whom an appreciative Government has recently conferred the title of Mahāmahopādhyāya. The work has taken about 18 years to complete.

WORKS THAT HAVE BEEN COMMENCED.

SANSKRIT SERIES.

The Çatapatha Brāhmaṇa was published about forty years ago by Professor Weber of Berlin, but it was without a commentary and without that system of elaborate indices without which Vedic works are of little value to scholars. It was for this reason that the Council of the Asiatic Society of Bengal accorded their permission to the publication of the work with Sāyaṇācāryya's commentary and indices to Ācāryya Satyavrata Sāmaṅgami who had already practically completed his edition of the Aitareya Brāhmaṇa with a commentary and indices. The work has been taken in hand and two fasciculi have already appeared.

The Çlokavārtika in verse and the Tantravārtika in prose complete the great work of Kumārila on the Mimāṃsā School of Hindu Philosophy, which concerns itself with laying down principles and rules for the interpretation of the Vedas. This great work was written in the seventh century and was the first great polemical work which, by refuting other systems, established one system of Hindu faith. Çaṅkara

came after Kumāṛila and Udayana after him. An English [translation of the Çlokavārtika has been undertaken by Babu Gaṅgānātha Jhāu, Librarian of the Mahārājā's Library, Darbhanga, a young graduate of the Allahabad University of great promise. One fasciculus appeared during the year under review.

The manners and customs of the Hindus will for a long time remain an interesting subject of study for scholars and the great repositories of these are the Smṛti works, especially the compilations. They exhibit the rituals in a variety of forms in different countries and at different times. Gadādhara, who flourished in the fourteenth century, made a Smṛti compilation which has peculiar interest from the fact that Orissa had not then succumbed to Muḥammadan influence. Paṇḍita Sadāçiva Miçra of Puri was therefore permitted to bring out an edition of Gadādhara's compilation known as Gadādharapaddhati. He has published one fasciculus during the year.

Piṅgala is reputed to be the originator of the science of Prosody among the Hindus. His Sūtras in Sanskrit were published long ago by the Society and his work in Prākṛt appeared from various places. The edition of the Prākṛt work attributed to him, however, did not satisfy the needs of scholars. Therefore Babu Candramohana Ghoṣa, who had already distinguished himself by his excellent work on the Chandas entitled Chandaḥ-sāra-saṅgraha, was permitted to bring out an edition of Prākṛtapaiṅgala with several commentaries and with indices and mathematical calculations. He has already published three fasciculi.

Obituary.

The Right Hon. Prof. F. Max Müller.

The Right Hon. Professor Dr. F. Max Müller, whose death occurred at Oxford in October, 1900, has been an Honorary Member of our Society since 1860. He was born at Dessau in Anhalt, Germany, on the 6th December 1823. His father Wilhelm Müller, a teacher and librarian at the Gymnasium, has made himself famous by his lyric poems, some of which are still much admired and often sung in Germany. By his mother Müller was descended from Basedow, the famous philanthropist and friend of Goethe. Müller was educated at Leipsic, where he also began his University course. Here it was Hermann Brockhaus, the editor of the Kathāsarit-sāgara and the Diwān of Ḥāfiẓ, who turned his mind towards the study of Oriental languages. He continued these studies at Berlin under Bopp and Rückert, and also went through a philosophical course under Schelling. Already at the age of twenty, he made himself known by a German translation of the Hitopadeça. After taking his degree of Ph.D. at Leipsic, he went to

Paris, then the centre of Oriental learning, where he studied under the famous Sanskrit scholar Eugène Burnouf, and the great Chinese scholar Stanislas Julien.

At that time to a young Sanskrit scholar a visit to England was indispensable. A very small portion only of Sanskrit texts was then available in print, but the libraries at London and Oxford contained vast treasures of Sanskrit manuscripts. It was for this reason that, in 1846, Müller decided to go to England. Here he was introduced to Bunsen, then the Prussian ambassador at London, and himself an enthusiastic admirer of Oriental thought and literature.

This event became decisive for his future career. It was through the mediation of Bunsen that the Court of Directors of the East India Company undertook to publish the edition of the Rg-Veda with the commentary of Sāyaṇa, which Müller planned at that time, and for which it would have been impossible to find a private publisher. Through Bunsen also Müller was introduced to influential circles of English society and induced to settle finally in England. Here, at Oxford, he was appointed Professor of Modern Languages at the Taylorian Institute and elected a fellow of All Souls College. When in 1860 H. H. Wilson died, Müller was not, however, on account of his liberal views in theological and religious matters, elected as his successor to the Boden Professorship, although by his eminent work done in the field of Sanskrit studies he would have seemed to possess a strong claim to that post, and it was only in 1868 that he was appointed Professor of Comparative Philology. When, after the Franco-German war, the German Government reorganized the University at Strassburg, efforts were made to bring Müller back to his fatherland, and a professorship at the new University was offered to him. He did not accept it, however, partly in order to have more leisure for his literary work, and partly because England had become a second home to him from which he did not wish to separate; but he consented to deliver a course of lectures on Comparative Philology at the new University, and he granted a sum of money, the interest of which was to be given yearly as a prize for an essay on Vedic literature, the subject of which was to be determined by the University of Strassburg.

His distinguished career in England is too well known to be further detailed. Here intimate friendship connected him with many eminent men of his time. He had mastered the English language so thoroughly that he was able, within a few years after his arrival in England, to undertake for the first time an English translation of Kant's *Kritik der reinen Vernunft*, a very difficult task, as will be understood by every one who has tried to find his way through the writings of the great philosopher

of Königsberg. Although he never visited India, he had many friends and admirers among the natives of this country. By the simple pandit as well as by the nobleman he was looked upon with equal veneration as a friend and lover of India, who was always eager to impress upon Western minds what its ancient philosophy and literature can still teach us. The second edition of the Rg-Veda received a grant-in-aid from Indian princes, and the King of Siam enabled Müller to add to his Sacred Books of the East a second series devoted entirely to English translations of Buddhist scriptures. In India and all over the civilized world his name stands foremost in all matters connected with the study of languages and religions.

Müller's literary and scientific work has been principally devoted to three branches: Sanskrit, especially Vedic literature, Comparative Philology, and the history of Religion. In the first of these three branches, the great edition of the Rg-Veda with the commentary of Sāyaṇa, which has been already alluded to, is by far his most eminent work, and although less known to the general public than his literary essays, it has gained for him an everlasting place in the history of philological research.

At the time when Max Müller began his Oriental studies, the importance of the Veda had just dawned upon the mind of the then living generation of Sanskrit scholars. The early pioneers of Sanskrit studies had entirely contented themselves with the classical literature and almost totally neglected this earliest literary document of the Indo-European race. Even Colebrooke found its meanings too obscure, and its language too difficult, to expect that it would repay a careful study, and in his *Essay on the Veda*, published in 1805, he warned others against wasting any time on it. But in the forties of the last century matters had already changed. Friedrich Rosen had begun to publish a small portion of the Rg-Veda, which, however, had come to an early end by his sudden death in the prime of life. In Paris the great Eugène Burnouf, although his own publications dealt with the Avesta and Buddhist literature, pointed out the great importance of the Veda. It was in Paris, too, that Rudolf Roth collected the materials for Vedic lexicography, which he incorporated later on into the great Petersburg dictionary, jointly edited by him and Böhtlingk, and upon which he based his important book on the literature and history of the Veda. At that time the treasures of Vedic literature were still lying buried in manuscripts, and the first task accordingly was to publish the Vedic texts. Thus Benfey in Göttingen brought out an edition of the Sāma-Veda, while Albrecht Weber in Berlin undertook to edit the voluminous Çākhā of the White Yajur-Veda according to the recension of the Vāja-

saneyī school, a work full of difficult discussions on intricate points of Vedic ritual.

The oldest and most important Vedic book, the R̥g-Veda, was entrusted to Max Müller. It has already been related how he found an opportunity of publishing such a voluminous work. As he himself tells us, during the time he was engaged with this task, from 1850 up to 1875, he had to prepare for the press in each year 35 formes in large quarto size of a text full of intricate matter, requiring a thorough mastery of the language as well as of all other points connected with its interpretation. His edition of the R̥g-Veda, which was published a second time some years ago, is universally acknowledged to be a standard work of its kind; and at present, where the interpretation of the often obscure hymns of the Vedic R̥sis tends to vindicate to the commentary of Sāyana a greater value than originally had been given to it, he will be thanked for having spared no trouble in completing the often tedious task of preparing an edition of the entire commentary, instead of giving only abstracts, as had been done in similar cases.

Müller's next valuable publication in the same branch is his History of Ancient Sanskrit Literature. In this book he attempts to lay open the subsequent strata of the vast bulk of Vedic writings. He begins with the latest of them, the Sūtras, or ritualistic manuals, and shows how this class of literature presupposes an older one, the Brāhmaṇas, devoted to speculations on the various sections of the sacrifice, and on the meaning of the spells used in connexion with it. The Brāhmaṇas, again, had before them collections of *mantras* or spells, which must go back to a remoter time, and these collections of *mantras* often exhibit a misunderstood and conventional use of hymns, which had been composed in a previous time, the period to which the oldest parts of Vedic literature go back. He thus distinguishes between four consecutive periods, which, in the order they followed one another, he calls the *chandās*-period or the period in which the Vedic hymns were composed, the *mantra*-period or the period in which they were put together into collections intended for sacrificial purposes, the *brāhmaṇa*-period or the period of sacrificial speculation, and the *sūtra*-period or the period in which correct rules for the ritual were laid down. To each of these periods he attributes a certain amount of time, and starting from the supposition that the latest, or Sūtra period, had come to a close some hundred years before the rise of Buddhism, he arrives at the year 1500 B.C. as the approximate beginning of Vedic literature. It has recently been attempted, on the strength of astronomical data contained in the Veda, to push this time about two thousand years further back, but these attempts cannot be

said to have met with any general approval among competent authorities, while, on the other hand, the division of the four successive periods of Vedic literature is now universally accepted, and has been corroborated by further details brought to light by later researches.

In connexion with Müller's Sanskrit publications, his book on "India, what it can teach us?" also deserves mention. It originated from lectures delivered by him to the candidates of the Indian Civil Service at Cambridge, the object of which was to direct the interest of the future administrators of India towards the value which its literature, history, and antiquities still possess for us. In addition to those lectures he published an appendix detailing his views on the history and chronology of Sanskrit literature. His principal theory here is that of a revival of Sanskrit literature. He believes that after the Vedic and Epic periods the development of Sanskrit literature had been interrupted in the first centuries of the Christian era, while the greater part of India was under the sway of foreign invaders, Turanian princes, who imported foreign habits and were more addicted to Buddhism than to the promoters of Sanskrit literature, the Brahmans. The revival began in the fifth century, when princes of Indian blood again acquired a footing over their country and drove the strangers back, and it was at that time that classical Sanskrit literature sprung up. This theory is at present hardly any more accepted, but its value lies in formulating the problem and raising the discussion.

In speaking of Müller's literary works devoted to Comparative Philology and the history of Religion, I must not be misunderstood if I say that, wherever his work in this connexion is looked upon as original research, its due merit is not given to it. His Lectures on the Science of Language, published between 1861 and 1863, have certainly had a far reaching influence. Many a young student, fascinated by the masterly manner in which Müller understood how to handle the most tedious problems, owes to this book the first turn of his mind towards those studies, and it is greatly due to it that Comparative Philology became so popular not only in England but also on the Continent, as it was in the seventies and eighties of the last century. But although, at the time of its first appearance, it met only with isolated criticism from experts, such as Professor Whitney, yet now-a-days it is hardly spoken of any more. The progress of Comparative Philology in later years has been entirely ignored by Müller. His subsequent publications scarcely anywhere refer to new theories and discoveries, of which a great number have sprung up since 1875 so as to change the entire aspect of this science. By saying this, I do not wish to detract anything from his great merits. I readily admit that he has done more to promote the study of languages

than many a learned and most original publication but he has done so, not by adding any new and original results to this science, but by opening the eyes of the public to its value and importance.

The same must be said in regard to Müller's work on the history of Religion. Here we owe to him that most important publication, the Sacred Books of the East, a collection of English translations of the standard works of all the great religions of Asia. It exhibits in a singular manner his great talent as an organizer. He himself contributed a translation of the Dhammapada and of the Upanishads, and he acquired for it the co-operation of first class authorities in each respective branch. Thus, whoever is interested in Oriental religions has now an easy access to the standard works of Hinduism, Buddhism, the religions of Jains and Parsis, the philosophies of Confucius and Laotse, all laid before him in thoroughly trustworthy translations, which are equally valuable to the specialist as they are interesting to an amateur. But I regret to be unable to express the same opinion on Müller's own Essays on the history of Religion. His mythological theories are now happily discarded by most authorities, and if one tries to read through some of his later books, such as Physical Religion, Anthropological Religion, or whatever its name may be, one rests surprised to find under the glittering garment of a brilliant style so little that is new, nay, even so little that one does not recollect to have met with somewhere else in Müller's earlier books. He certainly was a most brilliant writer, and as his books, too, originated from lectures delivered by him, not before experts, but before a larger circle of amateurs, one may even say that he was under a certain necessity to please his hearers rather than to feed them on the dry fare of new facts and theories.

Thus, while Müller stands foremost among the pioneers of Vedic studies, his work in connexion with other branches of the study of languages and religion does not excel by original research, and yet has greatly helped to promote their popularity. But the advancement of science rests upon both, and he who endeavours to spread the knowledge found by others acquires no little merit. And the student who has made the study of Oriental languages and religions his life-work, ought never to forget the amount of gratitude he owes to the late Max Müller for the reputation in which this branch of learning has been and still is held.

[T. BLOCH.]

John Anderson, M.D., F.R.S.

By the death, on August 15th, 1900, of Dr. John Anderson, the Society has lost one of its oldest and most distinguished members, whose connexion with the Society dated from January, 1865.

Dr. Anderson was born on the 4th October, 1833, and graduated M.D. in the University of Edinburgh in 1861, his graduation thesis which was entitled "Contributions to Zoology," indicating the natural bent of his mind.

Before this he had already carried out some successful dredging operations off the coast of Scotland, and about this time he initiated his long series of Zoological publications with two papers *On an Apparently New Form of Holothuria*, and *On the Anatomy of Sacculina*, which appeared in the Annals and Magazine of Natural History for 1862.

After holding the Professorship of Natural Science in the Free Church College at Edinburgh for two years, he came to Calcutta, where his name is permanently associated, *monumentum aere perennius*, with the foundation of the Indian Museum and with the origins of our zoological knowledge of Upper Burma and Mergui.

He will also be remembered as one of the earliest advocates of a Zoological Garden for Calcutta, and as one of the experts who greatly assisted in giving shape to that Institution when it was started.

Dr. W. T. Blanford, than whom there is no one more competent to speak at first hand, has already, in "Nature," given a review of his scientific work, from which the following paragraphs are extracted:—

"His arrival in Calcutta was at a fortunate time. The Asiatic Society of Bengal had gradually come into the possession of a large collection, not only of the archæological remains, manuscripts, coins and similar objects, for the study of which the Society was originally established, but also of zoological and geological specimens in large numbers. In the course of the preceding quarter of a century the collections had increased, chiefly through the work of Edward Blyth, the curator, until the Society's premises were crowded, and the Society's funds no longer sufficed for the proper preservation and exhibition of the specimens collected. After long negotiations, interrupted by the disturbances of 1857, arrangements were completed in 1864 by which the archæological and zoological collections of the Society (the geological specimens had been previously transferred) were taken over by the Government of India, who undertook to build a new museum in Calcutta, of which the Society's collections would form the nucleus. The trustees appointed by the Government to manage the new museum asked the Secretary of State for India to select a curator, and Dr. J. Anderson was nominated for the post early in 1865. His status was changed, a few years later, to that of superintendent of the museum, and in addition to his museum work he became Professor of Comparative Anatomy at the Medical College, Calcutta. He held both offices until his retirement from India in 1886.

The time at which Dr. Anderson arrived in India was fortunate in another respect. It coincided with a great impulse given to Indian zoology by the publication of Jerdon's "Birds of India," the last volume of which appeared in 1864, and with the presence in Calcutta of a larger number of men interested in the study of the fauna than were assembled there at any time before or since. Amongst these men were Jerdon himself, Ferdinand Stoliczka, Francis Day, and Valentine Ball, all of whom have now passed away. Probably at no time has so much progress been made in the study of Indian Vertebrata as in the years 1864-74, and in this work Dr. Anderson took an important part.

The new Indian Museum, which now towers over the other buildings of Chowringhee, was not ready for occupation till 1875, but meantime Dr. Anderson had been busily engaged in adding to the zoological collections and in getting them into order. One of his first tasks was the bringing together of an ethnological series, for which the conditions of Calcutta are favourable. Amongst other important additions made by him was that of a fine series of human skulls representing various Indian races. Another very valuable museum series brought together by him consisted of a good collection of Indian Chelonia: skeletons, carapaces and stuffed specimens.

The work in Calcutta was interrupted by two important expeditions to Upper Burma and Yunnan, to both of which Dr. Anderson was attached as naturalist and medical officer. Both expeditions were designed to pass through China to Canton or Shanghai, but in neither case was it found practicable to carry out the original plan. The first expedition, commanded by Colonel E. B. Sladen, left Calcutta at the end of 1867, proceeded as far as Momein in Yunnan, and returned to India in November 1868; the second, under the command of Colonel Horace Browne, left in January 1875, but was treacherously attacked by the Chinese before it had proceeded more than three marches beyond the Burmese frontier, and compelled to return, Mr. Margery, of the Chinese Consular Service, who had been despatched to accompany the mission, and who had preceded it by a march, being murdered with several of his followers. The difficulties experienced by both missions from the time they crossed the frontier between Burma and China, and the opposition of the inhabitants of the country, seriously interfered with zoological observations, and the collection of specimens was generally impossible; but still some important additions were made to the previous knowledge of the fauna. A full account of the journey was given in Dr. Anderson's reports and in a work by him, entitled "Mandalay to Momein," published in 1876. The detailed observations on zoology, supplemented by important notes on some Indian and Burmese

mammals and chelonians, were published in 1878-9, under the title of "Anatomical and Zoological Researches, comprising an Account of the Zoological Results of two Expeditions to Western Yunnan in 1863 and 1875, and a Monograph of the two Cetacean Genera, *Platanista* and *Orcella*." The work appeared in two quarto volumes, one consisting of plates. Dr. Anderson was the first who succeeded in obtaining specimens of the porpoise (*Orcella*) inhabiting the Irrawaddi, and the examination of this previously undescribed form led him to make a thorough anatomical investigation of an allied species occurring in the Bay of Bengal and in the estuaries of rivers flowing into the bay, and also of the remarkable cetacean, *Platanista*, inhabiting the Ganges, Brahmaputra and Indus.

The only other important collecting expedition undertaken by Dr. Anderson during his tenure of the superintendentship of the Indian Museum was to Tenasserim and the Mergui Archipelago in 1881-2. This journey was chiefly, though by no means exclusively, undertaken for the collection of marine animals, and the descriptions of the results, to which several naturalists contributed, were published first in the *Journal* of the Linnean Society, and subsequently as a separate reprint in two volumes, under the title of "Contributions to the Fauna of Mergui and its Archipelago." This appeared in 1889. Dr. Anderson's share was the description of the Vertebrata and an account of the Selungs—a curious tribe inhabiting some of the islands; but in connection with his visit to Mergui, and as part of a general description of the fauna which he had at first proposed to publish, he prepared an account of the history of Tenasserim, formerly belonging to Siam. This historical *résumé*, which deals especially with British commercial and political intercourse with Siamese and Burmese ports, was compiled mainly from the manuscript records of the East India Company, preserved in the library of the India Office, and was published in 1889 in a separate volume, entitled "English Intercourse with Siam." The book forms a well-written and interesting chapter of the history of British progress in Southern Asia.

Besides the works already mentioned and many papers, descriptive of mammalia and reptiles, which were published in the *Journal* of the Asiatic Society of Bengal and in the *Proceedings* of the Zoological Society of London, Dr. Anderson wrote two catalogues on very different subjects for the museum under his charge in Calcutta. Of these, one was the first part of the "Catalogue of Mammals," published in 1881, the other the "Catalogue and Handbook of the Archæological Collection" which appeared in 1883.

Dr. Anderson was elected a Fellow of the Royal Society in 1879,

and retired from the Indian Service in 1886. He had married a few years previously, and after retiring he travelled with his wife to Japan. Finally he settled in London, but for the remainder of his life his health was somewhat precarious, and he passed several winters in Egypt. Here he took up the study of the mammals and reptiles, which had received but scant attention since the early part of the century, when the great and superbly illustrated French work on Egypt appeared—a work which, brilliantly begun by Savigny and others, was never adequately completed.

To the work of collecting, examining, figuring and describing the Mammalia, Reptilia and Batrachia of Egypt, the later part of Dr. Anderson's life, when he was well enough for work, was mainly devoted. He also paid some attention to the fauna of the neighbouring countries, and in 1898 published "A Contribution to the Herpetology of Arabia," founded on the collections of the late Mr. J. T. Bent and others. The first part of the important work he had intended to produce on the zoology of Egypt, containing an account of the physical features of the country and descriptions of Reptilia and Batrachia, appeared in 1898. It is a fine quarto volume with excellent figures, many of them coloured. He had made large collections and notes for the volume on Mammalia, and these it is hoped will be published in due course.

One of the last undertakings in which Dr. Anderson engaged, as soon as the Upper Nile valley was once more thrown open to civilisation, was the systematic collection and description of the fish inhabiting the river and its tributaries. That this important work (of which a notice appeared in *NATURE* of February 23, 1899) is now being carried out with warm interest and assistance from the Egyptian Government, must be attributed to Dr. Anderson's foresight, zeal and skilful advocacy. Both in our Indian Empire and in North-Eastern Africa, Dr. Anderson contributed much to the solution of one of the chief biological questions of the present day, an accurate knowledge of the distribution of animal life."

[A. ALCOCK.]

The Report having been read and some copies having been distributed, the President invited the Meeting to consider it at their leisure.

The President announced that the Elliott Prize for Scientific Research for the year 1900 would not be awarded, and that the Barclay Memorial Medal for the year 1900 had been offered to Mr. E. Ernest Green, Government Entomologist of Ceylon.

The President announced that the Scrutineers reported the result of the election of Officers and Members of Council to be as follows:—

President.

His Honor Sir John Woodburn, M.A., K.C.S.I.

Vice-Presidents.

H. H. Risley, Esq., B.A., C.I.E., I.C.S.

Col. T. H. Hendley, C.I.E. I.M.S.

Major A. Alcock, M.B., C.M.Z.S., I.M.S.

Secretary and Treasurer.

Honorary General Secretary:—T. H. Holland, Esq., F.G.S.

Treasurer:—W. K. Dods, Esq.

Additional Secretaries.

Philological Secretary:—T. Bloch, Esq., Ph.D.

Natural History Secretary:—L. de Nicéville, Esq., F.E.S., C.M.Z.S.

Anthropological Secretary:—F. E. Pargiter, Esq., B.A., I.C.S.

Joint Philological Secretary:—Mahamahopadhyaya Haraprasad Shastri.

Other Members of Council.

J. D. Nimmo, Esq.

Dr. Mahendralal Sircar, M.D., D.L., C.I.E.

C. L. Griesbach, Esq., F.G.S., C.I.E.

A. Pedler, Esq., F.R.S.

S. O. Hill, Esq., B.A., B.Sc.

J. Bathgate, Esq.

F. Finu, Esq., B.A., F.Z.S.

The Hon. Mr. C. W. Bolton, C.S.I., I.C.S.

T. H. D. La Touche, Esq., B.A.

The Meeting was then resolved into the Ordinary General Meeting.

His Honor Sir John Woodburn, M.A., K.C.S.I., President, in the chair.

The minutes of the last meeting were read and confirmed.

Twenty-three presentations were announced.

Captain H. E. Drake-Brockman, I.M.S., and Dr. F. Noetling were ballotted for and elected and re-elected respectively Ordinary Members.

A vacancy having occurred owing to the death of the Right Hon. Prof. F. Max Müller, the Council recommended Prof. J. W. Judd, C.B., LL.D., F.R.S., for election as Honorary Member at the next meeting. In accordance with the provisions of Rule 13 the Secretary read the following note on Prof. Judd's work.

Dr. Judd commenced his study of Science by entering the Royal School of Mines as a student in 1863, when he was already 23 years of age, having previously been engaged in teaching and literary work. Notwithstanding, a long and serious interruption, due to being disabled in a railway accident, his brilliant geological work secured for him an admission to the Royal Society in 1877 at an unusually early age, soon after he had been selected for the chair of Geology at the Royal School of Mines in succession to Sir Andrew Ramsay. In 1885, he presided over the Geological Section of the British Association, and in 1886 was elected President of the Geological Society of London, serving at the same time on the Council of the Royal Society. In 1891, the Geological Society recognised his scientific work by conferring on him the highest honour at their disposal, namely, the Wollaston medal. In 1895, Prof. Judd was appointed Dean of the Royal College of Science as successor to the late Right Hon. Prof. Huxley, and in the same year was created a Companion of the Order of the Bath.

Commencing work on the Geological Survey of England by mapping the Mesozoic rocks of Lincolnshire and Rutland, Professor Judd passed on to the secondary rocks of Scotland, where contact with a large number of igneous rocks led him to take up the then comparatively new study of microscopic petrography, and to apply the new methods to a systematic study of the volcanoes of Hungary and the Mediterranean islands. To his extensive papers on these subjects the rapid development of microscopic petrology was largely due. During recent years Prof. Judd has turned his attention to mineralogy, studying especially the nature of etch-figures and the internal structure-planes of crystals. Some of his papers on these subjects had been based on Indian material, and to him we are indebted for a study of amblystegite from the Nilgiris, tourmaline and corundum from Mysore and Rewah, and, finally, an exhaustive memoir on the ruby and its associates in the crystalline limestones of Burma. Not the least amongst the debts which India owes to Professor Judd will be found in the work of a large number of pupils in different parts of the country, with whom this our tribute to the value of his work will be specially popular.

The General Secretary reported the presentation from the Bombay Branch of the Royal Asiatic Society, of a gold coin found in the Bijapur District.

The General Secretary announced that Mahamahopadhyaya Haraprasad Shastri, Joint Philological Secretary had been appointed to officiate as Philological Secretary during the absence of Dr. Bloch.

The proposal to alter the status of the Society of which intimation had already been given by circular to all members was brought up for final disposal. The votes of the members were laid on the table and the President requested any Resident members who had not expressed their opinion to take the present opportunity of filling in voting papers. 3 such papers were filled in and with the 98 returned by members were scrutinized, the President appointing Mr. F. E. Pargiter, Mr. W. A. Lee, and Mr. A. Pedler to be Scrutineers. The Scrutineers reported as follows:—

PROPOSALS.

(1) To emphasize the fact that the Society was founded to investigate all branches of knowledge, and to advance research in and culture of all forms of learning, that its work should be carried on under three main heads, namely:—

1. Literature.
2. Science.
3. Art.

<i>For</i>	...	...	79
<i>Against</i>	...	...	18

(2) To appoint *Fellows* and *Associates* in order that the Society may have at its disposal the means of showing its appreciation of good work done by its members, and thereby also attracting persons to join its ranks especially from the provinces and from affiliated societies.

<i>For</i>	...	...	66
<i>Against</i>	...	...	30

(3) That the number of *Fellows* should be limited to a maximum of 36; and that the number of *Associates* should be double that of the *Fellows*. The *Fellowships* and *Associateships* should be allotted to the three branches, Literature, Science and Art, in the proportion of 2, 3 and 1 respectively as nearly as possible, this being approximately the ratio of the relative dimensions of these branches.

<i>For</i>	...	...	68
<i>Against</i>	...	...	26

(4) That any existing society in India which has been established for the promotion of knowledge may be invited to become affiliated to this Society, and should, if it accepts affiliation, receive, on the payment of a general contribution; the publications of this, the chief Society, permission for its members to attend meetings of the Society, and to share in the awards of Fellowships and Associateships, provided that on election all Fellows and Associates join the Society as Members.

<i>For</i>	...	...	74
<i>Against</i>	...	...	22

(5) That the rates of subscription should be changed to suit members who prefer to take only special parts of the Society's publications. The following scale is suggested to replace the present system of charging Resident and Non-Resident Members respectively Rs. 36 and Rs. 24 a year:—

Membership (Resident) with <i>Proceedings</i> ,	Rs. 24 per annum.
Do. (Non-Resident) do.	„ 16 do.

Receiving Journals also

	1 Part.	2 Parts.	3 Parts.
Resident ...	Rs. 30	Rs. 36	Rs. 40
Non-Resident ...	„ 22	„ 28	„ 32
<i>For</i>	...	...	68
<i>Against</i>	...	...	22

(6) That abstracts of current literature, of immediate interest to the members, such as are made in many Asiatic Societies, as well as in Societies devoted to Natural Science and Technology, should be published at frequent and regular intervals in each division, and that attempts should be made to make the publications of the Society more generally interesting and useful to workers, especially to those who live at a distance from the capitals. The advantages of this are obvious.

<i>For</i>	...	...	90
<i>Against</i>	...	...	8

(7) That the name of the Society should be changed to "Royal Society of India for the promotion of Literature, Science and Art."

<i>For</i>	...	...	55
<i>Against</i>	...	...	40

(8) That a Charter or an Act of Incorporation be applied for from the Crown through the Government of India, and with propriety a regular grant may be asked for from the latter, and possibly also from the Local Governments.

<i>For</i>	...	...	86
<i>Against</i>	...	...	10

(9) If the Society is re-constituted and its aspirations and usefulness expanded, its government must be changed. It is suggested that this may be effected (a) by adding to it a Patron, who would it is hoped be the Viceroy and Governor-General and 5 Vice-Patrons, who would be Governors, Lieutenant-Governors, Chief Commissioners and Indian Princes elected for a term; (b) by retaining the President, who should be a Fellow, and the 3 Vice-Presidents, who may be Fellows, Associates, or perhaps Ordinary Members; (c) by retaining the Council, which would be composed of the President, Vice-Presidents and a certain proportion of Fellows, Associates and Members who might be elected (as at present) as being likely from their residence in Calcutta to assist in the business of the Society; and it may be useful to have members of Council also in other large towns or centres who would preside over branch meetings such as for example is held this year in Simla; and (d) by appointing additional Secretaries and other officers of sections as may be required, and a General Secretary.

<i>For</i>	...	...	78
<i>Against</i>	...	...	14

The voting shows a three-quarters majority in favour of proposals Nos. (1), (4), (5), (6), (8) and (9), whilst there is an insufficient majority in favour of Nos. (2), (3) and (7).

PROCEEDINGS
OF THE
ASIATIC SOCIETY OF BENGAL,
FOR MARCH AND APRIL, 1901.

The Monthly General Meeting of the Society was held on Wednesday, the 6th March, 1901, at 9 P.M.

F. E. PARGITER, Esq., B.A., I.C.S., in the chair.

The following members were present :—

Mr. K. J. Badshah, Mr. J. Bathgate, Mr. D. Campbell, Mr. W. K. Dods, Major F. J. Drury, I.M.S., Mr. F. Finn, Mr. S. C. Hill, Mr. T. H. Holland, Mr. G. W. Kuchler, Mr. W. A. Lee, Kumar Rameshwar Malliah, Captain C. J. R. Milne, I.M.S., Mr. L. de Nicéville, Mr. I. G. Schwaiger, Mahamahopadhyaya Haraprasad Shastri.

Visitors :—Mr. A. C. Cruden, Mr. A. Goodwin, Dr. F. H. Hatch.

The minutes of the last meeting were read and confirmed.

Nineteen presentations were announced.

Mr. E. P. Stebbing, Maulavie Habibur Rahman Khan, Kumar Birendrachandra Singh, Babu Maumathanath Chakravarti, Dr. J. Ph. Vogel, Babu Rajchandra Chandra, Mr. J. C. Fergusson, I.C.S., Mr. H. R. Nevill, I.C.S., and Mr. W. E. N. Campbell, I.C.S., were balloted for and elected Ordinary Members.

Professor J. W. Judd, C.B., LL.D., F.R.S., was balloted for and elected Honorary Member.

The Chairman announced that Mr. O. V. Bosanquet, I.C.S., and Maulavi Mahammad Abdulla, M.A., elected members of the Society on the 19th September and 31st October, 1900, respectively, having not paid their entrance fees, their elections have become null and void under Rule 9.

The General Secretary reported the presentation of the following coins :—

From the Superintendent, Government Central Museum, Madras, 6 leaden coins found in the Madras Presidency.

From the Honorary Secretary, Bombay Branch, Royal Asiatic Society, 3 copper coins found in the Ahmedabad District.

The following papers were read :—

1. *Notes on the Fauna of Chitral.*—By CAPTAIN A. H. McMAHON, C.S.I., C.I.E., I.S.C., Political Agent, Dir, Swat and Chitral.

2. *Notes on the Fauna of Dir and Swat.*—By CAPTAIN A. H. McMAHON, C.S.I., C.I.E., I.S.C., Political Agent, Dir, Swat and Chitral.

3. *On an Accumulation Droll and Rhyme from Behar.*—By SARAT-CHANDRA MITRA, M.A., B.L., Communicated by the Anthropological Secretary.

The Monthly General Meeting of the Society was held on Wednesday, the 3rd April, 1901, at 9 P.M.

F. E. PARGITER, Esq., B.A., I.C.S., in the chair.

The following members were present :—

Mr. J. Bathgate, Rai Chunalal Bose Bahadur, Mr. F. Finn, Lt.-Col. G. F. A. Harris, I.M.S., Mr. D. Hooper, Mr. L. de Nicéville, Captain L. Rogers, I.M.S., Mahamahopadhyaya Haraprasad Shastri.

Visitor :—Babu Hemchandra Dey.

The minutes of the last meeting were read and confirmed.

Seventeen presentations were announced.

Babu Pramathanath Mullick, Mr. V. R. Painsay, and Babu Abhaya Sankar Guha, were balloted for and elected Ordinary Members.

Mr. William Dods expressed a wish to withdraw from the Society.

The Chairman announced that in accordance with Rule 38 of the Society's Rules, the name of the following gentleman had been posted up as defaulting member since the last meeting and will be removed from the Member List.

Pandit Behari Lal Claube.

The General Secretary reported the death of Mr. G. F. Reader and Babu Shamlal Mullick, Ordinary Members of the Society.

The Chairman announced that Major A. Alcock, I.M.S., had been appointed Honorary General Secretary in the place of Mr. T. H. Holland, resigned.

The General Secretary reported the presentation of the following coins.

From the Honorary Secretary, Bombay Branch, Royal Asiatic Society, 1 gold coin of the Khaliffs found in the Ratnagherry District.

From the Under-Secretary, Government of N.-W.P. and Oudh, 4 silver coins.

The following papers were read :—

1. *On the Kaluha Hills in the District of Hazaribag.*—By NUNDO-LAL DEY, *Munsiff, Tamluk*. Communicated by the Philological Secretary.
 2. *Note on the Butterflies comprised in the subgenus Tronga of the genus Euplœa.*—By LIONEL DE NICÉVILLE, F.E.S., C.M.Z.S.
 3. *On various tribal customs in Manipur.*—By T. C. HODSON. Communicated by the Anthropological Secretary.
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PROCEEDINGS
OF THE
ASIATIC SOCIETY OF BENGAL.

FOR MAY & JUNE, 1901.

The Monthly General Meeting of the Society was held on Wednesday, the 5th June, 1901, at 9-15 P.M.

The Hon. Mr. C. W. BOLTON, C.S.I., I.C.S., in the chair.

The following members were present:—

Major A. Alcock, I.M.S., Mr. J. Bathgate, Dr. T. Bloch, Rai Chunilal Bose Bahadur, Major C. R. M. Green, I.M.S., Mr. D. Hooper, Mr. T. H. D. La Touche, Kumar Rameshwar Malliah, Mr. L. de Nicéville, Mr. J. D. Nimmo, Mr. F. E. Pargiter, Mr. E. Thornton.

Visitors:—Mr. J. Macfarlane, Mr. T. L. Walker.

The minutes of the last meeting were read and confirmed.

The Council reported that no meeting was held in May as a quorum of members was not present.

Fifty-seven presentations were announced.

Babu Nundolal Dey, Lala Lajpat Rai, Mr. E. P. Chapman, I.C.S., Mr. H. H. Mann, Lieut-Col. G. M. Porter, R.E., Mr. A. F. M. Abdur Rahman, Babu Ramani Mohan Mullick, Mr. W. Parsons, Dr. Thos. H. Aquino, Major D. G. Crawford, I.M.S., Mr. J. H. Burkill, Mr. E. H. Walsh, I.C.S., and Mr. F. J. Ede, were balloted for and elected Ordinary Members.

Syed Mahomed Latif Khan Bahadur and Mr. E. B. Havell expressed a wish to withdraw from the Society.

The General Secretary read the names of the following gentlemen who had been appointed to serve on the various Committees for the present year.

Finance and Visiting Committee.

Dr. T. Bloch, Mr. L. de Nicéville, Mr. J. D. Nimmo, Mr. F. E. Pargiter, Mr. A. Pedler, Mr. H. H. Risley, Mahamahopadhyaya Haraprasad Shastri.

Library Committee.

Dr. T. Bloch, Mr. S. C. Hill, Mr. D. Hooper, Mr. C. W. McMinn, The Hon. Dr. Asutosh Mukerjee, Mr. L. de Nicéville, Mahamahopadhyaya Haraprasad Shastri, Mr. E. Thornton.

Philological Committee.

Maulavie Ahmad, Dr. T. Bloch, Babu Pratapchandra Ghosha, Shams-ul-Ulama Mahomed Shaikh Gilani, Mr. J. G. Lorimer, The Hon. Dr. Asutosh Mukerjee, Mr. F. E. Pargiter, Major D. C. Phillott, I.S.C., Pandit Satyavrata Samasrani, Mahamahopadhyaya Haraprasad Shastri, Mahamahopadhyaya Chandrakanta Tarkalankara, Dr. G. Thibaut, Babu Nagendranath Vasu, Mr. A. Venis, Lt.-Col. L. A. Waddell, I.M.S.

Coins Committee.

Lt.-Col. D. S. E. Bain, I.M.S., Dr. T. Bloch, The Hon. Mr. J. A. Bourdillon, Babu Panchanan Mukerjee, Mr. F. E. Pargiter, Mr. E. Thurston.

The Secretary reported the presentation of 1 gold, 34 silver, and 1 copper coins from the Honorary Secretary, Bombay Branch, Royal Asiatic Society, found in the Ahmedabad District.

The Chairman announced that Dr. T. Bloch, having returned from tour, had taken over charge of the duties of Philological Secretary from Mahamahopadhyaya Haraprasad Shastri.

The Secretary reported that the subject for the Elliott Prize for the present year is *Mathematics*.

The Council reported :—

1. That the Government of India had sanctioned the continuance for a further period of five years with effect from 1st April, 1901, of the

Annual grant of Rs. 3,200 in aid of the operation in search of Sanskrit MSS. in Bengal.

2. That Mr. C. Michie officiated as Treasurer of the Society during the temporary absence of Mr. W. K. Dods.

The following papers were read:—

1. *The Sacred caves of Cachar*.—By FRANCIS J. EDE. Communicated by the Philological Secretary.

2. *Noviciæ Indicæ*, No. XVIII.—*The Asiatic species of Dalbergia*.—By MAJOR D. PRAIN, I.M.S.

(Abstract.)

The writer, who has for the past four years been engaged in his spare time in studying the species of *Dalbergia* of S.-E. Asia with a view to publishing a monograph of the genus has been able to study the material contained in the following herbaria (1) Calcutta, (2) Kew, (3) British Museum, (4) Herb. Wallich, (5) Herb. Linnæus, (6) Herbarium of M. Drake del Castillo, Paris, (7) Herb. Peradeniya, Ceylon, all of which he has visited. The following collections of *Dalbergia* have also been sent to him for study in Calcutta, (8) Herb. Berlin, lent by Prof. Engler, (9) Herb. Leiden, lent by the late Prof. Saringar, (10) Herb. De Candolle, Geneva, lent by M. de Candolle, (11) Herb. Boissier, Geneva, lent by M. Barbey, (12) Herb. Beccari, Florence, lent by Sig. Beccari, (13) Herb. Buitenzorg, lent by Dr. Treub., (14) Herb. Paris, lent by M. Bureau, (15) Herb. Saharanpur, lent by Mr. Duthie (16) Herb. Hongkong, lent by Mr. Ford. Specimens of the only *Dalbergia* in Herb. Brisbane have also been sent by Mr. Bailey. Circumstances rendering it necessary to forego, for the moment, the publication of the projected monograph the writer has drawn up a hand list of the 74 known Asiatic Species of *Dalbergia* with a tolerably complete bibliography and a full record of their distribution as indicated by specimens in the sixteen herbaria whose collections have been studied. In all except the very common and salient species reference is made to the field-numbers on the various specimens in order that the list may be of use not only to members of our Society and to those who may study the specimens in the herbaria the writer has examined, but also to those who may work in other herbaria not yet visited by the writer in which duplicates bearing these numbers are preserved.

3. *Marriage customs of the Khonds*.—By J. E. FRIEND-PER EIRA, B.A. Communicated by the Anthropological Secretary.

4. *Materials for a Flora of the Malayan Peninsula*, No. 12.—By SIR GEORGE KING, K.C.I.E., LL.D., F.R.S., &c., late Superintendent of the Royal Botanic Garden, Calcutta.

(Abstract.)

The paper contains descriptions of all the species of the Natural Order *Myrtaceæ* known to be indigenous to the Malay Peninsula, to the Straits Settlements and to the Andaman and Nicobar Islands; and it has been prepared after examining the rich collections contained in the Herbaria of the Royal Botanic Gardens of Kew and Calcutta and of the Government Gardens at Singapore and Penang. The species described in it amount to 122 and these are distributed amongst 11 genera. This proportion closely resembles that obtaining for the same family in Sir Joseph Hooker's *Flora of British India*, in which there are described 157 species belonging to practically the same genera, for *Pseudo-Eugenia* (the additional genus given here) has been carved out of *Eugenia* since Hooker's *Flora* was completed. In both Floras the largest genus is *Eugenia*, of which there are 131 species given in Hooker's work as against 96 in the present paper. Of these 96 no fewer than 50 are here described for the first time. And, as the Malay Peninsula and the adjacent islands fall within, the limits of British India (as understood by Hooker, the *Eugeniæ* of British India now stand at 181. Besides the 50 new species of *Eugenia*, there are described in the paper 4 new species of the beautiful littoral genus *Barringtonia*—plants which, in addition to possessing handsome flowers, are remarkable for their curious fruits. Novelties are also described under the genera *Tristania*, *Pseudo-Eugenia* and *Planchonia*.

The total known number of species of *Myrtaceæ* is very great, being estimated at about 2,800. These are distributed chiefly over the warm parts of Asia, Australasia, Africa and America, only one (the common Myrtle) being indigenous in Europe.

The *Myrtaceæ* are most abundant in South America, and they make a large proportionate part of the vegetation of Australia in which island very large and important forests consist for the most part of species of *Eucalyptus*.

PROCEEDINGS
OF THE
ASIATIC SOCIETY OF BENGAL.
FOR JULY, 1901.

The Monthly General Meeting of the Society was held on Wednesday, the 3rd July, 1901, at 9-15 P.M.

MAJOR A. ALCOCK, M.B., LL.D., F.R.S., Vice-President, in the chair.

The following members were present:—

Mr. J. Bathgate, Dr. T. Bloch, Rai Chunilal Bose Bahadur, Mr. J. H. Burkill, Dr. A. Caddy, Mr. W. K. Dods, Major C. R. M. Green, I.M.S., Lt.-Col. G. F. A. Harris, I.M.S., Mr. D. Hooper, Mr. T. H. D. La Touche, Mr. W. A. Lee, Mr. W. H. Miles, Mr. L. de Nicéville, Lt.-Col. G. M. Porter, R.E., Captain L. Rogers, I.M.S., Mr. D. R. Wallace.

Visitors:—Mr. J. E. Gabbett, The Hon. Mr. Justice Taylor, and Mr. Gordon Wallace.

The minutes of the last meeting were read and confirmed.

Twenty presentations were announced.

The Chairman announced that in accordance with Rule 38 of the Society's Rules, the name of Thakur Garuradhawaya Prasad Singh had been posted up as defaulting member since the last meeting and will be removed from the Member List.

The Chairman announced that the Subscribers to the King and Cunningham Memorial Fund had presented reduced replicas of the

Medallion Portraits of Sir George King and Dr. D. D. Cunningham to the Society.

The Secretary laid on the table the following letter from Mr. William Irvine, I.C.S., (retired), relative to a paper entitled "Notes on the Raṅgārī caste in Barār" by Captain Wolseley Haig, I.S.C., published in the Society's *Journal*, Part III, No. 1 of 1901.

On p. 3 of his "Notes on the Raṅgārī caste in Barār" (J.A.S.B., Vol. LXX, Part III, 1901), Captain Haig says "some members of the caste still make pilgrimages to the temple of Hinglāj Mātā, otherwise called Hinglāj Devī, and Hinglāj Bhavāni in Gujarāt. The temple, they say, is situated 'on the far side of Gujarāt.'"

I would suggest that the place intended is Hinglāj in Makrān, which is shown on the map in Sir Thomas H. Holdich's "The Indian Borderland" (London, Methuen & Co., 1901). On p. 206 Sir T. Holdich says "the most ancient and honourable ziarat of Hinglāj is hidden away in the clefts of the mountains (a ziarat so ancient that both Hindus and Mahomedans claim it, without recognizing its almost prehistoric Persian origin)." This Hinglāj (=Hinglāj) may be described as on the "far side of Gujarāt;" it being over two hundred miles west of the most western part of Gujarāt.

Major A. Alcock, F.R.S., exhibited models of snakes and of a deep-sea fish *Odontostomus atratus* which had swallowed a cuttle fish of considerably greater diameter than itself.

The following paper was read:—

The growth of Calcareous Tufa in the Rivers of the Shan States, Upper Burma.—By T. H. D. LA TOUCHE, B.A.

(Abstract.)

The formation of beds of calcareous tufa in countries where limestone is the prevailing rock is a well-known natural phenomenon. Rain water containing a small proportion of carbonic acid derived from the atmosphere, flowing through crevices in the rock, is enabled to dissolve a certain amount of it, and on reaching the open-air this is deposited as the water evaporates.

In many of the rivers of the Shan States in Upper Burma, where the hills are largely composed of limestone, large masses of calcareous tufa are deposited, forming regular dams across the river often 20 feet or more in height. These are built up wherever the water is in violent motion, as at the heads of rapids, where it seems improbable that the

particles of carbonate of lime could be retained, if the process of deposition were merely mechanical. The growing surface of the deposit is always covered with a growth of bright green algæ and it is well-known that chlorophyll bearing algæ have the power, under the influence of light, of directly assimilating the carbon contained in carbonic acid. It seems probable therefore that these algæ which naturally grow most rapidly in position where there is a considerable rush of water, bringing an abundance of their natural food, assist in the deposition of the carbonate of lime by destroying the carbonic acid which holds it in solution; while the felted mass of fibrous algæ affords a means of retaining the minute particles of calcite and allowing them to grow together into the granular crystalline deposit of which the dams are built up.



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PROCEEDINGS
OF THE
ASIATIC SOCIETY OF BENGAL.
FOR AUGUST, 1901.

The Monthly General Meeting of the Society was held on Wednesday, the 7th August, 1901, at 9-15 P.M.

THE HON. MR. C. W. BOLTON, C.S.I., Vice-President, in the chair.

The following members were present :—

Major A. Alcock, I.M.S., Mr. J. Bathgate, Dr. T. Bloch, Rai Chuni-lal Bose Bahadur, Mr. J. H. Burkill, Mr. W. K. Dods, The Revd. E. Francotte, S.J., Mr. E. A. Gait, Major C. R. M. Green, I.M.S., Mr. D. Hooper, The Revd. E. Lafont, S.J., Mr. T. H. D. La Touche, Mr. J. Macfarlane, Mr. C. Michie, Mr. J. D. Nimmo, Mr. R. D. Oldham, Mr. F. E. Pargiter, Lt.-Col. G. M. Porter, R.E., Captain L. Rogers, I.M.S., and Mr. E. Thornton.

Visitors :—Mr. J. R. Blackwood, Major W. J. Buchanan, I.M.S., Mr. Clifford D. Matthews, Mr. Norman McLeod, Lieut.-Col. E. H. Molesworth, I.S.C., Mr. J. M. G. Proffit, Babu Hiralal Sinha, Dr. T. L. Walker, and Mr. H. J. Weston.

The minutes of the last meeting were read and confirmed.

Fifty-one presentations were announced.

Miss Margaret Adams, Babu Chandra Narayan Singha, Mr. J. Macfarlane, Dr. T. L. Walker, and Mr. E. Molony, I.C.S., were balloted for and elected Ordinary Members.

Maulavie Abdul Aziz Khan and Captain W. F. O'Connor, R.A., expressed a wish to withdraw from the Society.

The General Secretary reported the death of His Grace the Most Revd. Archbishop P. Goethals, S.J.

Major Alcock reported that as the duties of the Honorary General Secretary which he had accepted temporarily had devolved on him permanently he was compelled by Rule 4 to resign his office of Vice-President.

The Chairman reported for confirmation by the General Meeting that the Hon. Mr. C. W. Bolton, C.S.I., had been elected Vice-President in the room of Major Alcock.

Mr. T. H. D. La Touche exhibited some Palæozoic Fossils from Upper Burma.

The Philological Secretary exhibited some rare Persian MSS. newly acquired by the Society.

The following papers were read :—

1. *Wolf Hybrids in Gilgit*.—By CAPTAIN MANNERS SMITH, V.C., C.I.E. Communicated by MAJOR ALCOCK.
2. *The Khojus of Eastern Turkistan*.—By H. BEVERIDGE, I.C.S. (retired).
3. *An inscription of Uddyota Kesari Deva from Khandagiri, Orissa*.—By T. BLOCH, PH.D.
4. *The inscription on the Qadan Rasul at Cuttack*.—By T. BLOCH, PH.D.
5. *Folk-lore from Pargana Sipāh in the District of Saran*.—By SARATCHANDRA MITRA. Communicated by the Anthropological Secretary.

Major Alcock read the following paper, by Miss Nelly Evans, upon the habits of the common grey mosquito of Calcutta. The paper is interesting as giving detailed evidence, with regard to the female of this species of mosquito, (1) that it may live, in its adult or imago stage, for nearly five weeks, (2) that during its adult life it may feed as many as five times, and (3) that it does not feed indiscriminately, but has a preference for the blood of the house-sparrow, refusing that of Java-sparrows, larks, rails, and white rats.

All these facts, but the last one in particular, favour the possibility of the insect being a carrier of a definite blood-infection, and support the conclusions of Ross based upon experiments with this species of mosquito.

6. *Some Observations on the Life-history of Culex fatigans, the Common Grey Mosquito of Lower Bengal.*—By NELLY EVANS.

This investigation was carried out during February and March, in the Indian Museum, Calcutta.

Culex fatigans will live for about a month if fed on fruit only, but the female does not lay eggs unless she has a meal of blood. A few individuals were kept without food of any kind and some of these lived as long as ten days. *Culex fatigans* feeds readily on the common house-sparrow, but it was found that the insect would not bite Java-sparrows or larks or rails or white rats, all of which were tried. The common house-sparrow was therefore used to supply the necessary meal of blood.

The female mosquito lays its eggs from four to six days after feeding, and the time seems to depend on the amount of blood taken. It was noticed that if the insect gorged itself the eggs were laid on the fifth day or sooner, whereas if less blood was taken, the time between feeding and laying the egg-boat was longer, sometimes as long as ten or fourteen days; and if very little was taken a second meal of blood was required before the eggs were laid. The female mosquito feeds again on the sparrow the night after laying her eggs, and will lay a second batch of eggs at the end of five days, so that if she is always able to obtain a meal of blood, she will lay a batch of eggs about every five or six days or roughly once a week.

Of fourteen female mosquitos kept to ascertain the duration of life, and number of repasts of blood, and number of egg-boats laid, two lived for twenty-eight and twenty-nine days respectively and each fed five times on the sparrow and laid five egg-boats; one died after twenty days, after feeding three times and laying three egg-boats, and one died after eighteen days having fed three times and laid two egg-boats. All the others were either lost or were killed accidentally, some after having laid two or three batches of eggs and having lived thirty and thirty-three days. In those that lived as long as thirty and thirty-three days the time between feeding and laying the eggs was more than five days and in one case was as long as fourteen days. In all these experiments a male was kept with the female during feeding as well as before and after.

Another experiment was tried to see if the female will lay eggs if fed apart from the male. Ross states in his West African Report that the female will not lay eggs unless fed in the presence of the male, that is, that fertilisation takes place after feeding. If the meal of blood is required for the nutrition of the eggs it would seem more reasonable to suppose that the insect's instinct would be to seek the

animal food after fertilisation, not before. To decide this point ten females were put alone in the net with the sparrows, all having previously been with males. Of these ten, only four fed, and these four were removed to another cage. They were watched from day to day, and it was noticed that the blood gradually disappeared from the abdomen, which in all but one assumed the white opaque appearance generally characteristic of mosquitos which are going to lay eggs. In the exception, the abdomen looked transparent and empty. Six days passed and no eggs were laid, and on the seventh day, no mosquitos could be found at all and there were no egg-boats. No dead mosquitos were found either. So that the experiment failed.

Later on, the same experiment was tried with two mosquitos one of which was lost, while the other laid eggs on the fifth day.

The eggs are generally laid at night, and the following night the larvæ hatch out. Some mosquitos were reared from the egg in the laboratory: the larval stage lasted at least twenty days, and the pupal stage four days. The larvæ and pupæ were very small and the mosquito was only a third or fourth the size of those reared naturally out of doors, while some of the larvæ reared in the Museum had not changed to pupæ as late as forty-seven days after the eggs were laid. It was found that dessication of the egg-boat for one day was generally sufficient to prevent the larvæ from hatching out though one or two larvæ did hatch out of an egg-boat which had been dried for six days.

The egg-boat has been described so often that it is unnecessary to go through its description again. There is, however, one part of the individual egg which has never been described and that is the structure forming part of the lid. This is best seen in the egg obtained by dissection of the gravid female mosquito, but only after it has reached a fair size, that is two or three days after the insect has fed. The eggs so obtained will be seen to be capped at the larger end by a transparent dome-shaped structure which is a continuation of the shell of the egg, but not of its whole thickness. It is a very delicate structure and gets damaged very easily. The whole cap is easily broken off and for this reason is rarely seen in eggs after they have been laid, as the caps get broken off in removing them from the water. The function of this cap is probably to act as a float, and to keep that end of the egg in contact with the water. Inside and at the base of this dome-shaped cap and in contact with the end of the egg is another peculiar structure. This is a cup-shaped cell, with a hole or depression in the centre, which fits on to a projection at the end of the egg shell, and radiating filaments at the circumference which turn up into the float

cap and lie in contact with the sides of it. When the float cap breaks, the cup-shaped cell comes away and becomes flattened out and then looks like a star. The end of the egg shell itself which forms the lid is ornamented with what appears to be radiating knobs, larger at the centre than at the circumference. The lid of the egg can be well seen in an empty egg-boat. The egg-boat when empty presents a very different appearance from that when it is full. To the naked eye the latter looks compact and neat, whereas the former has an untidy and rough appearance; it is also lighter in colour than the other. Under a magnifying glass the eggs of the empty boat are seen to be opened at the large end which rests on the water, and the lids of the eggs forming the sides and ends of the boat can be plainly seen as they lie open at right angles to the length of the egg and the ornamentation of the lid is well shown. If the unhatched egg-boat is taken from the water and left on a slide till it has become dry, and then removed, a pattern is seen on the slide formed by the star-shaped bodies which have become detached from the ends of the eggs and are stuck to the glass.

PROCEEDINGS
OF THE
ASIATIC SOCIETY OF BENGAL.
FOR NOVEMBER, 1901.

The Monthly General Meeting of the Society was held on Wednesday, the 6th November, 1901, at 9 P.M.

THE HON. MR. C. W. BOLTON, C.S.I., Vice-President, in the chair.

The following members were present :—

Major A. Alcock, I.M.S., Mr. C. G. H. Allen, Major W. J. Buchanan, I.M.S., Mr. I. H. Burkill, Mr. H. D. Carey, Mr. W. K. Dods, The Revd. E. Francotte, S.J., Lt.-Col. G. F. A. Harris, I.M.S., Mr. W. A. Lee, Mr. J. Macfarlane, Mr. H. H. Mann, Mr. Norman McLeod, Mr. L. de Nicéville, Mr. E. B. H. Panton, Captain L. Rogers, I.M.S., Mahamahopadhaya Haraprasad Shastri, and Babu Chunder Narain Singh.

The minutes of the last meeting were read and confirmed.

Thirty presentations were announced.

Kumar Narendra Nath Mitra, Babu Govinda Das, Babu Upendra Nath Sen, Mr. Norman McLeod, Mr. E. B. H. Panton, I.C.S., and Major W. J. Buchanan, I.M.S., were elected Ordinary Members during the recess in accordance with Rule 7.

Mr J. J. Cotton, and Shams-ul-Ulama Mahomed Zakaullah have expressed a wish to withdraw from the Society.

The Secretary reported the death of Dr. A. von Krafft, an Ordinary Member of the Society.

The Chairman announced that in accordance with Rule 38 of the Society's Rules, the names of Dr. Sarat Chandra Laharry, Mr. R. Mitra,

Mr. D. Sunder, and Pandit Mahendra Nath Vidyanidhi had been posted up as defaulting members since the last meeting and will be removed from the Member List.

The General Secretary reported the presentation of the following coins :—

From the Government of N.-W.P., one silver and one copper coin.

From the Madras Government Museum, two silver and two copper coins.

From the Bombay Branch of the Royal Asiatic Society, one gold coin.

Mr. I. H. Burkill exhibited some seedlings of *Eugenia jambolana* from seeds which had passed through the intestine of a Flying-fox.

The following papers were read :—

1. *On Variation in the Flower of Ranunculus arvensis: A study of Flower Symmetry.*—By I. H. BURKILL.

2. *A short notice of a Persian MS. on Gaur.*—By H. BEVERIDGE, I.C.S. (retired).

(Abstract.)

This paper draws attention to a Persian MS. in the India Office Library, containing an account of the buildings and inscriptions at Rajmahal, Gaur, and Panduah. It is the result of local investigations made by Shyām Prasād in November and December, 1810, when he visited Gaur in attendance on Major Francklin. The report was drawn up for Major Francklin and appears to be the source of the information given in Francklin's Journal, of which good use has been made by Mrs. Ravenshaw and Mr. Grote, in Ravenshaw's Gaur. The really new part in Shyām Prasād's report, according to Mr. Beveridge, seems to be his first chapter which gives an account of Rajmahal. Mr. Beveridge recommends the publication of the report.

3. *A short note on the date of the death of Nūr Quṭb 'Alam.*—By H. BEVERIDGE, I.C.S. (retired).

(Abstract.)

Mr. Beveridge was the first to point out that according to a history written some 20 years ago by Ilahi Bakhsh, a school master of Maldah, the death of Nūr Quṭb 'Alam, the famous saint of Panduah, occurred on the 7th Zilgadh 818=A.D. 1416, 8th January. This date fits best

with what history tells about that saint. For he is said to have been a fellow-student with the Bengal King Ghiyasuddin Azam Shah, who was still alive in 814, but must have died soon afterwards. It is accordingly interesting to find the same date recorded in a MS., in the British Museum, called the *Mirat-ul-Asrar*. The only difference, as Mr. Beveridge points out, is that in the latter place the day is the 10th, instead of the 7th Zilgada.

4. *New species of Indian Hymenoptera.*—By MAJOR C. G. NURSE. Communicated by the Natural History Secretary.

5. *A List of the Butterflies of Hongkong in Southern China and the Food-plants of the larvae.*—By LIONEL DE NECEVILLE, F.E.S., C.M.Z.S., &c.

6. *Notes on two coins of the Sunga Dynasty.*—By COLONEL C. E. SHEPHERD. Communicated by the Philological Secretary.

(Abstract.)

The coins dealt with in this paper belong to a well-known class of Ancient Indian Copper Coins, which are generally attributed to the so-called Sunga Kings, who ruled in northern India from B.C. 176-66. The two specimens described by Col. Shepherd exhibit two new names, viz., Dhruva Mitra and Rudra Gupta, but nothing beside their names is known with regard to those two Kings.

PROCEEDINGS
OF THE
ASIATIC SOCIETY OF BENGAL.
FOR DECEMBER, 1901.

The Monthly General Meeting of the Society was held on Wednesday, the 4th December 1901, at 9 P.M.

THE HON. MR. C. W. BOLTON, C.S.I., Vice-President, in the chair.

The following members were present :—

Major A. Alcock, I.M.S., Rai Chuni Lal Bose Bahadur, Mr. I. H. Burkill, Mr. B. Chaudhuri, Mr. W. K. Dods, Mr. F. Finn, Major C. R. M. Green, I.M.S., Lieut.-Col. G. F. A. Harris, I.M.S., Mr. D. Hooper, Mr. J. Macfarlane, Mr. H. H. Mann, Mr. Norman McLeod, Mr. R. D. Mehta, Mr. W. H. Miles, Mr. J. D. Nimmo, Mr. F. E. Pargiter, Mr. A. P. Pennell, Captain L. Rogers, I.M.S., Mahamahopadhyaya Haraprasad Shastri, Mr. E. P. Stebbing, Dr. G. Watt.

Visitors :—Mr. E. J. Butler, Mr. A. E. Goodwin, Mr. H. St. John Jackson, Babu Parmeshwar Lall, Mr. Toynbee.

The minutes of the last meeting were read and confirmed.

Forty-eight presentations were announced.

Mr. D. Brainerd Spooner, Dr. W. C. Hossack, and Mr. E. Denison Ross, were balloted for and elected ordinary members.

The chairman announced :—

1. That Mr. C. A. Radice, Babu Rajchandra Chandra, Kumar Birendra Chandra Singh and Mr. Thos. H. Aquino, elected members of the Society on the 2nd January, 6th March and 5th June 1901, respectively, not having paid their entrance fees, their elections have become null and void under Rule 9.

2. That Mahamahopadhyaya Haraprasad Shastri has taken charge of the duties of the Philological Secretary during Dr. Bloch's absence, on tour.

3. That Mr. J. Macfarlane has taken charge of the duties of the General Secretary in the place of Major A. Alcock, F.R.S., resigned.

The General Secretary reported the death of Surgeon-General B. Harvey and Mr. L. de Nicéville, ordinary members of the Society.

Major Alcock, F.R.S., exhibited the skull of an Indian porcupine, showing abnormal dentition.

The following papers were read :—

1. *Further Notes on the Manipuris.*—By T. C. HODSON. Communicated by the Anthropological Secretary.

2. *Description of some new Species of Orchidææ from North-West and Central India.*—By J. F. DUTHIE, B.A., F.L.S., Director, Botanical Department, North India.

3. *Studies in the Chemistry and Physiology of Tea Leaf. Part I. The Enzymes of the Tea Leaf.*—By HAROLD H. MANN, B.Sc.

4. *Three documents relating to the History of Ladakh. Tibetan Text, Translation and Notes, Part III.*—By the late DR. KARL MARX, Moravian Missionary at Leh-Ladakh. Communicated by the Philological Secretary.

(Abstract).

This is the third paper under this heading, the first being published in 1891 and the second in 1894. The second paper brought the History of Ladakh down to the Dogra conquest in 1822 and the settlement of the country under Wazir Zorawar Singh. The present paper gives the history of the attempts made both by the Tibetans and the Ladakhis to make Ladakh independent. Though at first successful, their combined army had at last to give way before the superior force of the Kāשמירians. The paper ends with the final settlement of the country under Gulāb Siph, Rājā of Kāשמیره.

5. *On the authenticity of the two newly discovered Manuscripts of the Vallācarita by Ananda Bhaṭṭa, and their importance in tracing the History of the Caste System in Bengal. Part I.*—By MAHĀMAHOPĀDHYAYĀ HARAPRASĀD SHĀSTRĪ.

(Abstract).

Ballāla Carita means the Biography of Ballāl Sen, the greatest King of the Sen Dynasty in Bengal, in the 12th century. Two com-

plete MSS. have been obtained written in different parts of Burdwan, one in 1707 A.D., the year of Aurangzebe's death, and the other in 1198 of the Bengali era.

The book was composed in 1432 by Ananda Bhaṭṭa, a descendant of Ananta Bhaṭṭa, whom Ballal Sen settled in East Bengal by a grant of land. It was written at the court of Buddhimanta Khan, the Rāja of Navadvīpa, a great admirer of Caitanya, who flourished about this time.

Ananda Bhaṭṭa's book is based on three previous works by three writers, contemporaries of Ballala Sen, *viz.*, (1) the Vyāsa Purāṇa by Siṃha Giri, a Ṣaiva monk from Vadarikācrama in the Himālayas, who converted Ballāl into the Ṣaiva faith; (2) Ballāla Carita by Ṣaraṇa Datta, one of the great poets under the same dynasty; (3) Jayamaṅgala Gāthā by Kālidāsa Nandi, mentioned in Baṭu Dāsa's Anthology, compiled in 1205 A.D. The information given in Ananda Bhaṭṭa's work agrees, to a great extent, with the results of modern historical researches, and so it can be accepted as an authentic record of Ballāla's reign.

The present paper ends with the proofs of the authenticity of the work, and in the next paper will be given the caste precedents in Bengal as settled by Ballāla.

6. *A Note on the existence of the Magi, the Median Priesthood in India, at the present day.*—By MAHĀMAHOPĀDHYĀYA HARAPRASĀD SHĀSTRĪ.

(Abstract).

At the end of the enumeration of the subdivisions of the Brāhmaṇa caste in India in the 16th chapter of the Ballāla Carita there occurs a curious verse which translated into English would run thus:—

“The Magas, *i.e.*, Magi, too, are Brāhmaṇas, who issuing from the disc of the Sun and shining like the blazing Sun, dropped in the Ṣakadvīpa”?

There are throughout India Brāhmaṇas known as Ṣaka-dvīpi or Ṣakala-dvīpi, who like the Magi generally devote themselves to Astrology, Divination, Propitiation of Planetary Deities, and similar subjects. When engaged in their proper work they are respected as Brāhmaṇas, but when not so engaged they are not so regarded.

It is not difficult, therefore, to identify these Ṣaka-dvīpi Brāhmaṇas as the Magi of old, and we have the high authority of Siṃha Giri, the Guru of Ballāla, in our support.

Now the question is, when did the Magi come into India, and who they were? They are said to have been Zoroastrian priests, but this statement is to be taken with reservation. In the Gāthās of the Avesta

there is no mention of any Priesthood. In the *Yāshnas* they are called the *Athravans*. In the *Vēdidād*, for the first time we find divination, foretelling and other things of similar nature, so repugnant to the founder of the religion, first introduced into the religion of Zoroaster. And this is said to be through the influence of the *Magi*, who had their home in Western Iran and were strongly imbued with the civilization of Chaldea and Assyria in which astronomy and astrology play an important part.

Some say the *Magi* were originally Chaldean priests. They were very powerful during the ascendancy of the *Medes*; under the *Persians*, too, they retained their influence to such an extent that *Herodotus* considered them to form the sixth tribe in the empire, with a sacerdotal capital, independent of the control of the Emperor, like Rome of mediæval Europe.

They lost much of their influence during the Greek and Parthian rule of Persia, but under the *Sassanides* they rose to great power and were organised as a second estate in the realm and were very powerful till the Monarchy and the Church were both swept away in 632 by the Saracen conquest.

During this long interval from 600 B.C. to 632 A.D. the *Persians* twice came into intimate connection with India, once in the 5th Century B. C. and once in the 5th Century A. D.

Their intimate connection, by conquest, with India in the 5th Century B. C. is attested by various documents discovered by *Cunningham* and others, and lately by *Dr. Stein*, in Central Asia, written in their official character, the *Kharostti*, written from right to left—the Urdu of those days.

The story of their intimate relation with Western India in the 5th Century A. D. will be found in the works of *Todd* and others.

Their Priesthood must have come into India with them during these two periods, and remained behind after the loss of their political power. Their knowledge of Astrology, etc., entitled them to great respect, and they remained as a part and parcel of the *Brāhmaṇa* caste, though in a qualified way.

Çaka-dvipa is generally translated by the word *Scythia*, *i.e.*, lands unknown to the *Hindus*, as *Scythia* was the land unknown to the *Greeks*. It included every region beyond the ken of the *Hindus* then and included Iran and Turana alike. So there is no difficulty in finding *Persians* styled as *Çaka-Dvipi* by *Indians*.

I have got a suggestion to make here. Some of these *Brāhmaṇas* call themselves *Çaka-dvipi*, the others *Çākala-dvipi*. It appears to me that those who came earlier are known as *Çaka-dvipi*, and those

who came later, *i.e.*, after the Indo-Scythians had established their Capital at Çākala in the Punjab, Çākala-dvipa.

In this connection, I should like to mention that Vedic Astronomy concerned itself with the determination of time for sacrifices and so it was purely mathematical, but latterly Hindu Astronomy is said to have three branches: Astronomy, Astrology, and Horoscopy. My theory is that Astronomy, as we had in the Vedic times, was a home development; Astrology we got from the Magi, whose descendants are still *the Astrologers* in India, and Horoscopy has been pronounced by Kern as a Greek art, and I have shown elsewhere that one of the oldest books on Horoscopy is a translation from Greek into Sanskrit.

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LIST OF MEMBERS
OF THE
ASIATIC SOCIETY OF BENGAL.
ON THE 31ST DECEMBER, 1900.

LIST OF OFFICERS AND MEMBERS OF COUNCIL
OF THE ASIATIC SOCIETY OF BENGAL
FOR THE YEAR 1900.

President :

His Honor Sir John Woodburn, M.A., K.C.S.I.

Vice-Presidents :

H. H. Risley, Esq., B.A., C.I.E., I.C.S.

Colonel T. H. Hendley, C.I.E., I.M.S.

Major A. Alcock, M.B., C.M.Z.S., I.M.S.

Secretary and Treasurer.

Honorary General Secretary: T. H. Holland, Esq.,
F.G.S., A.R.C.S.

Treasurer: W. K. Dods, Esq.

Additional Secretaries.

Philological Secretary: T. Bloch, Esq., Ph.D.

Natural History Secretary: L. de Nicéville, Esq., F.E.S.,
C.M.Z.S.

Anthropological Secretary: F. E. Pargiter, Esq., B.A.,
I.C.S.

Joint Philological Secretary: Mahamahopadhyaya Hara-
prasad Shastri, M.A.

Other Members of Council.

J. D. Nimmo, Esq.

Dr. Mahendralal Sircar, M.D., D.L., C.I.E.

C. L. Griesbach, Esq., F.G.S., C.I.E.

M. H. Oung, Esq.

A. Pedler, Esq., F.R.S.

G. W. Kuchler, Esq., M.A.

S. C. Hill, Esq., B.A., B.Sc.

J. Bathgate, Esq.

F. Finn, Esq., B.A., F.Z.S.

LIST OF ORDINARY MEMBERS.

R. = Resident. N. R. = Non-Resident. A. = Absent. N. S. = Non-Subscribing.
 L. M. = Life Member. F. M. = Foreign Member.

N. B.—Members who have changed their residence since the list was drawn up are requested to give intimation of such a change to the Honorary General Secretary, in order that the necessary alteration may be made in the subsequent edition. Errors or omissions in the following list should also be communicated to the Honorary General Secretary.

Members who are about to leave India and do not intend to return are particularly requested to notify to the Honorary General Secretary whether it is their desire to continue Members of the Society; otherwise, in accordance with Rule 40 of the Rules, their names will be removed from the list at the expiration of three years from the time of their leaving India.

Date of Election.		
1899 Feb. 1.	N. R.	Abdul Aziz Khan, Maulvie, B.A. <i>Tirora.</i>
1894 Sept. 27.	N. R.	Abdul Wali, Maulvie. <i>Sailkopa, Jessore District.</i>
1895 May 1.	N. R.	Abdus Salam, Maulvie, M.A. <i>Monghyr.</i>
1888 Feb. 1.	F. M.	Adamson, Lieut.-Col. Charles Henry Ellison, M.S.C. <i>Europe.</i>
1888 April 4.	R.	Ahmud, Shams-ul-ulama Maulvie, Arabic Professor, Presidency College. <i>Calcutta.</i>
1888 Feb. 1.	R.	Alcock, Major Alfred William, M.B., C.M.Z.S., F.G.S., I.M.S., Superintendent, Indian Museum. <i>Calcutta.</i>
1885 Mar. 4.	L.M.	Ali Bilgrami, Sayid, B.A., A.E.S.M., F.G.S. <i>Hyderabad.</i>
1899 Jan. 4.	N. R.	Ali Hussain Khan, Nawab. <i>Bopal.</i>
1900 Aug. 1.	R.	Allen, C. G. H., I.C.S. <i>Calcutta.</i>
1874 June 3.	R.	Ameer Ali, The Hon'ble Mr. Justice, M.A., C.I.E., Barrister-at-Law, Judge, High Court. <i>Calcutta.</i>
1893 Aug. 31.	N. R.	Anderson, Captain A. R. S., B.A., M.B., I.M.S. <i>Port Blair.</i>
1884 Sept. 3.	R.	Anderson, J. A. <i>Calcutta.</i>
1892 Jan. 6.	A.	Arnold, Henry Kerchever Walter. <i>Europe.</i>
1890 July 2.	N. R.	Arnold, Thomas Walker, B.A., M.E.A.S. <i>Lahore.</i>
1872 April 3.	N. R.	Ashan-ullah, Nawab, Khan Bahadur. <i>Dacca.</i>
1870 Feb. 2.	L.M.	Baden-Powell, Baden Henry, M.A., C.I.E. <i>Europe.</i>
1898 Nov. 2.	N. R.	Bailey, The Revd. Thomas Grahame, M.A., B.D. <i>Wazirabad.</i>
1891 Mar. 4.	N. R.	Baillie, D. C., I.C.S. <i>Ghasipur.</i>
1893 Aug. 3.	N. R.	Bain, Lieut.-Col., D. S. E., I.M.S. <i>Mercara.</i>

Date of Election.		
1891 April 1.	N.R.	Baker, Edward Charles Stuart. <i>North Cachar.</i>
1900 Aug. 29.	R.	Baker, The Hon. Mr. E. N., C.S.I., I.C.S. <i>Calcutta.</i>
1889 May 1.	R.	Banerji, The Hon. Mr. Justice Gura Das, M.A., D.L., Judge, High Court. <i>Calcutta.</i>
1896 Mar. 4.	N.R.	Banerji, Satish Chandra, M.A. <i>Allahabad.</i>
1869 Dec. 1.	L.M.	Barker, R. A., M.D. <i>Europe.</i>
1885 Nov. 4.	R.	Barman, Damudar Das. <i>Calcutta.</i>
1877 Jan. 17.	N.R.	Barman, H. H. The Maharaja Radha Kishor Dev. <i>Tipperah.</i>
1898 Mar. 2.	N.R.	Barnes, Herbert Charles, I.C.S. <i>Shillong.</i>
1894 Sept. 27.	R.	Basu, Nagendra Natha. <i>Calcutta.</i>
1898 May 4.	R.	Bathgate, J. <i>Calcutta.</i>
1895 July 3.	L.M.	Beatson-Bell, Nicholas Dodd, B.A., I.C.S. <i>Europe.</i>
1876 Nov. 15.	F.M.	Beveridge, Henry, I.C.S., (retired). <i>Europe.</i>
1900 April 4.	N.R.	Bingley, Captain A. H., I.S.C. <i>Hongkong.</i>
1898 Nov. 2.	F.M.	Black, Robert Greenhill. <i>Europe.</i>
1859 Aug. 3.	L.M.	Blanford, William Thomas, LL.D., A.R.S.M., F.G.S., F.R.G.S., F.Z.S., F.R.S. <i>Europe.</i>
1897 Feb. 3.	R.	Bloch, Theodor, PH.D. <i>Calcutta.</i>
1893 Feb. 1.	F.M.	Bodding, The Revd. P. O. <i>Europe.</i>
1885 Mar. 4.	R.	Bolton, The Hon. Mr. Charles Walter, C.S.I., I.C.S. <i>Calcutta.</i>
1895 July 3.	N.R.	Bouham-Carter, Norman, I.C.S. <i>Mymensingh.</i>
1890 July 2.	R.	Bonnerjee, Womes Chunder, Barrister-at-Law, Middle Temple. <i>Calcutta.</i>
1900 Sept. 19.	N.R.	Bosanquet, O. V., I.C.S. <i>Indore.</i>
1897 June 2.	R.	Bose, Annada Prasad, M.A. <i>Calcutta.</i>
1895 Mar. 6.	A.	Bose, Jagadis Chandra, M.A., D.Sc., Bengal Education Service. <i>Europe.</i>
1880 Nov. 3.	N.R.	Bose, Pramatha Nath, B.Sc., F.G.S. Geological Survey of India. <i>Camp Raipur, O.I.</i>
1900 Jan. 19.	R.	Bose, Rai Chuni Lal, Bahadur, M.B., F.C.S. <i>Calcutta.</i>
1895 April 3.	R.	Bourdillon, James Austin, C.S.I., I.C.S. <i>Calcutta.</i>
1860 Mar. 7.	L.M.	Brandis, Sir Dietrich, K.C.I.E., PH.D., F.L.S., F.R.S. <i>Europe.</i>
1900 Aug. 1.	R.	Brown, Major E. Harold, M.D., I.M.S. <i>Calcutta.</i>
1887 May 4.	R.	Bural, Nobin Chand, Solicitor. <i>Calcutta.</i>
1896 Jan. 8.	N.R.	Burn, Richard, I.C.S. <i>Allahabad.</i>
1900 May 2.	N.R.	Butcher, Flora, M.D. <i>Pawal.</i>
1898 Sept. 30.	R.	Cable, Ernest. <i>Calcutta.</i>
1896 Jan. 8.	R.	Caddy, Dr. Arnold. <i>Calcutta.</i>
1895 July 3.	A.	Carey, Hirzel Denis de Mussenden, I.C.S. <i>Europe.</i>
1895 July 3.	N.R.	Carlyle, Robert Warrant, C.I.E., I.C.S. <i>Balasure.</i>
1886 Nov. 4.	A.	Cave-Browne, J. A., I.C.S. <i>Europe.</i>
1890 June 4.	N.R.	Chakravarti, Man Mohan, M.A., B.L., Deputy Magistrate. <i>Midnapur.</i>
1898 Nov. 2.	R.	Chatterjea, Kishori Mohan, Judge, Court of Small Causes. <i>Calcutta.</i>

Date of Election.		
1894 Aug. 1.	N.R.	Chatterjee, M. N. <i>Patiala.</i>
1892 Aug. 3.	N.R.	Chaube, Behary Lall. <i>Bankipur.</i>
1893 Sept. 28.	R.	Chaudhuri, Banawari Lala, B.Sc. Edin. <i>Calcutta.</i>
1899 Jan. 4.	A.	Clemow, Dr. Frank Gerard, M.D., Edin. D.P.H., Camb. <i>Europe.</i>
1880 Aug. 26.	F.M.	Clerk, Colonel Malcolm G. <i>Europe.</i>
1881 May 4.	N.R.	Cockburn, John, Opium Department. <i>Cawnpore.</i>
1889 Nov. 6.	R.	Colville, William Brown. <i>Calcutta.</i>
1890 Dec. 3.	A.	Connan, William, C.E. <i>Europe.</i>
1898 June 1.	F.M.	Cordier, Dr. Palmyr. <i>Europe.</i>
1899 Feb. 1.	N.R.	Cotton, Julian James, B.A., I.C.S. <i>Madras.</i>
1876 Mar. 1.	F.M.	Crawford, James, B.A., I.C.S. <i>Europe.</i>
1887 Aug. 25.	R.	Criper, William Risdon, F.C.S., F.I.C., A.R.S.M. <i>Calcutta.</i>
1877 June 6.	A.	Croft, Sir Alfred W., M.A., K.C.I.E. <i>Europe.</i>
1895 July 3.	A.	Cumming, John Ghest, I.C.S. <i>Europe.</i>
1898 Aug. 26.	N.R.	Cuppige, Captain W. A., I.S.C. <i>Dibrugarh.</i>
1873 Dec. 3.	F.M.	Dames, Mansel Longworth, I.C.S. <i>Europe.</i>
1896 Mar. 4.	R.	Das-Gupta, Jogendra Nath, B.A., Barrister-at-Law. <i>Calcutta.</i>
1865 June 7.	N.R.	Das, Raja Jay Krishna, Bahadur, C.S.I. <i>Moradabad.</i>
1879 April 7.	N.R.	Das, Ram Saran, M.A., Secy., Oudh Commercial Bank, Limited. <i>Fyzabad, Oudh.</i>
1900 July 4.	N.R.	Das, Syam Sunder, B.A. <i>Benares.</i>
1896 Dec. 2.	A.	Davis, Arthur William, I.C.S. <i>Europe.</i>
1895 Sept. 19.	N.R.	De, Kiran Chandra, B.A., I.C.S. <i>Faridpur.</i>
1895 Dec. 4.	N.R.	Delmerick, Charles Swift. <i>Budaon.</i>
1893 Mar. 1.	A.	Deussen, Dr. Paul. <i>Europe.</i>
1900 May 2.	N.R.	Dev, Kumar Satindra, Rai Mahesaya. <i>Bansberia.</i>
1899 Aug. 30.	N.R.	Dev, Raj Kumar Satchidanaud, Bahadur. <i>Deogarh,</i> <i>Sambalpur.</i>
1896 Jan. 8.	N.R.	Dewhurst, R. Paget., I.C.S. <i>Naini Tal.</i>
1899 Aug. 30.	R.	Dods, W. <i>Calcutta.</i>
1898 Jan. 5.	R.	Dods, W. K. <i>Calcutta.</i>
1886 June 2.	R.	Doyle, Patrick, C.E., F.R.A.S., F.R.S.E., F.G.S. <i>Cal-</i> <i>cutta.</i>
1892 Sept. 22.	R.	Drury, Major Francis James, M.B., I.M.S. <i>Calcutta.</i>
1889 Jan. 2.	N.R.	Dudgeon, Gerald Cecil, Holta Tea Co., Ltd., <i>Palam-</i> <i>pur.</i>
1879 Feb. 5.	N.R.	Duthie, J. F., B.A., F.L.S. <i>Saharanpur.</i>
1892 Jan. 6.	N.R.	Dutt, Gerindra Nath. <i>Hahwa.</i>
1877 Aug. 30.	R.	Dutt, Kedar Nath. <i>Calcutta.</i>
1892 Aug. 25.	R.	Dutt, Rai Narsingh Chunder, Bahadur. <i>Howrah.</i>
1890 Sept. 25.	A.	Dutt, Romesh Chunder, C.I.E., I.C.S. (retired), Barrister-at-Law, Middle Temple. <i>Europe.</i>
1900 April 4.	R.	Dyson, Major Herbert Jekyl, F.R.C.S., I.M.S. <i>Calcutta.</i>

Date of Election.		
1900 July 4.	N.R.	Earle, A., I.C.S. <i>Darjeeling</i> .
1871 Dec. 2.	N.R.	Eliot, John, M.A., C.I.E., F.R.S. <i>Simla</i> .
1900 April 4.	R.	Evans, The Hon. Sir Griffith, K.C.I.E. <i>Calcutta</i> .
1900 Mar. 7.	R.	Fanshawe, Arthur Upton, C.S.I., I.C.S. <i>Calcutta</i> .
1900 Aug. 29.	N.R.	Fanshawe, The Hon. Mr H. C., C.S.I., I.C.S. <i>Delhi</i> .
1899 Jan. 4.	A.	Ferrar, Lieutenant, M. LL., I.S.C. <i>Europe</i> .
1894 Dec. 5.	R.	Finn, Frank, B.A., F.Z.S., Deputy Superintendent, Indian Museum. <i>Calcutta</i> .
1898 Sept. 30.	R.	Firminger, The Revd. Walter K., M.A. <i>Barrackpur</i> .
1892 May 4.	A.	Forrest, G. W., B.A. <i>Europe</i> .
1900 Dec. 5.	N.R.	Gabriel, E. V., I.C.S. <i>Begu Serai</i> .
1893 Jan. 11.	R.	Gait, Edward Albert, I.C.S. <i>Howrah</i> .
1899 Aug. 30.	R.	Garth, Dr. H. C. <i>Calcutta</i> .
1859 Aug. 3.	L.M.	Gastrell, General James Eardley. <i>Europe</i> .
1889 Jan. 2.	R.	Ghose, Jogendra Chandra, M.A., B.L. <i>Calcutta</i> .
1889 Mar. 6.	R.	Ghosha, Bhupendra Sri, B.A., B.L. <i>Calcutta</i> .
1869 Feb. 3.	R.	Ghosha, Pratapa Chandra, B.A. <i>Calcutta</i> .
1897 Dec. 6.	A.	Godfrey, Captain Stuart, I.S.C. <i>Europe</i> .
1861 Feb. 5.	N.S.	Godwin-Austen, Lieut.-Colonel H. H., F.R.S., F.Z.S., F.R.G.S. <i>Europe</i> .
1899 Aug. 2.	R.	Goenka, Roomall. <i>Calcutta</i> .
1890 Aug. 6.	R.	Goethals, The Most Revd. Paul, D.D., S.J., Archbishop. <i>Calcutta</i> .
1896 Nov. 4.	F.M.	Grant, A. J., I.C.S. <i>Europe</i> .
1897 July 7.	N.R.	Grant, Captain J. W., I.M.S. <i>Sirohee</i> .
1898 Aug. 3.	N.R.	Green, Major Charles Robert Mortimer, F.R.C.S. I.M.S. <i>Muzaffarpur</i> .
1876 Nov. 15.	F.M.	Grierson, George Abraham, PH.D., C.I.E., I.C.S. <i>Europe</i> .
1885 Dec. 2.	R.	Griesbach, C. L., C.I.E., F.G.S., Director, Geological Survey of India. <i>Calcutta</i> .
1900 Dec. 5.	L.M.	Grieve, J. W. A. <i>Kalimpong</i> .
1898 June 1.	R.	Gupta, Bepin Behari. <i>Calcutta</i> .
1898 April 6.	R.	Gupta, Krishna Govinda, I.C.S., Barrister-at-Law. <i>Calcutta</i> .
1898 Jan. 5.	N.R.	Gurdon, Captain P. R. T., I.S.C. <i>Gauhati</i> .
1892 Jan. 6.	N.R.	Haig, Captain Wolseley, I.S.C. <i>Berar</i> .
1899 April 5.	N.R.	Hare, Major E. C., I.M.S. <i>Gauhati</i> .
1900 April 4.	R.	Harvey, Surgeon-General Robert, M.D., LL.D., F.R.C.P., C.B., D.S.O. <i>Calcutta</i> .
1884 Mar. 5.	L.M.	Hassan Ali Qadr, Sir Syud, Nawab Bahadur, K.C.I.E. <i>Murshedabad</i> .
1898 Feb. 2.	R.	Havell, Ernest Binfield. <i>Calcutta</i> .
1897 Feb. 3.	R.	Hayden, H. H., B.A., B.E., F.G.S., Geological Survey of India. <i>Calcutta</i> .

Date of Election.		
1875 Mar. 3.	R.	Hendley, Col. Thomas Holbein, C.I.E., I.M.S., Inspector General of Civil Hospitals, Bengal. <i>Calcutta.</i>
1892 Aug. 3.	R.	Hill, Samuel Charles, B.A., B.S.C. <i>Calcutta.</i>
1872 Dec. 5.	A.	Hoernle, Augustus Frederick Rudolf, PH.D., C.I.E. <i>Europe.</i>
1878 Mar. 6.	A.	Hoey, W., PH.D., I.C.S., (retired). <i>Europe.</i>
1891 July 1.	R.	Holland, Thomas Henry, F.G.S., A.R.C.S., Geological Survey of India. <i>Calcutta.</i>
1898 Feb. 2.	R.	Hooper, David, F.C.S. <i>Calcutta.</i>
1884 Mar. 5.	N.R.	Hooper, The Hon. Mr. John, B.A., I.C.S. <i>Allahabad. N.-W.P.</i>
1873 Jan. 2.	L.M.	Honstoun, G. L., F.G.S. <i>Europe.</i>
1890 Dec. 3.	N.R.	Hyde, The Revd. Henry Barry, M.A. <i>Madras.</i>
1866 Mar. 7.	F.M.	Irvine, William, I.C.S., (retired). <i>Europe.</i>
1899 April 5.	R.	Kempthorne, H. E. <i>Calcutta.</i>
1882 Mar. 1.	N.R.	Kennedy, Pringle, M.A. <i>Mozufferpur.</i>
1867 Dec. 4.	A.	King, Sir George, M.B., K.C.I.E., LL.D., F.L.S., I.M.S., (retired). <i>Europe.</i>
1881 Mar. 2.	F.M.	King, Lucas White, B.A., LL.B., C.S.I., I.C.S. <i>Europe.</i>
1896 Aug. 27.	A.	Konstam, Edwin Max, I.C.S. <i>Europe.</i>
1900 Jan. 17.	R.	Krafft, Albrecht von, PH.D., Geological Survey of India. <i>Calcutta.</i>
1896 July 1.	R.	Küchler, George William, M.A. <i>Calcutta.</i>
1891 Feb. 4.	N.R.	Kupper, Raja Lala Bunbehari. <i>Burdwan.</i>
1893 July 1.	R.	Laharry, Sarat Chandra, PH.D. <i>Calcutta.</i>
1899 Aug. 30.	N.R.	Lal, Dr. Mannu. <i>Banda.</i>
1887 May 4.	L.M.	Lanman, Charles R. <i>Europe.</i>
1889 Mar. 6.	N.R.	LaTouche, Thomas Henry Digges, M.A., Geological Survey of India. <i>Maymyo.</i>
1900 Sep. 19.	N.R.	Law, The Hon. Sir Edward F. G., K.C.M.G. <i>Calcutta.</i>
1889 Nov. 6.	R.	Lee, W. A., F.R.M.S. <i>Calcutta.</i>
1900 May 2.	R.	Leistikow, F. R. <i>Calcutta.</i>
1889 Feb. 6.	R.	Little, Charles, M.A., Bengal Education Service. <i>Calcutta.</i>
1899 Dec. 6.	N.R.	Lorimer, J. G., I.C.S. <i>Malakhand.</i>
1869 July 7.	F.M.	Lyall, Sir Charles James, M.A., K.C.S.I., C.I.E., LL.D., I.C.S., (retired). <i>Europe.</i>
1870 April 7.	L.M.	Lyman, B. Smith. <i>Europe.</i>
1896 Mar. 4.	N.R.	MacBlaine, Frederick, I.C.S. <i>Purneah.</i>
1893 Jan. 11.	L.M.	MacLagan, E. D., M.A., I.C.S. <i>Multan.</i>
1891 Feb. 4.	R.	Macpherson, Duncan James, M.A., C.I.E., I.C.S. <i>Calcutta.</i>
1896 Feb. 5.	N.R.	Macpherson, William Charles, I.C.S. <i>Bankipore.</i>
1893 Aug. 31.	N.R.	Mahatha, Purmeshwar Narain. <i>Mozufferpur.</i>
1900 Oct. 31.	R.	Mahomed, Abdulla, M.A. <i>Calcutta.</i>

Date of Election.		
1895 Aug. 29.	R.	Mahomed Gilani, Shams-ul-Ulama Shaikh. <i>Calcutta.</i>
1886 Jan. 6.	N.R.	Mahomed Latif Khan, Sayid, Khan Bahadur. <i>Gujranwala.</i>
1898 Nov. 2.	N.B.	Maitra, Akshaya Kumar, B.A., B.L. <i>Rajshahi.</i>
1889 Jan. 2.	R.	Maliah, Kumar Rameswar. <i>Howrah.</i>
1893 July 5.	F.M.	Mangos, C. D. <i>Europe.</i>
1889 Mar. 6.	A.	Mann, John, M.A. <i>Europe.</i>
1893 Mar. 1.	A.	Marriott, Charles Richardson, I.C.S. <i>Europe.</i>
1892 April 6.	A.	Maynard, Major F. P., I.M.S. <i>Europe.</i>
1900 May 2.	N.R.	McArdle, Captain Andrew Augustine Frayne, B.A., M.B., I.M.S. <i>Bombay.</i>
1899 Feb. 1.	N.R.	McMahon, Captain A. H., C.S.I., C.I.E., I.S.C. <i>Malahand.</i>
1899 Mar. 1.	N.R.	McMinn, C. W., B.A., I.C.S., (retired). <i>Comilla.</i>
1886 Mar. 3.	L.M.	Mehta, Rustomjee Dhunjeebhoj, C.I.E. <i>Calcutta.</i>
1895 July 3.	N.R.	Melitus, Paul Gregory, C.I.E., I.C.S. <i>Shillong.</i>
1900 Mar. 7.	R.	Meyer, William Stevenson, I.C.S. <i>Calcutta.</i>
1900 Jan. 19.	R.	Michie, Charles. <i>Calcutta.</i>
1884 Nov. 5.	A.	Middlemiss, C. S., B.A., Geological Survey of India. <i>Europe.</i>
1884 Sept. 3.	R.	Miles, William Harry. <i>Calcutta.</i>
1870 July 6.	R.	Miller, Albert Bermingham, B.A., Barrister-at-Law, Official Trustee. <i>Calcutta.</i>
1898 April 6.	R.	Milne, Captain C. J., I.M.S. <i>Calcutta.</i>
1874 May 6.	A.	Minchin, F. J. V. <i>Europe.</i>
1896 July 1.	N.R.	Misra, Rai Lakshmi Sanker, Bahadur. <i>Benares.</i>
1897 Jan. 6.	N.R.	Misra, Tulsī Ram. <i>Barielly.</i>
1899 Mar. 1.	R.	Mitra, J. C., M.A., B.L. <i>Calcutta.</i>
1895 Mar. 6.	N.R.	Mitra, Rajeswar. <i>Nagpur.</i>
1897 Nov. 3.	R.	Mitra, Saroda Churan, M.A., B.L. <i>Calcutta.</i>
1895 July 3.	N.R.	Monahan, Francis John, I.C.S. <i>Shillong.</i>
1898 May 4.	R.	Mookerjee, R. N. <i>Calcutta.</i>
1898 Sept. 30.	R.	Moore, The Revd. Herbert Octavius, M.A. <i>Calcutta.</i>
1879 May 7.	A.	Muir, J. W., M. A., I. C. S., (retired). <i>Europe.</i>
1894 Aug. 30.	R.	Mukerjee, Sib Narayan. <i>Uttarpara.</i>
1900 May 2.	R.	Mukerji, Phani Bhushan, B.Sc. <i>Calcutta.</i>
1899 Sept. 29.	R.	Mukharji, Jotindra Nath, B.A. <i>Calcutta.</i>
1886 May 5.	R.	Mukhopadhyaya, The Hon. Dr. Asutosh, M.A., D.L., F.R.A.S., F.R.S.E. <i>Calcutta.</i>
1892 Dec. 7.	R.	Mukhopadhyaya, Panchanana. <i>Calcutta.</i>
1896 April 1.	R.	Mullick, Sham Lal. <i>Calcutta.</i>
1885 June 3.	N.R.	Naemwoollah, Maulvie, Deputy Magistrate. <i>Etawah.</i>
1881 Nov. 2.	R.	Nicéville, Lionel de, F.E.S., C.M.Z.S. <i>Calcutta.</i>
1900 Dec. 5.	R.	Nicoll, John. <i>Calcutta.</i>
1889 Aug. 29.	L.M.	Nimmo, John Duncan. <i>Calcutta.</i>
1892 Oct. 27.	F.M.	Norvill, Dr. Frederic H. <i>Europe.</i>
1885 Feb. 4.	N.R.	Nyayaratna, Mahamahopadhyaya Mahesa Chandra, C.I.E. <i>Benares.</i>

Date of Election.			
1899 Jan. 7.	N.R.	O'Brien, P. H., I.C.S.	<i>Purneah.</i>
1900 Dec. 5.	N.R.	O'Connor, Captain W. F., R.A.	<i>Kashmir.</i>
1900 Aug. 29.	N.R.	O'Dwyer, Michael Francis, B.A., I.C.S.	<i>Alwar.</i>
1880 Dec. 1.	A.	Oldham, R. D., A.R.S.M., F.G.S., Geological Survey of India.	<i>Europe.</i>
1883 Aug. 30.	F.M.	Oliver, Edw. Emmerson, M.I.O.E.	<i>Europe.</i>
1887 July 6.	N.R.	Oung, Moung Hla.	<i>Rangoon.</i>
1880 Aug. 4.	L.M.	Pandia, Pandit Mohanlall Vishnulall, F.T.S.,	<i>Muttra.</i>
1880 Jan. 7.	R.	Pargiter, Frederick Eden, B.A., I.C.S.	<i>Calcutta.</i>
1899 Aug. 2.	N.R.	Peake, C. W., M.A., Bengal Education Service.	<i>Bankipur.</i>
1873 Aug. 6.	R.	Pedler, Alexander, F.R.S., Director of Public Instruction, Bengal.	<i>Calcutta.</i>
1888 June 6.	L.M.	Pennell, Aubray Percival, B.A., I.C.S.	<i>Europe.</i>
1881 Aug. 25.	R.	Percival, Hugh Melville, M.A., Bengal Education Service.	<i>Calcutta.</i>
1877 Aug. 1.	N.R.	Peters, Lieut.-Colonel O. T., M.B., I.M.S.	<i>Bombay.</i>
1889 Nov. 6.	N.R.	Phillott, Capt. D. C., I.S.C.	<i>Kohat.</i>
1896 Jan. 8.	F.M.	Place, George William, B.A., LL.B., I.C.S.	<i>Europe.</i>
1889 Mar. 6.	R.	Prain, Major David, M.A., M.B., LL.D., I.M.S., Royal Botanic Garden.	<i>Sibpur.</i>
1889 Mar. 6.	N.R.	Prasad, Hanuman, Raes and Zemindar.	<i>Chunar.</i>
1896 Sept. 25.	N.R.	Pringle, A. T.	<i>Madras.</i>
1880 April 7.	N.R.	Rai, Bipina Chandra, B.L.	<i>Jessore.</i>
1895 Aug. 29.	N.R.	Rai, Jatindra Nath Chaudhery, M.A., B.L.	<i>Taki.</i>
1900 April 4.	R.	Raleigh, The Hon. Mr. T.	<i>Calcutta.</i>
1898 Aug. 3.	N.R.	Ram, Sita, M.A.	<i>Cawnpore.</i>
1890 Mar. 5.	R.	Ray, Prafulla Chandra, D.Sc., Bengal Education Service.	<i>Calcutta.</i>
1887 May 4.	R.	Ray, Prasanna Kumar, D.Sc. (Lond. and Edin.), Bengal Education Service.	<i>Calcutta.</i>
1900 Sept. 19.	R.	Reader, G. F.	<i>Calcutta.</i>
1884 Mar. 5.	R.	Risley, Herbert Hope, B.A., C.I.E., I.C.S.	<i>Calcutta.</i>
1900 April 4.	R.	Rogers, Captain Leonard, M.D., B.Sc., M.R.C.P., F.R.C.S., I.M.S.	<i>Calcutta.</i>
1900 Aug. 29.	N.R.	Rose, H. A., I.C.S.	<i>Lahore.</i>
1896 Dec. 2.	N.R.	Row, B. Suryanaran, B.A.	<i>Bellary.</i>
1895 Mar. 6.	A.	Rowe, Frederick James, M.A.	<i>Europe.</i>
1889 June 5.	N.R.	Roy, Maharaja Girjanath.	<i>Dinapore.</i>
1885 Mar. 4.	R.	Rustomjee, Harjeebhoy Manickjee.	<i>Calcutta.</i>
1896 Aug. 27.	N.R.	Samman, Herbert Frederick, I.C.S.	<i>Barisal.</i>
1899 June 7.	N.R.	Sarkar, Chandra Kumar.	<i>Benares.</i>
1898 Mar. 2.	N.R.	Sarkar, Jadu Nath.	<i>Bankipur.</i>
1897 Nov. 3.	R.	Saunders, C.	<i>Calcutta.</i>
1900 Dec. 5.	R.	Schwaiger, Imre George.	<i>Calcutta.</i>
1893 Jan. 11.	L.M.	Scindia, His Highness the Maharaja.	<i>Gwalior.</i>

Date of Election.		
1899 Mar. 1.	R	Scott, Lientenant Bernard, i.s.c. <i>Barrackpore.</i>
1900 Dec. 5.	N.R.	Sen, Birendra Chandra, i.c.s. <i>Bogra.</i>
1885 April 1.	R.	Sen, Yadu Nath. <i>Calcutta.</i>
1897 Dec. 1.	R.	Seth, M. J. <i>Calcutta.</i>
1900 Mar. 7.	R.	Shastree, Pandit Yogesha Chandra <i>Calcutta.</i>
1885 Feb. 4.	R.	Shastri, Mahamahopadhaya Haraprasad, M.A. <i>Calcutta.</i>
1894 June 6.	N.R.	Shibli Nomani, Shams-ul-Ulama Maulvie Muhammad, Professor of Arabic in the Muhammadan Oriental College. <i>Aligarh.</i>
1891 June 3.	A	Shillingford, Frederick Alexander. <i>Europe.</i>
1900 May 2.	R.	Sbrager, Adolphe. <i>Calcutta.</i>
1899 May 3.	N.R.	Silberrad, Chas. A., i.c.s. <i>Lalitpur, Bundelkhand.</i>
1887 April 6.	A.	Simpson, Dr. W. J. <i>Europe.</i>
1893 Mar. 1.	N.R.	Singh, Maharaja Kumara Sirdar Bharat, i.c.s. <i>Ghazipur.</i>
1880 June 2.	N.R.	Singh, Thakur Garuradhawaya Prasad, Raja of Beswan. <i>Beswan Fort, Aligarh.</i>
1895 Aug. 29	R.	Singh, Lachmi Narayan, M.A., B.L. <i>Calcutta.</i>
1892 Mar. 2.	LM	Singh, The Hon. Raja Ooday Pratab. <i>Binga.</i>
1889 Aug. 29.	N.R.	Singh, H. H. The Maharaja Prabhu Narain, Bahadur. <i>Benares.</i>
1892 Aug. 3.	N.R.	Singh, H. H. The Hon. Maharaja Pratap Narain. <i>Ajodhya, Oudh.</i>
1895 Aug. 29	N.R.	Singh, Ram Din. <i>Bankipur.</i>
1889 Nov. 6.	N.R.	Singh, H. H. The Hon. Maharaja Rameshwara, Bahadur. <i>Darbhanga.</i>
1894 Feb. 7.	N.R.	Singh, H. H. Raja Vishwa Nath, Bahadur, Chief of Chhatarpur.
1894 July 4.	N.R.	Sinha, Kunwar Kushal Pal, M.A. <i>Narki P.O., Agra District.</i>
1899 June 7.	N.R.	Sinha, Purnenda Narayan. <i>Bankipur.</i>
1867 April 3.	R.	Sircar, Dr. Mahendra Lal, M.D., C.I.E., D.L. <i>Calcutta.</i>
1897 Jan. 6.	R.	Sircar, Amrita Lal, F.C.S. <i>Calcutta.</i>
1872 Aug. 5.	N.R.	Skrefsrud, The Revd. Laurentius Olavi. <i>Rampur Hat.</i>
1874 June 3.	F.M.	Smith, Vincent Arthur, i.c.s. <i>Europe.</i>
1899 Nov. 1.	N.R.	Srivastava, Lala Shyam Sunder Lal. <i>Pertabgarh.</i>
1898 April 6.	R.	Stark, Herbert, B.A. <i>Calcutta.</i>
1891 Aug. 27.	N.R.	Stein, M. A., Ph.D. <i>Kashmir.</i>
1895 July 5.	N.R.	Steinberg, Alfred Frederick, i.c.s. <i>Rampur Boalia.</i>
1899 Aug. 30.	R.	Stephen, St. John, B.A., LL.B. <i>Calcutta.</i>
1900 Aug. 29	N.R.	Stephenson, Captain John, I.M.S. <i>Edwardesabad.</i>
1898 June 1.	N.R.	Sunder, Donald. <i>Patna.</i>
1899 Mar. 1.	R.	Tocher, A. <i>Calcutta.</i>
1868 June 3.	R.	Tagore, The Hon. Maharaja Sir Jotendra Mohun, Bahadur, K.C.S.I. <i>Calcutta.</i>
1898 April 6.	R.	Tagore, Maharaja Prodyat Coomar. <i>Calcutta.</i>

Date of Election.		
1897 Dec. 1.	N.R.	Talbot, W. A. <i>Belgaum.</i>
1893 Aug. 31.	N.R.	Tate, G. P., Survey of India. <i>Hongkong.</i>
1878 June 5.	N.R.	Temple, Lieut-Col. Richard Carnac, C.I.E., I.S.C. <i>Port Blair.</i>
1875 June 2.	N.R.	Thibaut, Dr. G., Muir Central College. <i>Allahabad.</i>
1898 Nov. 2.	R.	Thornton, Edward, A.R.I.B.A. <i>Calcutta.</i>
1847 June 2.	L.M.	Thuillier, Lieut-Genl. Sir Henry Edward Landor, KT., C.S.I., F.R.S., R.A. <i>Europe.</i>
1891 Aug. 27.	N.R.	Thurston, Edgar. <i>Madras.</i>
1871 April 5.	A.	Treffitz, Oscar. <i>Europe.</i>
1861 June 5.	L.M.	Tremlett, James Dyer, M.A., I.C.S., (retired). <i>Europe.</i>
1893 May 3.	N.R.	Vandja, Raja Ram Chandra. <i>Mayurbhanga,</i> <i>District Balasore.</i>
1898 Feb. 2.	R.	Vasu, Amrita Lal. <i>Calcutta.</i>
1900 Aug. 29.	N.R.	Vaughan, Major J. C., I.M.S. <i>Burdwan.</i>
1890 Feb. 5.	N.R.	Venis, Arthur, M.A., Principal, Sanskrit College. <i>Benares</i>
1896 May 6.	N.R.	Vidyanidhi, Mahendra Nath. <i>Krishnagar.</i>
1894 Sept. 27.	L.M.	Vost, Major William, I.M.S. <i>Jaunpur.</i>
1895 July 5.	N.R.	Waddell, Major Lawrence Austine, M.B., LL.D., I.M.S. <i>Hongkong.</i>
1900 Jan. 19.	R.	Wallace, David Robb. <i>Calcutta.</i>
1889 Nov. 6.	N.R.	Walsh, Major John Henry Tull, I.M.S. <i>Murshidabad.</i>
1900 April 4.	N.R.	Walton, Captain Herbert James, M.B., F.R.C.S., I.M.S. <i>Bombay.</i>
1865 May 3.	A.	Waterhouse, Major-General James, I.S.C., (retired). <i>Europe.</i>
1874 July 1.	R.	Watt, Dr. George, C.I.E. <i>Calcutta.</i>
1899 Sept. 29.	R.	Weldon, The Most Revd. James Edward Cowell, D.D., Lord Bishop of Calcutta; Metropolitan of India and Ceylon. <i>Calcutta.</i>
1896 Feb. 5.	N.R.	Williams, Captain Charles E., I.M.S. <i>Younggyi, S.</i> <i>Shan States, Burma.</i>
1891 May 6.	N.R.	Wilson, Charles Robert, M.A., Bengal Education Service. <i>Bankipur.</i>
1899 Aug. 30.	R.	Wood, E. Seymour, F.G.S. <i>Calcutta.</i>
1892 Jan. 6.	R.	Woodburn, The Hon. Sir John, M.A., K.C.S.I., I.C.S. <i>Calcutta.</i>
1900 Dec. 5.	N.R.	Woodman, H. C., I.C.S. <i>Jalpaiguri.</i>
1894 Sept. 27.	R.	Woodroffe, John George, Bar-at-Law. <i>Calcutta</i>
1894 Aug. 30.	N.R.	Wright, Henry Nelson, B.A., I.C.S. <i>Allahabad.</i>
1898 July 6.	R.	Wyness, James, C.E. <i>Calcutta.</i>
1897 Jan. 6.	N.R.	Zaka-ullah, Shams-ul-Ulama Muhammad. <i>Dekli.</i>

SPECIAL HONORARY CENTENARY MEMBERS.

Date of Election.	
1884 Jan. 15.	Dr. Ernst Haeckel, Professor in the University of Jena.
1884 Jan. 15.	Charles Meldrum, Esq., C.M.G., M.A., LL.D., F.R.A.S., F.R.S. <i>Mauritius.</i>
1884 Jan. 15.	Professor A. H. Sayce, Professor of Comp. Philology. <i>Oxford.</i>
1884 Jan. 15.	Professor Emile Senart, Member of the Institute of France. <i>Paris.</i>

HONORARY MEMBERS.

1848 Feb. 2.	Sir Joseph Dalton Hooker, G.C.S.I., C.B., M.D., D.C.L., LL.D., F.L.S., F.G.S., F.R.G.S., F.R.S. <i>Berkshire.</i>
1860 Nov. 7.	Dr. Albrecht Weber. <i>Berlin.</i>
1875 Nov. 3.	Dr. Otto von Böhtlingk. <i>Leipzig.</i>
1879 June 4.	Professor Edward Bayles Cowell, D.C.L. <i>Cambridge.</i>
1879 June 4.	Dr. Albert Günther, M.A., M.D., PH.D., P.L.S., V.P.Z.S., F.R.S. <i>Surrey.</i>
1879 June 4.	Dr. Jules Jaussen. <i>Paris.</i>
1879 June 4.	Professor P. Regnaud. <i>Lyons.</i>
1881 Dec. 7.	Lord Kelvin, G.C.V.O., D.C.L., LL.D., F.R.S.E., F.R.S. <i>Glasgow.</i>
1888 Feb. 7.	William Thomas Blanford, Esq., LL.D., A.R.S.M., F.G.S., F.R.G.S., F.Z.S., F.R.S. <i>London.</i>
1883 Feb. 7.	Alfred Russell Wallace, Esq., LL.D., D.C.L., F.L.S., F.Z.S., F.R.S. <i>Dorset.</i>
1894 Mar. 7.	Sir George Gabriel Stokes, Bart, M.A., D.C.L., LL.D., D.SC., F.C.P.S., F.R.S.E., F.R.S. <i>Cambridge.</i>
1894 Mar. 7.	Mahamahapodhyaya Chandra Kanta Tarkalankara. <i>Calcutta.</i>
1894 Mar. 7.	Professor Theodor Noeldeke. <i>Strassburg.</i>
1895 June 5.	Lord Rayleigh, M.A., D.C.L., D.SC., LL.D., PH.D., F.R.A.S., F.R.S. <i>Witham, Essex.</i>
1895 June 5.	Lt.-Genl. Sir Richard Strachey, R.E., G.C.S.I., LL.D., F.R.G.S., F.G.S., F.L.S., F.R.S. <i>London.</i>
1895 June 5.	Charles H. Tawney, Esq., M.A., C.I.E. <i>London.</i>
1896 Feb. 5.	Lord Lister, F.R.C.S., D.C.L., M.D., LL.D., D.SC., F.R.S. <i>London.</i>
1896 Feb. 5.	Sir Michael Foster, K.C.B., M.A., M.D., D.C.L., LL.D., D.SC., F.L.S., F.C.S., F.R.S. <i>Cambridge.</i>
1896 Feb. 5.	Professor F. Kielhorn, PH.D., C.I.E. <i>Göttingen.</i>
1896 Feb. 5.	Professor Charles Rockwell Lanmann. <i>Massachusetts,</i> <i>U.S.A.</i>
1899 Feb. 1.	Dr. Augustus Frederick Rudolf Hoernle, PH.D., C.I.E. <i>Oxford.</i>
1899 Dec. 6.	Professor Edwin Ray Lankester, M.A., LL.D., F.R.S. <i>London</i>
1899 Dec. 6.	Sir George King, K.C.I.E., M.B., LL.D., F.L.S., F.R.S. <i>London.</i>
1899 Dec. 6.	Professor Edward Burnett Tylor, D.C.L., LL.D., F.R.S. <i>Oxford.</i>
1899 Dec. 6.	Professor Edward Suess, PH.D., For. Mem. R.S. <i>Vienna.</i>

CORRESPONDING MEMBER.

Date of Election.
 1866 May 7. Schlagintweit, Dr. Emil. *Zweibrücken.*

ASSOCIATE MEMBERS.

1874 April 1. Lafont, The Revd. Father, E., C.I.E., S.J. *Calcutta.*
 1875 Dec. 1. Bate, The Revd. J. D., M.S.A.S. *Kent.*
 1875 Dec. 1. Abdul Hai, Maulvie. *Calcutta.*
 1882 June 7. Giles, Herbert. *Europe.*
 1884 Aug. 6. Moore, F., F.L.S. *Surrey.*
 1885 Dec. 2. Führer, Dr. A. *Europe.*
 1886 Dec. 1. Das, Rai Bahadur Sarat Chandra, C.I.E. *Calcutta.*
 1892 April 6. Samasrami, Satya Vrata. *Calcutta.*
 1892 Dec. 7. Brühl, P. J. *Sibpur.*
 1899 April 5. Sanyal, Rai Bahadur Ram Brahma. *Calcutta.*
 1899 April 5. Bhandari, Visnu Prasad Raj. *Nepal.*
 1899 Nov. 1. Francotte, The Revd. Father E., S.J. *Calcutta.*

LIST OF MEMBERS WHO HAVE BEEN ABSENT FROM
INDIA THREE YEARS AND UPWARDS.*

* *Rule 40.*—After the lapse of 3 years from the date of a member leaving India, if no intimation of his wishes shall in the interval have been received by the Society, his name shall be removed from the List of Members.

The following members will be removed from the next Member List of the Society, under the operation of the above Rule:—

Henry Kerchever Walter Arnold, Esq.
 J. A. Cave-Brown, Esq., I.C.S.
 Sir Alfred W. Croft, M.A., K.C.I.E.
 Romesh Chunder Dutt, Esq., C.I.E., I.C.S. (retired).
 Frederick Alexander Shillingford, Esq.
 Dr. W. J. Simpson.

LOSS OF MEMBERS DURING 1900.

BY RETIREMENT.

Maulvie Abdul Karim, B.A.
Brajendra Nath De, Esq., M.A., I.C.S.
The Revd. Thomas Foulkes, F.L.S., F.R.G.S.
B. Greeven, Esq., I.C.S.
Francis Henry Harding, Esq., B.A., I.C.S.
Joseph Kennedy, Esq., I.C.S.
Mahamahopadhyaya Nilmani Mukerjea.
Raja Peary Mohan Mukerjea, M.A., C.S.I.
Lieut.-Col. R. H. Whitwell, I.M.S.

BY DEATH.

Ordinary Members.

Dr. John Anderson, M.D., F.R.S.
Babu Aghore Chandra Bhaduri.
H.R.H. The Duke of Edinburgh.
Babu Rajani Kanta Gupta.
Babu Guru Prasad Sen.

Honorary Members.

Professor The Right Hon. F. Max Müller.

BY REMOVAL.

Under Rule 9.

R. C. Hamilton, Esq., I.C.S.
J. Lane Long, Esq.
Captain W. F. O'Connor, R.A. (Re-elected).
George Charles Wolfe, Esq.

Under Rule 38.

Maulvie Aziz-ud-din Ahmad.
Babu Krishna Gopal Bhakta.
Rai Nali Naksha Bose Bahadur.
Babu Radhika Raman Chatterjee.
Rai Khired Chandra Chaudhuri.
Babu Gopal Ballabh Das, M.A.
Raja Baikunta Nath De.
Maulvie Khuda Baksh Khan Bahadur.
Varada Charana Mitra, Esq., I.C.S.
Babu Mahendra Nath Ray, M.A., B.L.
Babu Suresh Chunder Samajpati.
Rajkumar Sarvadhikari Rai Bahadur.
Babu Narendra Nath Sen.
Raja Bhupendra Sinha Bahadur.

Under Rule 40.

Henry DeCourcy Agnew, Esq.
Dr. C. F. Oldham, F.R.C.S.

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[APPENDIX.]

ABSTRACT STATEMENTS
OF
RECEIPTS AND DISBURSEMENTS
OF THE
ASIATIC SOCIETY OF BENGAL
FOR
THE YEAR 1900.

1900.

STATEMENT

Asiatic Society

Dr.

				Rs. As. P.		Rs. As. P.
To ESTABLISHMENT.						
Salaries	...	...	...	3,486	9	0
Commission	...	...	...	416	10	9
Pension	...	...	...	52	0	0
				3,905	3	9
To CONTINGENCIES.						
Repairs	...	...	...	69	3	0
Stationery	...	...	...	113	5	6
Lighting	...	...	...	75	0	0
Taxes	...	...	...	884	4	0
Postage	...	...	...	445	2	0
Freight	...	...	...	32	8	6
Meeting	...	...	...	56	13	0
Auditor's fee	...	...	...	100	0	0
Miscellaneous	...	...	...	295	5	11
				2,071	9	11
To LIBRARY AND COLLECTIONS.						
Books	...	...	...	1,585	2	2
Binding	...	...	...	495	4	0
Furniture	...	...	...	265	10	0
Catalogue	...	...	...	100	0	0
Catalogue of Coins	...	...	...	362	8	0
				2,758	8	2
To PUBLICATIONS.						
Journal, Part I	..	...	...	346	14	0
Journal, Part II	...	...	...	2,272	7	0
Journal, Part III	...	...	...	1,275	8	0
Proceedings	...	...	...	652	1	0
				4,546	14	0
To Printing charges of Circulars, Receipt-forms, &c.	...	...	...	236	6	0
„ Personal Account (Writes-off and Miscellaneous)	...	...	...	1,309	10	4
To EXTRAORDINARY EXPENDITURE.						
Royal Society's Scientific Catalogue	...	...	...	382	13	0
				382	13	0
Balance	...	...	...	1,59,276	6	0
				1,74,487	7	2
Total Rs.				...	...	...
				1,74,487	7	2

No. 1.
of Bengal.

1900.

Cr.

			Rs.	As.	P.	Rs.	As.	P.
By Balance from last Report			1,52,452	11	11

BY CASH RECEIPTS.

Publications sold for cash	...	...	...	304	0	0		
Interest on Investments	...	...	...	5,530	0	0		
Rent of Rooms on the Society's ground floor	...	...	...	1,200	0	0		
Allowance from Government of Bengal for the Publication of Anthropological and Cognate Sub- jects	...	...	...	2,000	0	0		
Ditto from Government of Assam	...	...	...	2,000	0	0		
Miscellaneous	...	...	...	110	4	3		
							11,144	4 3

BY PERSONAL ACCOUNT.

Admission fees	...	...	...	1,104	0	0		
Subscriptions	...	...	...	8,826	0	0		
Sales on credit	...	...	...	561	0	0		
Miscellaneous	...	...	...	389	7	0		
							10,880	7 0

Total Rs. ... 1,74,487 7 2

W. K. DODS,
Honorary Secretary and Treasurer,
Asiatic Society of Bengal.

Examined and found correct,
MEUGENS, KING & SIMSON,
Auditors.

STATEMENT

1900. Oriental Publication Fund in Account

Dr.

To CASH EXPENDITURE.				Rs.	As.	P.	Rs.	As.	P.
Printing charges	...	...	...	5,880	12	9			
Editing charges	...	...	...	3,899	8	0			
Salaries	...	...	...	1,280	9	9			
Freight	...	...	...	16	14	0			
Stationery	...	...	...	70	0	6			
Postage	...	...	...	236	5	3			
Commission on collection	...	...	...	29	3	3			
Contingencies	...	...	...	20	9	6			
							10,433	15	0
To Personal Account (Writes-off and Miscellaneous)	...	...	...				209	10	0
			Balance				10,561	12	11
Total Rs.							21,205	5	11

STATEMENT

Sanskrit Manuscript Fund in Account

Dr.

To CASH EXPENDITURE.				Rs.	As.	P.	Rs.	As.	P.
Salaries	...	...	...	1,056	0	0			
Travelling charges	...	...	...	258	13	6			
Purchase of manuscripts	...	...	...	607	8	0			
Printing	...	...	...	4	14	0			
Postage	...	...	...	0	7	0			
Stationery	...	...	...	3	4	0			
Contingencies	...	...	...	198	7	3			
							2,124	5	9
To Personal Account (Writes-off and Miscellaneous)	...	...	...				2	0	0
			Balance				6,952	2	2
Total Rs.							9,078	7	11

No. 2.

with the Asiatic Society of Bengal.

1900.

Cr.

			Rs.	As.	P.	Rs.	As.	P.
By Balance from last Report	...	...	...			10,564	13	1
BY CASH RECEIPTS.								
Government allowance	...	...	9,000	0	0			
Publications sold for cash	...	...	609	14	4			
Advances recovered	...	...	51	11	6			
						9,661	9	10
BY PERSONAL ACCOUNT.								
Sales on credit	...	...	978	9	0			
Miscellaneous	...	...	0	6	0			
						978	15	0
Total Rs.								
						21,205	5	11

W. K. DODS,
Honorary Secretary and Treasurer,
Asiatic Society of Bengal.

Examined and found correct.
 MEUGENS, KING & SIMSON,
Auditors.

No. 3.

with the Asiatic Society of Bengal.

Cr.

			Rs.	As.	P.	Rs.	As.	P.
By Balance from last Report	...	...	...			5,872	7	11
BY CASH RECEIPTS.								
Government allowance	...	...	3,200	0	0			
Publications sold for cash	...	...	3	0	0			
						3,203	0	0
BY PERSONAL ACCOUNT.								
Sales on credit	...	...				3	0	0
Total Rs.								
						9,078	7	11

W. K. DODS,
Honorary Secretary and Treasurer,
Asiatic Society of Bengal.

Examined and found correct.
 MEUGENS, KING & SIMSON,
Auditors.

STATEMENT

1900.

Personal

Dr.

		Rs.	As.	P.	Rs.	As.	P.
To Balance from last Report	...	...			4,124	7	4
To CASH EXPENDITURE.							
Advances for purchase of Sanskrit Manuscripts, &c.	...				190	1	0
To Asiatic Society	...	10,890	7	0			
„ Oriental Publication Fund	...	978	15	0			
„ Sanskrit Manuscript Fund	...	3	0	0			
					11,872	6	0
Total Rs.				...	16,186 14 4		

STATEMENT

Invest

Dr.

		Value.			Cost.		
		Rs.	As.	P.	Rs.	As.	P.
To Balance from last Report	...	1,59,300	0	0	1,60,143	0	10
„ Cash	...	6,000	0	0	5,587	7	6
Total Rs.		1,65,300 0 0			1,65,730 8 4		

FUNDS.	PERMANENT.						TEMPORARY.						TOTAL COST.		
	Value.			Cost.			Value.			Cost.			Rs.	As.	P.
	Rs.	As.	P.	Rs.	As.	P.	Rs.	As.	P.	Rs.	As.	P.	Rs.	As.	P.
Asiatic Society ...	1,44,500	0	0	1,44,121	0	0	19,500	0	0	20,313	11	7	1,64,434	11	7
Trust Fund ...	1,300	0	0	1,295	12	9	...	...	...	...	...	...	1,295	12	9
	1,45,800 0 0			1,45,416 12 9			19,500 0 0			20,313 11 7			1,65,730 8 4		

No. 4.

Account.

1900.

Cr.

	Rs.	As.	P.	Rs.	As.	P.
By Cash Receipts						
" Asiatic Society	1,309	10	4	12,425	13	3
" Oriental Publication Fund	209	10	0			
" Sanskrit Manuscript Fund	2	0	0			
				1,521	4	4

By Balance.	Due to the Society.			Due by the Society.		
	Rs.	As.	P.	Rs.	As.	P.
Members ...	3,061	8	3	224	13	6
Subscribers ...	5	0	0	91	8	0
Employés ...	30	0	0	350	0	0
Miscellaneous	60	10	11	251	0	11
	3,157	3	2	917	6	5

... 2,239 12 9

Total Rs. ... 16,186 14 4

W. K. Dods, ...
Honorary Secretary and Treasurer,
Asiatic Society of Bengal.

Examined and found correct.
 MEUGENS, KING & SIMSON,
Auditors.

No. 5.

ment.

Cr.

	Value.			Cost.		
	Rs.	As.	P.	Rs.	As.	P.
By Balance*	1,65,300	0	0	1,65,730	8	4
Total Rs.	1,65,300	0	0	1,65,730	8	4

W. K. Dods,
Honorary Secretary and Treasurer,
Asiatic Society of Bengal.

Examined and found correct.
 MEUGENS, KING & SIMSON,
Auditors.

STATEMENT

1900.

Trust

Dr.						Rs. As. P.
To Pension ...	...	...	...	...	...	44 0 0
„ Balance ...	...	...	...	...	...	1,347 11 10
Total Rs.						1,391 11 10

STATEMENT

Cash

Dr.						Rs. As. P.
To Balance from last Report ...	...	...	...	...	...	5,989 12 7
RECEIPTS.						
To Asiatic Society ..	...	...	...	...	...	11,144 4 3
„ Oriental Publication Fund ...	...	...	...	...	...	9,661 9 10
„ Sanskrit Manuscript Fund ...	...	...	...	...	...	3,203 0 0
„ Personal Account ...	...	...	...	...	...	12,425 13 3
„ Trust Fund ...	...	...	...	...	...	45 8 0
Total Rs.						42,448 15 11

STATEMENT

Balance

Dr.						Rs. As. P.
To Cash ...	...	...	...	...	...	10,167 11 10
„ Investments ...	...	...	...	...	...	1,65,730 8 4
„ Personal Account...	...	...	...	...	...	2,239 12 9
Total Rs.						1,78,138 0 11

No. 6.

Fund.

1900.

				Cr.		
					Rs.	As. P.
By Balance from last Report	...	...	...	...	1,346	3 10
„ Interest on Investments	...	...	...	...	45	8 0
				Total Rs.	...	1,391 11 10

W. K. Dods,
Honorary Secretary and Treasurer,
Asiatic Society of Bengal.

Examined and found correct.
MEUGENS, KING & SIMSON,
Auditors.

No. 7.

Account.

				Cr.		
EXPENDITURE.						
					Rs.	As. P.
By Asiatic Society	...	...	...	...	13,901	6 10
„ Oriental Publication Fund	...	...	...	...	10,433	15 0
„ Sanskrit Manuscript Fund	...	...	...	...	2,124	5 9
„ Personal Account	...	...	...	...	190	1 0
„ Investments	...	...	...	...	5,587	7 6
„ Trust Fund	...	...	...	...	44	0 0
				Balance	...	10,167 11 10
				Total Rs.	...	42,448 15 11

W. K. Dods,
Honorary Secretary and Treasurer,
Asiatic Society of Bengal.

Examined and found correct.
MEUGENS, KING & SIMSON,
Auditors.

No. 8.

Sheet.

				Cr.		
					Rs.	As. P.
By Asiatic Society	...	...	...	...	1,59,276	6 0
„ Oriental Publication Fund	...	...	...	...	10,561	12 11
„ Sanskrit Manuscript Fund	...	...	...	...	6,952	2 2
„ Trust Fund	...	...	...	...	1,347	11 10
				Total Rs.	...	1,78,138 0 11

W. K. Dods,
Honorary Secretary and Treasurer,
Asiatic Society of Bengal.

Examined and found correct.
MEUGENS, KING & SIMSON,
Auditors.

List of all Societies, Institutions, &c., to which the Publications of the Asiatic Society have been sent during the year, or from which publications have been received.

* Societies, &c., which have received the Asiatic Society's publications, and have sent their publications in return.

† Societies, &c., which have received the Asiatic Society's publications, but have sent none in return.

§ Societies, &c., whose publications have been received, but to which none have been sent in return.

- * Adelaide:—Royal Geographical Society of Australasia.
- * Allahabad:—Editor, *Pioneer*.
- * Amsterdam:—Royal Zoological Society.
- * ———:—Koninklijke Akademie van Wetenschappen.
- * Angers:—Société d' Etudes Scientifiques d' Angers.
- * Baltimore:—Johns Hopkins University.
- * Batavia:—Society of Arts and Sciences.
- * ———:—Kon. Natuurkundige Vereeniging in Nederlandsch-Indië.
- § Bellary:—Editor, *Astrological Magazine*.
- * Benares:—Nagari Pracharini Sabha.
- * Berlin:—Entomologischer Verein.
- * ———:—Berliner Gesellschaft für Anthropologie, Ethnologie und Urgeschichte.
- * ———:—Gesellschaft Naturforschende Freunde zu Berlin.
- * ———:—Royal Academy of Sciences.
- * ———:—Seminars für Orientalische Sprachen.
- § ———:—Laboratorium et Museum.
- § ———:—Königlichen Bibliothek.
- † Berne:—Société Suisse d' Entomologie.
- * Bombay:—Bombay Anthropological Society.
- * ———:—Bombay Branch, Royal Asiatic Society.
- * ———:—Editor, *Indian Antiquary*.
- * ———:—Natural History Society.
- § ———:—Government Observatory.
- § ———:—Marine Survey of India.
- † Bonn:—University of Bonn.
- * Bordeaux:—L' Académie Nationale des Sciences, Belles-Lettres et Arts.
- * ———:—Société Linnéenne.
- § Boston:—American Philological Association.
- * ———:—Natural History Society.
- § ———:—American Oriental Society.
- * Brisbane:—Royal Society of Queensland.

- § Brisbane :—Queensland Museum.
 § ——— :—Department of Agriculture.
 † Brookville :—Society of Natural History.
 * Brunswick :—Verein für Naturwissenschaft.
 * Brussels :—L' Académie Royale des Sciences.
 † ——— :—Musée Royal d' Histoire Naturelle de Belgique.
 * ——— :—Société Entomologique de Belgique.
 * ——— :—La Société Royale Malacologique de Belgique.
 * ——— :—Société Royale des Sciences de Liége.
 § ——— :—Musée du Congo.
 † Budapest :—Hungarian Central Bureau for Ornithological Observations.
 * ——— :—Royal Hungarian Academy of Sciences.
 § ——— :—Editor, *Aquila*.
 * Buenos Ayres :—National Museum.
 † ——— :—Academia Nacional de Ciencias de la Republica Argentina.
 § Buffalo, N.Y. :—Society of Natural Sciences.
 * Caen :—Société Linnéenne de Normandie.
 * Calcutta :—Agri-Horticultural Society of India.
 * ——— :—Geological Survey of India.
 * ——— :—Editor, *Englishman*.
 § ——— :—Editor, *Indian and Eastern Engineer*.
 * ——— :—Editor, *Indian Daily News*.
 § ——— :—Editor, *Indian Engineering*.
 * ——— :—Editor, *Indian Mirror*.
 § ——— :—Editor, *Indian Lancet*.
 * ——— :—Indian Meteorological Department.
 * ——— :—Indian Museum.
 § ——— :—Maha-bodhi Society.
 § ——— :—Photographic Society of India.
 * ——— :—Royal Botanic Gardens.
 * ——— :—Survey of India.
 * ——— :—Tattobodhini Shova.
 * ——— :—Sanskrit College.
 § ——— :—Imperial Library.
 § ——— :—Botanical Survey of India.
 § ——— :—St. Xavier's College Observatory.
 * ——— :—University Library.
 § ——— :—Editor, *Indian Gardening and Planting*.
 † ——— :—Mahomedan Literary Society.
 * Cambridge :—University Library.
 * Cape Town :—South African Museum.

- * Cape Town:—South African Philosophical Society.
- * Cassel:—Die Verein für Naturkunde.
- † Cherbourg:—Société Nationale des Sciences Naturelles.
- * Chicago, Ill.:—Field Columbian Museum.
- § ———:—Academy of Sciences.
- * Christiana:—University Library.
- § Cincinnati:—Lloyd Library of Botany, Pharmacy and Materia Medica.
- † Clinton, Wiss.:—Editor, *American Antiquarian and Oriental Journal*.
- * Colombo:—Ceylon Branch, Royal Asiatic Society.
- * Copenhagen:—La Société Royale des Antiquaires du Nord.
- † Cuttack:—Cuttack Library.
- * Danzig:—Naturforschende Gesellschaft.
- * Dehra Dun:—Great Trigonometrical Survey.
- * Dresden:—Entomologischer Verein, "Iris."
- * ———:—Königlich Zoologisches und Anthropologisch-Ethnographisches Museum.
- * Dublin:—Royal Dublin Society.
- * ———:—Royal Irish Academy.
- * Edinburgh:—Royal Society.
- § ———:—Royal Physical Society.
- † ———:—Scottish Geographical Society.
- * Florence:—Società Italiana d' Antropologia e Etnologia.
- † ———:—Società Africana d'Italia.
- * Frankfurt:—Senckenbergische Naturforschende Gesellschaft.
- * ———:—Naturwissenschaftlicher Verein des Reg.-Bez. Frankfurt.
- * Geneva:—Société de Physique et d' Histoire Naturelle.
- * Genoa:—Museo Civico di Storia Naturale.
- * Giessen:—Oberhessische Gesellschaft für Natur und Heilkunde.
- * Graz:—Naturwissenschaftlicher Verein für Styria.
- § Greenwich:—Royal Observatory.
- * Hague:—Köninklijk Instituut voor de Taal- Land-en Volkenkunde van Nederlandsch-Indië.
- * ———:—Netherlands Entomological Society.
- * ———:—The State Archives.
- § Halifax:—Nova Scotian Institute of Science.
- † Halle:—Deutsche Morgenländische Gesellschaft.
- * ———:—Kaiserliche Leopoldinisch-Carlinische Akademie.
- * Hamburgh:—Naturhistorisches Museum.
- * ———:—Naturwissenschaftlicher Verein.
- * Hamilton (Canada):—Hamilton Association.
- * Havre:—Société de Géographie Commerciale du Havre.

- * Helsingfors :—Societas pro Flora et Fauna Fennica.
- * ——— :—Société Finno Ougrienne.
- * ——— :—Société des Sciences de Finlande.
- * Honolulu :—Bernice Pauahi Bishop Museum.
- § Indianapolis, Ind. :—Geological Survey.
- § Ithaca :—Cornell University.
- † Kiew :—Société des Naturalistes.
- * Königsberg :—Die Physikalische-Oekonomische Gesellschaft.
- † La Plata :—Museo de La Plata Republica Argentina.
- * Lahore :—Editor, *Civil and Military Gazette*.
- † ——— :—Agricultural Society.
- * Lawrence, Kansas :—Kansas University.
- § Leipzig :—Deutsche Morgenländische Gesellschaft.
- § ——— :—Die K. Sächsische Gesellschaft der Wissenschaften.
- † Leyden :—Royal Herbarium.
- * Liège :—Société Géologique de Belgique.
- * Liverpool :—Literary and Philosophical Society.
- * London :—Anthropological Institute.
- * ——— :—Editor, *Academy*.
- * ——— :—Editor, *Athenæum*.
- * ——— :—British Museum.
- * ——— :—Geological Society.
- * ——— :—Institution of Civil Engineers.
- * ——— :—Institution of Electrical Engineers.
- * ——— :—Institution of Mechanical Engineers.
- * ——— :—Editor, *Nature*.
- * ——— :—Linnean Society.
- * ——— :—Royal Asiatic Society of Great Britain and Ireland.
- * ——— :—Royal Astronomical Society.
- * ——— :—Royal Geographical Society.
- * ——— :—Royal Institution of Great Britain.
- * ——— :—Royal Microscopical Society.
- * ——— :—Royal Society.
- * ——— :—Royal Statistical Society.
- * ——— :—Zoological Society.
- § ——— :—British Association for the Advancement of Science.
- § ——— :—Editor, *Periodical*.
- § Lübeck :—Geographischen Gesellschaft und des Naturhistorischen Museums.
- § Lucknow :—Government Horticultural Gardens.
- † Lyons :—La Société d' Agriculture, d' Histoire Naturelle et des Arts Utiles.

- † Lyons :—Muséum d' Histoire Naturelle.
- * ——— :—La Société d' Anthropologie.
- * Madison, Wiss. :—Wisconsin Academy of Sciences, Arts and Letters.
- † Madras :—Literary Society.
- * ——— :—Government Central Museum.
- § ——— :—Editor, *Indian Journal of Education*.
- § ——— :—Government Observatory.
- * Manchester :—Literary and Philosophical Society.
- * Massachusetts :—Tufts College.
- * Melbourne :—Royal Society of Victoria.
- * Mexico :—Sociedad Científica " Antonio Alzate."
- § ——— :—Instituto Geológico.
- § Missouri :—Botanical Garden.
- § Montevideo :—Museo Nacional de Montevideo.
- * Moscow :—Société Impériale des Naturalistes.
- * Munich :—K. Bayerische Akademie der Wissenschaften.
- § ——— :—Ornithologischen Vereins.
- § Nagpur :—Experimental Farm.
- * Nantes :—Société des Sciences Naturelles de L' ouest de la France.
- † Naples :—Società Africana d' Italia.
- * New Haven :—Connecticut Academy of Arts and Sciences.
- § ——— :—Yale University.
- § ——— :—Yale Forest School.
- * Newport (R. I.) :—Natural History Society.
- * New York :—American Museum of Natural History.
- * Nürnberg :—Naturhistorische Gesellschaft.
- * Ottawa :—Geological and Natural History Survey of the Dominion of
Canada.
- § ——— :—Royal Society of Canada.
- † Oxford :—Bodleian Library.
- † ——— :—Indian Institute.
- § Para, Brazil :—Museu Paraense.
- * Paris :—Société de Géographie.
- * ——— :—Société d' Anthropologie.
- * ——— :—Asiatic Society.
- § ——— :—Société Philomathique de Paris.
- * ——— :—Musée Guimet.
- † ——— :—National Library.
- * ——— :—Société Zoologique.
- † ——— :—Société Académique Indo-Chinoise.
- * ——— :—Muséum d' Histoire Naturelle.
- * Pennsylvania :—University of Pennsylvania.

- * Philadelphia :—Academy of Natural Sciences.
- § ——— :—American Academy of Political and Social Science.
- * ——— :—American Philosophical Society.
- § ——— :—Franklin Institute.
- † ——— :—Editor, *Journal of Comparative Medicine and Surgery*.
- * Pisa :—Société Toscana di Scienze Naturali.
- § Prague :—K. K. Sternwarte.
- § Rio de Janeiro :—Observatorio do Rio de Janeiro.
- § Rome :—Società degli Spettroscopisti Italiani.
- § ——— :—R. Accademia dei Lincei.
- § Roorkee :—Editor, *Indian Forester*.
- * St. Petersburg :—Comité Géologique.
- † ——— :—Imperial Library.
- * ——— :—Russian Geographical Society.
- * ——— :—Académie Impériale des Sciences.
- * ——— :—Horti Petropolitani.
- § ——— :—Die Russisch-Kaiserliche Mineralogische Gesellschaft zu
St. Petersburg.
- § Saharanpur :—Government Botanical Gardens.
- * San Francisco :—Californian Academy of Arts and Sciences.
- § Schaffhausen :—Swiss Entomological Society.
- * Shanghai :—China Branch, Royal Asiatic Society.
- * Simla :—United Service Institution of India.
- * Springfield, Ill :—Illinois State Laboratory of Natural History.
- § ——— :—Newberry Library.
- * Stettin :—Entomological Society.
- * Stockholm :—Entomologische Tidskrift.
- * ——— :—Royal Swedish Academy of Sciences.
- * ——— :—Royal Academy of belles letters, history and Antiquities.
- § ——— :—Musée des Antiquités Nationales.
- * Stuttgart :—Der Verein für vaterländische Naturkunde in Württem-
berg.
- * Sydney :—Royal Society of New South Wales.
- † ——— :—Anthropological Society of Australia.
- * ——— :—Linnean Society of New South Wales.
- § ——— :—Editor, *Science of Man*.
- § Taiping :—Government of Perak.
- * Toronto :—Canadian Institute.
- * Tokyo :—Imperial University of Japan.
- § Trencsen :—Naturwissenschaftlichen Vereines.
- † Trieste :—Société Adriatica de Scienze Naturale.
- † ——— :—Museo Civico di Storia Naturale.

- * **Tring** :—Zoological Museum.
- * **Turin** :—Reale Accademia delle Scienze.
- † **Ulwar** :—Ulwar Library.
- * **Upsala** :—University of Upsala.
- § ——— :—Kongl. Humanistiska Vetenskaps-Samfundet.
- * **Valparaiso** :—Deutscher Wissenschaftlicher Verein.
- * **Vienna** :—Anthropologische Gesellschaft.
- * ——— :—K. K. Akademie der Wissenschaften.
- * ——— :—K. K. Geologische Reichsanstalt.
- * ——— :—K. K. Naturhistorische Hofmuseum.
- † ——— :—Ornithologische Verein in Wien.
- * ——— :—K. K. Zoologisch-Botanische Gesellschaft.
- § **Washington** :—Biological Society of Washington.
- * ——— :—Commissioners of the Department of Agriculture.
- * ——— :—Smithsonian Institution.
- * ——— :—United States Geological Survey.
- § ——— :—United States National Museum.
- § ——— :—Academy of Sciences.
- § ——— :—American Historical Association.
- * **Wellington** :—New Zealand Institute.
- * ——— :—Polynesian Society.
- * **Yokohama** :—Asiatic Society.
- * ——— :—Deutsche Gesellschaft für Natur und Völkerkunde Ostasiens.
- * **Zagreb** :—Archæological Society.
- * **Zurich** :—Naturforschende Gesellschaft.

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