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- Abh. k.-bayer. Akad. Wissensch.* Abhandlungen der königlich-bayerischen Akademie der Wissenschaften. Munich.
- Abh. k. Gesellsch. Wissensch. Göttingen.* Abhandlungen der königlichen Gesellschaft der Wissenschaften zu Göttingen. Göttingen. (Berlin.)
- Abh. k.-k. geol. Reichsanst.* Abhandlungen der kaiserlich-königlichen geologischen Reichsanstalt. Vienna.
- Abh. k. Leopold.-Carol. deutsch. Akad. Naturf.* Abhandlungen [Nova Acta] der kaiserlichen Leopoldinisch-Carolinischen deutschen Akademie der Naturforscher. Halle a. Saale.
- Abh. k.-preuss. geol. Landesanst.* Abhandlungen der königlich-preussischen geologischen Landesanstalt. Berlin.
- Abh. k.-sächs. Gesellsch. Wissensch.* Abhandlungen der königlich-sächsischen Gesellschaft der Wissenschaften. Leipzig.
- Abh. naturf. Gesellsch. Halle a. S.* Abhandlungen der naturforschenden Gesellschaft zu Halle. Halle a. Saale.
- Abh. naturh. Gesellsch. Nürnberg.* Abhandlungen der naturhistorischen Gesellschaft. Nürnberg.
- Abh. schw. paläont. Gesellsch.* See *Mém. Soc. paléont. suisse.*
- Abh. senckenb. naturf. Gesellsch.* Abhandlungen herausgegeben von der senckenbergischen naturforschenden Gesellschaft. Frankfurt-am-Main.
- Acta Acad. sci. Slav. merid.* Acta Academiæ Scientiarum et Artium Slavorum meridionalium. Zagreb (Agram).
- Actes Soc. Linn. Bordeaux.* Actes de la Société Linnéenne de Bordeaux. Bordeaux.
- Actes Soc. sci. Chili.* Actes de la Société scientifique du Chili. Santiago de Chile.
- Alpine Journ.* Alpine Journal. London.
- Am. Geol.* American Geologist. Minneapolis (Minn.).
- Am. Journ. Sci.* American Journal of Science. New Haven (Conn.).
- Am. Nat.* American Naturalist. Boston (Mass.).
- Analyst.* Analyst (Society of Public Analysts). London.
- An. Mus. Geol. Bucuresci.* Anuarulă Museului de Geologia și de Paleontologia. Bucharest.
- An. Soc. cient. Argent.* Anales de la Sociedad científica Argentina. Buenos Aires.
- Ann. Bot.* Annals of Botany. Oxford.
- Ann. Bull. Univ. Geol. Surv. Kansas.* Annual Bulletin on Mineral Resources of Kansas. The University Geological Survey of Kansas. Lawrence (Kan.).
- Ann. Club alpin français.* Annuaire du Club alpin français. Paris.
- Ann. Géol. et Paléont. Palerme.* Annales de Géologie et de Paléontologie. Palerme.
- Ann. géol. univ.* Annuaire géologique universel. Paris.
- Ann. k.-k. naturhist. Hofmus. Wien.* Annalen des kaiserlich-königlichen naturhistorischen Hofmuseums. Vienna.
- Ann. Mag. Nat. Hist.* Annals and Magazine of Natural History. London.

- Ann. Mines, Paris.* Annales des Mines. Paris.
- Ann. N.Y. Acad. Sci.* Annals of the New York Academy of Sciences. New York.
- Ann. R. Scuola Appl. Ing. Roma.* Annuario della Reale Scuola d'Applicazione per gli Ingegneri di Roma. Rome.
- Ann. Rep. Am. Mus. Nat. Hist. N.Y.* Annual Report of the American Museum of Natural History. New York.
- Ann. Rep. Dep. Geol. &c. Indiana.* Annual Report of the Department of Geology and Natural Resources of Indiana. Indianapolis.
- Ann. Rep. Dep. Mines, N.S.W.* Annual Report of the Department of Mines and Agriculture, New South Wales. Sydney.
- Ann. Rep. Geol. Surv. W. Austr.* Annual Report of the Geological Survey. Perth (W. Austr.).
- Ann. Rep. Geol. Surv. Canada.* Annual Report of the Geological Survey of Canada. Ottawa.
- Ann. Rep. Iowa Geol. Surv.* See *Rep. Iowa Geol. Surv.*
- Ann. Rep. Leeds Phil. & Lit. Soc.* Annual Report of the Leeds Philosophical and Literary Society. Leeds.
- Ann. Rep. Mus. Comp. Zool.* Annual Report of the Curator of the Museum of Comparative Zoology at Harvard College. Cambridge (Mass.).
- Ann. Rep. R. Cornwall Polytechnic Soc.* Annual Report of the Royal Cornwall Polytechnic Society. Falmouth.
- Ann. Rep. Smiths. Inst. Rep. U.S. Nat. Mus.* Annual Report of the Board of Regents of the Smithsonian Institution. Report of the U.S. National Museum. Washington (D.C.).
- Ann. Rep. U.S. Geol. Surv.* Annual Report of the United States Geological Survey. Washington (D.C.).
- Ann. Rep. Wellington Coll. Nat. Sci. Soc.* Annual Report of the Wellington College Natural Science Society. Wellington College.
- Ann. Rep. Yorks. Phil. Soc.* Annual Report of the Yorkshire Philosophical Society. York.
- Ann. Sci. nat. (Zool. & Palé.).* Annales des Sciences naturelles. Zoologie et Paléontologie. Paris.
- Ann. Soc. géol. Belg. Liège.* Annales de la Société géologique de Belgique. Liège.
- Ann. Soc. géol. Nord.* Annales de la Société géologique du Nord. Lille.
- Ann. Soc. R. malac. Belg.* Annales de la Société Royale malacologique de Belgique. Brussels.
- Arch. Mus. Nac. Rio de Janeiro.* Archivos do Museu Nacional do Rio de Janeiro. Rio de Janeiro. See *Rev. Mus. Nac.*
- Arch. naturw. Landesd. Böhmen.* Archiv der naturwissenschaftlichen Landesdurchforschung von Böhmen. Prague.
- Arch. néerland. Sci.* Archives des Sciences exactes et naturelles, publiées par la Société hollandaise des Sciences à Harlem. La Haye.
- Arch. Sci. phys. et nat. Genève.* Archives des Sciences physiques et naturelles. Geneva.
- Atti e Rendic. Acc. Sci. &c., Acireale.* Atti e Rendiconti dell' Accademia di Scienze, Lettere ed Arti. Acireale.
- Atti R. Acc. Lincei, Rendic.* Atti della Reale Accademia dei Lincei, Rendiconti. Rome.
- Atti R. Acc. Sci. Padova.* Atti e Memorie della Reale Accademia di Scienze, Lettere ed Arti in Padova. Padua.
- Atti R. Acc. Sci. Torino.* Atti della Reale Accademia delle Scienze di Torino. Turin.
- Atti R. Ist. Veneto.* Atti del Reale Istituto Veneto di Scienze, Lettere ed Arti. Venice.
- Atti Soc. tosc. Sci. nat.* Atti della Società toscana di Scienze naturali. Pisa.
- Beitr. Geophys. Leipzig.* Beiträge zur Geophysik. Leipzig.
- Beitr. Paläont. Oesterr.-Ung.* Beiträge zur Paläontologie und Geologie Oesterreich-Ungarns und des Orients. Vienna.
- Ber. naturf. Gesellsch., Freiburg i. B.* Berichte der naturforschenden Gesellschaft. Freiburg i. B.
- Ber. oberhess. Gesellsch. Nat.-Heilk.* Bericht der oberhessischen Gesellschaft für Natur- u. Heilkunde. Giessen.
- Ber. senckenb. naturf. Gesellsch.* Bericht der senckenbergischen naturforschenden Gesellschaft. Frankfurt-am-Main.
- Berg-hütt. Jahrb. Wien.* Berg- und hüttenmännisches Jahrbuch der kaiserlich-königlichen Bergakademien zu Leoben und Ißbram und der königlich-ungarischen Bergakademie zu Schemnitz. Vienna.

- Berg-hütt. Zeitung, Leipzig.* Berg- und hüttenmännische Zeitung. Leipzig.
- Bihang k. svenska Vet.-Akad. Handl.* Bihang till kongliga svenska Vetenskaps-Akademiens Handlingar. Stockholm.
- Bol. Acad. Nac. Cordoba.* Boletín de la Academia Nacional de Ciencias en Cordoba. Buenos Aires.
- Bol. Com. Mapa geol. España.* Boletín de la Comisión del Mapa geológico de España. Madrid.
- Bol. Inst. geogr. Argent.* Boletín del Instituto geográfico Argentino. Buenos Aires.
- Bol. Inst. geol. México.* Boletín del Instituto geológico de México. Mexico.
- Bol. Soc. Geogr. Lisboa.* Boletín da Sociedade de Geographia de Lisboa. Lisbon.
- Bol. Soc. Nac. Minería, Santiago.* Boletín de la Sociedad Nacional de Minería. Santiago de Chile.
- Boll. Club alp. ital.* Bollettino del Club alpino italiano. Turin.
- Boll. R. Com. geol. Ital.* Bollettino del Reale Comitato geologico d'Italia. Roma.
- Boll. Soc. geol. ital.* Bollettino della Società geologica italiana. Rome.
- Boll. Soc. sismol. ital.* Bollettino della Società sismologica italiana. Modena.
- Bull. Acad. Imp. Sci. St.-Petersb.* Bulletin de l'Académie Impériale des Sciences. St. Petersburg.
- Bull. Acad. Roy. Belg.* Bulletins de l'Académie Royale des Science, des Lettres et des Beaux-Arts de Belgique. Brussels.
- Bull. Am. Mus. Nat. Hist., N.Y.* Bulletin of the American Museum of Natural History. New York.
- Bull. Buffalo Soc. Nat. Sci.* Bulletin of the Buffalo Society of Natural Sciences. Buffalo (N.Y.).
- Bull. Com. géol. Russie.* Bulletins du Comité géologique. St. Petersburg.
- Bull. Essex Inst., Salem.* Bulletin of the Essex Institute. Salem (Mass.).
- Bull. Geol. Inst. Univ. Upsala.* Bulletin of the Geological Institution of the University of Upsala. Upsala.
- Bull. Geol. Soc. Am.* Bulletin of the Geological Society of America. Rochester (N.Y.).
- Bull. Geol. Surv. Queensl.* Bulletin of the Geological Survey of Queensland. (Department of Mines.) Brisbane.
- Bull. Geol. Surv. W. Austr.* Bulletin of the Geological Survey of Western Australia. Perth (W. Austr.).
- Bull. Geol. Univ. Cal.* Bulletin of the Department of Geology, University of California. Berkeley (Cal.).
- Bull. Intern. Acad. Sci. Cracovie.* Bulletin International de l'Académie des Sciences. Cracow.
- Bull. Mus. Comp. Zool.* Bulletin of the Museum of Comparative Zoology at Harvard College. Cambridge (Mass.).
- Bull. Mus. Hist. nat. Paris.* Bulletin du Muséum d'Histoire naturelle. Paris.
- Bull. Serv. Carte géol. France.* Bulletin des Services de la Carte géologique de la France et des Topographies souterraines. Paris.
- Bull. Soc. belge Géol. Brux.* Bulletin de la Société belge de Géologie, de Paléontologie et d'Hydrologie. Brussels.
- Bull. Soc. franç. Min.* Bulletin de la Société française de Minéralogie. Paris.
- Bull. Soc. géol. France.* Bulletin de la Société géologique de France. Paris.
- Bull. Soc. géol. Norm.* Bulletin de la Société géologique de Normandie. Havre.
- Bull. Soc. Hist. nat. Autun.* Bulletin de la Société d'Histoire naturelle d'Autun. Autun.
- Bull. Soc. Imp. Nat. Moscou.* Bulletin de la Société Impériale des Naturalistes de Moscou. Moscow.
- Bull. Soc. Linn. Norm.* Bulletin de la Société Linnéenne de Normandie. Caen.
- Bull. Soc. ural. Sci. nat.* Bulletin de la Société ouralienne d'Amateurs des Sciences naturelles. Ekaterinburg.
- Bull. Soc. sci. & méd. Ouest, Rennes.* Bulletin de la Société scientifique et médicale de l'Ouest. Rennes.
- Bull. Soc. vaud. Sci. nat.* Bulletin de la Société vaudoise des Sciences naturelles. Lausanne.
- Bull. U.S. Geol. Surv.* Bulletin of the United States Geological Survey. Washington (D.C.).
- Bull. U.S. Nat. Mus.* Bulletin of the United States National Museum (Smithsonian Institution). Washington (D.C.).
- Bull. Wisc. Geol. &c. Surv.* Bulletin of the Wisconsin Geological and Natural History Survey. Madison (Wisc.).
- Canad. Rec. Sci.* Canadian Record of Science. (Natural History Society of Montreal.) Montreal.

- Chem. News.* Chemical News. London.
- Coll. Guard.* Colliery Guardian. London.
- C. R. Acad. Sci. Paris.* Comptes-rendus hebdomadaires des Séances de l'Académie des Sciences. Paris.
- C. R. Assoc. franç. Av. Sci.* Comptes-rendus de l'Association française pour l'Avancement des Sciences. Paris.
- C. R. Soc. géol. France.* Compte-rendu sommaire des Séances de la Société géologique de France. Paris.
- Denkschr. k. Akad. Wissensch. Wien.* Denkschriften der kaiserlichen Akademie der Wissenschaften. Mathematisch-naturwissenschaftliche Classe. Vienna.
- Denkschr. schweiz. Gesellsch. Naturw.* Neue Denkschriften der allgemeinen schweizerischen Gesellschaft für die gesammten Naturwissenschaften. Basel, &c.
- Dep. Mines, N.S.W.* Department of Mines and Agriculture, New South Wales. Sydney.
- Dep. Mines, Victoria (Austr.). Spec. Rep.* Department of Mines, Victoria. Special Reports. Melbourne.
- Dir. Trab. geol. Portugal.* Direcção dos Trabalhos geológicos de Portugal. Lisbon.
- Écologæ Geol. Helv.* Écologæ Geologicae Helvetia. Lausanne.
- Erläut. geol. Karte Hessen.* Erläuterungen zur geologischen Karte des Grossherzogthums Hessen. Darmstadt.
- Erläut. geol. Specialkarte K. Sachsen.* Erläuterungen zur geologischen Specialkarte des Königreichs Sachsen. Leipzig.
- Field Columbian Mus.* Field Columbian Museum Publications. Chicago (Ill.).
- Finlands geol. Undersökn.* Finlands geologiska Undersökning. Helsingfors & Kuopio.
- Földt. Közl.* Földtani Közlöny. [Geological Magazine.] Budapest.
- Gen. Rep. Geol. Surv. India.* General Report on the Work carried on by the Geological Survey of India. Calcutta.
- Geogn. Jahresh., München.* Geognostische Jahreshefte. Munich.
- Geogr. Journ.* Geographical Journal (Royal Geographical Society). London.
- Geogr. Zeitschr., Leipzig.* Geographische Zeitschrift. Leipzig.
- Geol. Fören. Stockh. Förh.* Geologiska Föreningens i Stockholm Förhandlingar. Stockholm.
- Geol. Mag.* Geological Magazine. London.
- Geol. Surv. Canada, Palæoz. Foss.* Geological Survey of Canada. Palæozoic Fossils. Ottawa.
- Geol. Surv. N.S.W.* Geological Survey of New South Wales. Sydney.
- Geol. Surv. Queensland. Publications.* Geological Survey of Queensland. Publications. Brisbane.
- Geol. Surv. U.K.* Geological Survey of the United Kingdom. London.
- Glac. Mag.* Glacialists' Magazine. Leeds.
- 'Glasnika.' Soc. Hist. nat. Croatica.* Journal of the Natural History Society of Croatia. Zagreb (Agram).
- Hist. Berwicks. Nat. Club.* History of the Berwickshire Naturalists' Club. Alnwick.
- Hist. Smithsonian Inst.* History of the Smithsonian Institution. Washington (D.C.).
- Irish Nat.* Irish Naturalist. Dublin.
- Jaarb. Mijnw. Ned. O.-Ind.* Jaarboek van het Mijnwezen in Nederlandsch Oost-Indië. Amsterdam.
- Jahrb. k.-k. geol. Reichsanst.* Jahrbuch der kaiserlich-königlichen geologischen Reichsanstalt. Vienna.
- Jahrb. k.-ung. geol. Anst.* Jahrbuch der königlich-ungarischen geologischen Anstalt. Budapest.
- Jahrb. nassauisch. Ver. f. Naturk.* Jahrbücher des nassauischen Vereins für Naturkunde. Wiesbaden.
- Jahrb. Schw.-Alpenclub.* Jahrbuch des Schweizer-Alpenclub. Bern.
- Jahresb. k.-ung. geol. Anst.* Jahresbericht der königlich-ungarischen geologischen Anstalt. Budapest.
- Jahresh. Ver. Erdk. Dresden.* Jahresberichte des Vereins für Erdkunde zu Dresden. Dresden.
- Jahresh. Ver. Naturk. Württ.* Jahreshefte des Vereins für vaterländische Naturkunde in Württemberg. Stuttgart.
- Journ. Asiat. Soc. Bengal.* Journal of the Asiatic Society of Bengal. Calcutta.
- Journ. Bombay Branch R. Asiat. Soc.* Journal of the Bombay Branch of the Royal Asiatic Society. Bombay.
- Journ. Ceylon Branch R. Asiat. Soc.* Journal of the Ceylon Branch of the Royal Asiatic Society. Colombo.
- Journ Chem. Soc.* Journal of the Chemical Society. London.

- Journ. China Branch R. Asiat. Soc.* Journal of the China Branch of the Royal Asiatic Society. Shanghai.
- Journ. Cinc. Soc. Nat. Hist.* Journal of the Cincinnati Society of Natural History. Cincinnati (Ohio).
- Journ. City of London Coll. Sci. Soc.* Journal of the City of London College Science Society. London.
- Journ. de Conch., Paris.* Journal de Conchyliologie. Paris.
- Journ. East India Assoc.* Journal of the East India Association. London.
- Journ. Fed. Inst. Brewing.* Journal of the Federated Institutes of Brewing. London.
- Journ. Franklin Inst.* Journal of the Franklin Institute. Philadelphia (Pa.).
- Journ. Geol. Chicago.* Journal of Geology. Chicago (Ill.).
- Journ. Hamilton Assoc. (Canada).* Journal and Proceedings of the Hamilton Association. Hamilton (Ont.).
- Journ. Linn. Soc.* Journal of the Linnean Society. London.
- Journ. Northants Nat. Hist. Soc.* Journal of the Northamptonshire Natural History Society and Field Club. Northampton.
- Journ. of Bot., London.* Journal of Botany. London.
- Journ. R. Agric. Soc.* Journal of the Royal Agricultural Society. London.
- Journ. R. Asiat. Soc. Gt. B.* Journal of the Royal Asiatic Society of Great Britain and Ireland. London.
- Journ. R. Inst. Cornwall.* Journal of the Royal Institution of Cornwall. Truro.
- Journ. R. Micr. Soc.* Journal of the Royal Microscopical Society. London.
- Journ. Roy. Soc. N.S.W.* Journal and Proceedings of the Royal Society of New South Wales. Sydney.
- Journ. Soc. Arts.* Journal of the Society of Arts. London.
- Journ. Vict. Inst. London.* Journal of the Transactions of the Victoria Institute. London.
- Kansas Univ. Quart.* Kansas University Quarterly. Lawrence (Kan.).
- K. danske Vidensk.-Selsk. Aft.* Kongelige danske Videnskaberne-Selskabs naturvidenskabelig og mathematisk Afhandling. Copenhagen.
- K. fysiogr. Sällsk. Lund Handl.* Kongliga fysiografiska Sällskapets i Lund Handlingar. Lund.
- K. Min. Mus. Dresden.* Königliches Mineralogisches Museum. Dresden.
- Knowledge.* Knowledge. London.
- K. svenska Vet.-Akad. Handl.* Kongliga svenska Vetenskaps-Akademiens Handlingar. Stockholm.
- Lond. Edinb. Dubl. Phil. Mag.* London, Edinburgh, and Dublin Philosophical Magazine and Journal of Science. London.
- Maryland Geol. Surv.* Maryland Geological Survey. Baltimore (Md.).
- Mater. Geol. Russ.* Materialien zur Geologie Russlands. Herausgegeben von der kaiserlichen mineralogischen Gesellschaft. St. Petersburg.
- Matér. Hist. prim. et nat. Homme, Paris.* Matériaux pour l'Histoire primitive et naturelle de l'Homme. Paris.
- Mém. Acad. Imp. Sci. St. Pétersb.* Mémoires de l'Académie Impériale des Sciences. St. Petersburg.
- Mém. Acad. Stanislas.* Mémoires de l'Académie de Stanislas. Nancy.
- Mem. Am. Acad. Sci.* Memoirs of the American Academy of Arts and Sciences. Cambridge (Mass.).
- Mem. Am. Mus. Nat. Hist., N.Y.* Memoirs of the American Museum of Natural History. New York.
- Mem. Com. géol. España.* Memorias de la Comisión del Mapa geológico de España. Madrid.
- Mém. Com. géol. Russie.* Mémoires du Comité géologique. St. Petersburg.
- Mem. Geol. Surv. England & Wales.* Memoirs of the Geological Survey of England and Wales. London.
- Mem. Geol. Surv. India.* Memoirs of the Geological Survey of India. Calcutta.
- Mem. Geol. Surv. India. Palæont. Indica.* Memoirs of the Geological Survey of India. Palæontologia Indica. Calcutta.
- Mem. Manch. Lit. Phil. Soc.* Memoirs and Proceedings of the Manchester Literary and Philosophical Society. Manchester.
- Mem. Mus. Comp. Zool.* Memoirs of the Museum of Comparative Zoology at Harvard College. Cambridge (Mass.).
- Mem. R. Acc. Sci. Torino.* Memorie della Reale Accademia delle Scienze. Turin.
- Mem. R. Ist. lomb.* Memorie del Reale Istituto lombardo di Scienze e Lettere. Milan.
- Mém. Soc. géol. France (Paléont.).* Mémoires de la Société géologique de France. Paléontologie. Paris.

- Mém. Soc. géol. Nord.* Mémoires de la Société géologique du Nord. Lille.
Mém. Soc. Linn. Norm. Mémoires de la Société Linnéenne de Normandie. Caen.
Mém. Soc. Nat. Kiev. Mémoires de la Société des Naturalistes. Kiev.
Mém. Soc. paléont. suisse. Mémoires de la Société paléontologique suisse. Geneva, &c.
Mém. Soc. R. Sci. Liège. Mémoires de la Société Royale des Sciences de Liège. Brussels.
Min. Mag. The Mineralogical Magazine and Journal of the Mineralogical Society. London.
Min. petr. Mitth. Mineralogische und petrographische Mittheilungen. Vienna.
Mines & Minerals, Scranton. Mines and Minerals. Scranton (Pa.).
Minutes of Proc. Inst. C.E. Minutes of Proceedings of the Institution of Civil Engineers. London.
Mitth. badisch. geol. Landesanst. Mittheilungen der grossherzoglich badischen geologischen Landesanstalt. Heidelberg.
Mitth. Jahrb. k.-ung. geol. Anst. Mittheilungen aus dem Jahrbuche der königlich-ungarischen geologischen Anstalt. Budapest.
Mitth. k. min.-geol. prähist. Mus. Dresden. Mittheilungen aus dem königlichen mineralogisch-geologischen prähistorischen Museum in Dresden. Cassel.
Mitth. nat. Ver. Steiermark. Mittheilungen des naturwissenschaftlichen Vereines für Steiermark. Graz.
Monogr. Palæont. Soc. Monographs of the Palæontographical Society. London.
Monogr. U.S. Geol. Surv. Monographs of the United States Geological Survey. Washington (D.C.).
Nat. Hist. Journ. York. Natural History Journal and School Reporter. York.
Nat. Sci. Natural Science. London.
Naturalist, Leeds. The Naturalist. Leeds and London.
Nature. Nature. London.
Naturw. Wochenschr., Berlin. Naturwissenschaftliche Wochenschrift. Berlin.
N. J. f. Min. Neues Jahrbuch für Mineralogie, Geologie und Paläontologie. Stuttgart.
Notizbl. Ver. f. Erdk. Darmstadt. Notizblatt des Vereins für Erdkunde und der grossherzoglichen geologischen Landesanstalt. Darmstadt.
Nouv. Arch. Mus. Hist. nat. Paris. Nouvelles Archives du Muséum d'Histoire naturelle. Paris.
Nyt Mag. Naturvid. Nyt Magazin for Naturvidenskaberne. Christiania.
Öfversigt K. Vet.-Akad. Förh. Öfversigt af Kongliga Vetenskaps-Akademien's Förhandlingar. Stockholm.
Ottawa Nat. Ottawa Naturalist. Ottawa.
Overs. K. danske Vidensk.-Selsk. Forh. Oversigt over det Kongelige danske Videnskaberne's Selskabs Forhandlingar. Christiania.
Paläont. Abh. Jena. Paläontologische Abhandlungen. Jena.
Palæontographica. Palæontographica. Beiträge zur Naturgeschichte der Vorzeit. Stuttgart.
Palæontographia italica. Palæontographia italica. Memorie di Paleontologia. Pisa.
Papers & Rep. Min. & Mining, N.Z. Papers and Reports relating to Minerals and Mining, N.Z. Wellington (N.Z.).
Perak Mus. Notes. Perak Museum Notes. Taiping.
Peterm. Mitth. Petermann's Mittheilungen. Gotha.
Phil. Trans. Roy. Soc. Philosophical Transactions of the Royal Society. London.
Photogr. Journ. Photographic Journal. (Royal Photographic Society.) London.
Pop. Sci. Monthly, N.Y. Appleton's Popular Science Monthly. New York.
Proc. Acad. Nat. Sci. Philad. Proceedings of the Academy of Natural Sciences. Philadelphia (Pa.).
Proc. Am. Acad. Arts & Sci. Proceedings of the American Academy of Arts and Sciences. Boston (Mass.).
Proc. Am. Assoc. Adv. Sci. Proceedings of the American Association for the Advancement of Science. Salem (Mass.).
Proc. Am. Phil. Soc. Proceedings of the American Philosophical Society. Philadelphia (Pa.).
Proc. & Trans. N. S. Inst. Sci. Proceedings and Transactions of the Nova Scotian Institute of Science. Halifax (N.S.).
Proc. & Trans. Roy. Soc. Canada. Proceedings and Transactions of the Royal Society of Canada. Ottawa.
Proc. Asiatic Soc. Bengal. Proceedings of the Asiatic Society of Bengal. Calcutta.
Proc. Austr. Inst. M. E. Proceedings of the Australasian Institute of Mining Engineers. Melbourne.

- Proc. Belfast Nat. F. C.* Proceedings of the Belfast Naturalists' Field Club. Belfast.
- Proc. Biol. Soc. Washington.* Proceedings of the Biological Society of Washington. Washington (D.C.).
- Proc. Birmingham Nat. Hist. Soc.* Proceedings of the Birmingham Natural History and Philosophical Society. Birmingham.
- Proc. Boston Soc. Nat. Hist.* Proceedings of the Boston Society of Natural History. Boston (Mass.).
- Proc. Bristol Nat. Soc.* Proceedings of the Bristol Naturalists' Society. Bristol.
- Proc. Canad. Inst.* Proceedings of the Canadian Institute. Toronto.
- Proc. Cotteswold Nat. F. C.* Proceedings of the Cotteswold Naturalists' Field Club. Gloucester.
- Proc. Dorset Nat. Hist. F. C.* Proceedings of the Dorset Natural History and Antiquarian Field Club. Dorchester.
- Proc. Geol. Assoc.* Proceedings of the Geologists' Association. London.
- Proc. Indiana Acad. Sci.* Proceedings of the Indiana Academy of Science. Indianapolis (Ind.).
- Proc. Linn. Soc.* Proceedings of the Linnean Society. London.
- Proc. Linn. Soc. N.S.W.* Proceedings of the Linnean Society of New South Wales. Sydney.
- Proc. Lit. Phil. Soc. Liverp.* Proceedings of the Literary and Philosophical Society of Liverpool. Liverpool.
- Proc. Liverp. Geol. Soc.* Proceedings of the Liverpool Geological Society. Liverpool.
- Proc. Malacol. Soc.* Proceedings of the Malacological Society. London.
- Proc. Midland Inst. M. E.* Proceedings of the Midland Institute of Mining, Civil, and Mechanical Engineers. Newcastle-upon-Tyne.
- Proc. Roy. Inst. Gt. B.* Proceedings of the Royal Institution of Great Britain. London.
- Proc. Roy. Irish Acad.* Proceedings of the Royal Irish Academy. Dublin.
- Proc. R. Phys. Soc. Edinb.* Proceedings of the Royal Physical Society of Edinburgh. Edinburgh.
- Proc. Roy. Soc.* Proceedings of the Royal Society. London.
- Proc. Roy. Soc. Edinb.* Proceedings of the Royal Society of Edinburgh. Edinburgh.
- Proc. Roy. Soc. Tasm.* Proceedings of the Royal Society of Tasmania. Hobart.
- Proc. Roy. Soc. Victoria (Austr.).* Proceedings of the Royal Society of Victoria. Melbourne.
- Proc. Soc. Bibl. Arch.* Proceedings of the Society of Biblical Archæology. London.
- Proc. S.E. U. Sci. Soc.* Proceedings of the South-eastern Union of Scientific Societies. Tunbridge Wells & London.
- Proc. S. Wales Inst. Engin.* Proceedings of the South Wales Institute of Engineers. Cardiff.
- Proc. U.S. Nat. Mus.* Proceedings of the United States National Museum (Smithsonian Institute). Washington (D.C.).
- Proc. Univ. Durham Phil. Soc.* Proceedings of the University of Durham Philosophical Society. Newcastle-upon-Tyne.
- Proc. Vict. Inst. Trinidad.* Proceedings of the Victoria Institute. Port of Spain.
- Proc. Yorks. Geol. Soc.* Proceedings of the Yorkshire Geological and Polytechnic Society. Halifax.
- Proc. Zool. Soc. London.* Proceedings of the Zoological Society. London.
- Q. J. G. S.* Quarterly Journal of the Geological Society. London.
- Quarry.* The Quarry. London.
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- Rec. Geol. Surv. India.* Records of the Geological Survey of India. Calcutta.
- Rec. Geol. Surv. N.S.W.* Records of the Geological Survey of New South Wales. Sydney.
- Rendic. R. Ist. lomb.* Reale Istituto lombardo di Scienze e Lettere. Rendiconti. Milan.
- Rep. Austr. Assoc. Adv. Sci.* Report of the Australasian Association for the Advancement of Science. Sydney.
- Rep. Brit. Assoc.* Report of the British Association for the Advancement of Science. London.
- Rep. Cal. Mining Bur.* Report of the California State Mining Bureau. Sacramento (San Francisco).
- Rep. Dep. Mines. N.Z.* Report of the Department of Mines, New Zealand. Wellington (N.Z.).

- Rep. Dep. Mines, W. Austr.* Report of the Department of Mines, W. Australia. Perth (W. Austr.).
- Rep. Felsted School Sci. Soc.* Report of the Felsted School Scientific Society. Felsted.
- Rep. Geol. Surv. Queensl.* Report of the Geological Survey of Queensland. Brisbane.
- Rep. Inst. Mines & Forests Brit. Guiana.* Report of the Council of the Institute of Mines and Forests on the Gold and Forest Industries of British Guiana. Georgetown (Demerara).
- Rep. Iowa Geol. Surv.* Report of the Iowa Geological Survey. Des Moines (Iowa).
- Rep. Rugby School Nat. Hist. Soc.* Report of the Rugby School Natural History Society. Rugby.
- Rep. U.S. Nat. Mus.* Report of the United States National Museum. Washington (D.C.).
- Rep. Univ. Geol. Surv. Kansas.* Reports of the University Geological Survey of Kansas. Topeka (Kan.).
- Rev. Anthropol. Paris.* Revue d'Anthropologie. Paris.
- Rev. Cienc., Lima.* Revista de Ciencias. Lima.
- Rev. Inst. geogr. & hist. Bahia.* Revista trimestral do Instituto geographico e historico da Bahia. Bahia.
- Rev. Mus. La Plata.* Revista del Museo de La Plata. La Plata.
- Rev. Mus. Nac. Rio de Janeiro.* Revista do Museu Nacional do Rio de Janeiro. Rio de Janeiro.
- Rev. Quest. sci. Louvain.* Revue des Questions scientifiques. Louvain.
- Rev. Sci. nat. e soc. Porto.* Revista de Ciencias naturaes e sociaes. Oporto.
- Rev. Sci. Paris.* Revue Scientifique. Paris.
- Riv. ital. Paleont. Parma.* Rivista italiana di Paleontologia. Parma.
- Riv. ital. Sci. nat. Siena.* Rivista italiana di Scienze naturali. Siena.
- Riv. Min. e Crist. ital. Padova.* Rivista di Mineralogia e Cristallografia italiana. Padua.
- Rozpr. Akad. Umiej. Krakow.* Rozprawy Akademii Umiejetności Wydział matematyczno-przyrodniczy. Cracow.
- Samml. geol. R.-Mus. Leiden.* Sammlungen des geologischen Reichs-Museums in Leiden. Leiden.
- Schr. physik.-ökonom. Gesellsch. Königsb.* Schriften der physikalisch-ökonomischen Gesellschaft. Königsberg in Pr.
- Sci.-Gossip.* Science-Gossip. London.
- Sci. Proc. R. Dublin Soc.* Scientific Proceedings of the Royal Dublin Society. Dublin.
- Sci. Progr.* Science Progress. London.
- Sci. Trans. R. Dublin Soc.* Scientific Transactions of the Royal Dublin Society. Dublin.
- Scot. Geogr. Mag.* Scottish Geographical Magazine. (Royal Scottish Geographical Society.) Edinburgh.
- Sitz. Gesellsch. naturf. Freunde, Berlin.* Sitzungsberichte der Gesellschaft naturforschender Freunde. Berlin.
- Sitz. k. Akad. Wissensch. Wien.* Sitzungsberichte der königlich-kaiserlichen Akademie der Wissenschaften in Wien. Vienna.
- Sitz. k.-bayr. Akad.* Sitzungsberichte der mathematisch-physikalischen Classe der königlich-bayerischen Akademie der Wissenschaften. Munich.
- Sitz. k.-preuss. Akad. Wissensch. Berlin.* Sitzungsberichte der königlich-preussischen Akademie der Wissenschaften. Berlin.
- Sitz. Naturf.-Gesellsch. Dorpat.* Sitzungsberichte der Naturforscher-Gesellschaft bei der Universität Jurjew. Dorpat.
- Sitz. niederrhein. Gesellsch. Nat. &c., Bonn.* Sitzungsberichte der nieder-rheinischen Gesellschaft für Natur- und Heilkunde zu Bonn. Bonn. [*& Verh. naturh. Ver. preuss. Rheinl.*]
- Sitz. u. Abh. Gesellsch. 'Isis.'* Sitzungsberichte und Abhandlungen der naturwissenschaftlichen Gesellschaft 'Isis' in Dresden. Dresden.
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- Spelunca.* 'Spelunca.' Bulletin de la Société de Spéléologie. Paris.
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- Sver. geol. Undersökn. Afh.* Sveriges geologiska Undersöknings. Afhandlingar. Stockholm.
- Trans. Acad. Sci. St. Louis.* Transactions of the Academy of Science of St. Louis. St. Louis (Mo.).
- Trans. Am. Inst. M. E.* Transactions of the American Institute of Mining Engineers. New York.

- Trans. Am. Micr. Soc.* Transactions of the American Microscopical Society. Washington (D.C.).
- Trans. Am. Phil. Soc.* Transactions of the American Philosophical Society. Philadelphia (Pa.).
- Trans. Austr. Inst. M. E.* Transactions of the Australasian Institute of Mining Engineers. Melbourne & Sydney.
- Trans. Brit. Assoc. Waterworks Eng.* Transactions of the British Association of Waterworks Engineers. London.
- Trans. Canad. Inst.* Transactions of the Canadian Institute. Toronto.
- Trans. Cardiff Nat. Soc.* Transactions of the Cardiff Naturalists' Society. Cardiff.
- Trans. Devon. Assoc.* Transactions of the Devonshire Association for the Advancement of Science. Plymouth.
- Trans. Edinb. Geol. Soc.* Transactions of the Edinburgh Geological Society. Edinburgh.
- Trans. Fed. Inst. M. E.* Transactions of the Federated Institution of Mining Engineers. Newcastle-on-Tyne.
- Trans. Geol. Soc. S. A.* Transactions of the Geological Society of South Africa. Johannesburg.
- Trans. Guernsey Soc. Nat. Sci.* Transactions of the Guernsey Society of Natural Science. Guernsey.
- Trans. Herts. Nat. Hist. Soc.* Transactions of the Hertfordshire Natural History Society. Hertford.
- Trans. Hull Geol. Soc.* Transactions of the Hull Geological Society. Hull.
- Trans. Inst. Mining & Metall.* Transactions of the Institution of Mining and Metallurgy. London.
- Trans. Kansas Acad. Sci.* Transactions of the Kansas Academy of Science. Topeka (Kan.).
- Trans. Leicester Lit. & Phil. Soc.* Transactions of the Leicester Literary and Philosophical Society. Leicester.
- Trans. Linn. Soc.* Transactions of the Linnean Society. London.
- Trans. Liverp. Biol. Soc.* Transactions of the Liverpool Biological Society. Liverpool.
- Trans. Manch. Geol. Soc.* Transactions of the Manchester Geological Society. Manchester.
- Trans. N. Engl. Inst. Min. & Mech. Eng.* Transactions of the North of England Institute of Mining and Mechanical Engineers. Newcastle-upon-Tyne.
- Trans. N.S. Inst. Sci.* Transactions of the Nova Scotian Institute of Science. Halifax (N.S.). See *Proc. & Trans. N.S. Inst. Sci.*
- Trans. N.Y. Acad. Sci.* Transactions of the New York Academy of Sciences. New York.
- Trans. N.Z. Inst.* Transactions and Proceedings of the New Zealand Institute. Wellington (N.Z.).
- Trans. N.Z. Inst. M.E.* Transactions of the New Zealand Institute of Mining Engineers. Auckland (N.Z.).
- Trans. R. Geol. Soc. Cornwall.* Transactions of the Royal Geological Society of Cornwall. Penzance.
- Trans. Roy. Irish Acad.* Transactions of the Royal Irish Academy. Dublin.
- Trans. Roy. Soc. Canada.* Transactions of the Royal Society of Canada. Ottawa. See *Proc. & Trans. Roy. Soc. Canada.*
- Trans. Roy. Soc. Edinb.* Transactions of the Royal Society of Edinburgh. Edinburgh.
- Trans. Roy. Soc. S. Austr.* Transactions of the Royal Society of South Australia. Adelaide.
- Trans. Scot. Nat. Hist. Soc.* Transactions of the Scottish Natural History Society. Edinburgh.
- Trans. S.A. Phil. Soc.* Transactions of the South African Philosophical Society. Cape Town.
- Trans. Wagner Free Inst. Sci., Philad.* Transactions of the Wagner Free Institute of Science. Philadelphia (Pa.).
- Trans. Wisc. Acad. Sci. &c.* Transactions of the Wisconsin Academy of Science Arts, and Letters. Madison (Wisc.).
- Trans. Zool. Soc. London.* Transactions of the Zoological Society. London.
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- Verh. k.-k. geol. Reichsanst.* Verhandlungen der kaiserlich-königlichen geologischen Reichsanstalt. Vienna.
- Verh. k.-k. zool.-bot. Gesellsch. Wien.* Verhandlungen der kaiserlich-königlichen zoologisch-botanischen Gesellschaft in Wien. Vienna.
- Verh. naturh. Ver. preuss. Rheinl.* Verhandlungen des naturhistorischen Vereins der preussischen Rheinlande, Westfalens und des Regierungs-Bezirks Osnabrück. Bonn.
- Verh. russ.-k. min. Gesellsch.* Verhandlungen der russisch-kaiserlichen mineralogischen Gesellschaft. St. Petersburg.
- Verh. siebenbürg. Vereins f. Naturw.* Verhandlungen und Mittheilungen des siebenbürgischen Vereins für Naturwissenschaften. Hermannstadt.
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- Zeitschr. f. Kryst.* Zeitschrift für Krystallographie und Mineralogie. Leipzig.
- Zeitschr. f. Naturw. Leipzig.* Zeitschrift für Naturwissenschaften. Organ des naturwissenschaftlichen Vereins für Sachsen und Thüringen. Leipzig.
- Zeitschr. f. prakt. Geol.* Zeitschrift für praktische Geologie. Berlin.
- Zeitschr. Gesellsch. f. Erdk., Berlin.* Zeitschrift der Gesellschaft für Erdkunde. Berlin.
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Actinopteria.—Dun, W. S.
Adiantites.—Potonié, H.
 Adige, R. (Venetia).—Nicolis, E.
 Adirondacks (N.Y.) drainage.—Brigham, A. P.
 Admiralty Group, Thousand Islands (Ont.).—Adams, F. D.
 — Island (Alaska).—Dall, W. H.
Adrana.—Clark, W. B.
 Ægean Sea Is.—Philippson, —.
Ægoceras.—Crick, G. C.; Parona, C. F.; Pompeckj, J. F.
 Afghanistan nemalite.—Mallet, F. R.
 Africa.—Lapparent, A. de.
 —, Gold.—Cumenge, E., &c.
 —, —. *See also* Gold, Transvaal, &c.
 — (E.).—Futterer, C.
 — (Equatorial).—Hobley, C. W.; Sam, T. B. F.
 — (N.).—Johnston, Sir H. H.
 — (—), geological literature, 1897.—Peron, A.
 — (—), *See* Algeria, &c.
 — (N.E.).—Cavendish, H. S. H.; Sabatini, V.
 — (S.), apophyllite.—Henderson, J. A. L.
 — (—), auriferous conglomerates.—Becker, G. F.; Denny, G. A.; Draper, D.; Hanbly, W. T.; Lloyd, H.; Sawyer, A. R.
 — (—), coal.—Anon., 27; Draper, D.; Prister, A.
 — (—), conglomerates.—Hanbly, W. T.
 — (—), continental denudation, &c.—Draper, D.
 — (—), diamantiferous rocks.—Lacroix, A.
 — (—), diamonds.—Crookes, W.; Friedländer, I.
 — (—), Stormberg Beds.—Exton, H.
 — (—), igneous rocks.—Henderson, J. A. L.
 — (—). *See also* Rhodesia, Transvaal, &c.
 — (—) & America (S.), Tertiary connexion.—Lydekker, R.
 — (W.), auriferous conglomerates.—Sam, T. B. F.
 — (—), Senegambia.—Meunier, S.
 —, West Coast Islands.—Ossuna, M. de.
Agaricus.—Seward, A. C.
 Agassiz, Glacial Lake (N. Am.).—Upham, W.

* All fossil-names are those of genera which are figured or occur in the titles of papers.

- Agathiceras*.—Haug, E.
 Age of Fossils.—Marsh, O. C.
 Aggregate deposits.—Blake, J. F.
Agnostus.—Matthew, G. F.
 Agram (Croatia).—Gorjanovič, C.
Agraulus.—Berkey, C. P.; Matthew, G. F.
 Agriculture & Drift, Ireland.—Kilroe, J. R.
 Agronomic geology, Germany.—Wahnschaffe, F.
 Aidin (Asia Minor).—Thomas, W. F. A.
 — (—), earthquake.—Agamennone, G.
 Aiguilles (Hautes-Alpes).—Michel-Lévy, A., &c.
 Aikenite.—Petterd, W. F.
 Ain (France) Tertiary.—Boistel, —; Tardy, C.
 Aix (Bouches-du-Rhône).—Breson, A.; GOLFIER, J.; VASSEUR, G.
Alaba.—Guppy, R. J. L., &c.
 Alabama (U.S.A.).—Walcott, C. D., &c.
 — (—), gold.—Phillips, W. B.
 — (—), iron.—Brewer, W. M.
Alactaga.—Nehring, A.
 Alaska (N. Am.).—Batz, R. de; Lakes, A.; Muir, J.
 — (—), coal & lignite.—Dall, W. H.
 — (—), gold.—Suess, E.
 — (—), Jurassic plants.—Knowlton, F. H.
 — (—), Mesozoic fauna.—Hyatt, A.
 — (—), ore-deposits.—Emmons, S. F.
 — (—), Palæozoic fauna.—Schuchert, C.
 Albany (W. Austr.).—Angove, W. H.
 Albert Hall Mansions well (South Kensington).—Martin, E. A.
 Albertville (Savoy).—Michel-Lévy, A., &c.
 Albian fauna, Dorset.—Newton, R. B.
 Albité.—Walker, T. L.; Weibull, M.
Alees.—Haworth, E., &c.
 Alcyonaria, Palæozoic.—Weissermel, W.
 Aldeburgh (Suffolk).—Harmer, F. W.
 Alderley Edge (Cheshire).—Anon., 19.
Alectyonia.—Loriol, P. de.
Alethopteris.—Potonié, H.; Shirley, J.
 Alfeld (Hanover).—Kloos, J. H.; Könen, A. von.
 Algæ.—Frič, A.
 — & coal.—Bertrand, E.; Lapparent, A. de; Renault, B.
 —, Glacial deposits.—Siegert, L.
 —, Silurian.—Whiteaves, J. F.
 Algeria.—Brive, A.; Fichet, E.
 —, Cretaceous.—Blayac, J.; Peron, A.; Welsch, J.
 —, geological literature, 1897.—Peron, A.
 —, mineralogy.—Gentil, L.
 —, nadorite.—Gentil, L.
 —, Oligocene.—Fichet, E.
 Algeria, ophitic rocks.—Flamand, G. B. Gentil, L.
 —, saline lakes.—Blayac, J.
 —, salt.—Tardy, C.
 —, Tertiary.—Depéret, C.; Répélin, J.
 —, Trias.—Bertrand, M.; Blayac, J., &c.
 — (S.), artesian basin.—Rolland, G.
 Algiers (Algeria), zeolite-deposits.—Gentil, L.
 Algonkian.—Gurney, H. P.
 Alicante (Spain).—Nicklès, R.
 Alkaline carbonates in nature, origin.—Vater, H.
Allacodon.—Emmons, S. F., &c.
 Allanite.—Ries, H.
Allardia.—Nicholas, H.
 Allauch massif (Provence).—GOLFIER, J.
 ALLMAN, G. J.—Howes, G. B.
 Allophane.—Achiardi, G. d'.
Allorisma.—Stuckenbergh, A.
Allosaurus.—Emmons, S. F., &c.
 ALLPORT, S.—Hicks, H.
 Alluvial, Broad Arrow Deep.—George W. J.
 Alluvial sands, Dresden.—Nessig, R.
 —, Venetia.—Artini, A.
 Alluvium, Cottian Alps.—Stella, J. A.
 — fauna, Bohemia, &c.—Woldrich, J. N.
 —, mammalian remains, Liverpool.—Morton, G. H.
 —, Oise R.—Rabelle, A.
 —, Trent Valley.—Fox-Strangways, C.
 Almeria (Spain).—Nicklès, B.; Schrodtt, J.
 Alnö I. (Sweden).—Hussak, E.
 Alpine deposits, Northern Italy.—Omboni, G., &c.
 — pebbles, Ain Tertiary.—Boistel, —; Tardy, C.
 Alport (Derby).—Woodward, H.
 Alps, Apuan (Tuscany).—Zaccagna, D.
 —, Austrian.—Bittner, C.
 —, Bavarian.—Schlosser, M.; Söhle, U.
 —, Bernese.—Bertrand, M., &c.
 —, Carnic.—Geyer, G.; Graber, H. V.
 —, Dauphiné.—Kilian, W.
 —, Flysch.—Paul, C. M.
 —, French.—Kilian, W.; Lory, P.
 —, French lakes.—Delebecque, A.
 —, Glacial formations.—Penck, A.
 —, glacier-variations.—Forel, F. A., &c.
 —, Glarus.—Rothpletz, A.
 —, Italian.—Becker, H.; Cassetti, M.; Zaccagna, D.
 —, Lias fauna.—Böse, E.
 —, limestones.—Kilian, W., &c.
 —, Maritime (France).—Kilian, W.
 —, — (Piedmont).—Portis, A.
 —, metamorphic schists.—Termier, P.
 —, Pennine.—Duparc, L., &c.
 —, Rumanian.—Toula, F.
 —, Swabian.—Branco, W.

- Alps, Swiss.—Schardt, H.; Steinmann, G.
 —, Venetian.—Vinassa de Regny, P. E.
 Altái Mts. (Siberia).—Inostrantzev, A. A.
 Altenberg (Saxony).—Beck, R.
 Altenburg (Hungary).—Treitz, P.
 Alum Rock, Colorado.—Lakes, A.
 Alunite.—Lakes, A.; Turner, H. W.
 Alveolites.—Köninck, L. G. de; Struve, A.
 Alveopora.—Bernard, H. M.
 Amaltheus.—Crick, G. C.
 Amauropsis.—Philippi, E.; Reis, O. M.
 Amber.—Dickson-Bryson, R.; Knapp, F.
 Amblyosiphonella.—Clarke, J. M.
 Amboy (N.J.), Clay Plants.—Newberry, J. S.
 —, Clay.—Hollick, A.
 America.—Lapparent, A. de.
 —, fossil birds, mammalia, & reptilia.—Marsh, O. C.
 —, glaciation.—Fairchild, H. L.
 —, gold.—Cumenge, E., &c.
 —, Oligocene rhinoceroses.—Osborn, H. F.
 —, Palæozoic fishes.—Newberry, J. S., &c.
 — (Central).—Hill, R. T., &c.
 — (—), submarine physiography.—Hull, E.; Spencer, J. W.
 — (—), volcanoes.—Sapper, C.
 — (N.), geology, 1732-1891.—Darton, N. H.
 — (—), geology, &c., 1892-96.—Weeks, F. B.
 — (—), glaciation.—Chamberlin, T. C.; Fairchild, H. L.; Lamplugh, G. W.
 — (—), glaciers.—Russell, I. C.
 — (—), Great Ice-sheet.—Cuthbertson, G.
 — (—), Great Lakes.—Spencer, J. W.; Taylor, F. B.
 — (—), loess.—Keyes, C. R.
 — (—), mammalia.—Woodward, A. S.
 — (—), petroleum.—Young, S.; see also Petroleum.
 — (—), pre-Cambrian.—Leith, C. K.
 — (—), Silurian crinoidea.—Bather, F. A.
 — (S.), Palæozoic fauna.—Kayser, E.
 — (—), Southern.—Nordenskjöld, O.
 — (—), Tertiary unglata.—Roth, S.
 — (—) & Africa (S.).—Lydekker, R.
 American Association for the Advancement of Science.—Upham, W.
 — Museum of Natural History, N.Y.—Jesup, M. K.; Whitfield, R. P., &c.
 Amiata, Monte (Tuscany).—Kloos, —.
 Ammergau, Ober- (Bavaria).—Söhle, U.
 Ammodiscus.—Chapman, F.; Grzybowski, J.
 Ammonite-genealogy, Jurassic.—Buckman, S. S.
 Ammonites.—Crick, G. C.; Glengeaud, P.; Krause, P. G.; Michalski, A.; Reid, C.; Sarasin, C.; Siemiradzki, J. von; Toula, F.
 —, Cretaceous.—Choffat, P.; Frič, A.; Gilbert, G. K.; Kilian, W.; Kōnen, A. von; Kossmat, F.; Mariani, E.; Newton, R. B.; Nötling, F.; Parent, H.; Parona, C. F.; Peron, A.; Sarasin, C.; Söhle, U.
 —, Gault.—Crick, G. C.
 —, Jurassic.—Brasil, L.; Canavari, M.; Dormal, V.; Fucini, A.; Kilian, W.; Newton, E. T.; Parona, C. F.; Pompeckj, J. F.; Roman, F.; Siemiradzki, J. von; Törnquist, A.
 — *Pedernalis*.—Böhm, J.
 —, Permian.—Diener, C.
 — *Piedernalis*.—Böhm, J.
 —, Trias.—Diener, C.; Palacios, P.; Törnquist, A.; Toula, F.
 Ammonoidea, muscular attachment.—Crick, G. C.
 Amnicola.—Almera, J., &c.
 Amône Conglomerate, Ferret Valley (Valais).—Duparc, L., &c.
 Ampelite, Chokier.—Destinez, P.
 Amphibia.—Case, E. C.
 Amphibole-pyroxene rock, California.—Turner, H. W.
 Amphibolite, Tasmania.—Twelvetrees, W. H., &c.
 Amphibrachium.—Rüst, H.
 Amphiclinodonta.—Böse, E.
 Amphictis.—Riggs, E. S.
 Amphimelania.—Brusina, S.
 Amphisphyra.—Bell, A.
 Amphistegina.—Grzybowski, J.
 Amphymenium.—Rüst, H.
 Amplexus.—Köninck, L. G. de; Struve, A.
 Ampullina.—Cossmann, M.
 Amu-Daria (Turkestan), Old Beds.—Kropotkin, Prince A.
 Amussium.—Almera, J., &c.
 Anaklia (Transcaucasia).—Venkov, —.
 Analcite.—Achiardi, G. d'; Heddle, M. F.; Klein, C.; Petterd, W. F.
 Analcite-Basalt, Colorado.—Cross, W.
 Analyses, Geometrical Rock.—Rosiwal, A.
 —, mineral.—Carnot, A.
 —, rock.—Clarke, F. W., &c.
 —, silicate-rocks.—Hillebrand, W. F.
 Anas-eggs, Spain.—Olavarria, M. de.
 Anaspides.—Calman, W. T.
 Anatase.—Kraatz, K. von.
 Anatina.—Almera, J., &c.; Frič, A.
 Anatolia (Asia Minor), Jurassic.—Pompeckj, J. F.
 Ancillaria.—Scarabelli, G., &c.
 Ancistrodon.—Priem, F.
 Ancodus.—Depéret, C.

- Ancyloceras*.—Crick, G. C.
Andalusite.—Gemböck, H.
Andendiorite.—Iwasaki, C.
Andes (S. Am.).—Balta, J.; Fitzgerald, E. A.; Moreno, F. P.; Wehrli, L., &c.
Andesine.—Busz, K.; Cole, G. A. J.; Gardiner, C. I., &c.; Rosenbusch, H.
Andesite, Dumyat.—Flett, J. S.
 —, Elbrus Mt.—Ammon, L. von.
 —, Moravia.—Tausch, L. von.
 —, Torralba.—Achiardi, G. d'.
Andorite.—Prior, G. T., &c.
Andromeda.—Newberry, J. S.
Anemia.—Newberry, J. S.
Anglesey, metamorphism of grits & shales.—Callaway, C.
 —, sillimanite-gneisses.—Greenly, E.
Anglesite.—Achiardi, G. d'; Millosevich, F.; Riva, C.
Angoulême (Charente).—Glangeaud, P.
Anhydrite.—Colomba, L.; Lacroix, A.
Aniene, R. (Prov. Rome).—Angelis d'Ossat, G. de.
Animal life & geological changes.
 —Packard, A. S.
 — migration, S. Africa & S. America.
 —Lydekker, R.
Animals & soils.—Parsons, H. F.
Anisocardia.—Loriol, P. de.
Anisostoma.—Koken, E.
Annelida, Eocene.—Clark, W. B.
Annularia.—Geinitz, H. B.; Kerner, F. von; Potonič, H.; Seward, A. C.
Anomalina.—Bagg, R. M., Jun.
Anomalina.—Chapman, F.
Anomalocardia.—Almera, J., &c.
Anomia.—Clark, W. B.; Guppy, R. J. L., &c.; Vincent, G.
Anomocare.—Matthew, G. F.
Anomæodus.—Priem, F.; Sauvage, H. E.
Anoplophora.—Philippi, E.
Anoptychia.—Koken, E.
Anorthite.—Pratt, J. H.
Antarctic.—Mill, H. R.; Supan, A.
 — expedition.—Markham, Sir C. R.; Murray, Sir J., &c.
 — geology.—Geikie, Sir A.; Sharman, G., &c.
 — ice-sheet.—Argyll, Duke of.
Antedon.—Loriol, P. de; Nicolas, H.
Anthocrytis.—Rüst, H.
Anthophyllite.—Pratt, J. H.
Anthracite.—Ochsenius, C.
 —, Arizona.—Blake, W. P.
 —, Peru.—Griffith, W.
 —, Rocky Mts.—Hosea, R. M.
Anthropozoic Beds.—Howorth, Sir H. H.
Antigua (W.I.), Tertiary plants.—Stenzel, K. G.
Antillean Tertiary mollusca.—Guppy, R. J. L., &c.
Antilles (W. I.).—Spencer, J. W.
Antlope, Quaternary.—Hibsch, J. E.
Antimonite.—Schmidt, A.
 Antimony in tin-ore, Bolivia.—Gautier, F.
 Antrim, Co. (Ireland), rhyolites.—Cole, G. A. J.
Antwerp Beds, *Cardita planicosta*.—Raeymaekers, D.
 — (Belgium), Tertiary sand-gases.—Raeymaekers, D.
Aparchites.—Whiteaves, J. F.
Apatite.—Vater, H.
 — enclosures, Puy-de-Dôme.—Gonnard, A., &c.
Apatosaurus.—Emmons, S. F., &c.
Apennines (Italy).—Cassetti, M.; Lotti, B.; Zaccagna, D.
 — (—), Tertiary.—Scarabelli, G., &c.
Apes, Tertiary.—Branco, W.; Koken, E.
Aphanaia.—Koninck, L. G. de.
Aphelops.—Osborn, H. F.
Apodidae, Palæozoic.—Schuchert, C.
Apogen.—Storms, R.
Apophyllite.—Currie, J.; Gentil, L.; Henderson, J. A. L.
Aporrhais.—Almera, J., &c.; Frič, A.; Kaunhowen, F.; Kænien, A. von; Reis, O. M.
Appalachian Mts., igneous rocks, Virginia.—Darton, N. H., &c.
 — —, former extension.—Braner, J. C.
Applied geology.—Elsden, J. V.
Apuan Alps (Tuscany).—Zaccagna, D.
Aquila (Abruzzo).—Cassetti, M.
Aquitaine (France), Cretaceous.—Glangeaud, P.
Aquitanian.—Depéret, C.; Dollfus, G. F.
Aragonite.—Achiardi, G. d'; Lacroix, A.; Vernadski, V. I.
Aralia.—Frič, A.; Hollick, A.; Newberry, J. S.
Ararat (Armenia).—Hughes, T. McK.
Araucarioxylon.—Shirley, J.
Araucarites.—Hollick, A.
Arbacina.—Gauthier, V.
Arbois (Jura), caverns near.—Viré, A.
Arca.—Almera, J., &c.; Frič, A.; Futterer, C.; Krause, P. G.; Loriol, P. de; Mayer-Eymar, C.; Newton, R. B.; Penecke, K. A.; Söhle, U.; Vinassa de Regny, P. E.
Archæan, Canada.—Ells, R. W.
 —, Ceylon.—Modder, F. H.
 — continents.—Cole, G. A. J.
 —, Finland.—Gurney, H. P.; Harris, G. F.; Sederholm, J. J.; Winchell, N. H.; see also Russia.
 — gneisses.—Lomas, J.
 — igneous rocks, origin.—Winchell, N. H.
 —, Michigan.—Van Hise, C. R., &c.
 —, Minnesota.—Winchell, N. H.
 —, Moravia.—Suess, F. E.
 —, Styria.—Schmutz, K.
Archæocalamites.—Leyh, C. Fr.; Seward, A. C.
Archæocetus.—Sinzov, J.
Archæocylaris.—Stuckenber, A.

- Archæocyathus*.—Koninck, L. G. de.
Archicapsa.—Rüst, H.
Archicorys.—Rüst, H.
Arcoperna.—Cossmann, M.
 Arctic plants, British.—Bulman, G. W.
 — region ice.—Nordenskjöld, A. E.
 — regions.—Conway, Sir W. M., &c.;
 Feilden, H. W.; Garwood, E. J.;
 Jackson, F. G.; Kettlitz, R.; Nansen,
 F.; Nathorst, A. G.; Newton, E. T.,
 &c.; Pike, A.
Arctica.—Newton, R. B.
Arctomys.—Woldrich, J. N.
 Ardennes, slates.—Reade, T. M., &c.
 Arenig shales, Menai Bridge.—Greenly,
 E.
 Argelès Valley (Hautes-Pyrénées).—
 Stuart-Menteth, P. W.
 Argentina (S. Am.).—Fitzgerald, E. A.
 — (—), Andes.—Moreno, F. P.;
 Wehrli, L., &c.
 — (—), glaciation.—Nordenskjöld,
 O.
 — (—), Jurassic fauna.—Törnquist,
 A.
 — (—), Pampean formation.—
 Church, G. E.
 — (—), meteorites.—Michaut, A.
 — (—), mining.—Hoskold, H. D.
 — (—), Tertiary & Cretaceous mam-
 mals.—Ameghino, F.
 'Argile des Polders.'—Reade, T. M.
 Argonne, the (N. France).—Fliche, P.
 Argostoli (Kephallonia).—Grosseteste, W.
 Argyrodite, stanniferous.—Prior, G. T.,
 &c.
Arhinolemur.—Ameghino, F.
 Aricoma (Peru) glacier.—Balta, J.
 Ariège (France).—Lacroix, A.
 — (—), phosphate of lime in Gault.
 —Caralp, —.
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 McK.
 Armorican massif (France).—Kerforne,
 F.
 Arno Valley (Tuscany).—Lotti, B.
 Arran (I. of).—Geikie, Sir A.; Gunn,
 W.
Arrhoges.—Kaunhowen, F.
 Arsenic in Elba iron.—Toso, P.; Matti-
 rolo, E., &c.
Artemis.—Bell, A.
 Artesian basin, Algeria (S.).—Rolland,
 G.
 — —, Dakotas.—Darton, N. H.
 — wells, Bourn.—Martin, E. A.
- Artesian wells, Eastern U.S.A.—Darton,
 N. H.
 — —, Iowa.—Norton, W. H.
 — —, Ottakring.—Abel, O.
 — —, Perth (W. Austr.).—Maitland,
 A. G.
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 &c.
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 Artiodactyls, Uinta.—Scott, W. B.
Arvicola.—Woldrich, J. N.
 Åsar.—Geer, G. de; Howorth, Sir H.
 H.
 —, Courland.—Toll, Baron E. von.
 —, Finland.—Kropotkin, Prince A.
 —. See also Eskers.
 Asbestos, Lombardy.—Brugnatelli, L.
Ascoceras.—Whiteaves, J. F.
 Ascoli (Central Italy).—Moderni, P.
 Ashbourne Railway (Derby).—Hind, W.
 Asia.—Lapparent, A. de.
 —, Carboniferous.—Fliegel, G.
 — (Central).—Hedin, S.
 —, gold.—Cumenge, E., &c.
 — Minor.—Launay, L. de; Philipsson,
 —.
 — —, coal-mines.—Krenke, G.
 — —, corundum.—Thomas, W. F.
 A.
 — —, earthquakes.—Agamennone,
 G.
 — —, Jurassic.—Pompeckj, J. F.
 Aspe (Basses-Pyrénées).—Seunes, J.
 Aspen (Colo.).—Lakes, A.
 Asphalt.—Ochsenius, C.
 —, Barbados.—Merivale, W.
 —, Cuba.—Cabrera, R.
 Asphalt fauna, Pyrimont.—Depéret, C.
 Asphaltite.—Eldridge, G. H.
Aspidiscus.—Söhle, U.
Aspidites.—Diener, C.
Aspidoceras.—Crick, G. C.
Asplenites.—Frič, A.
Asplenium.—Newberry, J. S.
 Assam coal.—Hayden, H. H.
 Assche (Brabant).—Velge, G.; Vincent,
 G., &c.
 Asschian.—Mourlon, M.
 Asta, Cima d' (Tyrol).—Krafft, A. von.
Astarte.—Clark, W. B.; Lorient, P. de;
 Philippi, E.; Roman, F.; Törnquist,
 A.; Vincent, E.
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Asteroceras.—Pompeckj, J. F.
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Astractura.—Rüst, H.
Astraliun.—Kaunhowen, F.
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 Söhle, U.
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Astylosporgia.—Remes, M.
 Asymmetry, N. Hemisphere.—Suess, E.
 Atacama (Chile).—Darapski, L.
 — (—) ore-deposits.—Norden-
 skjöld, O.
 Atacamite.—Meli, R.; Smith, G. F.
 H.

- Atchison Co. (Kan.).—Knerr, E. B.
Ateleyclus.—Ristori, G.
Atelodus.—Nehring, A.; Simonelli, V.;
 Woldrich, J. N.
Athyris.—Diener, C.; Dun, W. S.;
 Whidborne, G. F.
Atlanta.—Tate, R.
 Atlantic Coast (U.S.A.) Jurassic.—
 Marsh, O. C.
 — Ocean.—Makin, C. J. S.; Monaco,
 A., Prince of.
 — — & African islands.—Ossuna,
 M. de.
 Atlantis, lost.—Grant, C. E.
Atlantosaurus.—Emmons, S. F., &c.
 Atmosphere & limestone-formation.—
 Chamberlin, T. C.
 Atoll, Clipperton.—Teall, J. J. H.;
 Wharton, Sir W. J.
 Atolls.—Bonney, T. G.; Sollas, W. J.
 —, broadening.—Hedley, C.
 —. See also Coral-reefs.
Atrypa.—Koninck, L. G. de.
 Attendorn (Westphalia).—Hundt, R.
 Attermere Cave, near Settle (Yorks).—
 Cuttriss, S. W.
 ATTWOOD, M.—Attwood, G.
Aucella.—Abel, O.
 Auckland (N.Z.).—McKay, A.; Wilson,
 G.
 Aude (France), Tertiary echinoderms.
 — Lambert, J.
 Augelite.—Spencer, L. J.
 Augite.—Joly, J.
 Augusta Group.—Keyes, C. R.
Aulacocephalus.—Seeley, H. G.
Aulacopella.—Whiteaves, J. F.
Aulophyllum.—Struve, A.
Aulopora.—Koninck, L. G. de; Stuck-
 enberg, A.
Aurelia.—Walcott, C. D.
Aurelianella.—Cossmaun, M.
 Aurès, the (Constantine).—Ficheur, E.
Auricula.—Kert, W.
 Auriferous conglomerates, Gold Coast.
 — Sam, T. B. F.
 — —, Transvaal.—Becker, G. F.;
 Denny, G. A.; Draper, D.; Hanbly,
 W. T.; Hatch, F. H.; Lloyd, H.;
 Sawyer, A. R.
 — — gravels, California. — Merriam,
 J. C.
 — — lodes.—Don, J. R.
 Australasia, glaciation.—Johnston, R.
 M.
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 Australia, gold.—Cumenge, E., &c.
 —, goldfields.—Schmeisser, K.
 —, Great Barrier Reef.—Agassiz, A.
 —, meteorites.—Ward, H. A.
 —, mineral deposits.—Don, J. R.;
 Montgomery, A.
 —, opal.—Weisbach, A.
 —, Tertiary fauna (Older).—Tate, R.
 — (S.).—Brown, H. Y. L.
 — (—), Cambrian fauna.—Ethe-
 ridge, R., jun.; Howchin, W.
- Australia (S.), glaciation.—Howchin,
 W.
 — (—), goldfields.—Brown, H.
 Y. L.
 — (—), Pleistocene.—Tate, R.
 — (W.).—Carnegie, D. W.; Maitland,
 A. G.; Pittman, E. F.; Prinsep, H. C.
 — (—), auriferous veins.—Halse, E.
 — (—), bibliography.—Maitland,
 A. G.
 — (—), coast features.—Cadell, H. M.
 — (—), Department of Mines.—
 Prinsep, H. C.
 — (—), Geological Survey.—Mait-
 land, A. G.
 — (—), goldfields.—Angove, W.
 H.; Bagot, C. U.; Becher, S. J.;
 Black, V.; Clifton, A. G.; Cummins,
 W. D.; Dowley, E. P.; Fielding, P.;
 Finnerty, J. M.; Foss, C. D. V.;
 Fowler, T.; George, W. J.; Gibbons,
 P. L.; Gmehling, A.; Halse, E.;
 Hare, F.; Hicks, A.; Lawrence, D.
 H.; Maitland, A. G.; Ostlund, A.;
 Owen, W. L.; Prinsep, H. C., &c.;
 Reed, F.; Troy, P.
 — (—), gold-mining.—Moreing,
 C. A.
 — (—), meteoric iron.—Cohen, E.
 — (—), perforated rocks.—Dunn,
 E. J., &c.
 — (—), telluride.—Pittman, E.
 F.
 — (—), water.—Maitland, A. G.
 Australian geology.—Etheridge, R.,
 Jun., &c.
 — Palæozoic fauna.—Koninck, L. G.
 de.
 Austria, 'Lettenkohle.'—Benecke, E.
 W.
 — (Lower), Cretaceous.—Bittner,
 A.
 — (—), Flysch.—Paul, C. M.
 — (—), Jurassic.—Abel, O.
 — (—), Limestone Alps.—Bittner,
 C.
 — (Upper).—Bittner, C.
 Austria-Hungary, Geological Survey.—
 Stache, G.
 —, — Laboratory.—John, C. von,
 &c.
 —, gold.—Cumenge, E., &c.
 Autun (Saône-et-Loire).—Boule, M.,
 &c.
 Auvergne (France), glaciation.—Boule,
 M.
 Aves. See Birds.
Avicula.—Futterer, C.; Hennig, A.;
 Koninck, L. G. de; Krause, P. G.;
 Newton, E. T.; Stuckenberg, A.;
 Tommasi, A.; Vincent, É.
Aviculopecten.—Diener, C.; Drake, N.
 F.; Koninck, L. G. de; Stuckenberg,
 A.; Whidborne, G. F.
 Avignon (Vaucluse).—Niclas, H.
 Avino mines (Mexico).—Mathez, A.
 Avonmore Road well (West Kensing-
 ton).—Martin, E. A.

- Ax (Ariège).—Lacroix, A.
 Axinite.—Lacroix, A.; Walker, T. L.
Axophyllum.—Koninek, L. G. de.
 AYERS, Sir H.—Hicks, H.
 Aylesbury (Bucks), Purbeck Beds.—
 Woodward, H.
 Ayot Green (Herts).—Hopkinson, J.,
 &c.
Azygograptus.—Elles, G. L.
 Baboja (Hungary).—Gesell, A.
 Bacau District (Rumania).—Teisseyre,
 W.
 Bacchus Marsh (Vict.), sandstone-flora.
 —McCoy, Sir F.
Bacillaria-deposits, New Jersey.—Ed-
 wards, A. M.
Bacillus.—Seward, A. C.
 Bacteria, Carboniferous.—Renault, B.
 —, lignite.—Renault, B.
Bactryllum.—Seward, A. C.
Baculites.—Crick, G. C.; Frič, A.;
 Gilbert, G. K.; Nøtling, F.
 Baden (Germany).—Eck, H.
 — (—), 'Lettenkohle.'—Benecke,
 E. W.
 — (—), Tertiary footprints.—Böhm,
 G.
 Baddeleyite.—Hussak, E.
 Bagshot Beds (Hants).—Reid, C.
 — District (Surrey), gravels.—
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 Bahia (Brazil).—Praguer, H.
Baiera.—Newberry, J. S.; Shirley, J.
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 Baku (Transcaucasia).—Macco, A.
 Bala Beds, Lambay I.—Gardiner, C. I.,
 &c.
 Balearic Islands.—Martel, E. A.; Nolan,
 E.
 Balhannah Mines (S. Austr.).—Brown,
 H. Y. L.
 Balkan Peninsula & Asia Minor Lias.
 —Pompeckj, J. F.
 Ballarat (Vict.).—Schmeisser, K.;
 Travis, J., &c.
 Ballinoo (W. Austr.).—Cohen, E.
 Ballybunion (Co. Kerry).—Cuthbert,
 H. K.
 Baltic Chalk echinoderms.—Schlüter,
 C.
 — Silurian gasteropoda.—Koken, E.
 Baltimore (Md.).—Darton, N. H.
 Baluchistan (Asia), Cretaceous fauna.
 —Nøtling, F.
 Banat (Hungary).—Bøttger, O.
 Banchory (Kincardine).—Irvine, D. R.,
 &c.
 Banded clay, Sweden.—Holmquist, P.
 J.
 Bagemall (W. Austr.).—Foss, C. D. V.
 Banka (D. E. I.), tin.—Beck, R.
 Banket, Transvaal.—Becker, G.; Denny,
 G. A.; Draper, D.; Hanbly, W. T.;
 Hatch, F. H.; Lloyd, H.; Sawyer,
 A. R.
Banksia.—Hollick, A.
Baptanodus.—Emmons, S. F., &c.
 Barbados (W. I.).—Franks, G. F., &c.;
 Merivale, W.
 Barcelona (Spain).—Almera, J.; Bar-
 rois, C.; Depéret, C.
 Barents Sea.—Feilden, H. W.
 Barite.—Knerr, E. B.
 Barnsley (Yorks), coal.—Durnford, H.
 St. J.
Barrettia.—Whitfield, R. P.
 Barrier Reef (Great), Australia.—Agas-
 siz, A.
 Barrington (R. I.).—Shaler, N. S., &c.
Barroisicerus.—Peron, A.
 Barton Clay, &c. (Hants).—Reid, C.
 — Quarry (Yorks).—Manson, R. T.
 Barytes.—Beckenkamp, J.; Buttgen-
 bach, H.; Moesz, G.; Riva, C.;
 Scharizer, R.; Schmidt, A.
 Basalt.—Joly, J.; Rosenbusch, H.
 —, analcite, Colorado.—Cross, W.
 —, Bathurst.—Ross, W. J. C.
 —, Hérault.—Depéret, C.
 —, Mount Rainbow goldfield.—
 Cameron, W. E.
 —, Nurri.—Corsi, A.
 —, Rockall.—Green, W. S., &c.
 —, Styria.—Sigmund, A.
 —, Tasmania.—Twelvetrees, W. H.,
 &c.
 Basaltic fumeroles, Royat.—Lacroix,
 A., &c.
 Basanite.—Rosenbusch, H.
 Basingstoke (Hants).—Bennett, F. J.,
 &c.
 Basses-Pyrénées (France).—Seunes, J.
 —. See also Pyrenees.
 Bathgate Hills (Linlithgow).—Geikie, J.
 Bathonian bryozoa.—Canu, F.
 Bathurst (N.S.W.).—Ross, W. J. C.
Bathycles.—Koken, E.
Batillaria.—Cossmann, M.
Batissa.—Krause, P. G.
Batolites.—Douvillé, H.
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 —, earthquakes.—Gümbel, W. von.
 —, Inn Valley.—Böse, E.
 — (Upper), thermal waters.—Lupin,
 F. von.
 Bavarian Alps, Cenomanian fauna.—
 Söhle, U.
 —, Trias.—Schlosser, M.
 Bavarian-Bohemian Wald graphite.—
 Weinschenk, E.
 Baycliffe (Wilts).—Woodward, H.
 Beaches, Channel Islands raised.—
 Dunlop, A.
 —, Franz Josef Land raised.—Køtt-
 litz, R.

- Beaches, sea.—Cornish, V.
 Beachy Head (Sussex).—Reid, C.
 Beaconsfield (Vict.).—Cohen, E.
Beania.—Shirley, J.
 Bears, Miocene.—Gaillard, C.
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Belemnites.—Knoop, L.; Newton, E.
 T.; Pompeckj, J. F.; Roman, F.;
 Törnquist, A.
 Belemnoides, Jurassic.—Crick, G. C.
 Belgium, borings.—Ertborn, O. van.
 —, Caradoc fauna.—Malaise, C.
 —, Carboniferous.—Dewalque, G.;
 Velge, G.
 —, — Limestone fauna.—Frai-
 pont, J., &c.
 —, cave-fauna.—Nehring, A.
 —, coalfields, &c.—Briart, A.
 —, coast-changes.—Rutot, A.
 —, Cretaceous.—Dorlodot, H. de;
 Mourlon, M.; Vincent, E.
 —, Geological Society.—Hans, J.
 —, — Survey.—Michael, R.
 —, geology 1892-97.—Dorlodot, H.
 de.
 —, Jurassic ammonites.—Dormal, V.
 —, marsh-clay.—Reade, T. M.
 —, physical geography.—Gosselet, J.
 —, Quaternary.—Velge, G.
 —, Quaternary seas.—Mierlo, J. C.
 van.
 —, Tertiary.—Couturieux, J.; Dai-
 meries, A.; Delheid, E.; Dollfus, G.;
 Ertborn, O. van; Gosselet, J.; Harmer,
 F. W.; Mourlon, M.; Raeymackers,
 D.; Storms, R.; Van den Broeck,
 E.; Velge, G.; Vincent, E.; Vincent,
 G.
 Bell-pits.—Holmes, T. V.
 Bellasian ammonites.—Choffat, P.
 Belle-Isle (Morbihan).—Barrois, C.;
 Michel-Lévy, A.
 Belledonne, Chaîne de (French Alps).—
 Lory, P.
Bellerophon.—Koninck, L. G. de;
 Stuckenbergh, A.
Bellerophon-limestone, Tyrol.—Diener,
 C.
Beloptera.—Cossmann, M.
 Ben More (Mull), eruptive rock-
 minerals.—Currie, J.
 Ben Nevis (Inverness).—Upham, W.
 Bend, South (Ind.).—Whitten, W. M.
 Bendegó (Brazil) meteorite.—Derby,
 O. A., &c.
 BENEDEK, P. J. VAN.—Pelseeneer, P.
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 Bensberg (Rhenish Prussia).—Heusler,
 K.
Benthonella.—Guppy, R. J. L., &c.
Berenicea.—Cann, F.
 Beresovite.—Samoilov, J.
 Beresovsk (Urals).—Beck, R.; Samoilov,
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 —, high-level gravels.—Shrubsole,
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- BERNARD, F.—Anon., 46; Fischer, H.
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 — Jura (Switzerland), Tertiary
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 Bernstadt (Saxony).—Hazard, J.
 BERTHELIN, G.—Dollfus, G.
 Berwickshire.—Barron, T.; Goodchild,
 J. G.; Richardson, R.; Stevenson,
 W.
 Beryl.—Högbom, A. G.; Pratt, J. H.;
 Ries, H.
 Bethany (Miss.) Limestone.—Bain, H. F.
 BEWICK, T. J.—Anon., 8; Bewick, T.
 B.; Hicks, H.
Beyrichia.—Dawson, Sir J. W., &c.;
 Grzybowski, J.; Jones, T. R., &c.
Bezauconia.—Cossmann, M.
 Bidston Hill (Lancs).—Moore, C. C., &c.
 Biebrich-Mosbach (Nassau).—Kinkelin,
 F.
Bigenerina.—Schellwien, E.
Bigonia.—Fricé, A.
 Bihar (Hungary).—Pethő, J.; Szon-
 tagh, T. von.
Billingsia.—Koninck, L. G. de.
 Billiton (D.E.I.), tin.—Beck, R.
 Bingara (N.S.W.) diamonds.—Mercer, T.
 — (—) gold.—Mole, C. C. H.
 Biotite.—Uroschevitch, S.
 — granitite, Pamir.—Alcock, A. W.,
 &c.
 — tinguaites, Essex Co. (Mass.).—
 Eakle, A. S.
 Birds, Cretaceous.—Marsh, O. C.
 —, New Zealand.—Hamilton, A.
 —, Quaternary, in Camb.—Harmer,
 S. F.
 —, Tertiary.—Wittich, E.
 Birds' eggs, Chinese loess.—Eastman,
 C. R.
 —, —, Tertiary.—Olavarria, M. de.
 Birdsboro trap-quarries (Pa.).—Rand,
 T. D.
 Birkenhead (Cheshire).—Lomas, J.
 Birmingham (Warwick).—Lapworth,
 C., &c.
 Bischoff, Mt. (Tasmania).—Twelvetrees,
 W. H., &c.
 Bishop's Stortford (Herts).—Irving, A.
 Bismuthinite.—Petter, W. F.
Bison.—Kinkelin, F.
 Bisse Hill (Barbados).—Franks, G. F.,
 &c.
Bittium.—Cossmann, M.; Guppy, R.
 J. L., &c.; Kaunhowen, F.
 Bitumen.—Ochsenius, C.
 —, Barbados.—Merivale, W.
 —, origin of.—Peckham, S. F.
 —. See also Asphalt, Oil Shales,
 Gibsonite, &c.
 Bituminoid cement, Caithness Flag-
 stones.—Goodchild, J. G.
 Bituminous schists, Bois-d'Asson.—
 Bertrand, C. E.
 — shales, origin.—Goodchild, J. G.
 Black Gulf basin (Caspian).—Kusnet-
 zov, S.

- Black Hills (Dakota).—Darton, N. H.; Frazer, P.; Smith, F. C.; Ward, L. F.
 Black River Limestone, Canada.—Whiteaves, J. F.
 Black Sea.—Bertrand, M.
 Blackpool (Lancs).—Humphrey, R.
 Blagodat (Urals).—Bauerman, H.; Högbom, A.; Louis, H.; *see also* Russia.
 BLAINVILLE's 'Ostéographie,' dates.—Sherborn, C. D.
 Blastoidea, Devonian.—Weller, S.
 Blida (Algeria).—Ficheur, E.
 Blind trilobites.—Reed, F. R. C.
 Block Island (R. I.).—Eaton, G. F.; Hollick, A.
 Blöditte.—Darapski, L.; Mallet, F. R.
 BLOMSTRAND, C. W.—Weibull, M.
 Blossburg (Pa.).—Hardt, A.
 Blowpipe analysis.—Brush, G. J., &c.
 —, micro-crystals.—Florence, W.
 Bobonnenkirchen (Saxony).—Weise, T.
 Bockenrod (Odenwald).—Kraatz, K. von.
 Bog-flow, Kerry.—Praeger, R. L., &c.
 Bogoslovsk (Perm).—Fedorov, E. von; Strejov, E. N.
 Bogs.—Miall, L. C.; Reid, C.
 —, Ireland.—Sollas, W. J.
 —, New Brunswick.—Ganong, W. F.
 Bohemia.—Weithofer, K. A.
 —, alluvium, &c., fauna.—Woldfich, J. N.
 —, Brown-coal fishes.—Laube, G. C.
 —, Cambrian.—Želizko, J. V.
 —, Carboniferous.—Hammer, W.
 —, Cretaceous fauna, &c.—Frič, A.
 —, earthquakes.—Becke, F.; Credner, H.; Suess, F. E.
 —, Lower Silesian coalfield.—Weithofer, K. A.
 —, Pleistocene fauna.—Nehring, A.
 —, Silurian.—Želizko, J. V.
 —, steppe mammals.—Nehring, A.; Woldfich, J. N.
 —, Tertiary.—Laube, G. C.
 —, water.—Hanamann, J.
 — (S.) graphite.—Tausch, E.; Weinschenk, E.
 Böhmerwald (Bohemia).—Weinschenk, E.
 Boikowitz (Moravia).—Tausch, L. von.
 Bois-d'Asson (Basses-Alpes).—Bertrand, C. E.
 Bokhara (Turkestan).—Walther, J.
 Bolam (Durham) glacial striae.—Manson, R. T.
 Bolca, Monte (Vicentino).—Bassani, F.
 Boleite.—Lacroix, A.
 Boléo (Lower California).—Lacroix, A.
 Bolivia, antimony in tin-ore.—Gautier, F.
 —, minerals.—Prior, G. T., &c.; Spencer, L. J.
 —, silver & tin.—Ochsenius, C.
Bolivina.—Bagg, R. M., Jun.
 Bollstein (Hesse).—Chelius, C.
 Bologna (Emilia).—Bortolotti, E.
 Bones, petrification.—Goldsmith, E.
 Boom (Antwerp).—Vincent, G.
 Boom-clay, Belgium.—Raeymaekers, D.
 Bordeaux Landes (France).—Degrange-Touzin, A.
 Borings, Belgium.—Ertborn, O. van.
 —, Courland.—Toll, E. von.
 —, Durham & Northumberland.—Brown, M. W.
 —, Edinburgh.—Goodchild, J. G.
 —, France (N.).—Gosselet, J.
 —, Frankfort-on-Main.—Kinkelin, F.
 —, Funafuti.—Anon., 36; Bonney, T. G.; Sollas, W. J.
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 —, Hungary.—Halaváts, J.
 —, Leine Valley.—Kloss, J. H.
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 —, London District.—Martin, E. A.
 —, North Berwick.—Goodchild, J. G.
 —, Ottakring.—Abel, O.
 —, Ruhr coalfields.—Middelschulte, A.
 —, Saarbrück coalfield.—Leppla, A.
 —, Villefranche-sur-Saône.—Dollfus, G. F.
 —, Westerloo.—Ertborn, O. van, &c.
 —, Wichita.—Mead, J. R.
 —, Wyneghem.—Dewalque, G.
 Borlezza delta, Lake Iseo (Lombardy).—Salmojrighi, F.
 Borneo.—Krause, P. G.
Bornia.—Bell, A.; Koninck, L. G. de.
Borsonia.—Tate, R.; Vinassa de Regny, P. E.
Bos.—Adametz, L.; Graells, M. de la P.; Morton, G. H.; Sernander, R.
 —, Arizona Quaternary.—Blake, W. P.
Boškovicia.—Brusina, S.
 Bosnia.—Brusina, S.
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 Boulangerite.—Petterd, W. F.
 Boulay Bay (Jersey).—Parkinson, J.
 Boulder, Ontonagon copper.—Moore, C.
 —, Wimpole Hall.—Reed, F. R. C.
 Boulder Bed, Salt Range.—Nøtting, F.
 Boulder Clay, a marine deposit.—Wright, J.
 —, Boulders, Holderness.—Harker, A.
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 —, Yorkshire.—Stather, J. W.
 Boulonnais (France).—Ohy, A.; Parent, H.; Sauvage, H. E.

- Bourn (Cambs).—Martin, E. A.
 Bourne Valley, Boxmoor (Herts).—Hopkinson, J.
 Bournemouth (Hants).—Reid, C.
 Bournonite.—Gonnard, F.
 Brabant (Belgium) Quaternary, &c.—Velge, G.
 — (—), Silurian graptolites.—Malaise, C.
 Brachiopoda, American.—Schuchert, C.
 —, Cambrian.—Walcott, C. D.
 —, Carboniferous.—Drake, N. F.; Reed, F. R. C.; Stuckenber, A.; Walcott, C. D.; *see also* Palæozoic.
 —, Cretaceous.—Bittner, A.; Böhm, G.; Kayser, E.; Reid, C.; Rouville, P. G. de.
 —, Devonian.—Dun, W. S.; Girty, G. H.; Whidborne, G. F.; *see also* Palæozoic.
 —, Jurassic.—Bittner, A.; Böse, E.; Pucini, A.; Lorient, P. de; Marshall, J. W. D.; Roman, F.; Törnquist, A.
 —, Palæozoic.—Koninck, L. G. de; Leyh, C. Fr.; Siemiradzki, J. von; *see also* Carboniferous &c.
 —, Permian.—Diener, C.; Frech, F.
 —, Permo-Carboniferous.—Etheridge, R., Jun.; Stuckenber, A.; *see also* Palæozoic.
 —, Quaternary.—Mayer-Eymar, C.
 —, Silurian.—Whiteaves, J. F.; *see also* Palæozoic.
 —, spines.—Beecher, C. E.
 —, Tertiary.—Almera, J., &c.; Cossmann, M.; Stanton, T. W.; Vincent, E.
Brachymetopus.—Koninck, L. G. de.
Brachyphyllia.—Osasco, C.
Brachyphyllum.—Newberry, J. S.
Brachysphingus.—Stanton, T. W.
 Bracklesham Beds (Hants).—Reid, C.
Bradycinetus.—Jones, T. R.
Bradypus.—Wortman, J. L.
Brahmaïtes.—Kossmat, F.
 Brainville - en - Woëvre (Ardenne).—Nicklès, R.
 Bray, Pays de (Normandy).—Mercey, N. de.
 Brazil.—Derby, O. A., &c.; Siemiradzki, J. von.
 —, Carboniferous flora.—Zeiller, R.
 —, coal.—Katzner, F.
 —, Devonian trilobites.—Clarke, J. M.
 —, diamonds.—Derby, O. A.
 —, gold.—Hussak, E.
 —, minerals.—Hussak, E., &c.
 Brennergneiss with titanite.—Rodewyk, A.
 Brensbach (Hesse).—Chelius, C.
 Brenta Group (Venetian Alps).—Vaček, M.
 Bresse, (France).—Boistel, —; Tardy, C.
 Briancón (Hautes-Alpes).—Kilian, W.
 BRIART, A.—Dewalque, G.
 Briceville (Tenn).—Walcott, C. D., &c.
 Brick-clays, Rhode Island.—Shaler, N. S., &c.
 Bridger fauna, Colorado.—Osborn, H. F.
 Bridgness (Linlithgow).—Cadell, H. M.
 Bridport (Dorset).—Monckton, H. W., &c.
 Brielle (Holland).—Lorié, J.
 Brier (Meurthe-et-Moselle).—Rolland, G.
 Brigg (Yorks).—Fox-Strangways, C.
Brissopatagus.—Oppenheim, P.
 Bristol.—Hudleston, W. H.
 — (—) springs.—Pearson, H. W.
 Brittany (France).—Barrois, C.
 — (—), Carboniferous folds.—Barrois, C.
 — (—), igneous rocks.—Barrois, C.
 — (—), Quaternary clays.—Barrois, C.
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 —, —, Glacial papers.—Lamplugh, G. W.
 British Columbia.—Gosnell, R. E.; Gwillim, J. C., &c.; Turner, W. B.
 — —, gold.—Brewer, W. M.; Lakes, A.
 — —, Kamloops landslips.—Stanton, R. B.
 — —, ore-deposits.—Austin, W. L.
 British Guiana.—Harrison, J. B., &c.
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 — —, erratic blocks.—Kendall, P. F.
 — —, mineral industry.—Galloway, W.
 — —, submerged terraces & valleys.—Hull, E.
 British scenery.—Marr, J. E.
 Brives (Corrèze).—Glangeaud, P.
 Broad Arrow (W. Austr.).—George, W. J.
 Brod, Ungarisch (Moravia).—Tausch, L. von.
 BRODIE, P. B.—Hicks, H.
 Broken Hill (N.S.W.).—Dudley, U.; Marsh, C. W.; Moulden, J. C.
 — (—), garnetiferous rock.—Krusch, P.
 — (—) vughs.—Bayne, H. G.
 Brongniardite.—Prior, G. T., &c.
Bronteus.—Holm, G.; Koninck, L. G. de.
Brontops, *Brontosaurus*, & *Brontotherium*.—Emmons, S. F., &c.
 Bronx River (N. Y.).—Kemp, J. F.
 Brookite.—Hussak, E.
Brooksella.—Walcott, C. D.
 Brown-coal fauna, Messel.—Wittich, E.
 —, fishes, Bohemia.—Laube, G. C.
 —, flora, Germany.—Schlechtendal, D. H. R. von.

- Brown-coal, Victoria (Austr.).—Stirling, J.
 Broxburn (Linlithgow) oil-shale.—
 Bertrand, C. E.
 Bruges Canal (Belgium).—Reade, T. M.
 Brünn (Moravia).—Tietze, E.
 Brunswick (Germany), clay.—Kraatz, K. von.
 Brussels (Belgium).—Couturieaux, J.; Velge, G.
 —(—), borings.—Ertborn, O. van.
 Brussels Exhibition.—Vailant, V.
 Brūx (Tyrol).—Becke, F.
 Bruxellian.—Vincent, E.
Bryograptus.—Elles, G. L.
 Bryozoa.—Pergens, E.
 —, calcareous deposits on colonies of.—Lorié, J.
 —, Cretaceous.—Canu, F.
 —, Jurassic.—Canu, F.
 —, Palæozoic.—Koninck, L. G. de.
 —, Permian.—Paalzow, R.
 —, Permo-Carboniferous.—Stucken-berg, A.
 —, spines.—Beecher, C. E.
 —, Tertiary.—Angelis d'Ossat, G. de; Maplestone, C. M.
Bucania & Bucaniella.—Koken, E.
 Bucegi (Rumania) conglomerates.—Popovici, V.
 Buckhannon (W. Va.).—Walcott, C. D., &c.
 Bucks Co. (Pa.).—Lyman, B. S.
 Buceacs (Hungary).—Bucegi, —.
 Budapest (Hungary).—Pergens, E.
 Budapest Mining Exhibition, 1896.—Halaváts, J.; Schafarzik, F.
Budmania.—Brusina, S.
 Budweis (Bohemia).—Tausch, E.
 Bug R. estuary (Kherson), periodic changes of saltness.—Sokolov, N.
 Bugey (Jura).—Boistel, —.
 Building-stones.—Anon., 75-79; Elsdon, J. V.
 —, Colorado.—Emmons, S. F., &c.
 —, Iowa.—Bain, H. F.; Beyer, S. W.; Calvin, S.
 Buire (Somme).—Gosselet, J.
 Bukhara, *see* Bokhara.
Bulimina.—Upton, C.
Bulla.—Kaunhowen, F.; Mayer-Eymar, C.; Vinassa de Regny, P. C.
Bullina.—Kaunhowen, F.
Bullinula.—Reis, O. M.
 Bulovka (Bohemia).—Woldřich, J. N.
 Bündner Oberland (Grisons).—Steinmamm, G.
 Bunter, Lancashire & East Coast Railway.—Fox-Strangways, C.
 Burbach (Westphalia).—Heusler, K.
 Burdigalian.—Dollfus, G. F.; Loriol, P. de; Pellat, E.
 —, Barcelona.—Almera, J.
 Bure Series, Liège Devonian.—Vallée Poussin, C. de la.
 Burgtonna (Thuringia).—Weiss, A.
 Burma, earthquakes.—Griesbach, C. L.
 —, petroleum, &c.—Nœtling, F.
 Burma, Pliocene *Hippopotamus*-femur.—Nœtling, F.
 Burntisland (Fife).—Herries, R. S.
 Burra-Burra (S. Austr.).—Mügge, O.
 Burtin Cemetery [fossil] (Brabant).—Vincent, E.
 Bussoleno, Monte (Piedmont).—Franchi, I. S.
 Buxton & Ashbourne Railway (Derby).—Hind, W.
 Buziás (Hungary).—Halaváts, J.
 Bysmaliths.—Iddings, J. P.
Bythinella.—Brusina, S.
Bythinia.—Almera, J., &c.; Blanckenborn, N.; Kœrt, W.
Bythotrephis.—Whiteaves, J. F.
 Caballo Mts. (New Mexico).—Herrick, C. L.
 Cabrera (Balearic Is.).—Nolan, E.
Cadulus.—Clark, W. B.; Guppy, R. J. L., &c.
 Caen (Normandy) water-supply.—Bigot, A.
Cesalpinia.—Newberry, J. S.
 Cagliari (Sardinia).—Achiardi, A. d'; Taramelli, T.
 Caillou-qui-bique (Nord).—Anon., 4.
 Cainozoic.—Watts, W. W.
 Cairo (Egypt).—Mayer-Eymar, C.
 Caithness Flagstones, bituminoid cement.—Goodchild, J. G.
 Calabria (Italy).—Capellini, G., &c.
 Calais-Boulogne coal (Pas-de-Calais).—Olry, A.
 Calamine.—Riva, C.
Calamites.—Seward, A. C.
Calamitina.—Geinitz, H. B.
Calamocladus.—Seward, A. C.
Calamodon.—Wortman, J. L.
Calamostachys.—Kerner, F. von; Seward, A. C.; Shirley, J.
Calappa.—Mayer-Eymar, C.; Ristori, G.
 Calaverite.—Cumenge, E., &c.; Simpson, E. S.
 'Calcaire grossier.'—Dollfus, G. F.; Gosselet, J.
 Calcareous deposits.—Cayeux, L.
 — incrustations.—Lorié, J.
 Calciferous Sandstone Series plants.—Scott, D. H.
 Calcite.—Achiardi, G. d'; Beckenkamp, J.; Busz, K.; Buttgenbach, H.; Gaubert, P.; Gonnard, F.; Högbom, A. G.; Lacroix, A.; Moes, G.; Schafarzik, F.; Schmidt, A.
 Calcium group crystals.—Eppler, A.
 Calcutta (India) earthquake.—Agamennon, G.; Heath, T.
 California, Lower (Mexico).—Merrill, G. P.
 — (U.S.A.).—Fairbanks, H. W.; Lindgren, W.; Manson, M.; Turner, H. W.; Walcott, C. D., &c.
 — (—), buried river-gold.—Scupham, J. R.
 — (—), coal.—Horsewell, F. J.
 — (—), Cretaceous.—Merriam, J. C.

- California (U.S.A.), earthquakes. — Perrine, C. D.; Rein, J.
- (—), Eocene & Cretaceous faunas.—Stanton, T. W.
- (—), igneous rocks.—Ransome, F. L.
- (—), minerals, &c.—Turner, H. W.
- (—), Tertiary echinodermata.—Merriam, J. C.
- Callao (Peru) water-supply.—Bignon, A.
- Callianassa*.—Frič, A.; Ristori, G.
- Callibrachion*.—Boule, M., &c.
- Callicrinus*.—Anon., 59.
- Callipteridium* & *Callipteris*.—Potonié, H.
- Callomena*.—Fraipont, J., &c.
- Callovian, Woëvre.—Nicklès, R.
- Calocyclus*.—Rüst, H.
- Caloporella*.—Maplestone, C. M.
- Calp' Shale, Dublin.—O'Reilly, J. P.
- Calpidium*.—Maplestone, C. M.
- Calton Hill (Edinburgh).—Henderson, J.
- (—), boring.—Goodchild, J. G.
- Calymene*.—Pompeckj, J. F.
- Calyptraea*.—Nötling, F.; Reid, C.
- Calyptrophorus*.—Clark, W. B.
- Camaphoria*.—Stuckenberg, A.
- Cambrai (Nord).—Lagaisse, —.
- Cambrian, Bohemia.—Želizko, J. V.
- brachiopoda. *See* Brachiopoda.
- , Canada.—Ami, H. M.
- , England, &c.—Geikie, Sir A.
- , Europe.—Brögger, W. C.
- fauna.—Dawson, Sir J. W.; Matthew, G. F.
- , Australia (S.).—Howchin, W.
- , St. Croix Dalles.—Berkey, C. P.
- graptolites.—Elles, G. L.
- *Hyalolithes*-limestone, Nuneaton.—Lapworth, C.
- Medusæ.—Walcott, C. D.
- phyllopora. *See* Phyllopora.
- , Skåne.—Möberg, J. C., &c.
- , Spain.—Mallada, L.
- trilobites. *See* Trilobites.
- 'Cambridge Greensand' ostracoda.—Chapman, F.
- Camerino (Marches, Italy).—Canavari, M.
- Cameroceras*.—Koninck, L. G. de.
- Cameroons (W. Africa).—Kenen, A. von.
- CAMPBELL, J. R.—Hicks, H.
- Campophyllum*.—Beede, J. W.; Struve, A.
- Camptosaurus*.—Emmons, S. F., &c.
- Canada.—Bailey, L. W.; Bell, R.; Dawson, G. M.; Hoffmann, G. C.; Ingall, E. D.; Low, A. P.; Ogilvie, W.; Törnquist, A.; Tyrrell, J. B.
- , Archaean.—Ells, R. W.
- , earthquakes.—McLeod, C. H., &c.; Stupart, R. F.
- , Geological Survey.—Dawson, G. M.
- , glaciation.—Hitchcock, C. H.; Lamplugh, G. W. Tyrrell, J. B.
- Canada, gold.—Merritt, W. H.
- , igneous rocks.—Adams, F. D.
- , Laurentian.—Adams, F. D., &c.
- , museums.—Ami, H. M.
- , Palæozoic fauna.—Ami, H. M.; Whiteaves, J. F.
- , pre-Cambrian, &c. fauna.—Dawson, Sir J. W.
- , pre-Glacial rock-decay.—Chalmers, R.
- , soils.—Shutt, F. T.
- Canadian Pacific Railway, Kamloops landslips.—Stanton, R. B.
- Cañarcillo (Chili).—Fucini, A.
- Canary Is.—Ossuna, M. de; Rothpletz, A., &c.
- Cancellaria*.—Almera, J., &c.; Cossmann, M.; Guppy, R. J. L., &c.; Kaunhowen, F.
- Candona*.—Dawson, Sir J. W., &c.
- Canidae, White River Oligocene.—Scott, W. B.
- Cannel coal.—Renault, B.
- Cannock Chase (Stafford), Glacial boulders east of.—Mantle, H. G., &c.
- 'Cannstatter Kreidemergel.'—Philippi, E.
- Cantabrian Mts. (Spain).—Penck, A.
- Cape Colony (S. Africa) *Dicynodont*-beds fauna.—Seeley, H. G.
- Capelle, La (Boulonnais).—Parent, H.
- Caprara, I. of (Italy).—Lovisato, D.
- Capri, I. of (Italy).—Karsten, H.
- Caprina*.—Böhm, G.; Douvillé, H.
- Caprina*-limestone, Mexico.—Böhm, G.
- Capulus*.—Almera, J., &c.; Cossmann, M.; Möberg, J. C.; Stuckenberg, A.
- Carabaya (Peru).—Balta, J.
- Caracoles (Chili).—Labastie, F.
- Caradoc fauna, Belgium.—Malaise, C.
- Carangopsis*.—Bassani, F.
- Caratomus*.—Lambert, J.
- Carbo-Permian, Himalayas.—Diener, C.
- *See also* Permo-Carboniferous.
- Carbonia*.—Dawson, Sir J. W., &c.
- Carboniferous, Alaska.—Schuchert, C.
- , Arkansas.—Keyes, C. R.
- , Arran.—Geikie, Sir A.
- , bacteria.—Renault, B.
- , Belgium.—Destinez, P.; Dewalque, G.; Fraipont, J., &c.
- , Bohemia.—Hammer, W.; Weithofer, K. A.
- boulder-train, Massachusetts.—Fuller, M. L.
- brachiopoda. *See* Brachiopoda.
- , Rhode I. Conglomerate quartzitic pebbles.—Walcott, C. D.
- , Brazil.—Siemiradzki, J. von; Zeilner, R.
- , Carinthia.—Geyer, G.
- cephalopoda, corals, crustacea. *See* Cephalopoda, &c.
- , Des Moines.—Keyes, C. R.
- , Devon.—Somerville, A.
- , England (S.).—Anon., 16.
- , England & Scotland.—Geikie, Sir A.; Gunn, W.; Hind, W.

- Carboniferous entomostraca. *See* Entomostraca.
- , Europe & Asia.—Fliegel, G.
- , Feluy.—Velge, G.
- , fire-clays. *See* Kirkup, P.
- , fishes. *See* Fishes.
- , folds, Brittany.—Barrois, C.
- , foraminifera, gasteropoda. *See* Foraminifera, &c.
- , *Goniatites*.—Haug, E.
- , Hof a. Saale.—Leyh, C. Fr.
- , Indian Territory.—Drake, N. F.
- , Indiana.—Bennett, L. F.; Jones, L. H.; Newsom, J. F.; Price, J. A.
- , insects. *See* Insects.
- , Iowa.—Calvin, S., &c.
- , — & Missouri.—Keyes, C. R.
- , Kansas.—Beede, J. W.; Bennett, J.; Haworth, E., &c.
- , lamellibranchiata. *See* Lamellibranchiata.
- , Lancashire.—Morton, G. H.
- , Lancashire & East Coast Railway.—Fox-Strangways, C.
- , life-zones, Europe.—Hind, W.
- , Limestone, Belgium.—Frapont, J., &c.
- , —, Derbyshire.—Arnold-Bemrose, H. H.
- , —, Llandudno.—Morton, G. H.
- , —, Shales, Tissington.—Hind, W.
- , —, Vale of Clwyd.—Morton, G. H.
- , —, Mississippi.—Weller, S.
- , —, Missouri.—Bain, H. F.
- , —, New South Wales.—Etheridge, R., Jun.; Koninck, L. G. de.
- , —, Nova Scotia, &c.—Dawson, Sir J. W.
- , —, ostracoda. *See* Ostracoda.
- , —, Perm.—Stuckenberg, A.
- , —, phyllopora. *See* Phyllopora.
- , —, plants. *See* Plants.
- , —, —, Steinach-Alps.—Kerner, F. von.
- , —, Salt Range.—Nætling, F.
- , —, Spain.—Mallada, Z.
- , —, sponges. *See* Sponges.
- , —, Tissington.—Hind, W.
- , —, Wales (N.).—Morton, G. H.
- , —, Wales (S.).—Galloway, W.
- , —, zones.—Garwood, E. J.; Hind, W.
- Carcharodon*.—Priem, F.
- Cardiaster*.—Frič, A.; Lambert, J.; Schlüter, C.
- Cardinia*.—Fucini, A.; Koninck, L. G. de; Stuckenberg, A.
- Cardiniopsis*.—Törnquist, A.
- Cardioceras*.—Crick, G. C.
- Cardiola*.—Beushausen, L.
- Cardiomorpha*.—Koninck, L. G. de; Stuckenberg, A.
- Cardiopteris*.—Potonié, H.
- Cardita*.—Almera, J., &c.; Bell, A. Nætling, F.; Vinassa de Regny, P. E.
- , —, *planicosta*, Autwerp Beds.—Hal-leux, A.
- Cardium*.—Almera, J., &c.; Frič, A.; Kinkelin, F.; Loriol, P. de; Nætling, F.; Penecke, K. A.; Söhle, U.
- Caribou Mt. (Idaho) gold.—Lakes, A.
- Caricella*.—Clark, W. B.
- Carinaria*.—Guppy, R. J. L., &c.
- Carinia*.—Stuckenberg, A.
- Carinifex*.—Brusina, S.
- Carinthia (Austria).—Geyer, G. Graber, H. V.
- , (—), Carboniferous foraminifera.—Schellwien, E.
- Carnic Alps.—Bittner, A.; Geyer, G.; Graber, H. V.
- Carniola (Austria).—Teller, F.
- Carolina (U.S.A.) sandbanks.—Cornish, V.
- , (—), North, corundum, &c.—Pratt, J. H.
- , (—), —, minerals.—Pratt, J. H.
- , (—), —, sperrylite.—Hidden, W. E.
- , (—), South.—Darton, N. H.
- Carpathians.—Athanasiu, S.; Rzehak, R.; Simionescu, J.; Uhlig, V.
- , Bacau district.—Teisseyre, W.
- , Klippen.—Uhlig, V.
- , S. (Rumania).—Munteanu, G.
- Cárpena, Spezia (Liguria).—Vinassa de Regny, P. E.
- Carpinus*.—Schlechtendal, D. R. V. von.
- Carpocanium*.—Rüst, H.
- Carpolithus*.—Newberry, J. S.
- Carposphæra*.—Rüst, H.
- Cassellette (Piedmont) magnesite.—Piolte, G.
- Caspian, Trans- (Asia). *See* Transcaspian.
- Cassel (Nord) Eocene.—Gosselet, J.
- Cassia*.—Frič, A.
- Cassidina*.—Woodward, H.
- Cassin, Fort (N.Y.).—Whitfield, R. P.
- Castle Mt. (Mont.).—Weed, W. H., &c.
- Castor*.—Depéret, C.; Harlé, É.
- Catalonia (Spain).—Almera, J., &c.; Cossmann, M.; Martel, E. A.; Puig y Larraz, G.
- Catenicella*.—Maplestone, C. M.
- Catini, Monte (Tuscany).—Achiardi, G. d'.
- Caucasus (Russia).—Bertrand, M.; Four-nier, E.; Macco, A.; Merzbacher, G.
- , (—), glaciers.—Anon., 38.
- , (—), igneous rocks.—Ammon, L. von.
- , (—), manganese.—Drake, F.; Stevens, C.
- , (—), petroleum.—Venukov, —.
- Caulopteris*.—Stenzel, K. G.
- Cautertaverent (Brabant).—Velge, G.
- Cave-fauna, Belgium.—Nehring, A.
- Caverns & caves.—Stamier, X.; Trickett, O.; Viola, C.
- , Arbois (near).—Viré, A.
- , Balearic Is.—Martel, E. A.
- , Broken Hill ore.—Baye, H. G.
- , Catalonia.—Martel, E. A.
- , Dauphiné.—Martel, E. A.
- , Eisleben.—Lang, O.
- , Fermanagh.—Plunkett, T.

- Caverns & caves, Gramat.—Albe, E.
 —, Han-sur-Lesse.—Martel, E. A.
 —, Kentucky.—Call, R. E.
 —, Luire (the), near La Chapelle-en-Vercoors.—Mellier, E.
 —, Majorca.—Martel, E. A.
 —, Maltese Is.—Cooke, J. H.
 —, Mas d'Azil.—Fischer, H.
 —, Pyrenees.—Viré, A., &c.
 —, Reilhac Grotto.—Cartailhac, É.
 —, Rotuma I.—Gardiner, J. S., &c.
 —, Sauve.—Martel, E. A., &c.
 —, Somerset.—Wilson, E.
 —, Wales (N.).—Pollen, G. C. H.
 —, Wookey Hole.—Pereira, C. P. A. de L.
 —, Yorkshire.—Cuttriss, S. W.
 Cavities, crystal.—Claypole, E. W.; Sorby, H. C.
 Cayenne (French Guiana).—Levat, E. D.
 Cea.—Canu, F.
 Cecina Valley (Pisa).—Achiardi, G. d'.
 Cedroylon.—Shirley, J.
Celastrorhynchium.—Hollick, A.; Newberry, J. S.
Celastrus.—Hollick, A.; Newberry, J. S.
 Celestite.—Lacroix, A.
 Cement, Caithness Flagstones bituminoid.—Goodchild, J. G.
 — materials, Arkansas.—Beecher, C. E.
 Cements, sedimentary rock.—Cayeux, L.
 Cementstone fossils, Moffat Glacial deposits.—Johnstone, J. T.
Cenellipsis.—Rüst, H.
 Cenomanian.—Dollfus, F.; Jukes-Browne, A. J.
 —, Bavarian Alps.—Söhle, U.
 — bryozoa. See Bryozoa.
 —, Honiton.—Jukes-Browne, A. J.
 —, Rumania.—Simionescu, J.
Cenosphæra.—Rüst, H.
 Cephalopoda.—Cossmann, M.; Crick, G. C.; Glangeaud, P.; Sarasin, C.; Siemiradzki, J. von; Törnquist, A.
 —, Carboniferous.—Foord, A. H.; Haug, E.; Stuckenberg, A.; see also Palæozoic.
 —, Cretaceous.—Böhm, J.; Choffat, P.; Frič, A.; Gilbert, G. K.; Kilian, W.; Könen, A. von; Kossmat, F.; Krause, P. G.; Mariani, E.; Newton, R. B.; Nœtling, F.; Parent, H.; Parona, C. F.; Peron, A.; Reid, C.; Sarasin, C.; Söhle, U.; Whiteaves, J. F.
 —, Devonian.—Dun, W. S.; see also Palæozoic.
 —, Eocene.—Clark, W. B.
 —, Jurassic.—Brasil, L.; Buckman, S. S.; Canavari, M.; Crick, G. C.; Dormal, V.; Fucini, A.; Newton, E. T.; Parona, C. F.; Pompeckj, J. F.; Roman, F.; Siemiradzki, J. von; Törnquist, A.; Toula, F.
 —, muscular shell-attachment.—Crick, G. C.
 —, Palæozoic.—Haug, E.; Koninck, L. G. de; Leyh, C. Fr.; see also Devonian, &c.
 Cephalopoda, Permian.—Diener, C.
 —, Permian-Carboniferous.—Stucken-berg, A.
 —, Secondary.—Michalski, A.; see also Cretaceous-Trias.
 —, Silurian.—Balta, J.; Holm, G.; Whiteaves, J. F.; see also Palæozoic.
 —, Trias.—Diener, C.; Geyer, G.; Palacios, P.; Philippi, E.; Toula, F.
Ceratites.—Diener, C.; Philippi, E.; Törnquist, A.
Ceratodus.—Emmons, S. F., &c.; Knight, W. C.
Ceratophycus.—Paul, C. M.
Ceratops.—Emmons, S. F., &c.
Ceratopsia.—Marsh, O. C.
Ceratopyge-limestone fauna.—Brögger, W. C.
Ceratosaurus.—Emmons, S. F., &c.
Ceratotrochus.—Struve, A.
Ceromya.—Futterer, C.
Cerriopora.—Struve, A.
Cerithium.—Almera, J., &c.; Bell, A.; Cossmann, M.; Frič, A.; Kaunhowen, F.; Nœtling, F.; Papp, K.; Reis, O. M.; Roman, F.; Scarabelli, G., &c.; Stefanescu, S.; Törnquist, A.; Vinassa de Regny, P. E.
 Cernay (Marne).—Gaudry, A.
Ceromya.—Futterer, C.
Ceromyopsis.—Loriol, P. de.
 Cerro Gordo Co. (Iowa).—Calvin, S., &c.
 Cerussite.—Artini, E.; Buttgenbach, H.; Riva, C.; Weed, W. H., &c.
Cervulus.—Beecher, C. E.
Cervus.—Beecher, C. E.; Hughes, G. P.; Kermode, P. M. C.; Lydekker, R.; Morton, G. H.; Woodward, H.
 —, antlers.—Beecher, C. E.
 Cetacea, Italian Pliocene.—Prato, A. del.
 —, Tertiary.—Sinzov, J.; Toula, F.
 Ceylon.—Melzi, S. C. G.; Modder, F. H.
 Chablais Alps (Savoy).—Schardt, H.
Chatetes.—Struve, A.; Whiteaves, J. F.
Chatetipora.—Struve, A.
 Chalcantinite.—Walker, T. L.
 Chalcotrichite.—Petterd, W. F.
 Chalk, Bavarian.—Söhle, U.
 —, Carpathians.—Athanassiū, S.
 — deposits.—Mansel-Pleydell, J. C.
 —, Eastbourne.—Reid, C.
 — echinodermata.—Lambert, J.; Schlüter, C.
 —, Étaves phosphatic.—Gosselet, J.
 —, flora & fauna of.—Parsons, H. F.
 — foraminifera.—Upton, C.
 — gasteropoda.—Kaunhowen, F.
 —, Honiton.—Jukes-Browne, A. J.
 —, Laon.—Gosselet, J.
 —, Paris Basin.—Cayeux, L.
 — quarries, Hesse.—Sheppard, T.
 —, Ribemont.—Rabelle, A.
 —, Skåne.—Hennig, A.; Möberg, J. C.
 — sponges, Lezennes.—Barrois, C.

- Chalk, water-levels, Royston.—Warren, H.
- Chalky alluvium, Oise R.—Rabelle, A.
- Chalky Boulder Clay, Western Midland Counties.—Woodward, H. B.
- Chama*.—Newton, R. B.; Nøtling, F.; Vinassa de Regny, P. E.
- Chamidæ, Tithonian.—Paquier, V.
- Champagnac de Bel-Air (Dordogne).—Glangeaud, P.
- Champlain Epoch.—Taylor, F. B.
- , Lake (N.Y.).—Whitfield, R. P.
- Submergence, Narragansett Bay.—Fuller, M. L.
- Channel Islands.—Dunlop, A.
- Chapelle-en-Vercois (Drôme), cavern near.—Mellier, E.
- Chara*.—Seward, A. C.
- Charentes, the (France), Portlandian.—Glangeaud, P.
- Charters Towers (Queensland).—Paull, W. J.
- Chartreuse (Isère).—Villars, D.
- Chatham (Va.).—Watson, T. L.
- Cheilocephalus*.—Berkey, C. P.
- Cheirostrobos*.—Scott, D. H.
- Cheirotherium*.—Morton, G. H.
- Cheiruridæ.—Reed, F. R. C.
- Chelan, Lake (Wash. Terr.).—Russell, I. C.
- Chelsea (Que.).—Ami, H. M.
- Cheltenham (Gloucester).—Buckman, S. S.
- Chemico-mineral relationships of rocks.—Iddings, J. P.
- Chemnitzia*.—Bell, A.; Frič, A.; Koken, E.
- Chenobia*.—Rothpletz, A., &c.
- Chenopus*.—Futterer, C.; Mayer-Eymar, C.
- Cherts, analyses.—Clarke, F. W., &c.
- , Marquette district.—Van Hise, C. R., &c.
- , &c., radiolarian.—Fox, H., &c.; Hinde, G. J.; Stephens, F. J.
- Chertsey Brewery-well (Surrey).—Martin, E. A.
- Chesham (Bucks).—Hopkinson, J.
- Cheshire coalfield.—Haddock, W. S.
- , post-Glacial beds.—Reade, T. M.
- Chester (Cheshire) *Elephas*.—Morton, G. H.
- Chevallieria*.—Cossmann, M.
- Chiatur (Transcaucasia).—Drake, F.
- Chicago (Ill.).—Lewis, J. F.
- Chihuahua (Mexico).—Stephenson, J. G. L.
- Chileutomia*.—Tate, R.
- Chili, Andes.—Moreno, F. P.; Wehrli, L., &c.
- , coal.—Sundt, L.
- , coalfields.—Gascoyne, R.; Walker, G. B.
- , gold.—Möricke, M.
- , igneous rocks.—Bruhns, W. Möricke, M.
- , iron.—Darapski, L.
- , Jurassic.—Fucini, A.
- Chili, mineral waters.—Martens, P.
- , minerals.—Smith, G. F. H.
- , ore-deposits.—Möricke, M.; Nordenskjöld, O.; Wiener, —.
- , Palæozoic.—Philippi, R. A.; Philippi, W. P.
- , silver.—Labastie, F.; Möricke, M.
- , Tertiary plants.—Philippi, R. A.
- Chillago (Queensland).—Jack, R. L.
- Chiltern Hills (Oxon).—Shrubsole, O. A.
- China.—Chisholm, G. G.; Duclos, —; Hedín, S.; Smith, A. D.
- , bird's egg in loess.—Eastman, C. R.
- , cinnabar.—Termier, P.
- China-clay.—Kraatz, K. von.
- China, coal.—Bishop, J. L.; Jameson, C. D.; Kurita, A.; McDonald, Sir C.; Richthofen, F. von.
- , iron.—Jameson, C. D.; Kurita, A.
- Chinameca (San Salvador).—Sapper, C.
- Chirodota*.—Upton, C.
- Chitonastrum*.—Rüst, H.
- Chitonellus*.—Stuckenberg, A.
- Chlamys*.—Fischer, H.; Vinassa de Regny, P. E.; Vincent, G.
- Chlomekian Beds, Bohemia.—Frič, A.
- Chlorargyrite-tuff.—Heusler, K.
- Chlorite-minerals.—Dalmer, K.
- Chloritoid.—Barrow, G.
- Choanopoma*.—Nicholas, H.
- Chokier (Liège), Carboniferous fishes.—Destinez, P.
- Chomatodus*.—Destinez, P.
- Chondrites*.—Frič, A.; Newberry, J. S.; Seward, A. C.; Stuckenberg, A.; Whiteaves, J. F.
- Chondrophyllum*.—Newberry, J. S.
- Chonetes*.—Diener, C.; Dun, W. S.; Stuckenberg, A.
- Chriacus*.—Matthew, W. D.
- Christiania (Norway).—Upham, W.
- (—), eruptive rocks.—Brögger, W. C.
- Chromite.—Derby, O. A., &c.
- iron-ore, Asia Minor.—Thomas, W. F. A.
- , Newfoundland.—Maynard, G. W.
- , New South Wales.—Carne, J. E.
- , Quebec.—Obalski, J.
- Chrysemys*.—Roman, F.
- Chuquet-Genestoux (Puy-de-Dôme).—Gonnard, A., &c.
- Cidaris*.—Lambert, J.; Loriol, P. de; Nøtling, F.; Roman, F.; Schlüter, C.
- 'Cimetières de Burtin.'—Vincent, É.
- Cimina (Mt.) region (Prov. Rome).—Fantappiè, L.; Zamboni, F.
- Cimoliosaurus*.—Sauvage, H. E.
- Cimolomys*.—Emmons, S. F., &c.
- Cimorron Series, Kansas.—Jones, T. R.
- Cincinnati (Oh.) meteorites.—Cohen, E.
- (—) Silurian.—Miller, A. M.
- Cinnabar.—Schmidt, A.; Sjögren, H.; Termier, P.
- , Hungary.—Gesell, A.

- Cinnabar, Tuscany.—Kloos, —.
- Cinnamomum*.—Frič, A.; Newberry, J. S.; Shirley, J.
- Cinque Valli (S. Tyrol).—Redlich, K. A.
- Cinulia*.—Reis, O. M.; Söhle, U.
- Ciply (Hainault), Chalk echinodermata.—Lambert, J.
- Cirripedia, Cretaceous.—Williston, S. W.
- Cissites*.—Frič, A.; Newberry, J. S.
- Cistella*.—Cossmann, M.; Vincent, E.
- Cladangia*.—Osasco, E.
- Cladiscothallus*.—Renault, B.
- Cladochonus*.—Koninck, L. G. de; Leyl, C. Fr.; Stuckenber, A.
- Cladodus*.—Destinez, P.; Newberry, J. S.
- Cladosporites*.—Seward, A. C.
- Clasaurus*.—Emmons, S. F., &c.
- Clapsavon (Monte), Carnia (Venetia).—Tommasi, A.
- Clarias*.—Depéret, C.
- CLARK, G. T.—Hicks, H.
- Clarkia*.—Koninck, L. G. de.
- Classification, geological.—Calvin, S. A.; Chambers, T. C.; Gilbert, G. K.; Howorth, Sir H. H.; Keyes, C. R.; Le Conte, J.; Marcou, J.; Williams, H. S.; Willis, B.; Williston, S. W.
- , Jurassic time.—Buckman, S. S.
- , Mississippian.—Keyes, C. R.
- , rock.—Cross, W.; Iddings, J. P.; Milch, L.; Williams, H. S.
- Clastes*.—Sauvage, H. F.
- Clathrocyclas*.—Rüst, H.
- Clathurella*.—Guppy, R. J. L., &c.
- Clavatula*.—Vinassa de Regny, P. E.
- Clavilithes*.—Vinassa de Regny, P. E.
- Claviporella*.—Maplestone, C. M.
- Clavulina*.—Fornasini, C.
- Clay, Belgian marsh.—Reade, T. M.
- , Brunswick.—Kraatz, K. von.
- , Ceylon.—Modder, F. H.
- , *See* China-clay.
- , concretions.—Panebianco, R.
- , Derbyshire limestones with.—Anon., 15.
- Clay-slates.—Rosenbusch, H.
- Clay soils.—Parsons, H. F.
- Clay-veins, Coal Measure.—Gresley, W. S.
- Clays.—Branner, J. C.
- , analyses.—Clarke, F. W., &c.
- , Brittany.—Barrois, C.
- , Carboniferous.—Kirkup, P.
- , Channel Islands.—Dunlop, A.
- , Colorado.—Emmons, S. F., &c.; Kirkup, P.; Ries, H.
- , Indiana.—Blatchley, W. S.
- , Iowa.—Bain, H. F.; Beyer, S. W.; Calvin, S.; Tilton, J. L.
- , Rhode I.—Shaler, N. S., &c.
- , Swedish banded.—Holmquist, P. J.
- Claxhough (Durham).—Woolacott, D.
- Cleangart (Kintyre).—Munthe, H.
- Clear Creek Cañon (Colo.).—Lakes, A.
- Cleavage.—Watts, W. W.
- Clee Hill (Salop).—Anon., 75.
- Cleiothyris*.—Whidborne, G. F.
- Clementia*.—Guppy, R. J. L., &c.; Pe-neck, K. A.
- Cliffwood (N. J.).—Hollick, A.
- Climacograptus*.—Wiman, C.
- Climatic changes.—Chamberlin, T. C.
- evolution.—Manson, M.
- Clinohedrite.—Penfield, S. L., &c.
- Clinometer, fieldwork.—Bobeck, O.
- Clinopistha*.—Whiteaves, J. F.
- Clipperton Atoll (Pacific).—Teall, J. J. H.; Wharton, Sir W. J.
- Clisiophyllum*.—Struve, A.
- Clisospira*.—Koken, E.
- Clupea*.—Bassani, F.; Sauvage, H. E.
- Clwyd, Vale of (N. Wales).—Morton, G. H.
- Clyde Basin coals, chemistry.—Anderson, W. C.
- Clymenia*.—Crick, G. C.
- Clypeaster*-sands, Egypt.—Fourtau, R.
- Clypeolampas*.—Nøtting, F.
- Cnemidiastrium*.—Oppliger, F.
- Coal.—Bertrand, C. E.; Claypole, E. W.; Forgie, J. T.
- , Africa (S.). *See* Coalfields.
- , Alaska.—Dall, W. H.; Emmons, S. F.
- , Altenberg.—Beck, R.
- , analyses, Austrian.—John, C. von.
- , Arizona.—Blake, W. P.
- , Asia Minor.—Krenke, G.
- , Assam.—Hayden, H. H.
- , Bengal.—Anon., 14.
- , Boulonnais.—Oly, A.
- , Brazil.—Katz, F.
- , British Columbia.—Gosnell, R. E.
- , California.—Horsewell, F. J.
- , Chili.—Sundt, L.; *see also* Coalfields.
- , China.—Bishop, J. L.; Jameson, C. D.; Kurita, A.; McDonald, Sir C.; Richthofen, F. von.
- , Clyde Basin.—Anderson, W. C.
- , Colorado.—Emmons, S. F., &c.
- , constitution.—Renault, B.
- , creeps, Hamstead Colliery.—Meachem, F. G.
- , England (S.E., &c.).—Anon., 16, 22; Dawkins, W. B.; Hudleston, W. H.
- , formation of.—Gresley, W. S.
- , France (N.).—Gosselet, J.
- , Gera-Reuss.—Zimmermann, E.
- , Great Britain, &c.—Atkinson, J. B., &c.; Foster, C. Le N., &c.
- , Hainaut.—Briart, A.
- , humic.—Bertrand, C. E.
- , India.—Anon., 14; Brough, B. H.; Dunstan, W. R.; Grundy, J.
- , interesting clay-veins in.—Gresley, W. S.
- , Iowa.—Calvin, S., &c.
- , Kansas.—Haworth, E., &c.
- , Measures, Arkansas.—Keyes, C. R.
- , England (S.).—Hudleston, W. H.
- , Kansas & Nebraska.—Beede, J. W.

- Coal Measures, seam nomenclature.—
Bolton, H.
—, Mondego (Cape).—Cattier, S.
—, Newfoundland.—Collins, J. H.;
Prowse, D. W.
—, New South Wales.—Atkinson, A.
A., &c.; Coghlan, T. A.
—, Nova Scotia.—Gilpin, E., Jun.
—, Ohio.—Roy, A.
—, Oregon.—Diller, J. S.
—, origin of.—Bertrand, E.; Lappa-
rent, A. de; Renault, B.
—, Peru anthracite.—Griffith, W.
—, Philippine Is.—Becker, G. F.
—, Pittsburg.—White, I. C.
—, pre-Carboniferous.—Ellis, W. H.
—, Rocky Mts.—Hosea, R. M.
—, Röntgen rays &.—Couriot, H.
—, Russia.—Murray, —.
—, strata, Halifax (Yorks).—Spencer,
J.
—, Tierra del Fuego.—Kyle, J. J. J.
—, Trias.—Benecke, E. W.
—, Victoria (Austr.).—Travis, J., &c.
—, Wallsend.—Ayton, H.; Forster, T.
E.
—, Washington Terr.—Anon., 56.
Coalfields, Africa (S.).—Anon., 27; *see*
also Transvaal, &c.
—, Barnsley.—Durnford, H. St. J.
—, Belgium.—Briart, A.
—, Bohemia.—Weithofer, K. A.
—, Bristol.—Anon., 16; Hudleston,
W. H.
—, Cheshire.—Haddock, W. S.
—, Chili.—Gascoyne, R.; Walker, G.
B.
—, China. *See* Coal.
—, Derbyshire.—Anon., 29.
—, Donetz.—Yakovlev, N.
—, Dover.—Greenwell, G. C.
—, France.—Bertrand, M.
—, Glamorgan.—Anon., 18.
—, Indian Terr.—Drake, N. F.
—, Kent.—Martin, E. A.
—, Lancashire.—Anon., 23; Bolton,
H.; Haddock, W. S.
—, Liège.—Menzies, —.
—, Notts.—Anon., 34.
—, Pennsylvania.—Hardt, A.
—, Rocky Mts.—Anon., 55.
—, Saarbrück.—Dütting, C.; Lep-
pla, A.
—, Siberia.—Anon., 21.
—, Silesia.—Gæbler, C.; Weithofer,
K. A.
—, Somerset.—Anon., 16, 22; Green-
well, G. C.
—, Staffs (N.).—De Rance, C. E.
—, Transvaal. — Anon., 27, 57;
Draper, D.; Gascoyne, R.; Peile, W.;
Prister, A.; Sawyer, A. R.
—, U.S.A. (Western).—Bain, H.
F., &c.
—, Wales (S.).—Anon., 16, 18, 20;
Galloway, W.; Jordan, H. K.; Stra-
han, A.
—, Westphalia.—Anon., 7.
Coalfields, Yorks.—Anon., 25.
Coast-changes, Belgium.—Rutot, A.
Cobalt, N.S.W.—Jaquet, J. B.
—, Schweina.—Beyschlag, F.
Cobalt-nickel mineral, Peterszeche, near
Burbach.—Heusler, K.
Cobaltiferous mineral, Messina.—La
Valle, G.
Coccodiscus.—Rüst, H.
Cocosteus.—Traquair, R. H.
Cocculus.—Frič, A.
Cockburnspath (Berwick).—Herries,
R. S.
Cœlacanthia.—Brusina, S.
Cœlacanthus.—Woodward, A. S.
Cœlenterata, Eocene.—Clark, W. B.
—, Permo-Carboniferous. — Stucken-
berg, A.
Cœlocentrus & Cœlochrysalis.—Koken,
E.
Cœloceras.—Pompeckj, J. F.
Cœlodonta.—Simonelli, V.
Cœlodus.—Priem, F.; Sauvage, H. E.
Cœlopeltis.—Depéret, C.
Cœlosphæridium.—Siegert, L.
Cœlostylina.—Koken, E.
Cœnites.—Koninck, L. G. de.
Cohenite.—Derby, O. A., &c.
Coimaidai (Victoria).—Officer, G., &c.
—, Limestone, marsupials.—Officer,
G., &c.
Colemanite.—Baumhauer, H.
Colembert (Boulonnais).—Parent, H.
Coleshill (Bucks).—Stebbing, W. P. D.
COLLARD, T. W.—Hicks, H.
Colodon.—Gaudry, A.
Colombia (C. Amer.).—Nicholas, F. E.;
Sapper, C.
Colorado (U.S.A.).—Emmons, S. F., &c.;
Lakes, A.; Sadtler, B.
— (—), analcite-basalt.—Cross, W.
— (—), clays.—Ries, H.
— (—), Cretaceous fauna.—Gilbert,
G. K.
— (—), Eocene fauna. — Osborn,
H. F.
— (—), gold & silver.—Cross, W.;
Emmons, S. F.
— (—), water.—Gilbert, G. K.
Colubrella.—Koken, E.
Colubrella.—Almera, J., &c.; Bell, A.;
Mayer-Eymar, C.
Columbellaria.—Kaunhowen, F.
Columbia (British). *See* British Colum-
bia.
— R. (U.S.A.) terrace.—Russell, I.
C.
— Formation.—Mabry, T. O.
Columnaria.—Weissermel, W.
Colutea.—Newberry, J. S.
Colville Reservation (Wash. Terr.).—
Turner, W. B.
Colwyn Bay (N. Wales). — Reade,
T. M.
Comanche Beds, Kansas.—Gould, C. N.
Como, Lake (Lombardy), model of.—
Porro, C.
Concretions, clay.—Panebianco, R.

- Condé, Vieux- (Nord).—Anon., 2.
 Condroz massif (Namur).—Bather, F. A.;
 Forir, H.; Ladrière, J.; Malaise, C.;
 Velge, G.
 Conductivity, rock thermal.—Morano,
 F.
 Cone-in-cone.—Gresley, W. S.; Harnly,
 H. J.
Confervites.—Seward, A. C.
Congeria.—Brusina, S.; Papp, K.
 Conglomerates, auriferous marine.—
 Sundt, L.; *see also* Transvaal, &c.
 —, Bucegi.—Popovici, V.
 —, Cornwall.—Hanbly, W. T.
 —, Ferret Valley (Valais).—Duparc,
 L., &c.
 —, Galena Series.—Sardeson, F. W.
 —, Gold Coast auriferous.—Sam, T.
 B. F.
 —, Transvaal auriferous.—Becker, G.
 F.; Denny, G. A.; Draper, D.; Hanbly,
 W. T.; Hatch, F. H.; Lloyd, H.;
 Sawyer, A. R.
 Congo (W. Africa).—Cornet, J.; Stai-
 nier, X.
 Congress, Geological.—Baldacci, L.;
 Barrois, C.; Beck, R.; Belinfante, L.
 L.; Bertrand, M.; Boule, M.; Frazer,
 P.; Gurney, H. P.; Harris, G. F.;
 Macco, A.; Palache, C.; Sabatini, V.;
 Vinassa de Regny, P. E.
 —, —.—Finland; Russia, &c.
 —, —.—(Excursions, 1900).—Barrois,
 C.
 Connecticut R. (Mass.), post-Glacial.
 —Jefferson, M. S. W.
Conocardium.—Stuckenber, A.
Conocephalites.—Berkey, C. P.; Mat-
 thew, G. F.
Conoclypeus.—Gregory, J. W.
Conocoryphe.—Matthew, G. F.
Conorbis.—Reid, C.
Conoryctes.—Wortman, J. L.
Conosphera.—Rüst, H.
 Constantine (Algeria).—Ficheur, E.
 — (—), saline lakes.—Blayac, J.
 — (—), Sidi-Rgheiss dome.—
 Blayac, J.
 Constantinople (Turkey).—Philippson,
 —.
 Contact-metamorphism.—Dalmer, K.
 —, granite.—Lacroix, A.
 Continents.—Cole, G. A. J.
 — connexion of S. Africa & S. Ame-
 rica.—Lydekker, R.
 — elevation.—Spencer, J. W.
 —, origin.—Van Hise, C. R.
Conularia.—Koninck, L. G. de; Whit-
 eaves, J. F.
Conus.—Mayer-Eymar, C.; Nötling,
 F.; Papp, K.; Scarabelli, G., &c.;
 Vinassa de Regny, P. E.
 Coolgardie (W. Austr.).—Fielding, P.;
 Finnerty, J. M.; Halse, E.; Hare, F.;
 Maitland, A. G.; Owen, W. L.; *see*
also Australia (W.).
 COPE, E. D.—Hicks, H.
Copodus.—Eastman, C. R.
 Copper boulder, Ontonagon.—Moore, C.
 —, British Columbia.—Austin, W.
 L.; Gosnell, R. E.
 —, Burra-Burra.—Mügge, O.
 —, Chili.—Nordenskjöld, O.
 —, Congo.—Stainier, X.
 —, Cornwall, &c.—Collins, J. H.
 —, Cuba.—Cabrera, R.
 —, Franklin Furnace native.—Wolff,
 J. E.
 —, Great Orme's Head lodes.—Mor-
 ton, G. H.
 —, Inguaran.—Cumenge, E.
 —, Lake Superior.—Wadsworth, M. E.
 —, Minnesota.—Elftman, A. H.
 —, Mt., Cripple Creek.—Lakes, A.
 —, New Mexico.—Herrick, C. L.
 —, New South Wales.—Coghlan, T.
 A.; Jaquet, J. B.
 —, Norrbotten.—Pettersson, W.
 —, Norway.—Vogt, J. H. L.
 —, ores & eruptive rocks, &c.—
 Möricke, M.
 —, Perm.—Stuckenber, A.
 —, Tasmania.—Mackenney, C. H. W.
 Coprolites.—Udden, J. A.
 — (U.S.A.), Eocene.—Clark, W. B.
Coptosoma.—Gregory, J. W.; Lambert,
 J.
 Coral-islands.—Agassiz, A.; Hedley, C.;
 Teall, J. J. H.; Wharton, Sir W. J.
 Coral-reefs.—Agassiz, A.; Goodchild,
 J. G.; Lydekker, R.
 —, Fiji Is.—Agassiz, A.
 —, Funafuti boring.—Anon., 36, 72;
 Bouney, T. G.; Sollas, W. J.
 —, Gotland Silurian.—Wiman, C.
 Corallian, Upware.—Wedd, C. B.
 Coralline Crag, England (E.).—Harmer,
 F. W.
Coralliophaga.—Clark, W. B.
 Corals.—Ogilvie, M. M.; Struve, A.
 —, Carboniferous.—Beede, J. W.;
 Fraipont, J., &c.; *see also* Palæozoic.
 —, Cretaceous.—Gregory, J. W.;
 Koby, F.; Nötling, F.; Söhle, U.
 —, Palæozoic.—Bernard, H. M.;
 Koninck, L. G. de; Leyh, C. Fr.;
 Weissner, W.; *see also* Carbonife-
 rous, &c.
 —, Permo-Carboniferous.—Stucken-
 berg, A.
 —, Silurian.—Dun, W. S.; Whit-
 eaves, J. F.
 —, Siluro-Devonian.—Etheridge, R.,
 Jun.; *see also* Palæozoic.
 —, Tertiary.—Abel, O.; Angelis
 d'Ossat, G. de; Gregory, J. W.; Hall,
 T. S.; Osasco, E.; Penecke, K. A.;
 Rothpletz, A., &c.; Stanton, T. W.;
 Tate, R.
 —, Trias.—Felix, J.
Corax.—Priem, F.
 Corbières (Aude), eastern extension in
 Provence.—Bresson, A.; Doncieux, L.
Corbis.—Mayer-Eymar, C.
Corbula.—Almera, J., &c.; Cossmann,
 M.; Frič, A.; Krause, P. G.; Loriol,

- P. de; Söhle, U.; Vinassa de Regny, P. E.
- Cordaites*.—Seward, A. C.
- Cordieria*.—Cossmann, M.; Tate, R.
- Cordierite*.—Gemböck, H.; Moulden, J. C.
- Corinth (Greece).—Lacroix, A.
- Cornophyllum*.—Newberry, J. S.
- Cornutanna* & *Cornutella*.—Rüst, H.
- Cornwall.—Enys, J. D.
- , conglomerates.—Hanbly, W. T.
- , deep-mining.—Thomas, W.
- , gold & mining in.—Pearce, R.
- , gravels.—Salter, A. E.
- , ore-deposits, &c.—Collins, J. H.
- , Palaeolithic man absent.—Somerville, A.
- , radiolarian cherts, &c.—Fox, H., &c.; Hinde, G. J.; Stephens, F. J.
- , submerged valleys.—Codrington, W.
- Coronaria*.—Koken, E.
- Coronium.—Nasini, —.
- Corundum.—Pratt, J. H.; Thomas, W. F. A.
- Cosmacanthus*.—Traquair, R. H.
- Cosmoceras*.—Brasil, L.
- Costa Rica (C. Am.).—Hill, R. T., &c.; Polakowski, H.; Sapper, C.
- Costazia*.—Angelis d'Ossat, G. de, &c.
- Cotteswold District (Gloucester).—Buckman, S. S.; Colchester-Wemyss, M. W.; Hudleston, W. H.
- Cottian Alps.—Novarese, V.
- alluvium.—Stella, I. A.
- Coulin Forest (Ross) valley-moraines.—Horne, J.
- Courland (Baltic Prov.).—Toll, E. von.
- Cousolre (Nord).—Delangle, —, &c.
- Couvin (Namur).—Delangle, —, &c.
- Crag, Anglo-Belgian Basin.—Harmer, F. W.
- foraminifera.—Jones, T. R., &c.
- , Suffolk.—Harmer, F. W.
- Craigleith Quarry (Edinburgh).—Brown, C.
- Crassatella*.—Clark, W. B.; Frič, A.; Guppy, R. J. L., &c.; Mayer-Eymar, C.; Penecke, K. A.; Reid, C.; Stanton, T. W.; Vincent, E.
- Crater Lake (Or.).—Anon., 66.
- Craticularia*.—Oppliger, F.
- Credneria*.—Frič, A.
- Cretaceous.—Marcou, J.
- , Aisne.—Gosselet, J.; Rabelle, A.
- , Algeria.—Peron, A.; Welsch, J.
- , ammonites. *See* Ammonites.
- , Argelès Valley.—Stuart-Menteth, P. W.
- , Argonne.—Fliche, P.
- , Australia (S.).—Brown, H. Y. L., &c.
- , Austria (Lower).—Bittner, A.
- , birds. *See* Birds.
- , Block I.—Hollick, A.
- , Berneo.—Krause, P. G.
- , Bouffiuoux. — Dorlodot, H. de; Mourlon, M.; Vincent, E.
- Cretaceous brachiopoda.—Rouville, P. G. de.
- , bryozoa. *See* Bryozoa.
- , California.—Merriam, J. C.
- , cephalopoda. *See* Cephalopoda.
- , classification. — Dollfus, G. F.; Jukes-Browne, A. J.
- , Colorado.—Emmons, S. F., &c.
- , Constantine.—Blayac, J.
- , corals. *See* Corals.
- , crustacea. *See* Crustacea.
- , Cruden.—Mitchell, D. J.
- , cuttle-fish.—Whiteaves, J. F.
- , Dakota.—Ward, L. F.
- , Dauphiné.—Paquier, V.
- , Dévoluy.—Lory, P.
- , Dinosaurs.—Emmons, S. F., &c.
- , Dordogne.—Glangeaud, P.
- , Dorset.—Jukes-Browne, A. J.; Mansel-Pleydell, J. C.; Newton, R. B.
- , Eastbourne.—Reid, C.
- , echinoidea. *See* Echinoidea.
- , England, &c.—Geikie, Sir A.
- , fauna, Baluchistan.—Nørling, F.
- , Bavaria.—Reis, O. M.
- , Bavarian Alps.—Söhle, U.
- , Bohemia.—Frič, A.
- , Borneo.—Krause, P. G.
- , Colorado.—Gilbert, G. K.
- , Dorset.—Newton, R. B.
- , Egypt.—Newton, R. B.
- , Moreseat. — Jukes-Browne, A. J., &c.
- , Pacific coast (U.S.A.). — Stanton, T. W.
- , Rumania.—Simionescu, J.
- , Switzerland.—Koby, F.
- , fishes. *See* Fishes.
- , folds, Aquitaine.—Glangeaud, P.
- , foraminifera. *See* Foraminifera.
- , fossils, Aberdeenshire. — Jukes-Browne, A. J., &c.
- , Maryland Eocene. — Bagg, R. M.
- , France.—Bigot, A.; Gosselet, J.; Grossouvre, A. de; Welsch, J.
- , gasteropoda. *See* Gasteropoda.
- , Honiton.—Jukes-Browne, A. J.
- , Iowa.—Calvin, S., &c.
- , Jamaica.—Whitfield, R. P.
- , Kansas.—Adams, G. I.; Gould, C. N.; Haworth, E., &c.; Stewart, A.; Wagner, G.
- , Klippen, Carpathians.—Uhlig, V.
- , lamellibranchiata. *See* Lamellibranchiata.
- , —, NILSSON'S Swedish.—Henning, A.
- , limits.—Haug, E.
- , mammalia. *See* Mammalia.
- , Medusa.—Walcott, C. D.
- , Mexico.—Böhm, G.
- , Minnesota.—Sardeson, F. W.
- , Moldavia.—Athanasiiu, S.
- , Montpellier.—Rouville, P. G. de.
- , New Jersey.—Hollick, A.
- , ostracoda. *See* Ostracoda.
- , plants. *See* Plants.

- Cretaceous, Portugal.—Choffat, P.; Sauvage, H. E.
 —, Provence.—Doncieux, L.; Vasseur, G.
 —, Pyrenees, &c.—Arnaud, H.
 — radiolaria.—Rüst, H.
 — reptilia. *See* Reptilia.
 —, Queensland.—Etheridge, R., jun.
 — rock-constituents.—Cayeux, L.
 —, Ruhr Coalfield.—Middelschulte, A.
 —, Rumania.—Anastasiu, V.; Marion, A. F.; Popovici, V.
 — *Salenia*.—Arnaud, H.
 —, Santa Croce.—Böhm, G.
 —, Selter.—Kört, W.
 —, Skåne.—Hennig, A.
 —, Spain.—Nicklès, R.
 — sponges. *See* Sponges.
 —, Tunis.—Pervinquièrre, L.
 —, Upper.—Dollfus, G.
 —, Virginia.—Fontaine, W. M.
 —, Wight (I. of).—Shepherd, J. E.
 Crèveceur (Nord).—Lagaisse, —.
 Cricetidae.—Woldrich, J. N.
Cricotus.—Williston, S. W.
 Crimea (S. Russia).—Andrussov, N.; Barrois, C.; Bertrand, M.; Bogoslovski, N. A.; Macco, A.
 Crinoidea.—Anon., 59; Bather, F. A.; Fraas, O.; James, J. F.
 —, Cretaceous.—Reid, C.
 —, Devonian.—Weller, S.
 —, Jurassic.—Pempeckj, J. F.
 —, Palæozoic.—Bather, F. A.; Koninck, L. G. de; Weller, S.; Whiteaves, J. F.
 —, Tertiary.—Nicolas, H.
Crioceras.—Crick, G. C.; Parona, C. F.
 Cripple Creek (Colo.).—Chester, A. H.; Lakes, A.
 — (—), granitic breccias.—Stone, G. H.
Cristellaria.—Bagg, R. M., Jun.; Schrodtt, J.; Grzybowski, J.
 Croatia (Austria).—Brusina, S.
 — (—), Tertiary.—Gorjanovič, C.
Crocodylus.—Sauvage, H. E.
Cromechinus.—Rüst, H.
Cromus.—Koninck, L. G. de.
Cromyosphæra.—Rüst, H.
 Cross, J. E.—Hicks, H.
 CrossE, J. C. H.—Anon., 45.
Crotalocrinus.—Bather, F. A.
 Crowborough (Sussex).—Herries, R. S.
 Crozon, I. (Finistère).—Kerforne, F.
 Cruden (Aberdeen), Cretaceous.—Mitchell, D. J.
 Crust, earth's.—Lomas, J.; Michel-Lévy, A.; *see also* Earth.
 Crustacea.—Jones, T. R.; Woodward, H.
 —, blind.—Reed, F. R. C.
 —, Cambrian.—Etheridge, R., Jun.; Matthew, G. F.; Möberg, J. C., &c.; Schuchert, C.; *see also* Palæozoic.
 Crustacea, Carboniferous.—Calman, W. T.; Jones, T. R., &c.
 —, Cretaceous.—Chapman, F.; Frië, A.; Kört, W.; Williston, S. W.; Woodward, H.
 —, decapod.—Carter, J.
 —, Greensand.—Woodward, H.
 —, Jurassic.—Kört, W.; Woodward, H.
 —, Palæozoic.—Delgado, J. F. N.; Jones, T. R.; Kayser, E.; Kerforne, F.; Koninck, L. G. de; Möberg, J. C.; Reed, F. R. C.; Schuchert, C.; Whiteaves, J. F.
 —, Tertiary.—Clark, W. B.; Delheid, E.; Grzybowski, J.; Ristori, G.; Vinassa de Regny, P. E.
 —, Trias.—Jones, T. R.; Salinas, E.
Cryptocapsa.—Rüst, H.
Cryptodiscus.—Anon., 59; Weller, S.
Cryptograptus.—Elles, G. L.
Cryptoxylon.—Kidston, R.
 Crystalline rocks.—Berwerth, F.; Rosenbusch, H.
 —, gases.—Travers, M. W.
 —, Navarre.—Palacios, P.
 —, Paimpol.—Barrois, C.
 —, *See also* Igneous Rocks.
 — structure, gold and platinum nuggets.—Liversidge, A.
 Crystallography.—Barlow, W.; Baumhauer, H.; Billows, E.; Brauns, R.; Claypole, E. W.; Eppler, A.; Fedorov, E. von; Goldschmidt, V.; Groth, P.; Klein, C.; Lacroix, A.; Luedecke, O.; Moses, A. J.; Mügge, O.; Panebianco, R.; Schenflies, A.; Schroeder van der Kolk, J. L. C.; Viola, C.; Voigt, W.; Wadsworth, M. E.; Wallerant, F.
 Crystals.—Beckenkamp, J.; Claypole, E. W.; Goldschmidt, V.
 —, etched figures.—Gaubert, P.; Vater, H.
 —, liquid in cavities.—Claypole, E. W.; Sorby, H. C.
 —, snow.—Nordenskjöld, G.
 —, structure.—Barlow, W.; Sollas, W. J.
 —, twinning.—Goldschmidt, V.
 Csakvár (Hungary).—Papp, K.
 Csanad & Csongrád (Hungary).—Inkey, B. von.
Ctenacanthus.—Newberry, J. S.
Ctenacodon.—Emmons, S. F., &c.
Ctenodentex.—Storns, R.
Ctenodus.—Eastman, C. R.; Newberry, J. S.
 Cuba (W. I.).—Anon., 54; Cabrera, R.
Cucullæa.—Clark, W. B.; Hennig, A.; Lorient, P. de; Newton, R. B.; Schlegel, U.; Stanton, T. W.; Törnquist, A.
 Cue (W. A.).—Maitland, A. G.; Reed, F.
 Culm, Carnic Alps.—Geyer, G.
 —, Devon.—Somervail, A.
 —, Esnost.—Renault, B., &c.
Cultrigera.—Kaunhowen, F.

- Cumberland.—Geikie, Sir A.
 —, moraines.—Upham, W.
- CUNLIFFE, B.—Hicks, H.
- Cunninghamites.—Hollick, A.; Newberry, J. S.
- Cuprite.—Lacroix, A.; Mügge, O.
- Cuspidaria.—Hennig, A.
- Custer Co. (Colo.).—Cross, W.; Emmons, S. F.
- Cutch (India).—Blake, J. F.
- Cyanite.—Pratt, J. H.; Walker, T. L.
- Cyathaxonia.—Koninck, L. G. de.
- Cyathocrinus.—Koninck, L. G. de; Stuckenberg, A.
- Cyathophycus.—Beecher, C. E.
- Cyathophora.—Weissermel, W.
- Cyathophyllide.—Weissermel, W.
- Cyathophyllum.—Dun, W. S.; Koninck, L. G. de.
- Cycadaceæ.—Newberry, J. S.
 — horizon, Rocky Mts., Cretaceous.
 —Marsh, O. C.
- Cycadeoidea.—Seward, A. C.
- Cycadinocarpus.—Newberry, J. S.
- Cyclammia.—Grzybowski, J.
- Cyclastrum.—Rüst, H.
- Cycloceras.—Diener, C.; Parona, C. F.
- Cyclolites.—Koby, F.; Nætling, F.
- Cyclone-belts, geological.—Manson, M.
- Cyclonema.—Koken, E.
- Cycloseris.—Söhle, U.
- Cyclospheroma.—Woodward, H.
- Cylichna.—Clark, W. B.; Frič, A.
- Cylindrobullina.—Koken, E.
- Cylindrophylla.—Oppliger, F.
- Cyllene.—Scarabelli, G., &c.
- Cymbularia.—Koken, E.
- Cymopolia.—Seward, A. C.
- Cynodictis.—Scott, W. B.
- Cypellia.—Oppliger, F.
- Cyphosolenus.—Futterer, C.
- Cyphosoma.—Lambert, J.
- Cypræa.—Almera, J., &c.; Cossmann, M.; Fischer, H.; Kaunhowen, F.
- Cyprædia & Cypræovula.—Cossmann, M.
- Cyprella.—Jones, T. R.
- Cypricardia.—Philippi, E.
- Cypridea.—Kert, W.
- Cypridella, Cypridellina, & Cypridina.—Jones, T. R.
- Cypridina, shower of fossil.—Lortet, —.
- Cypridinella.—Jones, T. R.
- Cyprimeria.—Frič, A.
- Cyprina.—Frič, A.; Nætling, F.; Sharman, G., &c.
- Cypris.—Kert, W.
- Cyrosina & Cyprosis.—Jones, T. R.
- Cyrena.—Almera, J., &c.; Krause, P. G.; Reid, C.
- Cyrtocalpis & Cyrtocapsa.—Rüst, H.
- Cyrtoceras.—Koninck, L. G. de.
- Cyrtolites.—Koken, E.
- Cyrtophormis.—Rüst, H.
- Cystideans. See Crinoidea.
- Cystocrinus.—Bather, F. A.
- Cythara.—Guppy, R. J. L., &c.
- Cythere.—Chapman, F.; Dawson, Sir J. W., &c.
- Cytherea.—Clark, W. B.
- Cytherella.—Grzybowski, J.; Jones, T. R., &c.
- Czekanowskia.—Newberry, J. S.
- Dacite, Elbrus Mt.—Ammon, L. von.
- Dactylodus.—Newberry, J. S.
- Dactylodites.—Walcott, C. D.
- Dakota (U.S.A.).—Frazer, P.; Ries, H.; Smith, F. C.
- (—), artesian basin.—Darton, N. H.
- (—), Cretaceous.—Gould, C. N.
- (—), moraines.—Todd, J. E.
- Dalliella.—Cossmann, M.
- Dalmanites.—Clarke, J. M.
- Dalmatia (Austria).—Brusina, S.; Kerner, F. von.
- Dalradian Schists.—Geikie, Sir A.
- Dammara.—Hollick, A.; Newberry, J. S.
- Danilo (Dalmatia).—Kerner, F. von.
- Danubites.—Diener, C.
- Daphænus.—Scott, W. B.
- Daptinus.—Stewart, A.
- Dart R. (Devon).—Codrington, W.
- Dartmoor (Devon) granite.—Somerville, A.
- Datolite.—Farrington, O. C.; Petterd, W. F.
- Daubitz (Saxony).—Herrmann, O.
- Dauphiné (France) Alps.—Kilian, W.
- (—), Urganian.—Paquier, V.
- (—), caves.—Martel, E. A.
- DAUBRÉE, A.—Lapparent, A. de; Valot, J.
- Davos Valley (Grisons).—Jennings, A. V.
- De Beer's Mine (Kimberley) mud-rushes.—Sutton, J. R.
- De Lank granite-quarries (Cornwall).—Anon., 78.
- Dechenella.—Leyh, C. Fr.
- Decima (Rome).—Clerici, E.
- Deep-sea deposits.—Millett, F. W.; Zimmermann, E.
- , Barbados.—Franks, G. F., &c.
- Deer (Red).—Hughes, G. P.
- Deer-horns.—Beecher, C. E.
- Dekanyesd (Hungary).—Szontagh, T. von.
- Delabole slate-quarry (Cornwall).—Anon., 76.
- Delaware (U.S.A.).—Clark, W. B.; Darton, N. H.
- Dellys (Algeria).—Gentil, L.
- Delphinula.—Cossmann, M.; Koken, E.
- Deltas, Glacial lake.—Fairchild, H. L.
- Deltocyathus.—Söhle, U.
- Deltodus.—Newberry, J. S., &c.
- Dendritic markings.—Raisin, C. A.
- 'Dene Holes.'—Dawson, C.; Holmes, T. V.
- Dendrophrya.—Grzybowski, J.
- Dendrophyllia.—Söhle, U.; Struve, A.
- Dendropora.—Koninck, L. G. de.

- Denmark, heaths.—Saraaw, G. F. L.
 Denny-Dalton goldfields (S.A.R.).—
 Denny, G. A.
Dentalina.—Grzybowski, J.
Dentalium.—Kaunhowen, F.; Koninck,
 L. G. de; Stuckenbergh, A.; Vinassa
 de Regny, P. E.
Dentex.—Storms, R.
 Denudation.—Brunhes, J.; Kittler, C.;
 Tarr, R. S.; Watts, W. W.
 —, Canada.—Chalmers, R.
 —, glacier.—Pretto, O. de.
 —. See Rock-weathering.
 —, St.-Pierre de Livron. — Martel,
 E. A.
 —, water surface-tension. — Ladd,
 G. E.
 Denver (Colo.), Mineralogical Museum.
 —Lakes, A.
 Denver Basin (Colo.).—Emmons, S. F.,
 &c.
 Depression, land. See Subsidence.
 Derbyshire, Carboniferous.—Hind, W.
 —, — Limestone quartz-rock.—
 Arnold-Bemrose, H. H.
 — coalfield.—Anon., 29.
 — limestones.—Anon., 15.
Dercetis.—Woodward, A. S.
 Derrinal Conglomerate, N.S.W.—Dunn,
 E. J.
 DES CLOIZEAUX, A. L. O.—Anon., 43;
 Bäckström, H.; Barrois, C.; Hicks,
 H.; Lacroix, A.; Miers, H. A.
 Des Moines (Iowa).—Bain, H. F.;
 Keyes, C. R.
 Des Moines Stage, Iowa.—Calvin, S.,
 &c.
 Desert conditions, Britain.—Goodchild,
 J. G.
 Deserts.—Walther, J.
 —, origin.—Ochsenius, C.
 —, Russia (Central).—Rein, J.
Desmoceras.—Köenen, A. von; Koss-
 mat, J.; Sarasin, C.; Söhle, U.
 Deutozoic.—Watts, W. W.
 Dévoluy (Hautes-Alpes).—Lory, P.
 Devon.—Hudleston, W. H.; Ussher,
 W. A. E.
 —, Culm conglomerates, &c.—Somerv-
 vail, A.
 —, Eocene.—Reid, C.; Teall, J. J. H.
 —, glaciation.—Worth, R. H.
 —, gravels.—Salter, A. E.
 —, ore-deposits.—Collins, J. H.
 —, submerged valleys.—Codrington,
 W.
 Devonian bituminoid cement.—Good-
 child, J. G.
 —, Brazil.—Siemiradzki, J. von.
 — classification, Westphalia.—
 Hundt, R.
 — corals.—Weissermel, W.
 —, Courland.—Toll, E. von.
 — crinoidea. See Crinoidea.
 —, England (W.).—Hudleston, W. H.
 —, — (&c.).—Geikie, Sir A.
 —, Esneux.—Vallée Poussin, C. de la.
 — fauna, America (S.).—Kayser, E.
 Devonian fauna, England (S.).—Whid-
 borne, G. F.
 — —, Hof a. Saale.—Leyh, C. Fr.
 — —, Kentucky.—Girty, G. H.
 — —, New South Wales.—Dun,
 W. S.; Etheridge, R., Jun.; Koninck,
 L. G. de.
 — fishes. See Fishes.
 — —, Rock I. (Ill.).—Udden, J. A.
 —, Germany.—Frech, F.
 —, Gippsland auriferous.—Herman,
 H.
 —, Harz.—Kayser, E.
 —, Indiana.—Bennett, L. F.; Jones,
 L. H.
 —, Iowa.—Calvin, S.
 —, Namur.—Forir, H.
 — ostracoda. See Ostracoda.
 — plants.—Kidston, R.; Seward, A.
 C.
 — phyllopoda. See Phyllopoda.
 — pteropoda. See Pteropoda.
 —, Rhenish Prussia.—Winterfeld, F.
 — sands.—Goodchild, J. G.
 — sandstones.—Mackie, W.
 —, Spain.—Mallada, L.
 — trilobites. See Trilobites.
Dewalquea.—Newberry, J. S.
 Diabase.—Rosenbusch, H.
 —, Malmédy.—Dewalque, G.
 —, pegmatite in.—Jaggar, T. A., Jun.
 — weathering.—Beyer, S. W.
 — —, Chatham (Va.). — Watson,
 T. L.
Dialopsis.—Cossmann, M.
 Diamantiferous rock - minerals. —
 Currie, J.
 Diamonds.—Crookes, W.; Hintze, C.;
 Joly, J.; Ochsenius, C.
 —, artificial production.—Fried-
 länder, I.; Majorana, Q.
 —, Brazilian, evidence of origin.—
 Derby, O. A.
 — deposits, Griqualand West.—
 Beck, R.
 — mines, mud-rushes. — Sutton,
 J. R.
 —, New South Wales.—Coghlan, T.
 A.; Jaquet, J. B.; Watt, J. A.
 —, Orange Free State & Griqualand.
 —Lacroix, A.
 —, origin.—Derby, O. A.; Mercer, T.
 —, Röntgen rays &c.—Couriot, H.
 —, Transvaal.—Bawden, F. W.;
 Draper, D.; Lloyd, H.; Molengraaf,
 G. A. F.; Prister, A.
Dianulites.—Struve, J.
 Diaphorite.—Spencer, L. J.
Diastopora.—Canu, F.
 Diatomaceæ.—Clerici, E.
 —, Dismal Swamp.—Woolman, L., &c.
 —, Montalto.—Clerici, E.
 Diatomaceous deposits, New Jersey.—
 Anon., 63.
 — —, Rome.—Clerici, E.
Dicellocephalus.—Berkey, C. P.
 Diceratidæ, Tithonian.—Paquier, V.
Dichograptus.—Elles, G. L.

- Dicolocapsa*, *Dictyastrum*, *Dictyoceras*, & *Dictyomitra*.—Rüst, H.
Dictyonema.—Wiman, C.
Dictyophyllum.—Shirley, J.
Dictyopleurus.—Loriol, P. de.
Dictyospongia.—Beecher, C. E.
Dicynodon-beds fauna, Cape Colony.—Seeley, H. G.
Dicynodont reptilia.—Seeley, H. G.
Didymograptus.—Elles, G. L.
Dielasma.—Diener, C.; Etheridge, R., Jun.; Stuckenberg, A.
Dillwynella.—Guppy, R. J. L., &c.
 Diluvial, Erzgebirge.—Beck, R.
 — fauna, Bohemia.—Nehring, A.; Woldrich, J. N.
 —, Hessler nr. Biebrich-Mosbach.—Kinkelin, F.
 —, Freyburg.—Fritsch, J. von.
 — mammalia, Mosbach.—Schröder, H.
 —, Saxony.—Siegert, L.
 —. See Quaternary.
 Dimbovitza R. (Rumania).—Popovici, V.; Simionescu, J.; Ștefănescu, G.
Dimorphastrea.—Koby, F.
Dimorphina.—Schrodt, J.
 Dimorphism in foraminifera. — Van den Broeck, E.
Dimorphoceras.—Haug, E.
Dimorphosoma.—Kaunhowen, F.; Söhle, U.
Dinichthys.—Dean, B.
Dinictis.—Lucas, F. A.
Dinoceras.—Boule, M.
Dinocystis.—Bather, F. A.
 Dinosauria.—Jesup, M. K.; Marsh, O. C.
 —, Cretaceous.—Williston, S. W.
 —, — & Jurassic.—Emmons, S. F., &c.
 — spines.—Beecher, C. E.
Diodon.—Rothpletz, A., &c.
 Diopside.—Brauns, R.
 Diorite.—Cole, G. A. J.; Rosenbusch, H.
 —, California.—Turner, H. W.
 —, Odenwald.—Chelius, C.
 Dioritic rocks, Pusterthal.—Cathrein, A.; Spechtenhauser, B.
Diospyros.—Newberry, J. S.
Dipeltis.—Gahan, C. J.; Schuchert, C.
Diphyphyllum.—Struve, A.; Whitcaves, J. F.
Diplocynodon & *Diplodiscus*.—Emmons, S. F., &c.
Diplodonta.—Clark, W. B.; Mayer-Eymar, C.
Diplograptus.—Elles, G. L.
Diplopelturus.—Depéret, C.
Diplopora.—Seward, A. C.
Diploria.—Penecke, K. A.
Diplosaurus.—Emmons, S. F., &c.
Diploxylon.—Renault, B., &c.
Dipterus.—Eastman, C. R.
Discina.—Koninck, L. G. de.
Discoceeras.—Whiteaves, J. F.
Discophyllum.—Walcott, C. D.
Discorbina.—Chapman, F.
 Dismal Swamp (U.S.A.).—Woolman, L.
Dissacus.—Matthew, W. D.
Dissochilus.—Tate, R.
Distichoceeras.—Cossmann, M.; Crick, G. C.
Ditremaria.—Roman, F.
Divaricella.—Guppy, R. J. L., &c.
 Dives (Calvados).—Brasil, L.
 Divining-rod.—Kenna, A.
Dizonium.—Rüst, H.
 Djinet, Cape (Algeria).—Gentil, L.
 Dobrudscha (Rumania).—Anastasiu, V.
 Dogger, Espinazito Pass.—Törnquist, A.
 — fauna, N.E. Alps.—Böse, E.
 Dolhain (Liège).—Dewalque, G.
Dolichometopus.—Matthew, G. F.
Doliotrobus.—Marion, A. F., &c.
 Dolphin-remains, nr. Vienna.—Toula, F.
 Dombes (Ain).—Boistel, —.
 Domfront (Orne).—Retout, —.
 Donetz Basin (Russia).—Bertrand, M.; Macco, A.; Yakovlev, N.
 Dora Baltea Valley (Piedmont). — Becker, H.
 Dora Riparia R. (Piedmont).—Colomba, L.; Franchi, I. S.
 Dordogne (Périgord), Cretaceous.—Glangaud, P.
 Dore, Mont (Auvergne).—Gonnard, F.
 Dorset.—Mansel-Pleydell, J. C.; Reid, C., &c.
 — Albian fauna.—Newton, R. B.
 — Cretaceous.—Jukes-Browne, A. J.
 —, gravels.—Salter, A. E.
 —, Greensand hills.—Jukes-Browne, A. J.
Dorypyge.—Matthew, G. F.
Dosiniopsis.—Clark, W. B.
 Douai (Nord).—Bertrand, M.; Gosselet, J.
 Doubs (France).—Girardot, A.
 Dournieville (Cal.).—Walcott, C. D., &c.
 Dover (Kent) coalfield.—Gerrard, J.; Greenwell, G. C.; Griffith, N. R.; Martin, E. A.
 — (—) & Somerset coalfields.—Greenwell, G. C.
 'Draxlehnerkalk.'—Hammer, W.
Dreissensia.—Almera, J., &c.; Blanckenborn, M.; Brusina, S.
Dreissensiomya.—Brusina, S.
 Dresden (Saxony) diluvial sand. — Næssig, R.
 — (—) Museum.—Geinitz, H. B.
 Drift.—Howorth, Sir H. H.; Reid, C.
 —, Birkenhead.—Lomas, J.
 —, Colwyn Bay high-level marine.—Reade, T. M.
 —, England.—Hudleston, W. H.
 —, — & Wales.—Prestwich, Sir J.
 — fauna, Kloosterholt.—Calker, F. J. P. van.
 —, geological time &.—Bannister, H. M.

- Drift, Germany—Wahnschaffe, F.; Schlüter, C.
 —, Greensand fossils in Cruden.—Mitchell, D. J.
 —, Illinois & Kansas.—Leverett, F.
 —, Iowa.—Bain, H. F.; Beyer, S. W.; Calvin, S.; Tilton, J. L.
 —, Ireland.—Kilroe, J. R.; Sollas, W. J.
 —, Midlands.—De Rance, C. E.
 —, Mississippi & Northern.—Mabry, T. O.
 —, Paget Sound.—Willis, B.
 —, Sangamon.—Leverett, F.
 —, Thames Valley.—Johnson, J. P.
 —, U.S.A.—Upham, W.
 —. See Glaciation, &c.
 Driftless area, Central U.S.A.—Sarleson, F. W.
 —, Wisconsin.—Squier, G. H.
Drillia.—Scarabelli, G., &c.; Vinassa de Regny, P. E.
 Drouchkovka (Ekaterinoslav).—Yakovlev, N.
 Drought & spring-outburst, N.S.W.—Abbott, W. E.
 Drumlins, English Lake District.—Upham, W.
 —, Glasgow & U.S.A.—Upham, W.
 DRUMMOND, H.—Hicks, H.
Drupptractus.—Rüst, H.
Dryandroides.—Frië, A.
Dryopithecus.—Branco, W.; Harlé, E.
Dualina.—Fraipont, J., &c.
 Dublin (Ireland) Calp' Shale.—O'Reilly, J. P.
 Dumbrava (Hungary).—Gesell, A.
Dumortieria.—Parona, C. F.
 Dumyat, Ochil Hills (Perth) andesite.—Flett, J. S.
 Dundas (W.A.).—Angove, W. H.; Hicks, A.
 Dundee I. (Graham's Land).—Geikie, Sir A., &c.
 Dundry Hill (Somerset).—Buckman, S. S., &c.
 Dunes.—Cornish, V.; Floyer, E. A.; Walther, J.
 —, France (S.W.).—Durègne, —.
 Dumite.—Martin, G. C.
 Dunwich (Suffolk).—Harmer, F. W.
 Durfort (Gard).—Renault, B.
 Durham, borings, &c.—Brown, M. W.
 Dutch East Indies, tin.—Beck, R.
Duvalia.—Roman, F.
 Dykes, Appalachian.—Darton, N. H., &c.
 —, Bischoff (Mount).—Twelvetrees, W. H., &c.
 —, Portland (Me.).—Lord, E. C. E.
 —, sandstone.—Crosby, W. O.
 Dyscrasite.—Smith, G.
 Ealing well (Middlesex).—Martin, E. A.
 Earth.—Argyll, Duke of; Skvortzov, I.; Suess, E.
 —, age of.—Goodchild, J. G.
 —, crust.—Lomas, J.
 Earth crust folding.—Michel-Lévy, A.; Rudzki, P.; see also Folding.
 —, movements.—Powell, J. W.; Slichter, C. S.; Van Hise, C. R.
 —, plasticity.—Dahlblom, T.
 —, history. See Geology.
 —, internal pressure.—Slichter, C. S.
 —, magnetism.—Clark, W. B., &c.; Rucker, A. W.
 —, Pennsylvania.—Lyman, B. S.
 —, movements & Great Lakes (N.Am.).—Gilbert, G. K.
 —, physiography.—Lapparent, A. de; Potter, J. M.
 —, pillars.—Kittler, C.
 —, strains.—Howarth, O. H.
 Earthquakes.—Agamennone, G.; Davison, C.; Guzzanti, C.; Löwy, —; Mascart, —; Michel-Lévy, A.; Milne, J.; Mojsisovics, E. von; Rudzki, M. P.
 —, Asia Minor.—Agamennone, G.
 —, Bavaria.—Gümbel, W. von.
 —, Bohemia.—Becke, F.; Credner, H.; Suess, F. E.
 —, California.—Perrine, C. D.; Rein, J.
 —, Canada.—McLeod, C. H., &c.; Stupart, R. F.
 —, Emilia.—Tacchini, P.
 —, Herts.—Fordham, H. G.
 —, India.—Agamennone, G.; Griesbach, C. L.; Heath, T.; Inglis, J. W.
 —, Italy.—Agamennone, G.; Baratta, M.
 —, Labuan.—Agamennone, G.
 —, Montreal.—Anon., 13.
 —, New Zealand.—Field, H. C.
 —, Pacific Coast.—Holden, E. S.
 —, Saxony.—Credner, H.
 —, Silesia.—Dathe, E.; Maas, G.
 —, Sinj.—Kerner, F. von.
 —, Styria.—Hornes, R.
 —, Sweden.—Svedmark, E.
 —, Trieste.—Mazelle, E.
 —, Tyrol.—Becke, F.
 —, Vaud.—Gauthier, L.
 —, waves.—Rudzki, M. P.
 —, Württemberg, &c.—Schmidt, A.
 —. See also Seismology, &c.
 Eastbourne (Sussex).—Reid, C.
Eastonia.—Vincent, E.
 Ebb & flow plasticity, earth's crust.—Dahlblom, T.
Echetus.—Koken, E.
Echinanthus.—Nøtling, F.
Echinoconus.—Nøtling, F.; Reid, C.
Echinocorys.—Lambert, J.; Reid, C.
Echinocyamus.—Loriol, P. de.
 Echinoidea.—Frië, A.
 —, Cretaceous.—Arnaud, H.; Gauthier, V.; Jukes-Brown, A. J.; Kinkel, F.; Lambert, J.; Nøtling, F.; Reid, C.; Schlüter, C.
 —, Jurassic.—Roman, F.
 —, Permian.—Spandel, E.
 —, Permo-Carboniferous.—Stucken-berg, A.
 —, Silurian.—Mitchell, J.

- Echinoidea, Tertiary.—Clark, W. B.; Fourtau, R.; Gauthier, V.; Lahille, F.; Lambert, J.; Loriol, P. de; Merriam, J. C.; Oppenheim, P.
- Echinolampas*.—Gregory, J. W.; Oppenheim, P.
- Echinus*.—Bell, A.
- Eclogite, Bavarian.—Newland, D. H.
- Economic geology.—Watts, W. W.
- Écouves Forest (Orne) Silurian.—Letellier, —.
- Ectomaria*.—Koken, E.
- Ecuador.—Reiss, W., &c.; Stübel, A.
- Edaphodon*.—Sauvage, H. E.
- Edentata.—Wortman, J. L.
- , Argentine Tertiary.—Ameghino, F.
- , S. American.—Dobson, A. A. G.
- Edestus*.—Dean, B.
- Edinburgh (Midlothian).—Geikie, J.; Goodchild, J. G.; Herries, R. S.; Monckton, H. W.
- Edmondia*.—Koninck, L. G. de; Whiteaves, J. F.
- Edrioasteroidea.—Bather, F. A.
- Effingham Ridge (Kan.).—Wilson, J. W.
- Eger (Hungary).—Halaváts, J.
- Eggenburg (Lower Austria).—Abel, O.
- Eggs, Chinese loess.—Eastman, C. R.
- , fossil *Anas*.—Olavarria, M. de.
- , *Struthiolithus*.—Eastman, C. R.
- Egypt.—Fourtau, R.; Mayer-Eymar, K.
- , Cretaceous fauna. — Gregory, J. W.; Newton, R. B.
- , Tertiary fauna. — Fourtau, R.; Gregory, J. W.; Newton, R. B.; Prien, F.
- , — fishes. See Fishes.
- Eighteen Mile Creek (N.Y.).—Grabau, A. W.
- Eisenach (Weimar) excursion & geology.—Wahnschaffe, F.
- Eisleben (Merseburg) caverns.—Lang, O.
- Ekaterinburg & Tcheliabinsk Ry.—Morozovich, I.
- Ekaterinoslav (Russia).—Sokolov, N.
- Ekeby (Upsala).—Holmquist, P. J.
- El Goléa (Algeria).—Peron, A.
- El Outaïa (Algeria).—Tardy, C.
- El Paso Coalfields (Colo.).—Lakes, A.
- Elba (I. of).—Mattirolo, E.; Toso, P.
- Elbe R. (Bohemia).—Hanamann, J.
- Elbrus, Mt. (Caucasus).—Ammon, L. von.
- Elephas*.—Graells, M. de la P.; Kinkelin, F.; Morton, G. H.; Portis, A.
- , Aa Valley.—Pontier, —.
- , Italy.—Angelis d'Ossat, G. de.
- Elie (Fife).—Geikie, J.
- Elk, Irish.—Kermode, P. M. C.
- Ellipsoidium*, *Ellipsostylus*, & *Ellipsocephalus*.—Rüst, H.
- Elothierium*.—Scott, W. B.
- Elser (Westphalia).—Hundt, R.
- Elsworth Rock, Upware.—Wedd, C. B.
- Elvan faults.—Collins, J. H.
- Elvsjørd (Norway).—Newbigin, H. T.
- Emarginula*.—Kaunhowen, F.
- Emerald.—Pratt, J. H.
- Emery. See Corundum.
- Emilia (Italy) Earthquake.—Tacchini, P.
- Emmericia*.—Brusina, E.
- Emys*.—Sauvage, H. E.
- Enantiostoma*.—Koken, E.
- Enchodus*.—Stewart, A.
- Encrinurus*.—Koninck, L. G. de.
- Endoceras*.—Holm, G.
- Endomorphism.—Lacroix, A.
- Endothyra*.—Schellwien, E.
- Engelberg (Unterwalden).—Sarasin, C.
- Engelskirchen (Schwarzberg).—Heusler, K.
- Engineering & geology.—Dawkins, W. B.
- England, Carboniferous.—Gunn, W.; Hind, W.
- , coal & water-supply.—Dawkins, W. B.
- , decapod crustacea.—Carter, J.
- , Drift.—Prestwich, Sir J.
- , geological maps.—Judd, J. W.
- , — Survey.—Geikie, Sir A.
- , glaciation.—Woodward, H. B.
- , mines, &c.—Atkinson, J. B., &c.; Foster, C. Le N.
- , Tertiaries.—Harmer, F. W.
- (Central), Glacial drifts. — De Rance, C. E.
- (E.), Pliocene.—Harmer, F. W.
- (Midland Counties), ancient glaciers.—Harrison, W. J.
- (N.), bibliography.—Sheppard, T.
- (S.), Drift.—Prestwich, Sir J.
- (S.), gravels.—Salter, A. E.
- (S.E.), iron.—Lower, M. A.
- (W.).—Buckman, S. S.; Huddleston, W. H.
- Engonoceras*.—Böhm, J.
- Enstatite.—Pratt, J. H.
- Entelodon*.—Emmons, S. F., &c.
- Entomis*.—Koninck, L. G. de.
- Entomostraca, Carboniferous.—Dawson, Sir J. W., &c.; Jones, T. R., &c.
- , Cretaceous & Jurassic.—Køert, W.
- , Trias.—Jones, T. R.; Salinas, E.
- Eocene, Belgium.—Couturieaux, J.; Vincent, E.; Vincent, G.
- corals, Egypt.—Gregory, J. W.
- , Devon.—Reid, C.; Teall, J. J. H.
- echinoderms.—Lambert, J.
- , Egypt.—Newton, R. B.
- fauna, Atlantic Slope (Middle).—Clark, W. B.
- , Bavaria.—Reis, O. M.
- , Belgium.—Vincent, E.; Vincent, G.; Storms, R.
- , Colorado.—Osborn, H. F.
- , New Mexico.—Matthew, W. D.
- , Pacific Coast (U.S.A.).—Stanton, T. W.
- , Paris Basin.—Cossmann, M.
- , Vertes Mts.—Papp, K.
- fishes.—Bassani, F.
- , Hants, &c.—Reid, C.

- Eocene, Maryland.—Bagg, R. M., Jun.]]
 — mollusca, Catalonia.—Cossmann, M.
 —, Paris Basin, &c.—Gosselet, J.
 —, Provence.—Bresson, A.
 — rhinoceroses.—Osborn, H. F.
 —, Tuscany.—Lotti, B.
 —, U.S.A. (Eastern).—Clark, W. B.
 — ungulates.—Emmons, S. F., &c.
 'Eolithic' Man.—Cunnington, W.
Eomyrus.—Storms, R.
Eophyton.—Walcott, C. D.
 Eozoic.—Watts, W. W.
Eozoon.—Dawson, Sir J. W.
 Epidote.—Bæris, G.; Currie, J.
Eporeodon.—Emmons, S. F., &c.
Equisetites.—Seward, A. C.; Shirley, J.
Equisetum.—Seward, A. C.
 Equisetum-beds, Kansas.—Beede, J. W.; Williston, S. W.
 Erbach (Hesse).—Klemm, G.
 Erie Co. (N.Y.).—Grabau, A. W.
 Erionite.—Eakle, A. S.
 Erlaf Valley (Lr. Austria).—Paul, C. M.
 Ernici (Prov. Rome) eruptive rocks.—Viola, C.
 Erosion, Arkansas.—Comstock, J. H.
 —, Glacial.—Baltzer, A.; Deeley, R. M.
 Erratic blocks, Alps.—Schardt, H.
 —, British Is.—Kendall, P. F.
 —, Cimina region.—Fantappiè, L.
 —, —, Committee.—Anon., 48.
 —, —, Moselle Valley.—Lamothe, — de.
 —, —, Netherlands.—Calker, F. J. P. van.
 — fossils.—Remeš, M.
 Eruptions, geyser.—Jaggard, T. A., Jun.
 Eruptive rocks.—Rosenbusch, H.
 —, —, permeability, &c.—Viola, C.
 —, —, & ore-deposits.—Möricke, M.
 —. See also Igneous rocks.
Erycina.—Cossmann, M.
 Erythræa (N.E. Africa).—Sabatini, V.
 Erzgebirge (Saxony).—Beck, R.
 Eskers.—Cole, G. A. J.
 —, Europe (N.).—Howorth, Sir H. H.
 —, —, Ireland.—Fitzpatrick, T.; Sollas, W. J.
 Esneux (Liège).—Vallée Poussin, C. de la.
 Esnot (Saône-et-Loire).—Renault, B., &c.
 Espinazito Pass (Argentina).—Törnquist, A.
 Essex Co. (Mass.).—Sears, J. H.; Washington, H. S.
 Essexite.—Rosenbusch, H.
 Estérel (Var).—Martel, E. A.
Estheria.—Dawson, Sir J. W., &c.; Jones, T. R.; Salinas, E.
 Estuaries, Russia (S.).—Sokolov, N.
 Etaves (Aisne).—Gosselet, J.
 Etched figures.—Baunhauer, H.; Gaubert, P.; Vater, H.; Walker, T. L.
 Etna (Sicily).—Ricco, A.
 Étoile massif (Bouches-du-Rhône).—Bertrand, M.; Fournier, E.
 ETTINGSHAUSEN, C. Fr. von.—Hørnes, R.; Möricz, S.
 Ettringer Bellerberg (Rhenish Prussia).—Schottler, W.
Eucalyptus.—Friš, A.; Hollick, A.; Newberry, J. S.
Euchitonia.—Rüst, H.
Euchondria.—Törnquist, A.
 Euclase.—Schmidt, A.
Eucyclus.—Koken, E.; Reis, O. M.
Eucyloscala.—Koken, E.
Eucyrtidium.—Rüst, H.
Eudesella.—Roman, F.
Eulima.—Almera, J., &c.; Guppy, R. J. L., &c.; Söhle, U.
Eulimene.—Bell, A.
Eulithota.—Walcott, C. D.
Eumetria.—Reed, F. R. C.
Eunema.—Koken, E.
Euomphalus.—Berkey, C. P.; Dun, W. S.; Koken, E.; Koninck, L. G. de; Stuckenberg, A.
Euprotogonia.—Matthew, W. D.
 Europa Pt. (Spain).—Penck, A.
 Europe.—Lapparent, A.
 —, Calcutta earthquake recorded in.—Agamennone, G.
 —, —, Carboniferous (Lower).—Fliegel, G.
 —, —, zones.—Hind, W.
 —, dinosaurs.—Marsh, O. C.
 —, eskers.—Howorth, Sir H. H.
 —, *Eulima - Niobe* - fauna.—Brögger, W. C.
 —, —, Glacial deposits.—Geer, G. de; Howorth, Sir H. H.; see also Drift, &c.
 —, —, gold.—Cumenge, E., &c.
 —, —, mammalia.—Woodward, A. S.
 —, —, museums.—Hovey, E. O.
 —, —, prehistoric.—Geikie, J.
 —, —, tundras & steppes.—Geikie, J.
 —, —, submerged valleys.—Codrington, T.; Upham, W.
 —, —, surface deposits.—Howorth, Sir H. H.; see also Drift, &c.
Euryapteryx.—Hamilton, A.
Eurytomites.—Whiteaves, J. F.
Eustylus.—Koken, E.; Philippi, E.
Eusyringium.—Rüst, H.
Euthria.—Bell, A.; Mayer-Eymar, C.; Scarabelli, G., &c.
Eutrochus.—Kaunhowen, F.
Euzone.—Koken, E.
 Evolution, geographical.—Gregory, J. W.
 —, —, geological changes &c.—Packard, A. S.
 —, —, insect.—Comstock, J. H.
 —, —, Palæozoic fauna.—Chamberlin, T. C.
 Évreux (Eure).—Dollfus, G. F.
 Exeter (Devon).—Geikie, Sir A.
 Exhibition, Brussels.—Vaillant, V.
 —, —, Stockholm.—Erdmann, E.

- Exogyra*.—Futterer, C.; Loriol, P. de; Newton, R. B.; Nætling, F.; Reid, C.
- Extracrinus*.—Pompeckj, J. F.
- Fagus*.—Marion, A. F., &c.
- ‘Falun,’ Léognan.—Degrange-Touzain, A. Fanning (Queensl.).—Rands, W. H.
- Farnellia*.—Traquair, R. H.
- Fasciolaria*.—Kaunhowen, F.; Reis, O. M.
- Fault-structure, Indiana.—Ashley, G. H.
- Faults.—Watts, W. W.; Williams, A., Jun.
- , measurements.—Spurr, J. E.
- Favia*.—Osasco, E.
- Favosites*.—Bernard, H. M.; Dun, W. S.; Koninck, L. G. de.
- Fayalite.—Petterd, W. F.
- Fedaiella*.—Koken, E.
- Felsite, Tasmania.—Twelvetrees, W. H., &c.
- Felspars.—Bertrand, L.; Fedorov, E. von; Högbom, A. G.; Lindgren, W.; Viola, C.; Weibull, M.; Winchell, N. H.
- , determination.—Becker, G. F.
- Fenestella*.—Koninck, L. G. de; Stucken-berg, A.
- Fergusonite.—Ramsay, W., &c.
- Fermanagh caves (Ireland).—Plunkett, T.
- Ferret valley (Valais).—Duparc, L., &c.
- Ficula*.—Mayer-Eymar, C.
- Ficus*.—Fricé, A.; Hollick, A.; Newberry, J. S.; Shirley, J.
- Fiji Is. (Pacific).—Agassiz, A.
- Filey Bay (Yorks).—Fox-Strangways, C.; Stather, J. W.
- Filisparsa*.—Canu, F.
- Fimbria*.—Futterer, C.
- Finland.—Andersson, J.; Barrois, C.; Berghell, H.; Boule, M.; Gurney, H. P.; Harris, G. F.; Rosberg, J. E.; Sabatini, V.; Sederholm, J. J.; Stirrup, M.; Vélain, C.; Wilkman, W.; Winchell, N. H.
- , eskers, &c.—Howorth, Sir H. H.; Kropotkin, Prince A.
- , minerals.—Brögger, W. C.
- Finmark (Norway).—Reusch, H.; Schiötz, A. E.
- Fir in Quaternary gravels, Troyes.—Fliche, B.
- Fireclays, Carboniferous.—Kirkup, P.
- , Pennsylvania.—Hopkins, T. C.
- FRSCHER, P.—Dautzenberg, P.
- Fishes.—Case, E. C.
- , Bohemian Brown-coal.—Laube, G. C.
- , Carboniferous.—Bolton, H.; Dean, B.; Destinez, P.; Reis, O. M.
- , Cretaceous.—Hay, O. P.; Newton, R. B.; Priem, F.; Sauvage, H. E.; Stewart, A.; Woodward, A. S.
- , Devonian.—Dean, B.; Eastman, C. R.; Girty, G. H.; Traquair, R. H.; Udden, J. A.; Woodward, A. S.
- Fishes, geological record-imperfection &—Woodward, A. S.
- , Jurassic.—Knight, W. C.; Sauvage, H. E.; Woodward, A. S.
- , Palæozoic.—Newberry, J. S. &c.; Traquair, R. H.; see also Devonian, &c.
- , Silurian.—Geikie, Sir A.; Whit-eaves, J. F.
- spines.—Beecher, C. E.
- , Tertiary.—Bassani, F.; Clark, W. B.; Gorjanovič, C.; Laube, G. C.; Priem, F.; Sauvage, H. E.; Stewart, A.; Storms, R.; Wittich, E.; Woodward, A. S.
- Fissurella*.—Söhle, U.
- Fjords, Europe.—Upham, W.
- Flabellina*.—Bagg, R. M., Jun.
- Flabellum*.—Abel, O.; Osasco, E.; Söhle, U.; Stanton, T. W.; Struve, A.
- Flacilla*.—Koken, E.
- Flanders (Belgium) Quaternary, &c.—Lameere, A.; Velge, G.; Vincent, E.
- Flemingites*.—Diener, C.
- Flint-implements, Villejuif.—Laville, A.
- nodule containing liquid.—Fox, H.
- Flintshire.—Morton, G. H.; Strahan, A.
- caves.—Pollen, G. C. H.
- Floating meadows, Finland.—Andersson, G.
- Flow, igneous rock.—Adams, F. D.; Van Hise, C. R.
- Fluorspar.—Achiardi, G. d'; Redlich, K. A.; Wallerant, F.
- Flysch.—Lorenz von Liburnau, J., Sen.; Paul, C. M.
- Moravia.—Tausch, L. von.
- , Switzerland.—Schardt, H.; Stein-mann, G.
- Fætorius*.—Woldrich, J. N.
- Folding, earth.—Michel-Lévy, A.
- , rock.—Fourmier, E.; Guébard, A.; Lobley, J. L.; Rudzki, P.; Svenonius, F.; Zürcher, P.
- , Allauch Massif.—Golfier, J.
- , Aquitaine Cretaceous.—Glan-geaud, P.
- , Belledonne chain.—Lory, P.
- , Brittany Carboniferous.—Barrois, C.
- Folkestone (Kent), Gault.—Chapman, F.; Crick, G. C.
- Fontanea*.—Newberry, J. S.
- Fontanil (Isère).—Kilian, W.
- Footprints, Baden Tertiary.—Böhm, G.
- , Permian reptilian.—Pabst, W.
- , Trias.—Beasley, H. C.
- Foraminifera.—Beecher, C. E.; Fornasini, C.; Millett, F. W.
- , Barbados *Globigerina*-marls.—Franks, G. F., &c.
- , Carboniferous.—Chapman, F.; Lienau, D.; Schellwien, E.
- , Crag.—Jones, T. R., &c.
- , Cretaceous.—Bagg, R. M., Jun.; Nætling, F.; Schlumberger, C.; Söhle, U.; Upton, C.
- , dimorphism.—Van den Broeck, E.
- , Flysch.—Tausch, L. von.

- Foraminifera, Gault.—Chapman, F.
 —, Tertiary.—Cayeux, L.; Clark, W. B.; Grzybowski, J.; Millett, F. W.; Schrodtt, J.; Tausch, L. von.
- Foratiscala*.—Cossmann, M.
- Forcett Quarry (Yorks).—Manson, R. T.
- Foricula*.—Canu, F.
- Formations, classification. — Williams, H. S.; *see also* Classification, &c.
- Forna (Hungary).—Papp, K.
- Fossarulus*.—Brusina, S.
- Fossarus*.—Almera, J., &c.; Guppy, R. J. L., &c.; Tate, R.
- Fossilization, bones.—Goldsmith, E.
- Fossils.—Watts, W. W.
 —, geological age-determination. — Marsh, O. C.
- FRAAS, O. F. von.—Anon., 40; Hicks, H.
- France, caves, &c.—Martel, E. A.
 —, Central massif.—Boule, M.; Glangeaud, P.
 —, Coalfields.—Bertrand, M.; Gosselet, J.
 —, Geological Congress excursions, 1900.—Barrois, C.
 —, Geological literature, 1897.—Carez, L., &c.
 —, Geological Survey.—Michel-Lévy, A., &c.
 —, gold.—Cumenge, E., &c.
 —, lakes.—Delabecque, A.
 —, mineralogy.—Lacroix, A.
 —, Tertiaries.—Gosselet, J.
 — (N.), coal-borings.—Gosselet, J.
 — (N.), Cretaceous plants.—Fliche, P.
 — (N.), physical geography.—Gosselet, J.
 — (N.W.), Iron-ores.—Mercey, N. de.
 — (S.).—Roman, F.
 — (S.), Cretaceous & Tertiary.—Gros-souvre, A. de.
 — (S.W.), Cretaceous.—Arnaud, H.; Glangeaud, P.
 — (W.), Cretaceo-Tertiary.—Bigot, A.; Welsch, J.
- Franche-Comté (France).—Girardot, A.
- Frankfort-on-Main (Germany).—Kinkel, F.; Wittich, E.
- Franklin Furnace (N.J.).—Foote, W. M.; Penfield, S. L., &c.; Wolf, J. E.
- Franklin (W. Va.).—Walcott, C. D., &c.
- FRANKS, Sir A. W.—Hicks, H.
- Franz Josef Land.—Jackson, F. G.—Kœttlitz, R.; Newton, E. T., &c.
- Franzsdorf (Hungary).—Telegd, L. R. von.
- Fredriksvärn (Christiania) eruptive rocks.—Brögger, W. C.
- French River (Ont.).—Bell, R.
- Frenelopsis*.—Newberry, J. S.
- Fresnoy (Aisne).—Gosselet, J.
- Freyburg (Merseburg).—Fritsch, K. von.
- Fribourg (Switzerland).—Brumhes, J.
- Fronicularia*.—Bagg, R. M., Jun.; Upton, C.
- Fruits, Tertiary.—Delheid, E.
- Fucoid-markings.—Raisin, C. A.
- Fucoids.—Udden, J. A.
- Fulguroficus*.—Clark, W. B.
- Fuller's Earth, Dakota.—Reis, H.
- Fumay (Namur) slate-massif.—Gosselet, J.
- Fumerolles, Puy-de-Dôme.—Lacroix, A., &c.
 —, Sicily.—Guzzanti, C.; *see also* Volcanoes.
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- Fusoides*.—Reis, O. M.
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 —, sea, probable depths.—Chapman, F.
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Gonodus.—Tommasi, A.
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 — & graphite - gneiss.—Weinschenk, E.
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 ———, Palæozoic.—Comstock, J. H.
 Iowa (U.S.A.).—Bain, H. F.; Beyer, S. W.; Calvin, S.; Eastman, C. R.; Keyes, C. R.; Tilton, J. L.
 ——— (—), Carboniferous.—Keyes, C. R.
 ——— (—), Devonian fishes.—Eastman, C. R.
 ——— (—), Drift.—Bain, H. F.; Leverett, F.
 ——— (—), lead & zinc.—Leonard, A. G.
 ——— (—), quartzite-region.—Beyer, S. W.
 ——— (—), wells.—Norton, W. H.
Iphidea.—Walcott, C. D.
 Ipswich Formation flora, Queensland.—Shirley, J.
 Ireland, Carboniferous ostracoda.—Jones, T. R., &c.
 ———, Drift & agriculture.—Kilroe, J. R.
 ———, eskers.—Fitzpatrick, T.; Sollas, W. J.
 ———, geological maps.—Judd, J. W.
 ———, ——— Survey.—Geikie, Sir A.
 ———, gold.—Cumenge, E., &c.
 ———, mines, &c.—Atkinson, J. B., &c.; Foster, C. Le N.

- Irish Channel tunnel.—Barton, J.
 — Elk.—Kermode, P. M. C.
 — Sea.—Herdman, W. A., &c.
 — glacier.—Dwerryhouse, A. R.
 Iron.—Hintze, C.
 —, Abram.—Caldwell, G.
 —, Alabama & Georgia.—Brewer, W. M.
 —, Chile.—Darapski, L.
 —, China (E.).—Jameson, C. D.; Kurita, A.
 —, Congo.—Stainier, X.
 —, Cuba.—Cabrera, R.
 —, Elba.—Mattiolo, E.; Toso, P.
 —, France (N.W.).—Mercey, F.
 —, Gates (Danube).—Schafarzik, F.
 —, Gellivaara.—Wedding, —.
 —, Hesse.—Beyschlag, F.
 —, Hodbarrow.—Anon., 24.
 —, Lake Superior.—Bacon, D. H.; Brough, B. H.
 —, Marquette.—Josling, J. E.; Van Hise, C. R.
 —, meteoric.—Cohen, E.
 —, —, origin.—Preston, H. L.
 —, Michigan.—Boss, C. M.; Jopling, J. E.
 —, Minnesota. — Denton, F. W.; Longyear, E.
 —, Newfoundland.—Collins, J. H.; Prowse, D. W.
 —, New South Wales.—Carne, J. E.; Coghlan, T. A.; Jaquet, J. B.; Watt, J. A.
 —, Nova Scotia.—Gilpin, E., Jun.
 —, Norway.—Newbigin, H. T.
 —, Oregon.—Diller, J. S.
 —, pyrites. *See* Pyrites.
 —, Quebec.—Obalski, J.
 —, Russia.—Bauerman, H.; Högbom, A.; Kamenski, G.; Kusnetzov, S.; Louis, H.; Macco, A.; Murray, —.
 —, sands, New Zealand auriferous.—McKay, A.
 —, sulphate in nature.—Scharizer, R.
 —, Sussex, &c.—Lower, M. A.
 —, Sweden (N.).—Anon., 28; Lundböhlm, H.; Nordenström, G.
 —, Tasmania. — Dauncey, W. G.; Jones, D.
 —, United States.—Birkinbine, J.
 — ores. *See* Iron.
 —, magnetic surveys.—Nordenström, G.
 —, —, origin. — Kimball, J. P.; Ochsenius, C.
 —, residual concentration by weathering.—Kimball, J. P.
 —, supply, British.—Anon., 26.
 Isar (Bavaria), double pebble.—Weinschenk, E.
Isastræa.—Struve, A.
Ischyrhiza.—Clark, W. B.
 Iseo, Lake (Lombardy).—Salmojrighi, F.
 Isère (Dauphiné), silver amalgam. — Lacroix, A.
 Isium (Kharkov).—Nalivkin, V.
Isis.—Osasco, E.
 Islands, coral.—Agassiz, A.; Baur, G.; Bonney, T. G.; Sollas, W. J.
 Isle of Man, &c. *See* Man (Isle of), &c.
 Ismid (Asia Minor).—Toula, F.
Isocardia.—Futterer, C.; Mayer-Eymar, C.
Isocrinus.—Bather, F. A.
Isocyprina & *Isodonta*.—Loriol, P. de.
 Isopoda, Jurassic.—Woodward, H.
Isospira.—Koken, E.
 Isostasy. *See* Gravity.
 Itacolumite.—Derby, O. A.
 Itaituba (Brazil).—Katzner, F.
 Italy, Alps.—Cassetti, M.; Zaccagna, D.
 —, earthquakes.—Baratta, M.
 —, Quaternary fauna.—Simonelli, V.
 — (N.), moraines.—Fischer, T.
 — (N.), Tertiary mollusca.—Sacco, F.
 — (S.), magnetic phenomena.—Pallazzo, L.
Itieria.—Roman, F.
 Ivrea (Piedmont).—Becker, H.
 — (—), hornblende-gabbro.—Van Horn, F. R.
 — (—), Neritic rocks.—Schäfer, R. W.
 Jackson Co. (Ohio).—Roy, A.
 JACKSON-HARMSWORTH Expedition.—Kettlitz, E.; Newton, E. T., &c.
 Jadrtova (Dalmatia).—Kerner, F. von.
 Jaintia (Assam) coal.—Hayden, H. H.
 Jamaica (W.I.).—Hill, R. T.; Spencer, J. W.; Whitfield, R. P.
 JAMES, J. F.—Gilbert, G. K.
 Janières (Sarthe).—Canu, F.
 Japan, mines.—Austin, W. L.
 Java (E.I.).—Verbeek, R. D. M.
 — (—), volcanoes.—Gallois, E.
 Jemtland (Sweden).—Jonson, P. A., &c.
 — (—), glacial lakes.—Andersson, G.; Högbom, A. G.
 Jena (Weimar), 'Muschelkalk.'—Wagner, R.
 Jerome (Kan.), meteorite.—Washington, H. S.
 Jersey.—Dunlop, A.; Parkinson, J.
 Jet.—Drake, H. C.
 Jinec (Bohemia).—Zelizko, J. V.
 Jitomir (Kiev).—Tarasenko, V.
 Johnson Co. (Iowa).—Calvin, S.
 Joints.—Watts, W. W.
 Joplin (Mo.).—Hedburg, E.
Juglans.—Hollick, A.; Newberry, J. S.
 Julos (Hautes-Pyrénées).—Carez, L.
Juniperus.—Newberry, J. S.
 Jura, Bernese (Switzerland).—Loriol, P. de.
 —, French.—Boistel, —; Girardot, A.; Tardy, C.
 —, — & Swiss, erratic blocks, &c.—Schardt, H.
 —, lakes near Swiss.—Schardt, H.
 Jurassic.—Marcou, J.
 — ammonites.—Dormal, V.
 —, Normandy.—Brasil, L.
 —, Anatolia.—Pompeckj, J. F.

- Jurassic, Argentina.—Törnquist, A.
 —, Atlantic Coast (U.S.A.).—Marsh, O. C.
 —, Austria (Lower).—Abel, O.
 —, Boulonnais.—Parent, H.
 — brachiopoda.—Bittner, A.; Marshall, J. W. D.
 — bryozoa.—Canu, F.
 —, Bündner Oberland.—Steinmann, G.
 — cephalopoda.—Canavari, M.; Crick, G. C.; Toula, F.
 —, Charentes (the).—Glangeaud, P.
 —, Chile.—Fucini, A.
 —, Colorado.—Emmons, S. F., &c.
 — crustacea.—Carter, J.; Køert, W.; Woodward, H.
 —, Dorset.—Mansel-Pleydell, J. C.
 —, Dundry Hill.—Buckman, S. S., &c.
 —, England (W.).—Hudleston, W. H.
 — fauna, Abyssinia.—Futterer, C.
 —, Alaska.—Hyatt, A.
 —, Bernese Jura.—Loriol, P. de.
 —, France (S.).—Roman, F.
 — fishes.—Woodward, A. S.
 —, Wyoming.—Knight, W. C.
 —, Franche-Comté.—Girardot, A.
 —, Franz Josef Land.—Köttlitz, R.; Newton, E. T.
 — gasteropoda.—Futterer, C.; Køert, W.; *see also* Gasteropoda.
 — isopoda.—Woodward, H.
 — lamellibranchiata.—Futterer, C.; Paquier, V.; Philippi, E.; *see also* Lamellibranchiata.
 —, Lancs & East Coast Ry.—Fox-Strangways, C.
 — limits.—Haug, É.
 —, Lorraine.—Nicklès, R.
 — mammalia.—Woodward, A. S.
 — Medusæ.—Walcott, C. D.
 —, Nesselndorf.—Remeš, M.
 —, Northants.—Thompson, B.
 — ostracoda.—Køert, W.
 — pebbles in W. German gravels.—Schlüter, C.
 — plants.—Seward, A. C.
 —, Portugal.—Sauvage, H. E.
 — radiolaria.—Rüst, H.; Vinassa de Regny, P. E.
 —, Radstädter-Tauern.—Diener, C.
 — reptilia. *See* Reptilia.
 —, Boulonnais.—Sauvage, H. E.
 —, Normandy.—Bigot, A.
 —, Wyoming.—Knight, W. C.
 — rock-constituents.—Cayeux, L.
 — Rumania.—Popovici-Hatzeg, V.
 —, Salzburg.—Krafft, A. von.
 —, Selter (the).—Køert, W.
 —, Serre Forest.—Bourgeat, —.
 —, Silurian sponge in.—Remeš, M.
 —, Spain.—Nicklès, R.
 — sponges.—Oppliger, F.
 —, Texas.—Cragin, F. W.
 — time-divisions.—Buckman, S. S.
 —, Upware.—Wedd, C. B.
 —, Woëvre.—Nicklès, R.
- Jurassic, Yorkshire.—Drake, H. C.
 Juvavian.—Arthaber, G. von., &c.; Mojsisovics, E. von., &c.; Renevier, E.
- Kalamazoo (Michigan).—Gordon, C. H.
 Kalgoorlie (W. Austr.).—Corbin, H. B.; Lawrence, D. H.; Maitland, A. G.
 Kalgoorlite.—Pittman, E. F.
 Kamasite.—Derby, O. A., &c.
 Kamenz (Saxony).—Stenzel, K. G.
 Kamloops (B. C.) landslips.—Stanton, R. B.
 Kanawha River (Va.).—Campbell, M. R., &c.
 Kanonenberge (Magdeburg).—Philippi, E.
 Kansan.—Leverett, F.
 — Drift, Pennsylvania.—Williams, H., Jun.
 Kansas (U.S.A.).—Adams, G. I.; Bennett, J.; Gilbert, G. K.; Gould, C. N.; Hall, J. G.; Haworth, E., &c.; Hay, R.; Kirk, M. Z.; Knerr, E. B.; Logan, W. N.; Prosser, C. S.; Smyth, B. B.; Stanton, T. W.; Williston, S. W.
 — (—), Carboniferous corals.—Beede, J. W.
 — (—), Cimorro Series ostracoda.—Jones, T. R.
 — (—), Coal Measures.—Beede, J. W.
 — (—), Cretaceous.—Gould, C. N.
 — (—) — bird.—Marsh, O. C.
 — (—) — fishes.—Stewart, A.
 — (—) — turtle.—Wagner, G.
 — (—) *Equus*-beds.—Beede, J. W.
 — (—) gypsum.—Grimsley, G. P.
 — (—) Mentor Beds.—Jones, A. W.
 — (—) mineral waters.—Davies, H. E.; Knerr, E. B.
 — (—) Permian fauna.—Williston, S. W.
 — (—) physiography.—Beede, J. W.
 — (—) Pleistocene.—Beede, J. W.; Williston, S. W.
 Kaolin.—Kraatz, K. von.
 —, Palanka.—Walter, H.
 Kara Sea.—Feilden, H. W.
 Karabuga Basin (Caspian).—Kusnetzov, S.
 Karamea goldfield (N.Z.).—Wilson, G.
 Karlshamn (Scania).—Bäckström, H.
 Karoo plants.—Hatch, F. H., &c.
 — reptilia.—Seeley, H. G.
 Katarchæan.—Gurney, H. P.
Katosira.—Philippi, E.
Kaulfussia.—Steward, A. C.
 Kavirondo (Equat. Africa).—Hobley, C. W.
Keilostoma.—Frič, A.
Kellya.—Bell, A.; Cossmann, M.
 Kennare (Co. Kerry).—Phillips, J. St. J.
 Kent coalfields.—Greenwell, G. C.; Martin, E. A.; *see also* Dover.
 — ironworks.—Lower, M. A.
 Kentrolite.—Warren, C. H.
 Kentucky (U.S.A.) caves.—Call, R. E.
 — (—) Devonian fauna.—Girty, G. H.

- Kephalonia (Ionian Is.).—Grosseteste, W.
 Keratophyre-tuff, Engelskirchen.—Heusler, K.
 Kerosene-shale.—Bertrand, C. E.
 Kerry (Ireland) bog-flow.—Praeger, R. L., &c.
 Kertch (Crimea).—Andrussov, N.
 Kettles.—Fairchild, H. L.; *see also* Giants' Kettles.
 Keuper coal, Germany & Austria.—Ben-ecke, E. W.; Wagner, R.
 —, Lanes & East Coast Ry.—Fox-Strangways, C.
 — reptilia.—Fraas, E.; Morton, G. H.
 Keweenaw (Minn.).—Elftman, A. H.
 Kharag I. (Persian Gulf).—Stiff, A. W.
 Khar'kov (Russia).—Nalivkin, V.
 Kherson (Russia).—Ivan, A. P.; Macco, A.; Radkevich, G.
 Khin-gan Mts. (China).—Smith, A. D.
 Kiev (Russia).—Radkevich, G.; Tarasenko, V.
 Kiirunavaara (Norrbotten).—Lundböh'm, H.
 Kimberley (Cape Colony).—Crookes, W.; Sutton, J. R.
 — (—) minerals.—Currie, J.
 — goldfield (W. Austr.).—Cummins, W. D.
 Kincardineshire.—Irvine, D. R., &c.
 —, chloritoid.—Barrow, G.
 KING, C. C.—Hicks, H.; Jones, T. R.
Kingena.—Bittner, A.
 Kinghorn (Fife).—Herries, R. S.
 Kingsbridge (Devon).—Ussher, W. A. E.
 Kingswood (Surrey).—Whitaker, W., &c.
 Kirchet (Bern).—Bonney, T. G.
 Kitchen-middens, Block I.—Eaton, G. F.
 Klerksdorp (Transvaal).—Bawden, F. W.; Draper, D.
 Kling (Brandenburg).—Keilhack, K.; Mentzel, H.
 Klippen.—Abel, O.; Schardt, H.
 —, Carpathians.—Uhlig, V.
 Klondyke (N.W. Canada).—Anon., 12;
 Batz, R. de; Haverley, C. E.; Muir, J.; Rein, J.
 Kloosterholt (Holland).—Calker, F. J. P. van.
 'Knobstone,' Indiana.—Bennett, L. F.; Jones, L. H.; Newsom, J. F.
 Kodru Mts. (Hungary).—Pethö, J.
Kokeniella.—Koken, E.
 Köllowitz (Bohemia).—Tausch, E.
 König (Hesse).—Vogel, C.
Koninckodonta.—Bittner, A.
 Konstantinovka (Russia).—Yakovlev, N.
 Kootenay (B.C.).—Lakes, A.
 Kosciusko Mt. (N.S.W.) plateau.—Curran, J. M.
 Košif (Bohemia).—Woldrich, J. N.
 Kostej (Hungary).—Böttger, O.
 Kotschach (Carinthia).—Geyer, G.
 Kovácsvágás (Hungary).—Szadeczki, J.
 Kovno Gov. (Russia).—Toll, E. von.
 Krassó-Szöreny (Hungary).—Schafarzik, F.
 Kremenetz (Vollhynia).—Laskarev, V.
 Krennerite.—Chester, A. H.; Cumenge, E., &c.
Krithe.—Jones, T. R., &c.
 Krivoi Rog (Kherson).—Macco, A.
 Krosno (Galicia).—Grzybowski, J.
 Krugersdorp (Transvaal).—Draper, D.
 Ktysteite.—Lacroix, A.
 Kubeite.—Durapski, L.
 Kumaon (Himalayas).—Diener, C.
 Kvikjock Mt. (Norrbotten).—Hamberg, A.
Kymolepis.—Sauvage, H. E.
 La Plata Mts. (Colo.).—Lakes, A.
 — Museum Tertiary ungulata.—Roth, S.
 Laacher See (Rh. Prussia).—Schottler, W.
Labechia.—Struve, A.
 Labergebirge (Bavaria).—Söhle, U.
 Laboratories, floating.—Fuchs, T.; Tietze, E.
 Labrador (Canada).—Low, A. P.
 — (—), Cambrian.—Matthew, G. F.
 Labuan I. (Borneo).—Agamennone, G.
 Laccolites.—Blake, J. F.; Iddings, J. P.
Lacerta.—Depéret, C.
Lachesis.—Bell, A.
Lacuna.—Cossmann, M.
 Laeknian.—Ertborn, O. van, &c.
 Lafayette (Mississippi).—Mabry, T. O.
Lagena.—Millet, F. W.
Lagonys.—Woldrich, J. N.
 Lagonegro (Basilicata).—Lorenzo, G. de.
 LAING, S.—Hicks, H.
 Lake Co. (Ind.).—Ball, T. H.
 — basins, Lepontine Alps.—Bonney, T. G.
 — District, moraines.—Upham, W.
 —, Skiddaw Slates, graptolites.—Elles, G. L.
 — dwellings, Yorks.—Sheppard, T.
 — Superior. *See* Superior, Lake.
 — village, Glastonbury.—Dawkins, W. B.
 Lakes, American (N.) Great.—Gilbert, G. K.; Spencer, J. W.; Taylor, F. B.
 —, Constantine high plateau saline.—Blayac, J.
 —, France.—Delebecque, A.
 —, Jemtland Glacial.—Andersson, G.; Högbom, A. G.
 —, Jura.—Schardt, H.
 —, Lourdes, &c., Glacial.—Carez, L.
 —, Snowdon.—Marr, J. E., &c.
 —, Sweden.—Upham, W.
 Lambay I. (Co. Dublin).—Gardiner, C. I., &c.
 Lamellibranchiata.—Bernard, F.; Douvillé, H.
 —, Carboniferous.—Beede, J. W.; Drake, N. F.; Fraipont, J., &c.; Hind, W.; Stuckenberg, A.; Törnquist, A.
 —, Cretaceous.—Bøhm, G.; Douvillé, H.; Frië, A.; Gilbert, G. K.; Hennig, A.; Kinkel, F.; Krause, P. G.; Newton, R. B.; Nötling, F.;

- Paquier, V.; Puig y Larraz, G.; Reid, C.; Söhle, U.; Stanton, T. W.; Whitfield, R. P.
- Lamellibranchiata, Devonian.—Dun, W. S.; Whidborne, G. F.; *see also* Palæozoic.
- , hinges.—Fischer, H.
- , Jurassic.—Abel, O.; Fucini, A.; Futterer, C.; Loriol, P. de; Newton, E. T.; Paquier, V.; Philippi, E.; Roman, F.; Törnquist, A.
- , Palæozoic.—Dun, W. S.; Koninck, L. G. de; Leyh, C. Fr.; Whidborne, G. F.; Whiteaves, J. F.
- , Permian.—Diener, C.
- , Perno-Carboniferous.—Diener, C.; Etheridge, R., Jun.; Stuckenber, A.
- , Quaternary.—Fischer, H.; Mayer-Eymar, K.
- , Russian Secondary.—Stremouchov, D. P.
- , Silurian.—Whiteaves, J. F.
- , spines.—Beecher, C. E.
- , Tertiary.—Almera, J., &c.; Blanckenborn, M.; Brusina, S.; Clark, W. B.; Cossmann, M.; Guppy, R. J. L., &c.; Mayer-Eymar, C.; Newton, R. B.; Papp, K.; Penecke, K. A.; Reid, C.; Rothpletz, A., &c.; Sacco, F.; Scarabelli, G., &c.; Schaffer, F.; Sharman, G., &c.; Stefănescu, S.; Stanton, T. W.; Tate, R.; Vincent, E.; Vincent, G.; Vinassa de Regny, P. E.
- , Triassic.—Hornes, R.; Philippi, E.; Tommasi, A.
- Laminaria.—Seward, A. C.
- Lamna.—Bassani, F.; Newton, R. B.; Priem, F.
- Lanarkite.—Schulten, A. de.
- Lancashire.—Geikie, Sir A.; Morton, G. H.
- & East Coast Ry.—Fox-Strangways, C.
- , coalfield.—Anon., 23; Bolton, H.; Haddock, W. S.
- , post-Glacial beds.—Reade, T. M.
- Land changes, West Indies.—Spencer, J. W.
- , oscillations.—Dahlblom, T.; Dickinson, J.; Hull, E.; Lapparent, A. de; Ochsenius, C.
- , Glacial.—Spencer, J. W.
- , Pacific Coast (U.S.A.).—Blake, W. P.
- , sea &.—Suess, E.
- , shell 'pockets' on sand-dunes.—Welch, R.
- Landenian, Belgium.—Dorlodot, H. de; Mourlon, M.; Vincent, E.; Vincent, G.
- Landes (France).—Degrange-Touzin, A.; Durègne, —.
- Landscape, origin of.—Watts, W. W.
- Landslips, British Columbia.—Stanton, R. B.
- , Gohna.—Davis, W. M.
- & rivers.—Laflamme, J. C. K.
- Langbeinite.—Luedecke, O.
- Langenberge (Brunswick).—Fraas, E.
- Languedoc (France).—Roman, F.
- Lannemezan plateau (Hautes-Pyrénées).—Fabre, L. A.
- Laon (Aisne).—Gosselet, J.
- Laosaurus.—Emmons, S. F., &c.
- Laotira.—Walcott, C. D.
- Lapland, shore-lines.—Svenonius, F.
- Laterite.—Bauer, M.
- Latirofusius.—Cossmann, M.
- Latirus.—Krause, P. G.; Scarabelli, G., &c.
- Laubrieria.—Cossmann, M.
- Laurdalite.—Brögger, W. C.
- Laurentian, Canada.—Adams, F. D.
- Laurophyllum.—Newberry, J. S.
- Laurus.—Frič, A.; Hollick, A.; Newberry, J. S.
- Laurvik (Norway).—Brögger, W. C.
- Lausanne (Vaud) Museum of Natural History.—Renevier, E.
- Lausche (Saxony).—Siefert, T.
- Lausitz (Saxony).—Kalkowski, E.
- Lauzel Lake (Basses-Alpes).—Delebecque, A.
- Lava-flows, California.—Ransome, F. L.
- Lavernock Point (Glam.).—Howard, F. T.
- Lawsonite.—Lacroix, A.
- Laxispira.—Kaunhowen, F.; Reis, O. M.
- Lead, Cornwall, &c.—Collins, J. H.
- , Franklin Furnace native.—Footte, W. M.
- , Iowa.—Leonard, A. G.
- , New Mexico.—Herrick, C. L.
- , New South Wales.—Coghlan, T. A.
- , Nova Scotia.—Gilpin, E. J.
- , Sardinia.—Capacci, C.; Corsi, A.; Lotti, B.
- , United States.—Hedburg, E.
- , Victoria (Austr.).—Travis, J., &c.
- LEAF, C. J.—Hicks, H.
- Leaia.—Dawson, Sir J. W., &c.
- Lebanon, Mt. (Syria).—Woodward, A. S.
- Lecanella.—Oppliger, F.
- Lecanites.—Diener, C.
- Lecco (Lombardy).—Becker, H.; Philippi, E.
- Leckhampton Hill (Gloucester).—Buckman, S. S.
- Leda.—Almera, J., &c.; Clark, W. B.; Loriol, P. de; Philippi, E.; Scarabelli, G., &c.; Stanton, T. W.
- , clays, Assche.—Vincent, G.
- Ledian.—Ertborn, O. van, &c.
- Leguminosites.—Marion, A. F., &c.
- , Newberry, J. S.
- Leicestershire coalfield.—Anon., 33.
- Leigh Valley, lower (Vict.).—Dennant, J., &c.
- Leighton Buzzard (Beds).—Cameron, A. C. G.
- (—) Sands.—Arnold, J.
- Leine Valley (Hanover).—Kloos, J. H. Kœnen, A. von.
- Leiopteria.—Etheridge, R., Jun.
- Leiorhynchus.—Girty, G. H.
- Leith (Midlothian) Glacial deposits.—Goodchild, J. G.

- Lemnos (Ægean Sea).—Launay, L. de.
LEMOINE, V.—Gaudry, A.
 Lenham Beds (Kent).—Harmer, F. W.
 Lenne Slates.—Winterfeld, F.
 Léognan (Gironde).—Degrange-Touzin, A.
Leperditia.—Dawson, Sir J. W., &c.; Jones, T. R., &c.
Lepidodendron.—Kerner, F. von; Scott, D. H.; Seward, A. C.; Zeiller, R.
 — containing gasteropoda.—Brown, C.
Lepidophloios.—Dawson, Sir J. W.
Lepidophyllum.—Kerner, F. von.
 Lepidosteidae.—Sauvage, H. E.
Lepidostrobus.—Maslen, A. J.
Lepidotrochus.—Koken, E.
Lepidotus.—Sauvage, H. E.; Woodward, A. S.
 Lepontine Alps, lake-basins.—Bonney, T. G.
Leptacatherium.—Osborn, H. F.
Leptæna.—Dun, W. S.; Koninck, L. G. de.
Leptobranchites.—Walcott, C. D.
Leptodesma.—Dun, W. S.; Whidborne, G. F.
Leptodomus.—Etheridge, R., Jun.
Lepton.—Bell, A.
Leptophyllia.—Koby, F.; Söhle, U.
 Leptynolite.—Lacroix, A.
Lepus.—Woldrich, J. N.
 Lezbacherthal (Harz).—Rimme, F.
 Lerida (Spain) Eocene mollusca.—Cossmann, M.
 Lesbos (Ægean Sea).—Launay, L. de.
 Lesparre (Gironde).—Michel-Lévy, A., &c.
 Lesse R. (Namur).—Martel, E. A.
 Lettenkohle.—Benecke, E. W.
 Lettowitz (Lr. Austria).—Tietze, E.
 Leucite.—Högbom, A. G.; Klein, C.
 Leucitic rocks.—Rosenbusch, H.
Leuconia.—Scarabelli, G., &c.
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 —, brachiopoda.—Böse, E.
 —, fauna, &c. See Jurassic.
 —, fishes, Whitby.—Woodward, A. S.
 —, gasteropoda, Yorks.—Hawell, J.
 —, Hagengebirge.—Krafft, A. von.
 —, Hérault & Spain.—Nicklès, R.
 —, lamellibranchiata.—Philippi, E.
 —, Lancs & East Coast Ry.—Fox-Strangways, C.
 —, Mexico.—Böse, E.
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 —, reptilia.—Anon., 68; Dames, W.; Fraas, E.; Spangenberg, G.
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 —, sea & land, E. Mediterranean.—Pompeckj, J. F.
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 —, Alaska.—Dall, W. H.; Emmons, S. F.
 —, micro-organisms.—Renault, B.
 —, Röntgen rays &.—Couriot, H.
 —, Tierra del Fuego.—Kyle, J. J. J.
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 — (—) — mollusca.—Sacco, F.
 Lilienfeld (Lr. Austria).—Bittner, A.
 Lille (Nord).—Dollfus, G. F.; Gosselet, J.; Parades, — de.
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 —, Alps.—Kilian, W., &c.
 —, analyses.—Clarke, F. W., &c.
 —, Carboniferous.—Morton, G. H.
 —, Cornwall.—Fox, H., &c.
 —, crystalline.—Vogt, J. H. L.
 — formation & atmosphere.—Chamberlin, T. C.
 —, Iowa.—Calvin, S., &c.
 —, metamorphic.—Lacroix, A.
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Linopteris.—Potoné, H.
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- Lipari Is.—Cossa, A.; Palazzo, L.
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 — in flint-nodule.—Fox, H.
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 — —, Solenhofen.—Philippi, E.
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Lithophagus.—Newton, R. B.
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 — (—) buried bones.—Morton, G. H.
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 —, origin.—Don, J. R.
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 —, Europe.—Geikie, J.
 —, Hungary.—Horusitzki, H.
 —, Iowa.—Bain, H. F.; Beyer, S. W.; Calvin, S.; Tilton, J. L.
 —, Mississippi Valley.—Chamberlin, T. C.
 —, Piedmont.—Viglino, A.
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 — (—), Liassic ammonites.—Parona, C. F.
 — (—), Senonian.—Marioni, E.
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 —, soils.—Woodward, H. B.
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 — (—), borings.—Ertborn, O. van.
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Lytoceras.—Crick, G. C.; Parona, C. F.; Pompeckj, J. F.; Törnquist, A.
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- MACCULLOCH'S Map of Scotland.—Judd, J. W.
Machairodus.—Depéret, C.
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- Macroadema*.—Lambert, J.
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 —, minerals in.—Morozewicz, I.
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 — phenomena, Italy (S.).—Palazzo, L.
 —, Pennsylvania.—Lyman, B. S.
 — surveying of iron-ores.—Nordenström, G.
 — susceptibility, rocks.—Rücker, A. W., &c.
 Magnetism, earth.—Clark, W. B., &c.; Rücker, A. W.
 —, geology &c.—Rücker, A. W.
 —, minerals &c.—Beijerinck, F.
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 —, Liverpool alluvial.—Morton, G. H.
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 —, Pleistocene.—Quaternary.
 —, Postfrontals.—Maggi, L.
 —, Quaternary.—Haworth, E., &c.; Hughes, G. R.; Johnston, J. P.; Kermode, P. M. C.; Lydekker, R.; Nehring, A.; Sernander, R.; Williston, S. W.; Woldrich, J. N.; Woodward, A. S.
 —, Tertiary.—Ameghino, F.; Depéret, C.; Emmons, S. F., &c.; Gaillard, C.; Gaudry, A.; Graells, M. de P.; Harlé, É.; Hibsich, J. E.; Lucas, F. A.; Matthew, W. D.; Osborn, H. F.; Riggs, E. S.; Ristori, G.; Roman, F.; Roth, S.; Schröder, H.; Scott, W. B.; Sinzov, J.; Woodward, A. S.
 —, Uphill Caves.—Wilson, E.
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 —, Glacial Period &c.—Hicks, H.
 —, high-level gravels.—Shrubsole, O. A.
 —, New Hunstanton.—Tucker, W. T.
 —, Palaeolithic.—Newton, E. T.; Somervail, A.; Turner, Sir W.
 —, Plateau.—Abbott, W. J. L.; Bullen, R. A.; Kennard, A. S.
 —, Scotland.—Turner, Sir W.
 —, Somme Valley.—Upham, W.
 —, Tertiary.—Branco, W.; Koken, E.
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 — (—) Boulders.—Harrison, S. N.
 — (—) Irish Elk.—Kermode, P. M. C.
 — (—) mines, &c.—Atkinson, J. B.; Foster, C. Le N.
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 —, Panamá.—Chibas, E. J.
 —, Transcaucasia.—Drake, F.; Stevens, C.
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 Manila (Philippine Is.).—Puig y Larraz, G.
 Manjak-mining, Barbados.—Merivale, W.
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 Turner, H. W.

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 Beyer, S. W.; Calvin, S.; Tilton,
 J. L.

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 N. F.

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 S.

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 3 miles. 1898.—Newsom, J. F.

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 Dalles Area. 1898.—Berkey, C.
 P.

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 1898.—Kemp, J. F.

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 G. I.

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 B. S.

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150. Bobemmenkirchen-Gattendorf. 1897.—Weise, E.

GREAT BRITAIN.

- ENGLAND AND WALES. 1 inch = 10 miles. 1897.—Geikie, Sir A.
- 1 inch = 30 miles. 1897.—Lloyd, J.
- Berks & Oxon. 1 inch = 4 miles. 1893.—Shrubsole, O. A.
- Caernarvon, Gt. Orme's Head. 3 inches = 1 mile. 1898.—Morton, G. H.
- Cambs. Upware. 1 inch = 1 mile. 1898.—Wedd, C. B.
- Cornwall. St. Erth. 1 inch = 200 feet. 1898.—Bell, A.
- Derby. Bonsall. 1 inch = 420 feet. 1898.—Arnold-Bemrose, H. H.
- Devon. Honiton. 1 inch = 1 mile. 1898.—Jukes-Browne, A. J.
- Dorset. Marshwood. $\frac{1}{2}$ inch = 1 mile. 1898.—Jukes-Browne, A. J.
- Geological Survey. Index Map. 1 inch = 4 miles.—Geikie, Sir A., &c.
5. Yorkshire, &c. 1897.
14. Isle of Wight, &c. 1897.
- Geol. Surv. 1 inch Geological Map. 100. Isle of Man (Solid & Drift). 1893.—Lamplugh, G. W.
- N. s. 268. Reading (Drift). 1893.—Bennett, F. J., &c.
- N. s. 328. Dorchester (Drift). 1898.—Read, C., &c.
- N. s. 355. Kingsbridge. 1898.—Ussher, W. A. E.
- N. s. 356. Start Point. 1898.—Ussher, W. A. E.
- London District Soils. 1 inch = 4 miles. 1897.—Woodward, H. B.

EUROPE.

- ENGLAND AND WALES. Kent, &c. Romney Marsh. 1 inch = $2\frac{1}{2}$ miles. 1897.—Dowker, G.
- Lancashire. Liverpool District. 1 inch = 1 mile. 1896.—Morton, G. H.
- Oxon. See Berks.
- Somerset. Dundry Hill. $4\frac{1}{2}$ inches = 1 mile. 1897.—Buckman, S. S., &c.
- Staffordshire. Boulders east of Cannock Chase. 1898.—Mantle, H. G., &c.
- Suffolk. Aldeburgh & Oxford. $\frac{3}{4}$ inch = 1 mile. 1898.—Harmer, F. W.
- Sussex. Foreshore near Beachy Head. 1898.—Reid, C.
- Thames Basin. 1 inch = 10 miles. 1897.—White, H. J. O.
- Wales (S.) Coalfield. 1 inch = 4 miles. 1898.—Galloway, W.
- Yorkshire. 1893.—Fairley, T.
- IRELAND. (Drift & Agriculture). 1 inch = 27 miles. 1897.—Kilroe, J. R.
- Eskers. About 1 inch = 8 miles. 1896.—Sollas, W. J.
- Lambay I. (Co. Dublin).—Gardiner, C. I.
- SCOTLAND. Geological Survey (Sir A. Geikie, Director-General). 1 inch Geological Map.
66. Kincardineshire. Banchory. 1898.—Irvine, D. R., &c.
- Glasgow Drumlins. 1 inch = $1\frac{1}{4}$ miles. 1898.—Upham, W.
- Stirlingshire. Sauchieburn. 3 inches = 1 mile. 1897.—Monckton, H. W.
- GRECIAN ARCHIPELAGO, &c. Ægean Sea Is. 1898.—Lamunay, L. de.
- HUNGARY. Csakvár & Vertes Mts. $\frac{1}{50,000}$. 1897.—Papp, K.
- Körösmező. $\frac{1}{75,000}$. 1897.—Pošewitz, T.
- Kovácsvágás. $\frac{1}{75,000}$. 1897.—Szadecki, J.
- Magyar-Óvár. $\frac{1}{25,000}$. 1897.—Treitz, P.
- Mezőhegyes. $\frac{1}{75,000}$. 1898.—Inkey, B. von.
- ITALY. Basilicata. Lagonegro. $\frac{1}{50,000}$. 1898.—Lorenzo, G. de.
- Reale Comitato geologico d'Italia. Tuscany. Alpi Apuane. $\frac{1}{500,000}$. 4 sheets & 3 sheets. Sections. 1897.—Zaccagna, D.
- Calabria. 245, 246, 247, 255, 263, 264. 1890-97.—Capellini, G., &c.
- NORWAY. Christiania. Sandefjord-Porsgrund. $\frac{1}{100,000}$. 1898.—Brögger, W. C.

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- NORWAY (N.). 1 inch = 19 miles.
 1898.—Newbiggin, H. T.
 —. Elvsfjord. 1 inch = 1 mile.
 1898.—Newbiggin, H. T.
- RUMANIA. S. Carpathians. $\frac{1}{50,000}$
 1898.—Munteanu, G.
- RUSSIA. Finland. Geological Survey.
 $\frac{1}{200,000}$
 32. Loimijoki. 1898. Also $\frac{1}{200,000}$
 1896.—Wilkman, W. W.
 33. Wiborg. 1898.—Berghell, H.
 —. Nijni - Tagilsk. $1\frac{1}{2}$ inch =
 1 mile. 1898.—Bauerman, H.
 —. Tchiatur. 1898.—Macco, A.
- SWEDEN. Skåne. Vestanå. $\frac{1}{200,000}$
 1897.—Bäckström, H.
 —. Södermanland. Gnesta &
 Mölnbo. $\frac{1}{2,000}$ $\frac{1}{4,000}$. 1898.—Löf-
 strand, G.
- SWITZERLAND. $\frac{1}{100,000}$. 1898.—Schardt,
 H.
 —. Glarus Alps. 1898.—Roth-
 pletz, A.
 —. Grisons (Les). Bündner
 Oberland. 1896.—Steinmann, G.
 —. —. Davos Valley. $\frac{1}{25,000}$
 1898.—Jemmings, A. V.
- Marattites*.—Marion, A. F., &c.
 Marble.—Destinez, P.; Vogt, J. H. L.
 Marcasite.—Gilbert, G. K.; Lacroix, A.
 Marcellina (Prov. Rome).—Cerulli -
 Irelli, S., &c.
Marchantites.—Seward, A. C.
- MARCOU, J.—Anon., 9.
- Marekanite - obsidian, Nicaragua. —
 Petersen, J.
- Margarita*.—Kaunhowen, F.
- Marginella*.—Almera, J., &c.; Coss-
 mann, M.; Guppy, R. J. L., &c.;
 Papp, K.; Rothpletz, A., &c.
- Margulinia*.—Chapman, F.; Schrodt,
 J.
- Mari Hills (Baluchistan).—Nøtling, F.
- Marine clay, Cleongart.—Munthe, H.
 —. Drift, Colwyn Bay high-level.—
 Reade, T. M.
 —. geology.—Fuchs, T.; Tietze, E.
- Mariopteris*.—Potonié, H.
- Marioupol (Ekaterinoslav).—Morozev-
 vich, I.
- Maritime Alps.—Cassetti, M.; Portis,
 A.; Zaccagna, D.
- Marlborough goldfield (N.Z.).—Wilson,
 G.
- Marmolatella*.—Koken, E.
- Marquette (Mich.) iron-bearing district.—
 Van Hise, C. R., &c.
 —. (—) Range.—Jopling, J. E.
- Marseille (Bouches-du-Rhône).—Bresson,
 A.
- MARSH, O. C.—Bigot, A.
- Marshall Co. (Iowa).—Beyer, S. W.
- Marshwood (Dorset).—Jukes-Browne,
 A. J.
- Marsupial bones, Coimadaí Limestone.
 —. Officer, G., &c.
- Marsupites*.—Reid, C.
- Martesia*.—Tate, R.
- Martina*.—Diener, C.
- Martinez Group, California.—Merriam,
 J. C.
- Martley (Worcester).—Coles, C. St. A.
 —. quartzite.—Groom, T. T.
- Marwood Beds fauna.—Whidborne,
 G. F.
- Maryland (U.S.A.).—Clark, W. B.;
 Darton, N. H.; Matthews, E. B.;
 Walcott, C. D., &c.
 —. (—), Cretaceous fossils in
 Eocene.—Bagg, R. M., Jun.
 —. (—), Geological Survey.—Clark,
 W. B.
- Mas d'Azil (Ariège), grotto.—Fischer,
 H.
- Massa (Tuscany).—Zaccagna, D.
- Massachusetts (U.S.A.), Carboniferous
 boulder-train.—Fuller, M. L.
 —. (—), igneous rocks.—White, T. G.
- Mastallone Valleys (Piedmont). —
 Schäfer, R. W.
- Mastodon*.—Emmons, S. F., &c.
- , Algeria.—Depéret, C.
- , Spain.—Graells, M. de la P.
- Mastopora*.—Siegert, L.
- Matagne Schists, Namur Devonian.—
 Forir, H.
- Matheronia*.—Paquier, V.
- Mathilda*.—Guppy, R. J. L., &c.;
 Vinassa de Regny, P. E.
- Matto Grosso (Brazil).—Derby, O. A.
- Mayence (Hesse) Oligocene fishes.—
 Wittich, E.
- Maypole House Colliery (Lancs).—
 Caldwell, G.
- Meandreaea*.—Koby, F.
- Meandropsina*.—Schlumberger, C.
- Meaux (Seine-et-Marne).—Michel-Lévy,
 A., &c.
- Médéa (Algeria).—Ficheur, É.
- Medenbach (Wiesbaden).—Brauns, R.
- Mediterranean deep-sea deposits. —
 Schaffer, F.
- Medlicottia*.—Diener, C.
- Medusa.—Walcott, C. D.
- , Niagara Limestone.—Weller, S.
- Medusichnites*.—Walcott, C. D.
- Medusina*.—Walcott, C. D.
- Meekoceras*.—Diener, C.
- Megalaspis*.—Kayser, E.
- Megalneusaurus*.—Knight, W. C.
- Megalodus*.—Hornes, R.
- Megalonyx*.—Wortman, J. L.
- Megalosaurus*.—Savage, H. E.
- Megarhynchus*.—Cossmann, M.
- Megerlia*.—Almera, J., &c.; Roman, F.
- Melampus*.—Bell, A.
- Melania*.—Almera, J., &c.; Cossmann,
 M.; Krause, P. G.; Reid, C.
- Melanopsis*.—Almera, J., &c.; Blanck-
 enborn, M.; Boistel, —; Brusina, S.;
 Cossmann, M.; Penecke, K. A.;
 Stefănescu, S.

- Melanotekite.—Warren, C. H.
 Melaphyre.—Rosenbusch, H.
Melicertites.—Canu, F.
 Melilite-basalt.—Rosenbusch, H.
Melocrinus.—Weller, S.
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 MELVIN, J.—Richardson, R.
Membranipora.—Canu, F.
Menecylon.—Seward, A. C.
 Menai Bridge (N. Wales).—Greenly, E.
 Mendoza (Argentina) meteorite. —
 Michaut, A.
 — City (Argentina).—Bodenbender, G.
Menesto.—Almera, J., &c.
 Menilite.—Lacroix, A.
Menispermities.—Newberry, J. S.
 Mentor Beds, Kansas.—Jones, A. W.
 Mercury.—Sjögren, H.
 —, Hungary.—Gesell, A.
Meretrix.—Stanton, T. W.
 Mergui Archipelago (Burma).—Sutherland, W.
 Merseburg (Prussia).—Fritsch, K. von.
 Mersey River.—Morton, G. H.; Nares, Sir G. S.
 Merv (Turkestan).—Kropotkin, A.
 Mesabi Range (Minn.).—Longyear, E.
Mesalia.—Cossmann, M.
 Meshwork structures in rocks.—Cole, G. A. J.
Mesites.—Bather, F. A.
Mesodon.—Sauvage, H. E.
Mesohippus.—Emmons, S. F., &c.
 Mesolite.—Winchell, N. H.
Mesostoma.—Kaunhowen, F.
Mesotrypa.—Whiteaves, J. F.
 Mesozoic.—Watts, W. W.
 — fauna, Alaska.—Hyatt, A.
 — rocks, England (W.).—Hudleston, W. H.
 — volcanic rocks (Pa.).—Goldsmith, E.
 Messel (Hesse).—Wittich, E.
 Messina (Sicily) minerals.—La Valle, G.
 Metalliferous deposits & faults.—Williams, A., Jun.
 Metal-mining.—Anon., 45.
 Metals, Peru rare.—Balta, J.
 Metamorphic rocks.—Grimsley, G. P.
 —, Rome (Prov.).—Morano, L.
 —, Sardinia.—Riva, C.
 — structures.—Cole, G. A. J.
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 —, contact.—Dalmer, K.; Lacroix, A.
 —, graphite &c.—Weinschenk, E.
 —, Harlech grits.—Greenly, E.
 — of grits & shales, Anglesey.—Callaway, C.
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 Meteoric iron, Australia.—Cohen, E.
 Meteorites.—Brezina, A.; Cohen, E.; Khlaponin, A.; Miers, J. E.; Preston, H. L.; Schröckenstein, F.; Sorby, H. C.; Travers, M. W.; Ward, H. A.; Weinschenk, E.
 —, analyses.—Clarke, F. W., &c.
 Meteorites, Argentina.—Michaut, A.
 —, Bendegó.—Derby, O. A., &c.
 —, Cincinnati.—Cohen, E.
 —, gases in.—Travers, M. W.
 —, Greenland.—Anon., 32; Griffith, W.; Peary, E. A.
 —, Jerome.—Washington, H. S.
 —, Otumpa.—Gancedo, A.
 —, Sicily.—Gregorio, A. de.
Metriorhynchus.—Sauvage, H. E.
 Mexico.—Ordoñez, E.
 —, changes of level.—Hull, E.; Spencer, J. W.
 —, copper.—Cumenge, E.
 —, Cretaceous.—Bøhm, G.
 —, geology.—Aguilar, R.
 —, Lias.—Böse, E.
 —, silver.—Mathez, A.
 —, tin-deposits.—Ingall, W. R.
 —, (N.).—Stephenson, J. G. L.
 —, New (U.S.A.).—Herrick, C. L.
 Meylan (Isère) geodes.—Gonnard, F.
 Mezöhegyes (Hungary).—Inkey, B. von.
 Mica.—Högbom, A. G.; Walker, T. L.
 —, Nellore.—Thompson, R. W.
 —, percussion-figures on.—Walker, T. L.
 Michelstadt (Hesse).—Klemm, G.
 Michigan (U.S.A.).—Gordon, C. H.
 — (—), College of Mines.—Wadsworth, M. E.
 — (—), Glacial lakes.—Smyth, B. B.
 — (—), iron-bearing districts.—Van Hise, C. R., &c.
 — (—), rock-variation.—Clements, J. M.
Micraster.—Lambert, J.; Reid, C.
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Micrococcus.—Renault, B.
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Microcycias.—Leyh, C. Fr.
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 Microlithology.—Lissón, C. I.
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 Microscope, geology &c.—Hanks, H. G.
 —, petrographical.—Amann, J.; Jaggar, T. A., Jun.
 Microscopical petrography.—Wadsworth, M. E.
Microsolena.—Koby, F.
Microzamia.—Newberry, J. S.
 Middelburg District (Transvaal).—Lloyd, H.
 Middlesex well-sections.—Whitaker, W.
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 Migration, animal.—Lydekker, R.
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Miliolina.—Bagg, R. M., Jun.
 MILLER, H.—Gunn, W.; Horne, J.
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Millestroma.—Gregory, J. W.
 Milwaukee (Wisc.).—Weller, S.
 Minas Geraes (Brazil).—Hussak, E.

- Mine-explosions.—Van den Broeck, E.
 Mineo (Sicily).—Guzzanti, C.
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 — industry, Great Britain, &c.—
 Atkinson, J. B., &c.; Foster, C. Le
 N.; Galloway, W.
 — waters, Bavaria.—Lupin, F. von.
 —, Chile.—Marten, P.
 —, Engadin.—Mösch, C.
 —, Kansas.—Davies, H. E.;
 Knerr, E. B.
 —, Pougues.—Friedel, G.
 —, Rh. Prussia.—Heusler, K.
 —, Styria.—Reibenschub, A. F.
 Mineralogical Institute, Munich.—
 Viola, C.
 — microscope.—Jaggar, T. A., Jun.
 — Museum, Denver.—Lakes, A.
 Mineralogy.—Brush, G. J., &c.; Hintze,
 C.; Naumann, C. F.
 —, Belgium (1892-97).—Dorlodot,
 H. de.
 —, France.—Lacroix, A.
 —, Sardinia.—Achiardi, A. d'; Tara-
 melli, T.
 —, Smithsonian Institution.—Rice,
 W. N.
 Minerals.—Groth, P.; Watts, W. W.
 — accompanying gold.—Rickard, T.
 A.
 —, African (S.) diamantiferous rock.
 —Lacroix, A.
 —, Algeria.—Gentil, L.
 —, analysis of rock.—Rosiwal, A.
 —, Ben More eruptive rock.—Cur-
 rie, J.
 —, Budapest.—Böcke, H.
 —, California.—Turner, H. W.
 —, Canada.—Hoffmann, G. C.
 —, Carolina (N.).—Pratt, J. H.
 —, Ceylon.—Modder, F. H.
 —, etched figures.—Walker, T. L.
 — formed in magmas.—Morozewicz,
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 —, fusion volume-change.—Joly, J.
 —, gases in.—Travers, M. W.
 —, Greenland.—Flink, G.; Ussing,
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 —, growth of secondary.—Högbom,
 A. G.
 —, Hilderston silver-mines.—Good-
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 —, Italy.—Achiardi, G. d'.
 —, Kimberley.—Currie, J.
 —, magnetic conductivity.—Beije-
 rinck, F.
 —, Maryland.—Mathews, E. B.
 —, new (1892-97).—Spencer, L. J.
 —, new methods of analysis.—Car-
 not, A.
 —, New South Wales.—Card, G. W.
 —, Nova Scotia.—Gilpin, E., Jun.
 —, Peru.—Balta, J.
 —, polarized light &.—Wadsworth,
 M. E.
 —, polymorphism.—Wallerant, F.
 —, pseudomorphs.—Döll, E.; Miers,
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- Minerals, refraction - indices. — Walle-
 rant, F.
 —, Röntgen rays &.—Couriot, H.
 —, Sardinia.—Lovisato, D.; Riva, C.
 —, spectral analyses.—Grammont, A.
 de.
 —, Tasmania.—Montgomery, A.;
 Petter, W. F.
 —, Wales (N.).—Munby, A. E.
 Mines, Great Britain & Ireland.—Atkin-
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 —, Japan.—Austin, W. L.
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 —, gold.—Ihlseng, M. C.
 —, New Zealand.—Gordon, H. A.;
 Mercer, W. A.
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 Sardeson, F. W.
 Minnesota (U.S.A.), Cretaceous (so-
 called).—Sardeson, F. W.
 — (—), glaciation.—Elftman, A. H.
 — (—), iron-ore.—Denton, F. W.
 — (—), moraines.—Todd, J. E.
 Miocene *Anas*-eggs, Spain.—Olavarria,
 M. de.
 — bears.—Gaillard, C.
 —, Bologna.—Bortolotti, E.
 —, Brown-coal fauna.—Wittich, E.
 —, Canary Is.—Rothpletz, A., &c.
 —, Carniola.—Teller, F.
 — corals, Egypt.—Gregory, J. W.
 — fauna, Kostej.—Böttger, O.
 —, Wiesbaden.—Kinkelin, F.
 — fish, Eningen.—Woodward, A. S.
 —, Gippssland.—Dennant, J., &c.
 —, Italy.—Scarabelli, G., &c.
 — mammalian deposit, Montréjeau.—
 Harlé, E.
Miocænus.—Matthew, W. D.
 Mispickel.—Buttgenbach, H.
 Mississippi (U.S.A.).—Branmer, J. C.
 — Valley (U.S.A.), loess.—Chamber-
 lin, T. C.
 Mississippian.—Keyes, C. R.; Weller,
 S.
 Missouri (U.S.A.), Carboniferous.—Bain,
 H. F.; Keyes, C. R.
 — (—), coal-area.—Hedburg, E.
 — (—), ore-deposits.—Hedburg, E.
 — (—), Coteau moraines.—Todd,
 J. E.
 Missourian, Iowa.—Calvin, S., &c.
 Missourite.—Rosenbusch, H.
Mitchellia.—Koninck, L. G. de.
Mithracia.—Carter, J.
Mitra.—Almera, J., &c.; Clark, W.
 B.; Cossmann, M.; Newton, R. B.;
 Schaffer, F.; Vinassa de Regny, P. E.
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Mivodectes.—Matthew, W. D.
Mochlorhinus.—Seeley, H. G.
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 —Pantanelli, D.
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 B.; Frič, A.; Futterer, C.; Hind, W.;
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 E.; Stuckenberg, A.

- Modiolopsis*.—Stuckenber, A.; Whit-eaves, J. F.
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 Cementstone fossils.—Johnstone, J. T.
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 —, Leith Glacial deposits.—Good-
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 —, spines.—Beecher, C. E.
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 — in European rocks.—Derby, O. A.
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Montacuta.—Bell, A.
 Montagne-Noire (S. France).—Ber-
 geron, J.
 Montalto (Prov. Rome).—Clerici, E.
 Montana (U.S.A.), gold & silver, &c.—
 Weed, W. H., &c.
 Monteponi & Montevecchio (Sardinia).—
 Capacci, C.
 Montfort (Basses-Alpes).—Kilian, W.
 Montgomery Co. (Pa.).—Lyman, B. S.
 Montian.—Munier-Chalmas, E.
 — fishes.—Priem, F.
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Montivaltia.—Koby, F.; Osasco, E.;
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 — (—), earthquake.—Anon., 13;
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 de.; Sollas, W. J.; *see also* Glacial
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 —, Coulin Forest.—Horne, J.
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 —, English Lake District.—Upham,
 W.
 —, Garda (Lake).—Fischer, T.
 —, Greenland.—Drygalski, E. von.
 —, Kansas.—Smyth, B. B.
 —, Minnesota & Missouri Coteau.—
 Todd, J. E.
 —, Richmond (Ind.).—Moore, J.
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 — (—), alluvium, &c., fauna.—
 Woldrich, J. N.
 — (—), gneiss.—Suess, F. E.
 — (—), pseudo-Tertiary.—Rzehak,
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 of E.—Mackie, W.
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 Mosty (Siberia).—Inostrantzev, A. A.
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 —Burrell, B. A.
 Mount Lofty ranges (S. Austr.).—How-
 chin, W.
 — Rainbow goldfield (Queensl.).—
 Cameron, W. E.
 — Success (Queensl.).—Rands, W. H.
 Mountains & glaciers.—Pretto, O. de.
 Mud, Humber R.—Sheppard, T.
 — rushes, De Beer's Mine.—Sutton,
 J. R.
 —, sea.—Cornish, V.
 — volcanoes.—Nætling, F.
 — —, Chinameca.—Sapper, C.
 MUELLER, F. VON.—Hooker, Sir J. D.
 Mullerine.—Cumenge, E., &c.
 Multiple hypotheses.—Chamberlin, T. C.
 Mungo (Camerons).—Kønen, A. von.
 Munich Mineralogical Institute.—Viola,
 C.
Münsteroceras.—Haug, E.
 Muntigel (Tyrol).—Lorenz von Libur-
 nau, J., Sen.
 Murchison district & River (W. Austr.).
 Cohen, E.; Reed, F.
 — goldfield (W. Austr.).—Clifton, A.
 G.; Dowley, E. P.; Halse, E.
 — Range (Transvaal).—Bordeaux, A.

- Murchisonia*.—Dun, W. S.; Koken, E.; Koninck, L. G. de; Stuckenberg, A. Murcia (Spain).—Nicklès, R. Mure massif (Isère).—Lory, P. *Murex*.—Almera, J., &c.; Bell, A.; Kaunhowen, F.; Penecke, K. A.; Pritchard, G. B.; Reid, C. Muscel (Rumania).—Popovici, V. 'Muschelkalk,' Jena.—Wagner, R. —, Vaihingen.—Stettner, G. *Muscites*.—Seward, A. C. Muscovite.—Walker, T. L. —, Mont Rambert.—Friedel, G. Museum, Dresden.—Geinitz, H. B. —, Natural History, Lausanne.—Renevier, E. —, Padua University.—Omboni, G. — Practical Geology.—Anon., 82; Geikie, Sir A.; Teall, J. J. H., &c. Museums, Canada, &c.—Ami, H. M. —, European.—Hovey, E. O. Mustapha (Algeria).—Ficheur, E. *Mutiella*.—Frič, A. *Myalina*.—Hind, W.; Stuckenberg, A. *Myelastrum*.—Rüst, H. *Myliobatis*.—Clark, W. B. *Mylodon*.—Williston, S. W.; Wortman, J. L. Mylodontidæ.—Ameghino, F. *Myoconcha* & *Myophoria*.—Philippi, E. *Myrica*.—Frič, A.; Marion, A. F., &c.; Newberry, J. S.; Shirley, J. *Myrizoum*.—Struve, A. *Myrsine*.—Newberry, J. S. *Myrtophyllum*.—Hollick, A. *Myrus*.—Storms, R. *Mytilicardia*.—Almera, J., &c. *Mytilus*.—Cossmann, M.; Koninck, L. G. de; Frič, A.; Futterer, C.; Newton, R. B. Nadorite, Algeria.—Gentil, L. Nagyagite.—Cumenge, E., &c.; Simpson, E. S. Namiet (Moravia).—Suess, F. E. Namur (Belgium) Devonian.—Forir, H. — (—) Tertiary.—Velge, G. *Nannites*.—Diener, C. *Nanno*.—Hohn, G. *Nanosaurus*.—Emmons, S. F., &c. Nantucket I. (Mass.).—Cornish, V. Narovtschat (Penza).—Bogoslovski, N. A. Narragansett Basin (R.I.), Carboniferous Conglomerate pebble-fauna.—Walcott, C. D. — Bay (R.I.).—Fuller, M. L. *Nassa*.—Almera, J., &c.; Bell, A.; Scarabelli, G., &c. *Natica*.—Almera, J., &c.; Bell, A.; Clark, W. B.; Frič, A.; Futterer, C.; Kaunhowen, F.; Koken, E.; Mayer-Eymar, C.; Newton, R. B.; Penecke, K. A.; Reis, O. M.; Stuckenberg, A.; Törnquist, A.; Vinassa de Regny, P. E. *Naticopsis*.—Koken, E.; Stuckenberg, A. Natural gas. See Gas, natural. Nautiloid foraminifera.—Bagg, R. M., Jun. *Nautilus*.—Clark, W. B.; Diener, C.; Frič, A.; Koninck, L. G. de; Nætling, F.; Philippi, E. Navarre (Spain).—Palacios, P.; Stuart-Menteath, P. W. *Navicula*.—Clerici, E. Naxos (Ægean Sea).—Lacroix, A. *Neera*.—Söhle, U. Nebida (Sardinia).—Riva, C. Nebraska (U.S.A.), Carboniferous.—Clarke, J. M. — (—), Coal Measures.—Beede, J. W. *Necrocarcinus*.—Carter, J.; Woodward, H. Nellore (Madras).—Thompson, R. W. Nelson District (B.C.).—Turner, W. B. Nemaha Co. (Kan.).—Kner, E. B. Nematite.—Mallet, F. R. *Nematophycus*.—Seward, A. C. Neocene, California.—Merriam, J. C. — cetacea.—Sinzov, J. — mollusca.—Brusina, S. —. See also Tertiary. Neocomian brachiopoda.—Rouville, P. G. de. —, Dauphiné.—Paquier, V. Neolith.—Claypole, E. W. *Neolobites* & *Neolobites*-beds, Portugal.—Choffat, P. *Neomylodon*.—Ameghino, F. *Neoptychites*.—Peron, A. Neozoic.—Watts, W. W. Nepheline-rocks.—Rosenbusch, H. —-syenite, Alnö.—Hussak, E. Nephrite.—Berwerth, F. *Nephrops*.—Carter, J. *Nephropsyllis*.—Rüst, H. *Neptunus*.—Carter, J. *Nerinea*.—Böhm, G.; Kaunhowen, F.; Newton, R. B.; Nætling, F.; Roman, F. *Nerita*.—Nætling, F.; Penecke, K. A.; Vincent, E. *Neritaria*.—Koken, E.; Philippi, E. *Neritina*.—Almera, J., &c.; Blanckenborn, M. *Neritodonta*.—Almera, J., &c.; Brusina, S. *Neritona*.—Brusina, S. *Neritopsis*.—Koken, E.; Roman, F.; Söhle, U. Nesselsdorf (Moravia).—Remeš, M. Netherlands, erratics.—Calker, F. J. P. van. —, Scheldt deposits.—Raeymaekers, D. *Nettastoma*.—Bassani, F. NEUMAYR'S 'Erdgeschichte.'—Pethö, J. Neunkirchen (Rh. Prussia).—Leppla, A. *Neuropteris*.—Kerner, F. von; Martin, E. A.; Potonié, H.; Seward, A. C.; Shirley, J. Nevada City (Cal.).—Lindgren, W.; Walcott, C. D., &c.

- Nevada, Sierra (Cal.).—Ransome, F. L.; Turner, H. W.
- NEWBERRY, J. S.—Newberry, J. S., & A. Hollick.
- New Brunswick (Can.), Carboniferous plants.—Dawson, Sir J. W.
- (—), peat-bogs.—Ganong, W. F.
- Newcastle (N.S.W.).—Bertrand, C. E.
- Newfoundland.—Collins, J. H.; Prowse, D. W.
- chromite.—Maynard, G. W.
- museums.—Ami, H. M.
- New Jersey (U.S.A.).—Darton, N. H.
- (—), *Bacillaria*-deposits.—Edwards, A. M.
- (—), Cretaceous foraminifera.—Bagg, R. M., Jun.
- (—), — plants.—Hollick, A.; Newberry, J. S.
- New Guinea, coral-reefs.—Agassiz, A.
- New Hampshire (U.S.A.), porphyritic gneiss.—Daly, R. A.
- New Hunstanton (Norfolk), Man.—Tucker, W. T.
- Newland (Grigualand West).—Beck, R.
- New River (Va.).—Campbell, M. R., &c.
- New South Wales.—Atkinson, A. A., &c.; Carne, J. E.; Coghlan, T. A.; Jaquet, J. B.; McLachlan, D. C.; Pittman, E. F.; Schmeisser, K.; Watt, J. A.
- , coalfields.—Bertrand, C. E.
- , Devonian fauna.—Dun, W. S.; see also Palæozoic.
- , diamonds.—Mercer, T.
- , Geological Survey.—Klittke, M.; Pittman, E. F., &c.
- , Glacial conglomerate.—Dunn, E. J., &c.
- , glaciation.—Curran, J. M.
- , gold. See Gold.
- , minerals.—Card, G. W.
- , opal.—Porter, D. A.; Weisbach, A.
- , Palæozoic fauna.—Koninck, L. G. de.
- , Permo - Carboniferous fauna.—Etheridge, R., Jun.
- , Silurian echinoderm.—Mitchell, J.
- , Siluro - Devonian fauna.—Etheridge, R., Jun.; see also Palæozoic.
- , Spring-outburst in drought.—Abbott, W. E.
- Newstead (Roxburgh), meteorite.—Cohen, E.
- Newton Nottage (Glamorgan).—Madan, H. G.
- Newtoniella*.—Cossmann, M.
- New York City (U.S.A.), American Museum.—Jessop, M. K.
- State (U.S.A.).—Fairchild, H. Le R.
- (—), Galena Series.—Sarredson, F. W.
- (—), magnetites.—Kemp, J. F.
- New Zealand, birds.—Hamilton, A.
- New Zealand, earthquake.—Field, H. C.
- , gold-bearing iron sands.—McKay, A.
- , — lodes.—Don, J. R.
- , gold-dredging.—Jaquet, J. B.
- , goldfields.—Cadman, A. J.; McKay, A.; Park, J.; Schmeisser, K.; Wilson, G.
- , mining.—Gordon, H. A.; Mercer, W. A.
- , pseudomorphs.—Ulrich, G. H. F.
- , volcanic zone.—Cadell, H. M.
- Niagara Falls (N. Am.).—Spencer, J. W.; Taylor, F. B.
- Limestone, Indiana.—Første, A. F.
- — Medusæ.—Weller, S.
- Niagara (W. Austr.).—Fielding, P.
- Nicaragua (C. Am.).—Petersen, J.; Sapper, C.
- Nickel in gold-ores.—Turner, H. W.
- , Oregon.—Austen, W. L.
- ores.—Lakes, A.
- Nickeliferous magnetites, Ontario.—Miller, W. G.
- mineral, Messina.—La Valle, G.
- NICOL'S Map of Scotland.—Judd, J. W.
- Niddrie (Linlithgow).—Martin, R.
- Nijni-Lomov (Penza).—Bogoslovski, N. A.
- Nijni-Tagilsk (Urals).—Bauerman, H.
- Nila (Salt Range, India).—Warth, H.
- NILSSON'S 'Swedish Cretaceous Lamelibranchiata.'—Hennig, A.
- Niso*.—Koninck, L. G. de; Vincent, E.
- Nitrites, origin.—Plagemann, A.
- Nivolle-Revard chain (Savoy).—Révil, J., &c.
- Nobilite.—Cumenge, E., &c.
- Nodosaria*.—Bagg, R. M., Jun.; Grzybowski, J.; Schrodt, J.
- Noire, Montagne (Hérault).—Nicklès, R.
- Noisy-les-Bains (Algeria).—Flamand, G. B.; Gentil, L.
- Nomenclature, classification &.—Marcou, J.
- , Coal Measure seams.—Bolton, H.
- , geological.—Calvin, S. A.; Chambers, T. C.; Gilbert, G. K.; Howorth, Sir H. H.; Keyes, C. R.; Le Conte, J.; Renevier, E.; Willis, B.; Williston, S. W.
- , local names &.—Keyes, C. R.
- Nomismoceras*.—Haug, E.
- Nonionina*.—Jones, T. R., &c.
- Nord (France), coalfield.—Bertrand, M.
- Norfolk glaciology.—Harrison, W. J.
- Norian.—Arthaber, G. von; Böhmersheim, A. B. von; Mojsisovics, E. von; Renevier, E.; Suess, E., &c.
- Norite.—Lacroix, A.
- , porphyrite, Pusterthal.—Cathrein, A.; Spechtnerhauser, B.
- , Transvaal.—Henderson, J. A. L.
- Noritic rocks, Ivrea.—Schäfer, R. W.
- Normandy (France), Jurassic reptilia.—Bigot, A.

- Normandy (France), prehistoric station.
—Nordez, — Le.
- Norrbottens Län (Sweden).—Hamberg, A.
- (—), copper.—Petersson, W.
- (—), iron.—Lundböhlm, H.
- Northam (Devon).—Wheeler, W. H.
- Northamptonshire, Jurassic.—Thompson, B.
- Northumberland, borings, &c.—Brown, M. W.
- , Great Whin Sill contact-rocks.—Hutchings, W. M.
- Northwich (Cheshire).—Ward, T.
- Norway.—Newbiggin, H. T.; Ronjat, J.; Vélain, C.
- , copper.—Vogt, J. H. L.
- , *Euloma-Niobe* - fauna.—Brögger, W. C.
- , glaciation.—Öyen, P. A.; Reusch, H.; Schiötz, A. E.
- , iron-ores.—Newbiggin, H. T.
- , sparagmites.—Öyen, P. A.
- Norwegian Polar Expedition.—Nansen, F.
- Nottinghamshire coalfields.—Anon., 34.
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- , Arisaig Series.—Whiteaves, J. F.
- , Carboniferous entomostraca.—Dawson, Sir J. W.
- , — plants.—Dawson, Sir J. W.
- , minerals & ores.—Gilpin, E., Jun.
- Novaya Zemlya.—Feilden, H. W.
- Novomoskovsk (Ekaterinoslav).—Sokolov, N.
- Nucleopygus*.—Lambert, J.
- Nucula*.—Bell, A.; Frië, A.; Hennig, A.; Hind, W.; Loriol, P. de; Philippi, E.; Stuckenberg, A.
- Nuculana*.—Hind, W.
- Nullagine district (W. Austr.).—Becher, S. J.
- Nummulites*.—Grzybowski, J.
- , dimorphism.—Van den Broeck, E.
- , Flysch.—Tausch, L. von.
- Nummulitic deposits, Moravia.—Tausch, L. von.
- —, Salzburg.—Mojsisovics, E. von.
- echinoidea, Egypt.—Fourtau, R.
- Nuneaton (Warwick).—Lapworth, C.
- Nuoro (Sardinia).—Riva, C.
- Nurri (Sardinia).—Corsi, A.
- Nusplingen (Württemberg), Lithographic Stone *Squatina*.—Woodward, A. S.
- NUTTER, H.—Stansfield, A.
- Obsidian bombs, Australia.—Walcott, R. H.
- 'buttons.'—Stephens, T.; Twelvetrees, W. H., &c.
- Oceanic deposits.—Mansel-Pleydell, J. C.
- salt-deposits.—Van't Hoff, J. H.
- Oceanography.—Monaco, A. Prince of; Murray, Sir J.
- Oceans.—Lapparent, A. de.]
- Oculina*.—Struve, A.
- Odenwald (Hesse).—Chelius, C.; Klemm, G.; Kraatz, K. von; Luedeck, C.; Vogel, C.
- Odontaspis*.—Bassani, F.; Sauvage, H. E.
- Odontopteris*.—Potonié, H.
- Odonteus*.—Bassani, F.
- Odostomia*.—Almera, J., &c.; Bell, A.
- Oecotraustes*.—Crick, G. C.
- Öningen (Baden).—Woodward, A. S.
- OGILVIE, A. G.—Hicks, H.
- Ohio (U.S.A.), coal.—Roy, A.
- Valley, Indiana.—Veatch, A. C.
- Oil. See Petroleum.
- Oilfields, Burma.—Nøtting, F.
- Oil-shale, Broxburn.—Bertrand, C. E.
- , New South Wales.—Atkinson, A. A., &c.
- , origin.—Goodchild, J. G.
- Oise (France).—Ramond, G.
- River alluvium.—Rabelle, A.
- Okanogan Co. (Wash.).—Dawson, W. L.
- Okeford Fitzpaine (Dorset).—Newton, R. B.
- Oklahoma (U.S.A.).—Adams, G. J.
- Olcostephanus*.—Kossmat, F.; Parona, C. F.
- Old Red Sandstone, bituminous cement.—Goodchild, J. G.
- —, England (W.).—Hudleston, W. H.
- —, fishes.—Traquair, R. H.
- —, Moray.—Mackie, W.
- —, plants.—Kidston, R.
- —, Scotland.—Geikie, Sir A.
- Olenellus*-fauna.—Matthew, G. F.
- Olenellus*-zone, Europe.—Brögger, W. C.
- , Skåne.—Möberg, J. C., &c.
- Oligocene, Algeria.—Ficheur, E.
- , Belgium.—Van den Broeck, E.
- corals, Italy.—Osasco, E.
- fishes, Mainz.—Wittich, E.
- rhinoceroses, American.—Osborn, H. F.
- , Saxony.—Kalkowski, E.
- Oligoclase.—Weibull, M.
- Oliva*.—Guppy, R. J. L.
- Olivella*.—Cossmann, M.; Guppy, R. J. L.; Rothpletz, A., &c.
- Olivine-diabase, Plessurgebirge.—Bodmer-Beder, A.
- Omphaloptychia*.—Koken, E.
- Onchocilius*.—Koken, E.
- Onchodectes*.—Wortman, J. L.
- Oncolepis*.—Bassani, F.
- Onofrite.—Termier, P.
- Ontario (Canada).—Bell, R.
- (—), magnetites.—Miller, W. G.
- 'Ontonagon copper-boulder.'—Moore, C.
- Onychocella*.—Canu, F.
- Oochytrium*.—Seward, A. C.
- Oolite, France (E.).—Girardot, A.
- , Northants.—Thompson, B.
- Opal, New South Wales.—Porter, D. A.; Wiesbach, A.
- , Wilcannia.—Gipps, F. G. de V.
- Ophicardelus*.—Almera, J., &c.

- Ophiceras*.—Diener, C.
Ophioglossum.—Newberry, J. S.
 Ophites, Navarre.—Stuart-Mentcath, P. W.
 Ophitic rocks, Algeria.—Flamand, G. B.; Gentil, L.
Ophrystoma.—Oppliger, F.
Opsis.—Loriol, P. de.
Oracanthus.—Newberry, J. S., &c.
 Orange Free State, diamantiferous rocks.—Lacroix, A.
 Orb Valley (Hérault), Pliocene & basalts.—Dépéret, C.
Orbitoides.—Nøtting, F.
 —, Flysch.—Tausch, L. von.
Orbitolina.—Söhle, U.
 Ordovician fauna, Belgium.—Malaise, C.
 Ore, deceptive appearances.—Lakes, A.
 Ore-deposits.—Elsden, J. V.; Johnson, F. D.; Launay, L. de; Power, F. D. Vogt, J. H. L.; Williams, A., Jun.
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 —, botany &.—Anon., 58.
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 —, Chile.—Nordenskjöld, O.; Wiener, —.
 —, Colorado.—Lakes, A.
 —, England (W.).—Collins, J. H.
 —, Hualgayac.—Griffith, W.
 —, igneous rocks &.—Möricke, M.
 —, Sardinia.—Achiardi, G. d'; Capacci, C.; Corsi, A.; Lotti, B.; Riva, C.; Sabatini, V.; Stockfleth, —.
 —, Thüringerwald.—Mentzel, H.
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 Oregon (U.S.A.).—Barrell, R. W.; Diller, J. S.
 — (—), nickel.—Austen, W. L.
 Orford (Suffolk).—Harmer, F. W.
 Origin of coal.—Bertrand, E.; Lapparent, A. de; Renault, B.
 Orléans district (Loiret).—Dollfus, G. F.; Grossouvre, A. de.
 Orne's Head, Great (Caernarvon).—Morton, G. H.
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Ornithominus.—Emmons, S. F., &c.
 Orobie Alps, Lake Como.—Porro, C.
Orthacanthus.—Reis, O. M.
Orthis.—Whidborne, G. F.
 Orthite.—Flett, J. S.
Orthoceras.—Diener, C.; Dun, W. S.; Foord, A. H.; Koninck, L. G. de; Stuckenberg, A.
 Orthoclase.—Achiardi, G. d'; Joly, J.
 —, fissure-vein gangue. — Lindgren, H.
Orthodesma.—Whiteaves, J. F.
Orthonota.—Dun, W. S.
Orthopsis.—Nøtting, F.
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Orygoeras.—Brusina, S.
 Osaga Group.—Keyes, C. R.; Weller, S.
 Ōsar.—Howorth, Sir H. H.; see also Eskers.
Oscilla.—Guppy, R. J. L., &c.
- Osmeroides*.—Sauvage, H. E.; Wittich, E.
Osmundites.—Seward, A. C.
 Osorno volcano (Chile).—Bruhns, W.
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 —, Jurassic.—Kært, W.
 —, Palæozoic.—Jones, T. R., &c.
 —, shower of fossil.—Lortet, —.
 —, Silurian.—Whiteaves, J. F.
 —, Tertiary.—Grzybowski, J.
Ostrea.—Almera, J., &c.; Bell, A.; Clark, W. B.; Cossmann, M.; Gilbert, G. K.; Hennig, A.; Loriol, P. de; Mayer-Eymar, C.; Newton, R. B.; Nøtting, F.; Penecke, K. A.; Philippi, E.; Reid, C.; Roman, F.; Rothpletz, A., &c.
 Ostrevant (Nord).—Gosselet, J.
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 Ostritz (Saxony).—Hazard, J.
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Otoceras.—Diener, C.
 Ottakring (Lr. Austria).—Abel, O.
 Ottawa (Canada).—Ami, H. M.
 Ottignies (Brabant).—Mourlon, M.
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 Otumpa (Argent.) meteorite.—Gancedo, A.
Oudenodon.—Seeley, H. G.
 Oued Rir' (Algeria).—Rolland, G.
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Oweniasuchus.—Sauvage, H. E.
 Oxford Clay fishes.—Woodward, A. S.
 Oxford, geology &.—Sollas, W. J.
 — *Iguanodon*.—Sauvage, H. E.
 Oxfordshire high-level gravels.—Shrubsole, O. A.
 Oxus (Turkestan).—Walther, J.
Oxyacodon & *Oxyclænus*.—Matthew, W. D.
Oxynticerias.—Crick, G. C.
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- Pachuca (Mexico).—Ordoñez, E.
Pachydiscus.—Choffat, P.; Kossmat, F.; Mariani, E.; Peron, A.
Pachydomus.—Koninck, L. G. de.
Pachyteichisma.—Oppliger, F.
 Pacific Coast, earthquakes.—Holden, E. S.
 — (U.S.A.), Eocene & Cretaceous faunas.—Stanton, T. W.
 — Ocean.—Baur, G.

- Pacy-sur-Eure (Eure).—Dollfus, G.
 Padua University Museum.—Omboni, G.
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 Pair (Liège).—Destinez, P.
Palæanthus.—Newberry, J. S.
Palæaster.—Koninck, L. G. de.
Palæchinus.—Mitchell, J.
Palæoblattina.—Comstock, J. H.
 Palæobotany.—Seward, A. C.; *see also* Plants.
Palæocidaris.—Stuckenber, A.
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Palæodictyon.—Paul, C. M.
 Palæolith.—Claypole, E. W.
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 — Man.—Mello, J. M.; Newton, E. T.; *see also* Man.
 — —, Cornwall.—Somervail, A.
 — —, Scotland.—Turner, Sir W.
Palæomeryx.—Kinkelin, F.
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 —, Smithsonian Institution &.—Cope, E. D.
Palæophycus.—Stuckenber, A.
 Palæopicrite.—Brauns, R.
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Palæostoa.—Nicholas, H.
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 —, Bündner Oberland.—Steinmann, G.
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 — cephalopoda, corals, & crustacea. *See* Cephalopoda, Corals, Crustacea.
 —, Chile.—Philippi, R. A.
 —, England (W.).—Hudleston, W. H.
 — fauna, Alaska.—Schuchert, C.
 — —, American (S.) older.—Kayser, E.
 — —, Canada.—Whiteaves, J. F.
 — —, Hof a. Saale.—Leyh, C. Fr.
 — —, Victoria.—Travis, J., &c.
 — —, New South Wales.—Koninck, L. G. de.
 — fishes.—Newberry, J. S.; Traquair, R. H.
 — insects.—Comstock, J. H.
 —, Montagne-Noire.—Bergeron, J.
 — phyllopora. *See* Phyllopora.
 —, Sweden.—Högbom, A. G.
 Palagonite.—Petterd, W. F.
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Palinurus.—Hollick, A.
 Pallet (Loire-Inférieure).—Lacroix, A.
Palmatopteris.—Potonié, H.
 Palmer goldfield (Queensland).—Jack, R. L.
 Palombara (Prov. Rome).—Cerulli-Irelli, S., &c.
Paludina.—Blanckenborn, M.
 Pamir boundary (Asia).—Alcock, A. W., &c.
 Pampean formation, Argentina.—Church, G. E.
 Panamá (Colombia).—Chibas, E. J.; Hill, R. T., &c.
 Pajisielian.—Couturieaux, J.; Vincent, E.
Panopæa.—Almera, J., &c.; Clark, W. B.; Söhle, U.; Vincent, E.
 Pará (Brazil).—Clarke, J. M.
Parabolina.—Möberg, J. C., &c.
Paracyathus.—Tate, R.
Paradoxides.—Matthew, G. F.
Paralecanites.—Diener, C.
Parallelodon.—Hind, W.
 Paraíba (Brazil), Tertiary fauna.—Ameghino, F.
 Paria Gulf (Caribbean).—Sievers, W.
 Parioli, Mti. (Rome).—Clerici, E.
 Paris (France).—Laville, A.
 — (—), Geol. Congress 1900.—Barrois, C.
 — Basin.—Barrois, C.; Pergens, E.
 — —, Cretaceous fishes.—Priem, F.
 — —, gypsum, &c.—Lacroix, A.
 — —, pyrites decomposition.—Lacroix, A.
 — —, siliceous deposits.—Cayeux, L.
 — —, Tertiary.—Dollfus, G. F.; Munier-Chalmas, —.
 — —, fauna.—Cossmann, M.
 Park Co. (Colo.).—Sadtler, B.
 Parma Museum.—Simonelli, V.
 Parvatypore (Madras) meteorite.—Cohen, E.
 Pas-de-Calais (France) coal.—Oly, A.
 PASQUIER, L. DE.—Penck, A.; Tribolet, M. de.
 Passagem (Brazil).—Hussak, E.
 Passau (Lr. Bavaria) graphite.—Weinschenk, E.
 Patagonia (S. Am.).—Nordenskjöld, O.
 — (—), existing ground-sloth.—Ameghino, F.
 — (—), Tertiary fauna.—Ameghino, F.; Hauthal, R.; Pilsbry, H. A.
Patella.—Kaunhowen, F.; Koken, E.; Stuckenber, A.
 Peak Hill (W. Austr.).—Bagot, C. U.; Reed, F.
 Peat.—Reid, C.
 — bogs, New Brunswick.—Ganong, W. F.
 —, buried Danish.—Sarauw, G. F. L.
 —, Ceylon.—Modder, F. H.
 — Erzgebirge.—Beck, K.
 — plants.—Keilhack, K.
 Pebble, double.—Weinschenk, E.
 — fauna, R. I. Carboniferous.—Walcott, C. D.
 — ridge, Northam.—Wheeler, W. H.
 Pebbles, Bresse Alpine.—Boistel, —; Tardy, C.
 Pebbly gravels, England (S.).—Salter, A. E.
Pecopteris.—Kerner, F. von; Potonié, H.; Shirley, J.

- Pecten*.—Abel, O.; Almera, J., &c.; Bell, A.; Clark, W. B.; Fischer, H.; Gregorio, A. de; Hennig, A.; Lorient, P. de; Mayer-Eymar, C.; Newton, R. B.; Nøtting, F.; Penecke, K. A.; Reid, C.; Roman, F.; Söhle, U.; Stuckenberg, A.; Vinassa de Regny, P. E.
- Pectinidæ*.—Douvillé, H.
- Pectunculus*.—Almera, J., &c.; Clark, W. B.; Frič, A.; Penecke, K. A.—Rothpletz, A., &c.; Stanton, T. W.
- Pegmatite*, Ariège.—Lacroix, A.
—, diabase with.—Jaggard, T. A., Jun.
- Pelecanus*.—Harmer, S. F.
- Pelecypoda*. See *Lamellibranchiata*.
- Pelican Bones*, Cambs.—Harmer, S. F.
- Pelorosaurus*.—Sauvage, H. E.
- Pelosina*.—Schrodt, J.
- Peltoceras*.—Brasil, L.; Crick, G. C.
- Pelvoux massif* (Isère).—Termier, P.
- Pembrokeshire*.—Matlev, C. A.
- Penicillus*.—Seward, A. C.
- Penn* (Bucks).—Stebbing, W. P. D.
- Pennine Alps*.—Duparc, L., &c.
- Penniretepora*.—Koninck, L. G. de.
- Pennsylvania* (U.S.A.) coalfields.—Hardt, A.
— (—), Drift.—Williams, H., Jun.
— (—), earth-magnetism.—Lyman, B. S.
— (—), fire-clays.—Hopkins, T. C.
- Peuryu* (Cornwall).—Griffin, E.
- Pentacrinus*.—Bather, F. A.; Lorient, P. de; Nicholas, H.; Pompeckj, J. F.
- Pentamerus*.—Dun, W. S.; Koninck, L. G. de.
- Pentremitidea*.—Weller, S.
- Penza* (Russia).—Bogoslovski, N. A.
- Perak*, tin.—Wray, L.
- Perforated rocks*, W. Austr.—Dunn, E. J.
- Pergamo* (Asia Minor).—Agamennone, G.
- Periclase*.—Sjögren, H.
- Pericosmus*.—Kinkel, F.
- Pericyclus*.—Haug, E.
- Peridotite*.—Lacroix, A.; Pratt, J. H.
- Périgueux* (Dordogne).—Glaudeaud, P.
- Perijá*, Sierra de (Venezuela).—Sievers, W.
- Periploma*.—Vincent, G.
- Perisphinctes*.—Canavari, M.; Crick, G. C.; Fucini, A.; Michalski, A.; Philippi, E.; Roman, F.; Siemiradzki, J. von; Törnquist, A.
- Perissolar*.—Stanton, T. W.
- Peristernia*.—Krause, P. G.; Rothpletz, A., &c.
- Perm* (Russia).—Stuckenberg, A.
- Permeability, rock*.—Viola, C.
- Permian amphibian*.—Williston, S. W.
— brachiopoda.—Diener, C.; Frech, F.
—, Bohemia.—Weithofer, K. A.
— cephalopoda & lamellibranchiata.—Diener, C.
—, Claxheugh.—Woolacott, D.
- Permian*, Germany.—Paalow, R.; Spandel, E.
—, Himalayas.—Diener, C.
—, Kansas.—Haworth, E., &c.; Williston, S. W.
— Medusæ.—Walcott, C. D.
— plants, reptilia, &c. See *Plants*, *Reptilia*, &c.
— reptilia, Autun.—Boule, M., &c.
— —, footprints.—Pabst, W.
—, Salt Range.—Nøtting, F.
—, Tyrol.—Diener, C.
- Perno-Carboniferous fauna*, N.S.W.—Etheridge, R., Jun.; Koninck, L. G. de.
— —, Perm.—Stuckenberg, A.
—, plants, Transvaal.—Draper, D.
- Perma*.—Lorient, P. de.
- Pernopecten*.—Whidborne, G. F.
- Peroniceras*.—Peron, A.
- Peronosporites*.—Seward, A. C.
- Persia*, mineral resources.—Helmhacker, R.
- Persian Gulf*.—Stiffe, A. W.
- Peru*, Andes.—Balta, J.
—, anthracite.—Griffith, W.
—, rare metals.—Balta, J.
—, Silurian fauna.—Balta, J.
- Petalocrinus*.—Bather, F. A.
- Peterborough* (Northants).—Leeds, A. N., &c.
- Petraia*.—Dun, W. S.
- Petrographical microscope*.—Amann, J.; Jaggard, T. A., Jun.
- Petroleum*, American.—Young, S.
—, Baku.—Macco, A.
—, British Columbia.—Gosnell, R. E.
—, Burma.—Nøtting, F.
—, Caucasus.—Venukov, —.
—, Galicia.—Zuber, R.
—, Hungary.—Kalecsinszky, A. von Pošewitz, T.
—, Indiana.—Blatchley, W. S.; Hall, C. F.
—, Kansas.—Haworth, E., &c.
—, Newfoundland.—Collins, J. H.
—, Rumania.—Richard, A. de.
—, Salsomaggiore.—Taramelli, T.
—, Sussex.—Anon., 64, 83; Dawson, C.
—, Virginia (W.).—White, I. C.
- Petrology*.—Claypole, E. W.; Cole, G. A. J.; Green, A. H.; Hillebrand, W. F.; Klein, C.; Marr, J. L. E.; Schroeder von der Kolk, J. L. C.; Wadsworth, M. E.; Watts, W. W.
—, sedimentary rocks.—Harker, A.
- Petzite*.—Cumenge, E., &c.; Simpson, E. S.
- Phegopteris*.—Newberry, J. S.
- Phenakite*.—Bäckström, H.
- Philæ* (Egypt) sandstone-weathering.—Borchardt, L.
- Philippine Is.*—Becker, G. F.; Puig y Larraz, G.
- Phillipsia*.—Koninck, L. G. de.
- Phyllyrea*.—Frič, A.

- Philomedes*.—Jones, T. R.
Phleboteris.—Shirley, J.
 Phlegraan Fields(Campania).—Günther, R. T.
Phlyctenodes.—Ristori, G.
Phœnix.—Schlechtendal, D. H. R. von.
Pholadomya.—Clark, W. B.; Cossmann, M.; Frič, A.; Futterer, C.; Hennig, A.; Nætling, F.; Schaffer, F.; Söhle, U.; Vinassa de Regny, P. E.
Pholas.—Clark, W. B.
Pholidophorus.—Woodward, A. S.
 Phonolite.—Rosenbusch, H.
Phormocampe.—Rüst, H.
Phos.—Guppy, R. J. L., &c.
 Phosphate of lime in Ariège Gault.—Caralp, —.
 Phosphates, Haravesnes.—Gosselet, J.
 —, Helmstedter Mulde.—Vater, H.
 —, Pyrenees.—Levat, D.
 —, Quercy.—Gaudry, A.
 —, Tennessee.—Hayes, C. W.; Riggs, E. S.
 Phosphatic Chalk, Étaves, &c.—Gosselet, J.
 —, Ribemont.—Rabelle, A.
 — rocks, Lr. Senegambia.—Meunier, S.
 Phosphatized trachyte, Clipperton Atoll.—Teall, J. J. H.; Wharton, Sir W. J.
 Phosphorus in Elba iron.—Toso, P.; Mattiolo, E., &c.
 Photographs, geological.—Watts, W. W.
Phryganophyllum.—Stuckenber, A.
Phyllites.—Marion, A. F., &c.; Newberry, J. S.
Phylloceras.—Pompeckj, J. F.; Törnquist, A.
Phyllochorda.—Paul, C. M.
Phyllocœnia.—Osasco, E.
Phyllograptus.—Elles, G. L.
 Phyllopora, Palæozoic.—Jones, T. R.; Schuchert, C.
Phyllotheca.—Seward, A. C.
Physa-beds, Provence.—Bresson, A.
 Physiography.—Lapparent, A. de; Potter, J. M.
 Picrite.—Rosenbusch, H.
 Piedmont (Italy) loess.—Viglino, A.
 — (—) Tertiary.—Osasco, E.; Sacco, F.
 Piedmont (W. Va.).—Walcott, C. D., &c.
Pila.—Renault, B.; Seward, A. C.
 Pilbarra (W. Austr.).—Becher, S. J.; Ostlund, A.
 Pillon Beds fauna.—Whidborne, G. F.
Pilumnus.—Ristori, G.
Pimelites.—Cossmann, M.
 Pine in Quaternary gravels, Troyes.—Fliche, P.
 Pinite.—Gemböck, H.
Pinna.—Futterer, C.; Söhle, U.; Vinassa de Regny, P. E.; Vincent, E.
Pinus.—Newberry, J. S.; Schlechtendal, D. H. R. von.
 PIPEE, G. H.—Hicks, H.
Pironæa.—Douvillé, H.
Pirula.—Cossmann, M.
Pisidium.—Brusina, S.
Pisonia.—Frič, A.
 Pitch, Barbados.—Merivale, W.
Pithecanthropus.—Anon., 69; Braubrook, E. W.
 Pittsburg (Pa.) coal.—White, I. C.
Pityoxylon.—Hollick, A.
 Placard (Hainault).—Briart, A.
Placenticeræ.—Choffiat, P.; Gilbert, G. K.; Peron, A.
Placunoopsis.—Philippi, E.; Törnquist, A.
Plagiolophus.—Carter, J.
Planera.—Newberry, J. S.
 Planoferrite.—Darapski, L.
Planorbis.—Almera, J., &c.; Blanckenborn, M.; Brusina, S.; Kert, W.
 Plant-beds, Witkopje Pau.—Andrews, A. J.
 — remains & mining.—Potonié, H.
 Plants.—Seward, A. C.
 —, Alaska.—Knowlton, F. H.
 —, Arctic.—Bulman, G. W.; Toll, E. von.
 —, Australian Secondary.—McCoy, Sir F.
 —, Carboniferous.—Dawson, Sir J. W.; Geinitz, H. B.; Gresley, W. S.; Kerner, F. von; Kidston, R.; Mansel-Pleydell, J. C.; Martin, E. A.; Maslen, A. J.; Renault, B.; Scott, D. H.; Seward, A. C.; Zeiller, R.; see also Palæozoic.
 —, Courland Glacial & post-Glacial.—Toll, E. von, &c.
 —, Cretaceous.—Brown, H. Y. L., &c.; Emmons, S. F., &c.; Fliche, P.; Frič, A.; Hollick, A.; Marion, A. F., &c.; Newberry, J. S.; Stenzel, K. G.; Ward, L. F.; see also Mesozoic.
 —, Devonian.—Kidston, R.; see also Palæozoic.
 —, Dordogne tufa.—Rivière, E.
 —, geological history of British.—Reid, C.
 —, Jurassic.—Knowlton, F. H.; Mansel-Pleydell, J. C.; Newton, E. T.; see also Mesozoic.
 —, Karoo.—Hatch, F. H., &c.
 —, Mesozoic.—McCoy, Sir F.; Nathorst, A. G.
 —, Old Red Sandstone.—Kidston, R.
 —, ore-indicators.—Anon., 58.
 —, Palæozoic.—Kidston, R.; Leyh, C. Fr.; Seward, A. C.; see also Carboniferous, &c.
 —, peat.—Keilhack, K.
 —, Permian.—Geinitz, H. B.
 —, Permo-Carboniferous.—Draper, D.; Stuckenber, A.; see also Palæozoic.
 —, Quaternary.—Fliche, P.; Toll, E. von.
 —, Queensland Secondary.—Shirley, J.
 —, soils &.—Parsons, H. F.
 —, spines.—Beecher, C. E.

- Plants. Tertiary.—Delheid, E.; Frië, A.; Lorenz von Liburnau, J.; Sen.; Marion, A. F., &c.; Paul, C. M.; Penecke, K. A.; Philippi, R. A.; Reid, C.; Schlechtendal, D. H. R. von; Steuzel, K. G.
 —, Transvaal.—Andrews, A. J.; Draper, D.; Hatch, F. H., &c.
 —, Triassic.—Draper, D.
 —, Wealden.—Seward, A. C.
Plasmopora.—Weissermel, W.
Platanus.—Frië, A.
 Plateau-man.—Abbott, W. J. L.; Bullen, R. A.; Kennard, A. S.; *see also* Man.
 — gravels.—Salter, A. E.; *see also* Gravels.
 —, Hants, &c.—Reid, C.
 —, Palæolithic implements.—Cunnington, W.
 —, submarine. *See* Submarine.
Platyhemera.—Comstock, J. H.
 Platinum, crystalline structure.—Liversidge, A.
Platyceras.—Koken, E.; Koninck, L. G. de.
Platyphilina.—Philippi, E.
Platychnonia.—Oppliger, F.
Platycoormus.—Sauvage, H. E.
Platygerinus.—Koninck, L. G. de.
Platygyathus.—Söhle, U.
Platyostomella.—Brown, C.
Platyschisma.—Etheridge, R., Jun.
Plectanium.—Gryzbowski, J.
Plectotrema.—Almera, J., &c.
Plectomya.—Futterer, C.
 Pleistocene.—Anon., 47; Reid, C.; *see also* Quaternary.
 —, Australia (S.).—Tate, R.
 —, Bournemouth.—Reid, C.
 —, corals, Egypt.—Gregory, J. W.
 —, fauna.—Hughes, G. P.; Kermode, P. M. C.; Lydekker, R.; Nehring, A.
 —, ice-sheets, U.S.A.—Chamberlin, T. C.
 —, Iowa.—Calvin, S., &c.
 —, Kansas.—Beede, J. W.; Haworth, E., &c.; Williston, S. W.
 —, England, &c.—Geikie, Sir A.
 —, Lancashire.—Morton, G. H.
 —, mammalia. *See* Mammalia.
Plesiochelys.—Sauvage, H. E.
 Plesiosauria.—Dames, W.; Sauvage, H. E.
Plesiotissotia.—Peron, A.
Plesiotriton.—Tate, R.
 Plessurgebirge (Grisons).—Bodmer-Beder, A.
Plethospira.—Girty, G. H.
Pleurocanthus.—Reis, O. M.
Pleurocælus.—Sauvage, H. E.
Pleurodictyum.—Dun, W. S.
Pleurograptus.—Elles, G. L.
Pleuromya.—Newton, R. B.; Philippi, E.; Törnquist, A.
Pleuromutilus.—Diener, C.
Pleurophorus.—Koninck, L. G. de.
Pleurosmilia.—Koby, F.
Pleurotoma.—Almera, J., &c.; Bell, A.; Clark, W. B.; Kaunhowen, F.; Papp, K.; Reis, O. M.; Schaffer, F.; Vinassa de Regny, P. E.
Pleurotomaria.—Kaunhowen, F.; Koken, E.; Koninck, L. G. de; Pompeckj, J. F.; Roman, F.; Stuckenber, A.; Vinassa de Regny, P. E.; Whiteaves, J. F.
Pleurotomella.—Clark, W. B.
Plicatula.—Frië, A.; Lorient, P. de; Söhle, U.; Stanton, T. W.; Tate, R.
 Pliocene bears, Italy.—Ristori, G.
 —, Catalonia.—Almera, J., &c.
 —, cetacea, Italy.—Prato, A. del.
 —, Crustacea, Italy.—Vinassa de Regny, P. E.
 —, England (E.).—Harmer, F. W.
 —, fauna, Roussillon.—Depéret, C.
 —, St. Erth.—Bell, A.; Millett, F. W.
 —, Spain.—Schrodt, J.
 —, Syria.—Blanckenborn, M.
 —, fruits, Belgium.—Delheid, E.
Hippopotamus, Burna.—Nætling, F.
 —, Italy.—Scarabelli, G., &c.
 —, mollusca, Prov. Rome.—Cerulli-Irelli, S., &c.
Plihippus.—Emmons, S. F., &c.
 Plumbago, Ceylon.—Modder, F. H.; *see also* Graphite.
 Po (Italy).—Stella, A.
 Pochontas (Va.).—Walcott, C. D., &c.
Pocillopora.—Struve, A.
 Podeni (Rumania).—Stefănescu, S.
Podocampe & *Podocapsa*.—Rüst, H.
Podocarpus.—Seward, A. C.
Podocyrtilis.—Rüst, H.
 Podolia (Russia).—Ivan, A. P.; Radkevich, G.
Podopilumnus.—Carter, J.
Podozamites.—Newberry, J. S.
 Podu-Dimbovitzei (Rumania).—Popovici-Hatzeg, V.
Pocilia.—Woodward, A. S.
 Poles, changes.—Poincaré, A.
 Polk Co. (Iowa).—Bain, H. F.
Pollicina.—Koken, E.
Pollicipes.—Williston, S. W.
 Poltava (Russia).—Radkevich, G.
Polycælia.—Stuckenber, A.
Polyconites.—Douvillé, H.
Polycope.—Koninck, L. G. de.
Polygonum.—Seward, A. C.
Polygyrina.—Koken, E.
 Polyite.—Lacroix, A.
Polymorphina.—Bagg, R. M., Jun.
 Polymorphism, mineral.—Wallerant, F.
 Polynesian submergence.—Lydekker, R.
Polyphyloseris.—Koby, F.
Polypora.—Koninck, L. G. de.
Polyporus.—Seward, A. C.
Polyrhizodus.—Newberry, J. S.
Polytomella.—Jones, T. R., &c.; Schrodt, J.
Polytremacis.—Koby, F.
 Polyzoa. *See* Bryozoa.

- Pomatias*.—Cossmann, M.
 POMEL, N. A.—Anon., 61.
 Pontafel (Carinthia).—Geyer, G.
 Pontefract (Yorks) Barnsley coal-seam.
 Durnford, H. St. J.
 Ponza I.—Sabatini, V.
 Porana.—Schlechtdendal, D. H. R. von.
Porcellia.—Koninck, L. G. de.
Porites.—Struve, A.
Porocypellia.—Oppliger, F.
Porodiscus.—Rüst, H.
Poromya.—Vincent, E.
 Porosity, rock.—Liversidge, A.; Viola, A.
 Porpezite.—Cumenge, E., &c.
 Porphyrite-gneiss, New Hampshire.—
 Daly, R. A.
 Porphyry.—Rosenbusch, H.
 —, Carinthia.—Graber, H. V.
 —, kaolin.—Kraatz, K. von.
 —, Tasmania.—Twelvetrees, W. H., &c.
 Port au Port Bay (Newfoundland).—
 Maynard, G. W.
Portheus.—Stewart, A.
 Portland (Dorset).—Cornish, V.; Geikie,
 Sir A.
 Portland (Me.).—Lord, E. C. E.
 Portlandian.—Haug, E.
 —, Charentes.—Glangaud, P.
 Portugal, coal.—Cattier, S.
 —, Cretaceous ammonites.—Choffat,
 P.
 —, *Iguanodon*.—Sauvage, H. E.
 —, Lias ammonites.—Pompeckj, J. F.
 —, Secondary reptiles & fishes.—Sau-
 vage, H. E.
 —, Silurian trilobites.—Delgado, J.
 F. N.
 —, Tertiary fishes.—Sauvage, H. E.
 —, Turonian.—Choffat, P.
Posidoniella.—Hind, W.
Posidonomya.—Bittner, A.; Schaffer, F.
 Postale, Mti. (Vincentino).—Bassani, F.
 Post-Glacial Beds, Bruges Canal.—Reade,
 T. M.
 Post-Tertiary, Magellan's Land.—Nor-
 denskjöld, O.
Potamidés.—Almera, J., &c.; Cossmann,
 M.; Newton, R. B.; Penecke, K. A.
 Potash-salts deposits, Leine Valley.—
 Kloos, J. H.
 Potchefstroom (Transvaal).—Draper, D.
Poteriocrinus.—Koninck, L. G. de.
 Potholes. See Giants' kettles.
 Potomac formation, Virginia.—Fon-
 taine, W. M.
 Potsdam (Dak.) gold-ores.—Smith, F. C.
 Pottery.—Branner, J. C.
 Pougues (Nièvre).—Friedel, G.
 Prague (Bohemia) steppe-fauna.—Wold-
 rich, J. N.
 Prahova (Rumania).—Popovici, V.; Ste-
 fănescu, S.
 Pre-Cambrian, America (N.).—Leith, C.
 K.
 —, England, &c.—Geikie, Sir A.
 —, fauna.—Dawson, Sir J. W.
 —, Finland.—Gurney, H. P.
 —, Malvern Hills.—Callaway, C.
 Predazzo (Tyrol) eruptive rocks.—Osann,
 A., &c.
 Pre-Glacial rock-decomposition, Canada.—
 Chalmers, R.
 —, submerged valleys.—Codrington,
 T.
 Prehistoric fauna, Block I.—Eaton, G.
 F.
 — man.—Nordez, — Le.
 Prenton Hill (Lancs).—Beasley, H. C.;
 Moore, C. C., &c.
 Preschen (Bohemia).—Laube, G. C.
 PRESTWICH, Sir J.—Ramond, G.
 Pretoria (Transvaal) glaciation.—Draper,
 D.; Frames, M. E.; Heslop, W. T.;
 Molengraaf, G. A. F.; Prister, A.;
 White, F.
 — (—), Red Sandstone.—Harger,
 H. S.
 Priabona (Tuscany).—Vinassa de Regny,
 P. E.
 Primitiva (Chile) meteorite.—Cohen, E.
Prionastræa.—Osasco, E.; Struve, A.
Prioniodus.—Girty, G. H.
Prionoicyclus.—Gilbert, G. K.
Productus.—Diener, C.; Drake, N. F.;
 Frech, F.; Koninck, L. G. de; Siemi-
 radzki, J. von; Stuckenberg, A.;
 Whidborne, G. F.
 —-limestone, Salt Range.—Nœtling,
 F.
 —-shales, Himalayas.—Diener, C.
Proetus.—Leyh, C. F.
Propristis.—Priem, F.
Proptychites.—Diener, C.
Proroekia.—Loriol, P. de.
 Prosopite.—Petterd, W. F.
Prosopon.—Roman, F.
Prosothenia.—Brusina, S.
Prospingites.—Diener, C.
Protapirus.—Gaudry, A.
Protaræa.—Whiteaves, J. F.
Protechinus.—Nœtling, F.
Proteoides.—Newberry, J. S.
Protosaurus.—Etzold, F.
Prothyris.—Whidborne, G. F.
Protocardia.—Clark, W. B.; Newton,
 R. B.; Söhle, U.
Protocardium.—Törnquist, A.
Protocaris.—Schuchert, C.
Protochriacus.—Matthew, W. B.
Protodus.—Traquair, R. H.
Protonerita.—Philippi, E.
Protophyllum.—Newberry, J. S.
Protoretepora.—Koninck, L. G. de.
Protoselene.—Matthew, W. D.
Protosphyæna.—Stewart, A.
Protostega.—Wieland, G. R.
Protrachyceras.—Toula, F.
 Provence (France).—Doncieux, I.
 — (—), Cretaceous.—Grossouvre, A.
 de; Vasseur, G.
 — (—), Tertiary.—Bresson, A.;
 Grossouvre, A. de; Vasseur, G.
Provipera.—Kinkelin, F.
Prunus.—Frič, A.; Newberry, J. S.
Psammechinus.—Gregory, J. W.
Psammobia.—Almera, J., &c.

- Psammophis*.—Schellwien, E.
Psammosteus.—Traquair, R. H.
Psammotæa.—Reid, C.
Psephodus.—Newberry, J. S.
Pseuderiphylla.—Vincent, E.
Pseudoannicola.—Brusina, S.
Pseudocorbula.—Philippi, E.
Pseudohercynella.—Kaunhowen, F.
Pseudoliva.—Kaunhowen, F.; Mayer-Eymar, C.
Pseudomelania.—Roman, F.
Pseudomonotis.—Stuckenberg, A.
Pseudomorphs.—Döll, E.; Lacroix, A.; Miers, H. A.; Warren, C. H.
Pseudomurchisonia.—Koken, E.
Pseudosphærexochia.—Holm, G.
Pseudotaphrus.—Cossmann, M.
Pseudo-Tertiary, Moravia.—Rzehak, R.
Pseudotissotia.—Choffat, P.; Peron, A.
Pseudoturbina.—Koken, E.
Psilomelissa.—Rüst, H.
Psilophyton.—Leyh, C. Fr.
Psittacotherium.—Wortman, J. L.
Pteranodontia, Cretaceous.—Emmons, S. F., &c.
Pteridoleimma.—Frič, A.
Pterinea.—Dun, W. S.; Koninck, L. G. de; Stuckenberg, A.
Pterinopecten.—Whidborne, G. F.
Pterinopsis.—Stuckenberg, A.
Pterocanium.—Rüst, H.
Pterocarya.—Schlechtendal, D. H. R. von.
Pterograptus.—Elles, G. L.
Pterophyllum.—Shirley, J.
Pteropoda, Palæozoic.—Berkey, C. P.; Fox, H., &c.
Pterygotopus.—Kayser, E.
Ptycheulimella.—Almera, J., &c.
Ptychodus.—Eastman, C. R.
Ptychoparia.—Berkey, C. P.; Etheridge, R., Jun.; Matthew, G. F.
Ptymatis.—Roman, F.
Pueblo (Colo.).—Walcott, C. D., &c.
Puerco fauna, New Mexico.—Matthew, W. D.
Puget Sound (Wash. Terr.).—Willis, B.
Pugnellus.—Nætling, F.
Puhupuhi goldfields (N. Z.).—Wilson, G.
Pulchellia.—Kønen, A. von.
Pullenia.—Upton, C.
Pulvinulina.—Bagg, R. M., Jun.; Chapman, F.; Grzybowski, J.
Pumice, Dublin.—O'Reilly, J. P.
Puncturella.—Tate, R.
Punjab (India).—Nætling, F.
Punta Arenas (Chile).—Ortmann, A. E.
Pupa.—Almera, J., &c.
Parbeck isopoda, Aylesbury.—Woodward, H.
 —, Wealden fauna.—Dawson, C.
Purpuroidea.—Koken, E.; Reis, O. M.; Roman, F.; Tommasi, A.
Pusterthal (Tyrol).—Cathrein, A.; Spechtenhauser, B.
Puy-de-Dôme (France).—Lacroix, A., &c.
Puy-de-la-Tache (Puy-de-Dôme).—Gonnard, F.
Puzosia.—Choffat, P.; Kossmat, F.; Sarasin, C.
Pycnodus.—Priem, F.; Sauvage, H. E.
Pycnomphalus.—Koken, E.
Pyramidella.—Almera, J., &c.; Guppy, R. J. L., &c.
Pyrazisimus.—Guppy, R. J. L., &c.
Pyrenees.—Lacroix, A.; Seunes, J.
 —, black phosphates.—Levat, D.
 —, caverns.—Viré, A., &c.
 —, Cretaceous (Upper).—Arnaud, H.
 —, Cretaceous & Tertiary.—Grossouvre, A. de.
 —, folds.—Stuart-Menteth, P. W.
 —, granite.—Carez, L.
 —, granitic contacts.—Lacroix, A.
 —, lakes.—Carez, L.; Delebecque, A., &c.
 —, lherzolite.—Lacroix, A.
Pyrgia.—Stuckenberg, A.
Pyrgochonia.—Oppliger, F.
Pyrgula.—Blanckenborn, M.; Brusina, S.
Pyrgulina.—Cossmann, M.
Pyrimont (Savoy).—Depéret, C.
Pyrina.—Nætling, F.
Pyrites.—Achiardi, G. d'; Buttgenbach, H.; Cesàro, G.; Meli, R.; Ochsenius, C.
 —, decomposition in Paris Basin & Greece.—Lacroix, A.
 —, Hungary.—Fahndrich, —.
Pyrochlore.—Petterd, W. F.
Pyromerides.—Parkinson, J.
Pyromorphite.—Lacroix, A.
Pyrophyllite.—Weibull, M.
Pyropsis.—Clark, W. B.
Pyroxenites, Transvaal.—Henderson, J. A. L.
Pyrrhotite.—Lacroix, A.; Petterd, W. F.
Pyrgula.—Almera, J., &c.; Kaunhowen, F.
Quanton (Bucks).—Davies, A. M.
Quarries, granite.—Anon., 75, 78.
 —, Great Britain & Ireland.—Atkinson, J. B., &c.; Foster, C. Le N.
 —, limestone.—Anon., 76.
 —, slate.—Anon., 77.
Quartz.—Högbom, A. G.; Redlich, K. A.; Spezia, G.
 —, action of water on.—Spezia, G.
 —, barytes rock, Salem (Madras).—Holland, T. H.
 —, geodes, Meylan.—Gonnard, F.
 —, pseudomorphs.—Ulrich, G. H. F.
 —, rock, Derbyshire.—Arnold-Bemrose, H. H.
Quartzite, Martley.—Groom, T. T.
 —, Michigan.—Van Hise, C. R., &c.
 —, Sioux.—Beyer, S. W.
 —, Worcestershire.—Coles, C. St. A.
Quaternary.—See also Pleistocene.
 —, Arizona.—Blake, W. P.
 —, Belgium.—Reade, T. M.; Velge, G.
 —, Brittany.—Barrois, C.
 —, Cairo.—Mayer-Eymar, C.

- Quaternary, Condros plateau.—Ladrière, J.
 —, Courland.—Toll, E. von.
 —, deposits.—Howorth, Sir H. H.
 —, Egypt.—Mayer-Eymar, C.
 —, fauna, Bohemia.—Woldrich, J. N.
 —, Germany.—Nehring, A.
 —, Italy.—Simonelli, V.
 —, Malta.—Cooke, J. H.
 —, Sweden.—Sernander, R.
 —, Villefranche.—Gaillard, C.
 —, Flanders.—Vincent, E.
 —, France.—Gaillard, C.; Harlé, E.
 —, Grotte du Mas d'Azil.—Fischer, H.
 —, Hesbaya & Holland.—Velge, G.
 —, implements near Paris.—Laville, A.
 —, Magdeburg.—Woltersdorff, W.
 —, mammalia. *See* Mammalia.
 —, man.—Mello, J. M.; Newton, E. T.; *see also* Man.
 —, Netherlands.—Raeymaekers, D.
 —, plants, Courland.—Toll, E. von.
 —, Red Deer.—Hughes, G. P.
 —, Riesengebirge.—Vorweg, O.
 —, Sambre & Meuse.—Forir, H.
 —, Saxony.—Siegert, L.
 —, seas, Belgium.—Mierlo, J. C. van.
 —, Somme.—Ladrière, J.
 —, Thames Valley.—Johnson, J. P.; *see also* Gravels.
 —, Troyes.—Fliche, P.
 —, tufa, Montigny.—Dollfus, G. F.
 —, Vilaine Valley.—Lebesconte, P., &c.
 Quebec (Canada).—Ellis, R. W.; Merritt, W. H.
 — (—) chrome iron-ore.—Obalski, J.
 Queensland auriferous lodes.—Don, J. R.
 —, Cretaceous reptilia.—Etheridge, R., Jun.
 —, goldfields.—Jack, R. L.; Rands, W. H.; Schmeisser, K.; *see also* Gold.
 —, Great Barrier Reef.—Agassiz, A.
 —, Transcontinental Railway Survey.—Jack, R. L.
 —, Trias-Jura, &c., plants.—Shirley, J.
Quercus.—Frič, A.; Hollick, A.; Marion, A. F., &c.; Newberry, J. S.
 Quercy (France) phosphate-fauna.—Gaudry, A.
 Quiberon (Morbihan).—Michel-Lévy, A.
 Quicksand pockets, South Bend.—Whitten, W. M.
 Quicksilver. *See* Mercury.
 Rabenstein (Tyrol).—Beckenkamp, J.
Rachiosoma.—Lambert, J.
 Radiolaria.—Cayeux, L.; Hinde, G. J.; Rüst, H.; Vinassa de Regny, P. E.
 —, Jurassic.—Vinassa de Regny, P. E.
 —, spines.—Beecher, C. E.
 Radiolarian Cherts, &c., Cornwall.—Fox, H., &c.; Hinde, G. J.; Stephens, F. J.
 Radiolarian jasper, Antarctic.—Geikie, Sir A., &c.
 — marls, Trinidad.—Guppy, R. J. L.
Radiolites.—Nøtting, F.
 Radomyśl (Kiev).—Tarasenko, V.
 Radstadt (Salzburg).—Mojsisovics, E. von.
 Radstädter Tauern (Salzburg).—Diener, C.
Radula.—Vinassa de Regny, P. E.
Rafinesquina.—Whiteaves, J. F.
 Raimondite.—Achiardi, G. d'.
 Rainy River district (Canada).—Merritt, W. H.
 Raised beaches, Channel Is.—Dunlop, A.
 —, Franz Josef Land.—Kœttlitz, R.
 Rama.—Koken, E.
Ramulina.—Chapman, F.
Rana.—Depéret, C.
Ranina.—Carter, J.; Nøtting, F.
 Ransætte.—Weibull, M.
 Raon-l'Étape (Vosges).—Bleicher, —.
Rapa.—Frič, A.
 Rapakivi granite.—Gurney, H. P.; Harris, G. F.
Raphitoma.—Almera, J., &c.; Cossmann, M.; Koken, E.
 Rätikon Alps (Grisons).—Steinmann, G.
 Ratschach (Carniola).—Teller, F.
 Reading (Berks).—Bennett, F. J., &c.; Blake, J. H.; Shrubsole, O. A.
 Reading Beds, Hants.—Reid, C.
 Recoaro (Venetia).—Törnquist, A.
 Red Beds, Kansas.—Jones, T. R.
 Red Deer.—Hughes, G. P.; Lydekker, R.; Woodward, H.
 Red Mt. district (Colo.).—Lakes, A.
 Redonite.—Teall, J. J. H.
 Redpath (Berwicks).—Richardson, R.
 Reefs & indicators.—Bradford, W.; Procter, J. T.
 —, Fiji elevated limestone.—Agassiz, A.
 —, New South Wales.—Watt, J. A.
 Refraction-indices, mineral.—Wallerant, F.
 Reichenau (Saxony).—Herrmann, O.
Reineckea.—Törnquist, A.
Remondia.—Stanton, T. W.
 Rennes (Ille-et-Vilaine).—Lebesconte, P., &c.
Renssellæria.—Whidborne, G. F.
Reophax.—Grzybowski, J.
 Reptilia.—Case, E. C.; Marsh, O. C.
 —, Cretaceous.—Emmons, S. F., &c.; Etheridge, R., Jun.; Jesup, M. K.; Sauvage, H. E.; Wagner, G.; Wieland, G. R.; Williston, S. W.
 —, European.—Marsh, O. C.
 —, Jurassic.—Anon., 68; Bauer, F.; Bigot, A.; Dames, W.; Emmons, S. F., &c.; Fraas, E.; Knight, W. C.; Sauvage, H. E.; Spangenberg, G.
 —, Karoo.—Seeley, H. G.
 —, Permian.—Boule, M., &c.; Spangenberg, G.; Williston, S. W.
 —, — footprints.—Pabst, W.
 —, postfrontals, &c.—Maggi, L.

- Reptilia, Rhætic.—Seeley, H. G.
 —, Tertiary.—Clark, W. B.; Depéret, C.; Gilbert, J. Z.; Kinkelin, F.; Roman, F.
 —, Triassic.—Etzold, F.; Fraas, E.; Lucas, F. A.; Morton, G. H.; Seeley, H. G.; Spangenberg, G.
 Republic (Mich.) trough.—Van Hise, C. R., &c.
Restio.—Seward, A. C.
Retepora.—Koninck, L. G. de.
Retiolites.—Malaise, C.
Retusa.—Almera, J., &c.
Retzia.—Stuckenberg, A.
 Rhabdite.—Derby, O. A., &c.
Rhabdocidaris.—Gregory, J. W.; Lambert, J.; Roman, F.
Rhabdogonium.—Schrodt, J.
Rhabdoporella.—Siegert, L.
Rhabdospira.—Donald, J.
Rhacophyllum.—Kerner, F. von.
 Rhætic brachiopoda.—Bittner, A.
 —, Lavernock Point.—Howard, F. T.
 — reptilia. *See* Reptilia.
Rhamnites.—Newberry, J. S.
Rhamnus.—Hollick, A.
Rhamphognathus.—Bassani, F.
Rhamphorhynchus.—Koken, E.
Rhamphosus.—Bassani, F.
 Rheinbrohl (Rh. Prussia).—Heusler, K.
 Rhenish Prussia, Devonian.—Winterfeld, F.
 Rhine Valley.—Lapparent, A. de.
Rhineoderma.—Fraipont, J., &c.
Rhinoceros.—Osborn, H. F.; Simonelli, V.
 —, Quaternary.—Woldrich, J. N.
Rhizamina.—Chapman, F.
Rhizocaulon.—Stenzel, K. G.
Rhizostomites.—Walcott, C. D.
 Rhode I. (U.S.A.).—Walcott, C. D.
 — (—) clays.—Shaler, N. S., &c.
Rhodea.—Potonié, H.
 Rhodesia (S. Africa).—Hoste, C. D.
 Rhodite.—Cumenge, E., &c.
 Rhodochrosite, Odenwald. — Kraatz, K. von.
 Rhodolite.—Hidden, W. E.
 Rhodonite.—Walker, T. L.
Rhodospæra.—Rüst, H.
 Rhomb-porphyrines in Holdenness Boulder Clay.—Harker, A.
Rhombopora.—Stuckenberg, A.
Rhopalastrum.—Rüst, H.
Rhus.—Fric, A.
Rhynchaëtes.—Wittich, E.
Rhynchonella.—Böse, E.; Dun, W. S.; Reid, C.; Roman, F.; Rouville, P. G. de; Stuckenberg, A.; Törnquist, A.; Whidborne, G. F.
Rhynchonellina.—Bittner, A.
Rhynchopora.—Stuckenberg, A.
Rhynchosaurus.—Morton, G. H.
 Rhyolites, Co. Antrim.—Cole, G. A. J.
Rhytimya.—Whiteaves, J. F.
Rhyzophyllum.—Koninck, L. G. de.
 Ribemont-sur-Oise (Aisne).—Rabelle, A.
 Richellite.—Buttgenbach, H.
 Richmond (Ind.), moraine of Niagara Limestone.—Moore, J.
 Riddles (Or.).—Austen, W. L.
 Riebeckite.—Heddle, M. F.
 Riesengebirge (Silesia).—Milch, L.; Vorweg, O.
 Rietfontein (Transvaal), diamonds.—Draper, D.; Molengraat, G. A. F.; Prister, A.
 Riley, Fort (Kan.).—Hay, R.
Rimella.—Reid, C.; Reis, O. M.
Rimula.—Cossinam, M.
Ringicula.—Almera, J., &c.; Bell, A.; Clark, W. B.; Frič, A.; Reis, O. M.; Vinassa de Regny, P. E.
Ringinella.—Newton, R. B.
Rissoa.—Almera, J., &c.; Bell, A.; Guppy, R. J. L., &c.; Koken, E.
Rissoina.—Almera, J., &c.; Cossinam, M.
 River-changes, Venetian plain.—Nicolis, E.
 —-courses & soils.—Kopalov, A. V.
 —-deposits, England (S.).—Salter, A. E.
 —-diversion, Glacial.—Kemp, J. F.
 —-sands, Venetia.—Artini, E.
 —-valleys, England (W.).—Codrington, T.
 Rivers & landslips.—Laflamme, J. C. K.
 —, Californian buried.—Scupham, J. R.
 —, submerged.—Hull, E.; Spencer, J. W.
 —, subterranean.—Martel, E. A.
 Road-metal, Wisconsin.—Huntington, E.
Robicia.—Brusina, S.
Robinia.—Marion, A. F., &c.
 Roche-de-Rame Lake (Hautes-Alpes).—Delebecque, A.
 Rock-cements.—Cayeux, L.
 —-decomposition. *See* Weathering.
 — I. (Ill.).—Udden, J. A.
 —-magmas. *See* Magmas.
 —-minerals, refraction - indices. — Wallerant, F.
 —-salt, Haute-Garonne.—Lacroix, A.
 Rockall (Atlantic).—Anon., 35; Christy, M.; Green, W. S., &c.
 Rockallite.—Green, W. S., &c.
 Rockanje (Holland).—Lorié, J.
 Rocks.—Cole, G. A. J.; Green, A. H.; Marr, J. E.; Rosenbusch, H.; Watts, W. W.
 —, alterations.—Van Hise, C. R.
 —, analyses.—Clarke, F. W., &c.; Hillebrand, W. F.
 —, chemico-mineral relationships. — Iddings, J. P.
 —, classification.—Milch, L.; Williams, H. S.; *see also* Classification.
 —, flow of.—Adams, F. D.
 —, folding of. *See* Folding.
 —, fusion volume-change.—Joly, J.
 —, gases in.—Travers, M. W.
 —, geometrical analysis.—Rosiwal, A.

- Rocks, magnetic susceptibility.—Rücker, A. W., &c.
 —, meshwork-structures.—Cole, G. A. J.
 —, metamorphism.—Michel-Lévy, A.; Viola, C.
 —, methods of analysis.—Hillebrand, W. F.; Rosiwal, A.
 —, origin of siliceous.—Branner, J. C.; Derby, O. A.
 —, perforated.—Dunn, E. J.
 —, permeability.—Viola, C.
 —, porosity.—Liversidge, A.; Viola, C.
 —, surface-tension of Water on.—Ladd, G. E.
 —, temperature.—Martin, R.; Morano, F.
 —, texture-scale.—Jevons, H. S.
 —, variation.—Clements, J. M.
 —, weathering.—Beyer, S. W.; Borchardt, L.; Chalmers, R.; Fraas, O.; Merrill, G. P.; Watts, W. W.
 Rocky Mts. (U.S.A.), anthracite.—Hoesa, R. M.
 — (—), Cretaceous Cycad-horizon.—Marsh, O. C.
 Rocroi (Ardennes).—Delangle, —, &c.
 Rodents, Pliocene.—Depéret, C.
 —, Quaternary.—Nehring, A.; Woldrich, J. N.
 Røblingite.—Foote, W. M.
 Rome (Italy).—Meli, R.
 — (—), diatomaceous deposits.—Clerici, E.
 — (—), Pliocene.—Cerulli-Irelli, S., &c.
 — (—), thermal rock-conductivity.—Morano, F.
 — (—), volcanic rocks.—Verri, A.
 Romney Marsh (Kent).—Dowker, G.
 Röntgen rays & combustible minerals.—Couriot, H.
 Roquebrussanne Lake (Var).—Delebecque, A.
 Rosita Hills (Colo.).—Cross, W.; Emmons, S. F.; Lakes, A.
Rosmarus, fossil.—Rhoads, S. N.
Rostellaria.—Kaunhowen, F.
Rotalia.—Chapman, F.; Grzybowski, J.; Jones, T. R., &c.; Upton, C.
Rotellorbis.—Cossmann, M.
 Rotherham (Yorks) and Barnsley coal-seam.—Durnford, H. St. J.
 Rothliegende plants.—Geinitz, H. B.
Rothpletzia.—Rothpletz, A., &c.
 Rotomahana Lake (N.Z.).—Cadell, H. M.
 Rotuma I. (Pacific).—Gardiner, J. S., &c.
Roudairia.—Nætling, F.
Rousselia.—Douvillé, H.
 Roussillon (France).—Pliocene fauna.—Depéret, C.
 Royat (Puy-de-Dôme).—Lacroix, A., &c.
 Royston (Herts), water-level in Chalk.—Warren, H.
 Rózsafalva (Hungary).—Szontagh, T. von
Rubricatica.—Almera, J., &c.
 Rucar (Rumania).—Popovici, V.
 Rudista.—Douvillé, H.; Whitfield, R. P.
 Rudolf, Lake (Somaliland).—Cavendish, H. S. H.
Rufilla.—Koken, E.
 Rugby (Warwick).—Thompson, B.
 Ruhr coalfield (Westphalia).—Middel-schulte, A.
 Rumania.—Anastasiu, V.; Marion, A. F., &c.; Munteanu, G.; Popovici, V.; Simionescu, J.; Stefanescu, G.; Stefanescu, S.; Teisseyre, W.
 —, Alps.—Toula, F.
 —, petroleum.—Richard, A. de.
 Rumpfte.—Döll, E.
 Russia.—Barrois, C.; Baldacci, L.; Bauerman, H.; Belinfante, L. L.; Bertrand, M.; Boule, M.; Frazer, P.; Harris, G. F.; Inostrantzev, A. A.; Kamenski, G.; Macco, A.; Morozevich, I.; Nalivkin, V.; Netchaev, A.; Palache, C.; Sabatini, V.; Stirrup, M.; Stucken-berg, A.; Tolmatchov, J. P.; Vinassa de Regny, P. E.
 —, coal.—Murray, —.
 —, Geological Congress. See Russia.
 —, — literature, 1896.—Nikitin, S.
 —, — Survey.—Karpinski, A.
 —, glaciers.—Anon., 38.
 —, gold.—Cumenge, E., &c.
 —, iron.—Bauerman, H.; Högbom, A.; Kamenski, G.; Murray, —.
 —, mining.—Kusnetzov, S.
 —, Secondary *Trigonia*.—Stremou-
 chov, D. P.
 — (Central), deserts.—Rein, J.
 — (S.), estuaries.—Sokolov, N.
 — (S.W.), bibliography.—Radkevich, G.
 —. See also Siberia.
 Ruthin (Denbigh).—Strahan, A.
 Saarbrück (Rh. Prussia), coalfield.—Dütting, C.; Leppla, A.
Sabalites-sandstones, France (W.).—Bigot, A.; Welsch, J.
Saccammina.—Chapman, F.
 Saddle Reefs, Hargraves.—Watt, J. A.
Sagana.—Koken, E.
Sagenodus.—Newberry, J. S.
Sagenopteris.—Shirley, J.
Sagrina.—Chapman, F.
 Sahara, Algerian.—Rolland, G.
 —, Tunisian.—Johnston, Sir H. H.
 Saharian.—Mayer-Eymar, C.
Saiga.—Hibsch, J. E.
 St. Albans (Herts).—Hopkinson, J.
 — Calais (Sarthe).—Canu, F.
 — Croix Dalles (U.S.A.).—Berkey, C. P.; Winchell, N. H.
 — — Falls (Wisc.).—Berkey, C. P.
 — Erth (Cornwall).—Bell, A.; Millett, F. W.

- St. Gobain Forest (Aisne).—Leriche, —.
- Gothard Pass (Switzerland).—Bonney, T. G.
- John's Group, New Brunswick.—Matthew, G. F.
- Julien massif (Bouches-du-Rhône).—Bresson, A.
- Lorenzen (Tyrol).—Cathrein, A.; Spechtenhauser, B.
- Martin-Vésubie (Alpes Maritimes).—Michel-Lévy, A., &c.
- Mouans (Fife).—Geikie, J.
- Pé d'Ardet (Haute-Garonne).—Carez, L.
- Petersburg, Geological Congress. See Russia.
- Pierre de Livron (Tarn-et-Garonne).—Martel, E. A.
- Symphorien (Hainaut).—Cornet, J.
- Salado (New Mex.).—Anon., 55.
- Salcombe Regis (Devon).—Morshead, J. Y. A.
- Salem (Madras).—Holland, T. H.
- Salenia*.—Arnaud, H.; Lambert, J.
- Salenidia*.—Lambert, J.
- Salies-du-Salat (Haute-Garonne).—Lacroix, A.
- Salite.—Brauns, R.
- Salix*.—Hollick, A.; Newberry, J. S.
- Salm-Château (Luxemburg).—Cesáro, G., &c.
- Salpingostoma*.—Koken, E.
- Salsomaggiore (Emilia).—Taramelli, T.
- Salt-deposits.—Van't Hoff, J. H.
- , Haute-Garonne.—Lacroix, A.
- , Mt., El-Outaia.—Tardy, C.
- , Northwich.—Ward, T.
- , Range (India).—Nœtling, F.; Warth (H.).
- Saltiness of estuaries, Russia (S.).—Sokolov, N.
- Saltpetre.—Darapski, L.
- Salvador (C. Am.).—Sapper, C.
- Salzburg (Austria).—Bittner, A.; Krafft, A. von; Lorenz von Liburnau, J., sen.; Mojsisovics, E. von.
- (—), Jurassic.—Diener, C.
- Sambre & Meuse (Namur) Tertiary.—Forir, H.
- (—) Silurian.—Malaise, C.
- Samland (E. Prussia).—Dickson-Bryson, R.
- Samothraki I. (Ægean Sea).—Philippson, —.
- San Andreas Mts. (New Mexico).—Herrick, C. L.
- Angelo (Texas) meteorite.—Preston, H. L.
- Diego (Cal.).—Lakes, A.
- Domingo (W. I.).—Bergt, W.
- Juan Region (Colo.).—Lakes, A.
- Pablo (Cal.) formation.—Merriam, J. C.
- Pietro, Mte. (Sardinia).—Angelis d'Ossat, G. de.
- Quirico d'Orcia (Siena).—Virella de Regny, P. E.
- San Salvador (C. Am.), volcanic action.—Sapper, C.
- Severo (Apulia).—Ricciardelli, M.
- Sandalodus*.—Newberry, J. S., &c.
- Sand-dunes.—Cornish, V.; Floyer, E. A.; Walther, J.; Welch, R.
- ridges, Indiana.—Ball, T. H.
- rounding.—Mackie, W.
- weathering.—Merrill, G. P.
- in Derbyshire limestones.—Anon., 15.
- Sandbanks.—Cornish, V.
- SANDBERGER, C. L. F. von.—Anon., 50.
- Sand-le-Mere (Yorks).—Sheppard, T.
- Sands.—Goodchild, J. G.; Sorby, H. C.
- , Boom.—Vincent, G.
- , Moray.—Mackie, W.
- , Venetian rivers.—Artini, E.
- Sandstone-dykes.—Crosby, W. O.
- veins, Weinbohla.—Kalkowski, E.
- Sandstones, Bouffloulx.—Dorlodot, H. de; Goodchild, J. G.; Mourlon, M.; Viucent, E.
- , Moray.—Mackie, W.
- , Prenton Hill, &c.—Moore, C. C., &c.
- , porosity.—Liversidge, A.; see also Porosity & Rocks.
- , Pretoria Red.—Harger, H. S.
- , Swedish Palæozoic.—Högbom, A. G.
- , weathering.—Borchardt, L.; see also Rocks.
- with *Sabalites andegavensis*, Sarthe.—Bigot, A.; Welsch, J.
- Sandworn stones.—Wittich, E.
- Sangamon (Ill.).—Leverett, F.
- Sanguinolaria*.—Guppy, R. J. L., &c.
- Sanguinolites*.—Koninck, L. G. de.
- Sandine.—Zambonini, F.
- Sanitary science & geology.—Whitaker, W.
- Sannikov Land (Arctic).—Toll, E. von.
- Sans Desein (Mo.).—Marbut, C. F.
- Santa Croce Lake (Venetia).—Böhm, G.
- Santerno R. (Emilia).—Scarabelli, G.
- Sapindus*.—Hollick, A.; Marion, A. F., &c.; Shirley, J.
- Sapotacites*.—Newberry, J. S.
- Sappada (Tyrol).—Gejer, G.
- Sardinia.—Angelis d'Ossat, G. de; Achiardi, G. d'; Capacci, C.; Corsi, A.; Lotti, B.; Riva, C.; Ristori, G.; Sabatini, V.; Tommasi, A.
- , basalt.—Corsi, A.
- , Cagliari University Museum.—Achiardi, A. d'; Taramelli, T.
- , granite.—Lovisato, D.
- , granitic & metamorphic rocks.—Riva, C.
- , Iglesias School of Mines Museum.—Achiardi, A. d'; Stefano, G. di.
- , minerals.—Achiardi, G. d'; Brugnattelli, L.; Lovisato, D.; Millosevich, F.; Riva, C.
- , ore-deposits.—Stockfleth, —.
- , Tertiary fauna.—Angelis d'Ossat, G. de.

- Sardinia, Tertiary plants.—Engelhardt, H.
 —, Triassic lamellibranchiata.—Tommasi, A.
Sardinioides & Sargus.—Sauvage, H. E.
 Sarine R. (Switzerland).—Brunhes, J.
 Sarmatian dolphin, Vienna.—Toula, F.
 Sarrabus (Sardinia).—Corsi, A.
 Sarrebourg (Lorraine).—Michel-Lévy, A., &c.
 Sarsens, Bagshot District.—Monckton, H. W.
 Sars-Poteries (Namur).—Delangle, —, &c.
 Sarthe (France).—Bigot, A.; Welsch, J.
 Saskatchewan R. (South), Canada.—Whiteaves, J. F.
Sassafras.—Hollick, A.; Newberry, J. S.
 Satoralja-Ujhely (Hungary).—Szadeczki, J.
Saturnulus.—Rüst, H.
 Sauchieburn (Stirling).—Monckton, H. W.
Sauripterus.—Traquair, R. H.
Saurocephalus & Saurodon.—Stewart, A.
 Sauropodous dinosauria.—Marsh, O. C.
 Sautour (Namur).—Forir, H.
 Sauve (Gard).—Martel, E. A., &c.
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 — Alps.—Schardt, H.
 Saxony, coal.—Beck, R.
 —, Cretaceous plants.—Stenzel, K. G.
 —, diluvium.—Borckert, P.
 —, earthquakes.—Credner, H.
 —, Geological Survey.—Hazard, J.; Herrmann, O.; Siegert, T.; Weise, E.
 —, Glacial diluvial fossils.—Siegert, L.
 —, glaciation.—Kraatz-Koschla, K. von.
Scævogyra.—Berkey, C. P.
Scala.—Clark, W. B.
Scalaria.—Almera, J., &c.; Frič, A.; Kaunhowen, F.; Mayer-Eymar, C.
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 —, ice-sheet.—Kendall, P. F.
 —. See also Norway, Sweden, &c.
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 — (—), Chalk.—Henning, A.; Möberg, J. C.
 — (—), igneous rocks.—Bäckström, H.
 — (—), Silurian.—Grönvall, K. A.
 — (—), writing-chalk.—Möberg, J. C.
Scapanorhynchus.—Priem, F.
Scapha.—Kaunhowen, F.
Scaphander.—Cossmann, M.; Bell, A.
Scapharca.—Frič, A.
Scaphites.—Crick, G. C.; Frič, A.; Gilbert, G. K.; Kossmat, F.; Reid, C.
 Scaphopoda, Eocene.—Clark, W. B.
Scelidotherium.—Boule, M.
 Scenery, British.—Marr, J. E.
 — & literature.—Geikie, J.
 Scheelite.—Carne, J. E.
 Scheldt (Netherlands).—Raeymaekers, D.
 Schiess-stätte near Berchtesgaden (Bavaria).—Schlosser, M.
 Schio (Venetia).—Törquist, A.
 Schist-structures.—Raisin, C. A.
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 —, Alps.—Termier, P.
 —, Bois-d'Asson bituminous.—Bertrand, C. E.
 —, Dalradian.—Geikie, Sir A.
Schizodus.—Drake, N. F.; Stuckenberga, A.
Schizograptus.—Elles, G. L.
Schizoneura.—Seward, A. C.
Schizophoria.—Dun, W. S.
Schizoporellopsis.—Maplestone, C. M.
 Schlaining (Hungary).—Schmidt, A.
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 Schwabenberg, Kleinen- (Hungary).—Böcke, H.
Schwagerina.—Schellwien, E.
 Schweiner (Thuringia).—Beyschlag, F.
 Schwieberdingen (Württ.).—Philippi, E.
Sciuropterus.—Depéret, C.
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Scolecoperis.—Shirley, J.
 Scotland.—Forsyth, D.
 —, Carboniferous.—Gunn, W.; Hind, W.
 —, Dalradian Schists.—Geikie, Sir A.
 —, Early Man.—Turner, Sir W.
 —, geological maps.—Judd, J. W.
 —, Geological Survey.—Geikie, Sir A.
 —, glaciation.—Upham, W.
 —, gold.—Cumenge, E., &c.
 —. See also Great Britain, Mines, &c.
 —, Interglacial deposits.—Munthe, H.
 — (N.W.).—Penck, A.
 —, oil-shales.—Goodchild, J. G.
 —, orthite-rocks.—Flett, J. S.
 —, Palæolithic man.—Turner, Sir W.
 —, Silurian fishes.—Geikie, Sir A.
Scurria.—Koken, E.
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 Sea & land.—Suess, E.
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 —bottom bordering British Is.—Hull, E.
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 — deposits.—Cornish, V.
 — geology.—Fuchs, T.; Tietze, E.
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 — rocks, Montagne Noire tectonic.—Nicklès, R.
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- Sedimentary rocks.—Harker, A.; *see also* Geology, &c.
- Sedimentation, underground.—Meunier, S.
- Seeds, Tertiary.—Delheid, E.
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- Seine (France).—Ramond, G.
- Seismic periodicity.—Davison, C.
- Seismographs.—Baratta, M.; Ehlert, R.; Michel-Lévy, A.
- Seismology.—Milne, J.; *see also* Earthquakes.
- Selaginella.—Seward, A. C.
- Selenium in gold-ores.—Turner, H. W.
- Selter (S. Hanover), Cretaceous & Jurassic.—Kertt, W.
- Semæostomites.—Walcott, C. D.
- Semenik Mts. (Hungary).—Telegd, L. R. von.
- Semielea.—Canu, F.
- Senaite.—Hussak, E., &c.
- Senbenico (Dalmatia).—Kerner, F. von.
- Senegambia (W. Africa).—Meunier, S.
- Senercy (Aisne).—Rabelle, A.
- Senne Valley (Brabant) boring.—Ertborn, O. van.
- Senonian ammonites.—Choffat, P.; Mariani, E.; Parent, H.
- fishes.—Priem, F.
- , Portugal.—Choffat, P.
- , Tunis.—Pervinquièrre, L.
- Septastrea.—Osasco, E.
- Septifer.—Almera, J., &c.
- Sequoia.—Fricé, A.; Hollick, A.; Newberry, J. S.
- Seriatopora.—Struve, A.
- Sericitic gneiss, Taunus.—Schauf, W.
- Serpentine.—Dalmer, K.; Finckh, L.
- , Mte. Bussoleno.—Franchi, I. S.
- , Rumania.—Munteanu, G.
- structures.—Cole, G. A. J.
- Serpula.—Vinassa de Regny, P. E.
- Serra, Mte. (Italy).—Canavari, M.
- Serranus.—Storms, R.
- Serre Forest (Jura).—Bourgeat, —.
- Servia.—Brusina, S.
- Sethocapsa, Sethochytris, Sethoconus, Sethocyrtris, & Sethopilium.—Rüst, H.
- Severn (W. England).—Codrington, T.
- Severo, San (Apulia).—Ricciardelli, M.
- Seychelles Is. (Indian Ocean).—Bauer, M.
- Seymour I. (Graham's Land).—Geikie, Sir A., &c.
- Shales.—Rosenbusch, H.
- , metamorphism of Anglesey.—Calaway, C.
- Shantung (China).—Richthofen, F. von.
- Shawnee Co. (Kan.).—Beede, J. W.
- Shell-attachment, cephalopoda.—Crick, G. C.
- bearing Drift, Moel Tryfaen.—Uphan, W.
- heaps, Block I.—Eaton, G. P.
- Shells, lamellibranchiata.—Fischer, H.
- Sheppey (Kent).—Whitaker, W., &c.
- Shingle.—Cornish, V.
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- Shonkinites.—Rosenbusch, H.
- Shore-lines. *See* Beaches.
- , Sweden.—Högbom, A. G.
- , Trondhjem raised.—Uphan, W.
- , Torne Trask.—Svenonius, F.
- Shunganunga (Kan.).—Smyth, B. B.
- Siam.—Smyth, H. W.
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- , meteorites.—Gregorio, A. de.
- , natural sciences.—Gregorio, A. de.
- , Tertiary fauna.—Gregorio, A. de.
- , volcanoes, &c.—Guzzanti, C.
- Sidcot (Somerset).—Rowntree, W. S.
- Siderastrea.—Söhle, U.
- Sidi-Rgheiss (Constantine).—Blayac, J.
- Siebengebirge (Rh. Prussia).—Busz, K.; Kaiser, E.
- Siebenbürgen. *See* Transylvania.
- Siemiane (Nord).—Bertrand, M.
- Sierra Nevada (Cal.).—*See* Nevada.
- Sigillaria.—Geinitz, H. B.; Kidston, R.; Potonié, H.
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- Silesia, coalfields.—Gæbler, C.; Weithofer, K. A.
- , earthquakes.—Dathe, E.; Maas, G.
- Silicates, potassium flame-reaction.—Judd, J. W.
- , production of diamond in.—Friedländer, I.
- Siliceous deposits, Paris Basin.—Cayeux, L.
- iron-ores, Norway.—Newbiggin, H. T.
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- , analytical methods.—Hillebrand, W. P.
- , origin.—Branner, J. C.; Derby, O. A.
- Siliqua.—Söhle, U.
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- gneisses, Anglesey.—Greenly, E.
- Silurian, Barcelona.—Barrois, C.
- , Canada.—Whiteaves, J. F.
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- , Cincinnati.—Miller, A. M.
- coral-reefs, Gotland.—Wiman, C.
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- , Écouves Forest.—Letellier, —.
- , England, &c.—Geikie, Sir A.
- , fauna, Alaska.—Schuchert, C.
- , America, &c.—Weller, S.
- , America (S.).—Kayser, E.
- , Bohemia.—Želizko, J. V.
- , Canada.—Whiteaves, J. F.
- , Fort Cassin.—Whitfield, R. P.
- , Hof a. Saale.—Leyh, C. Fr.
- , N.S.W.—Koniuok, L. G. de.
- , Peru.—Ratta, J.
- fish-tooth.—Whiteaves, J. F.
- fishes, gasteropoda, & graptolites. *See* Fishes, Gasteropoda, & Graptolites.

- Silurian, Harz.—Rinne, F.
 —, Hesloup massif.—Ehlert, D. P., &c.
 —, Indiana.—Færste, A. F.
 —, Liévin.—Barrois, C.
 —, limestone - moraine, Richmond (Ind.).—Moore, J.
 —, New York State, &c.—Sardeson, F. W.
 —, Sambre & Meuse.—Malaise, C.
 —, Sarthe.—Ehlert, D. P., &c.
 —, Skåne.—Grönvall, K. A.
 —, Spain.—Mallada, L.
 —, sponges. *See* Sponges.
 —, trilobites.—Delgado, J. F. N.; Pompeckj, J. F.
 —, Wales (N.).—Greenly, E.
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 —, Bolivia.—Ochsenius, C.
 —, British Columbia.—Austin, W. L.; Gosnell, R. E.; Gwillim, J. C., &c.
 —, Chile.—Labastie, F.; Nordenskjöld, O.
 —, Cliff (Colo.).—Cross, W.; Emmons, S. F.; Lakes, A.
 —, iodide, native.—Spencer, L. J.
 —, lead-ore, N.S.W.—Dudley, U.
 —, Linlithgow.—Goodchild, J. G.
 —, Madrid.—Sanchez Lozano, R.
 —, Mexico.—Mathez, A.; Ordoñez, E.
 —, Montana.—Weed, W. H., &c.
 —, New South Wales.—Coghlan, T. A.
 —, ores & eruptive rocks.—Möricke, M.
 —, Sardinia.—Capacci, C.; Corsi, A.; Lotti, B.
 —, Sweden.—Löfstrand, G.; Sjögren, H.
 —, Victoria.—Travis, J., &c.
Sinoceras.—Canavari, M.
Simonellia.—Vinassa de Regny, P. E.
 Sinigallia (Emilia).—Baratta, M.
 Sinj (Dalmatia).—Kerner, F. von.
 Sioux (Iowa) quartzite.—Beyer, S. W.
Sipho.—Cossmann, M.
Siphocampe.—Rüst, H.
Siphonalia.—Cossmann, M.; Stanton, T. W.; Vincent, G.
Siphonia.—Remeš, M.
Sisenna.—Koken, E.
Sismondia.—Fourtau, R.
 Sjangeli (Norrbotten) copper.—Petersson, W.
 Sjöarne ('emmland).—Högbom, A. G.
 Skiddaw Slates, graptolite-fauna.—Elles, G. L.
 Skogbolite.—Brögger, W. C.
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 —, Argelès Valley.—Stuart-Menteth, P. W.
 —, Fumay.—Gosselet, J.
 —, Wales.—Reade, T. M., &c.
 Slaty cleavage.—Sorby, H. C.
 Slavonia (Austria).—Brusina, S.
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 Slocan (B.C.).—Gwillim, J. C., &c.
 Sloth, existing Patagonian ground.—Ameghino, F.
Smilax.—Frič, A.
 SMITH, W., manuscript maps.—Judd, J. W.
 Smithsonian Institution, geology & mineralogy.—Rice, W. N.
 —, palæontology.—Cope, E. D.
 Snow-crystals.—Nordenskjöld, G.
 Snowdon (N. Wales), lakes.—Marr, J. E., &c.
 Soda-soils, Hungary.—Treitz, P.
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 Soils.—Merrill, G. P.
 —, analyses.—Clarke, F. W., &c.
 —, & plants and animals.—Parsons, H. F.
 —, & river-courses.—Kopalov, A. V.
 —, & subsoils, London, &c.—Woodward, H. B.
 —, Canada.—Shutt, F. T.
 —, Coal-Measure.—Haworth, E., &c.
 —, Germany.—Wahnschaffe, F.
 —, Hesse.—Luedeck, C.
 —, Hungary.—Horusitzki, H.; Inkey, B. von; Treitz, P.
 —, Iowa.—Calvin, S., &c.
 —, Mendoza City.—Bodenbender, G.
 —, Saxony.—Borckert, P.
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Solariella.—Guppy, R. J. L., &c.; Koken, E.
Solariorbis.—Guppy, R. J. L., &c.
Solarium.—Almera, J., &c.; Bell, A.; Clark, W. B.; Kaunhowen, F.; Koken, E.; Pencke, K. A.; Söhle, U.; Vinassa de Regny, P. E.
Solen.—Frič, A.; Stuckenberg, A.; Vinassa de Regny, P. E.
 Solenhofen (Bavaria).—Philippi, E.
Solenopleura.—Matthew, G. F.
Solenopora.—Seward, A. C.
 Solent River.—Prestwich, Sir J.
Solutofusus.—Pritchard, G. B.
 Sölvbergite.—Washington, H. S.
 Somaliland (E. Africa).—Cavendish, H. S. H.; Pease, A. E.
 Somerset.—Huddleston, W. H.
 —, Devonian fauna.—Whidborne, G. F.
 —, & Dover coalfields.—Greenwell, G. C.
 Somma, Mte. (Italy).—Lapparent, A. de.
 Somme R. (France) Quaternary.—Ladrière, J.
 —, Valley (France).—Upham, W.
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Sonneratia.—Sarasin, C.
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- Souk-Ahras (Algeria).—Blayac, J., &c.
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 — Australia. See Australia (S.).
 — Bend (Ind.).—Whitten, W. M.
 — Kensington Museum.—Monckton, H. W.
 — Mountain (Pa.), volcanic rocks.—Bascom, F.
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 Spa (Liège) water-supply.—Dewalque, G.; Halleux, A.
 Spain.—Mallada, L.
 — (N.).—Penck, A.
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 —, Mastodon.—Graells, M. de la P.
 —, Secondary rocks.—Nicklès, R.
 —, Tertiary foraminifera.—Schrodt, J.
 —, Triassic cephalopoda.—Palacios, P.
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 Spines, origin of.—Beecher, C. E.
 Spirifer.—Diener, C.; Dun, W. S.; Frech, F.; Koninck, L. G. de; Siemiradzki, J. von; Stuckenberg, A.; Whidborne, G. F.
 Spiriferina.—Böse, E.; Fucini, A.; Stuckenberg, A.; Whidborne, G. F.
 Spirigerella.—Diener, C.
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 —, Mesozoic flora.—Nathorst, A. G.
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 Spongaster.—Rüst, H.
 Sponge-spines.—Beecher, C. E.
 Sponges.—Cayeux, L.; Traxler, L.
 —, Carboniferous.—Clarke, J. M.
 —, Cretaceous.—Barrois, C.
 —, Jurassic.—Oppliger, F.
 —, Silurian.—Whiteaves, J. F.
 —, — in Jurassic.—Remeš, M.
 Spongilla.—Traxler, L.
 Spongocore.—Rüst, H.
 Spongodiscida.—Rüst, H.
 Spongodiscus, Spongodruppa, Spongolena, Spongolonche, Spongostaurus, & Spongotropus.—Rüst, H.
 Sporadipora.—Gregory, J. W.
 Sporadopyle.—Oppliger, F.
 Sporangia, Sigillarian.—Kidston, R.
 SPRINGER, F.—Bather, F. A.
 Springs.—Martel, E. A.
 —, Bavarian thermal.—Lupin, F. von.
 —, Bristol.—Pearson, H. W.
 —, N.S.W.—Abbott, W. E.
 Squatina.—Woodward, A. S.
 Stachannularia.—Kerner, F. von.
 Stachyopitys.—Shirley, J.
 Staffordshire (N.) coalfield.—De Rance, C. E.
 Stagonodon.—Emmons, S. F., &c.
 Stahlberg (Prussia).—Mentzel, H.
 Staja.—Brusina, S.
 Stanislas River (Cal.).—Ransome, F. L.
 Stanniferous gravel, Bunbury (W. Austr.).—East, J. J.
 Start Point (Devon).—Ussher, W. A. E.
 Stassfurt (Prussia).—Van't Hoff, J. H., &c.
 Stauralastrum, Staurolonchidium, & Staurostylus.—Rüst, H.
 Staurocephalus.—Koninck, L. G. de.
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 Steganoblastus.—Whiteaves, J. F.
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 Stemach Alps (Salzburg).—Kerner, F. von.
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 Steneosaurus.—Bigot, A.; Sauvage, H. E.
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 Stenopora.—Struve, A.
 Stephanastrum.—Rüst, H.
 Stephanoceras.—Törnquist, A.
 Steppe-fauna, Bohemia.—Nehring, A. Woldrich, J. N.
 Steppes, Europe.—Geikie, J.
 —, Transcaspien.—Walther, J.
 Sterculia.—Hollick, A.
 Sterrhophilus.—Emmons, S. F., &c.

- Stethacanthus*.—Newberry, J. S.
Stibio-tantalite.—East, J. J.
Stichocapsa.—Rüst, H.
Stichoporina.—Angelis d'Ossat, G. de, &c.
Stigmaria.—Leyh, C. Fr.; Potonié, H.; Seward, A. C.
 Stirling (Scotland).—Monckton, H. W.
 Stockholm (Sweden) Mining Exhibition.—Erdmann, E.
 Stolzite.—Carne, J. E.
Stomatia.—Koken, E.
Stomatopora.—Whiteaves, J. F.
 Stone-implements.—See Implements.
 — Industry, U.K.—Anon., 80; Atkinson, J. B., &c.; Foster, C. Le N.
 Stornberg Beds, S. Africa.—Exton, H.
 Stort Valley (E. Anglia).—Irving, A.
 Stramberg (Moravia).—Remeš, M.
Straparollus.—Stuckenberg, A.
 Strata, classification. See Classification.
 Stratigraphical geology.—Green, A. H.; Marr, J. E.; Watts, W. W.
Streblorhamphus.—Tate, R.
Strepsidura.—Stanton, T. W.
Streptelasma.—Whiteaves, J. F.
Striatopora.—Koninck, L. G. de.
Strigatella.—Nætling, F.
Strobilites.—Hollick, A.
Stromatopora.—Stuckenberg, A.
Strombina & *Strombinella*.—Guppy, R. J. L., &c.
Strombus.—Mayer-Eymar, C.
 Ströms (Jemtland).—Jonson, P. A., &c.
 Strontianite.—Eichleiter, C. F.
Strophalosia.—Frech, F.; Whidborne, G. F.
Strophipora.—Maplestone, C. M.
Strophodus.—Sauvage, H. E.; Whidborne, G. F.
Strophomena.—Koninck, L. G. de.
 Stroud (Gloucester).—Buckman, S. S.
 Structures from drying fluids.—Raisin, C. A.
Struthiolithus.—Eastman, C. R.
 Stuttgart Museum, new Lias & Trias reptilia.—Spangenberg, G.
Stylacodon.—Emmons, S. F., &c.
 Stylasteridae.—Hall, T. S.
Stylastræa.—Osasco, E.
Stylina.—Struve, A.
Stylinodon.—Wortman, J. L.
Styliola.—Fox, H., &c.
Styloidietya.—Rüst, H.
Stylopsis.—Guppy, R. J. L.
Stylosmilia.—Koby, F.
Stylotrachus.—Rüst, H.
 Styria (Austria).—Dreger, J.
 — (—), Archæan.—Schmutz, K.
 — (—), basalt.—Sigmund, A.
 — (—), earthquakes.—Hørnes, R.
 — (—), mineral springs.—Reibenschub, A. F.
 — (—), nephrite.—Berwerth, F.
 — (—), Tertiary plants.—Penecke, K. A.
Submarginula.—Tate, R.
 Submarine geological changes.—Milne, J.
 Submarine valleys & terraces.—Hull, E.; Spencer, J. W.
 Submerged forests.—Reid, C.
 — valleys, England (W.).—Codrington, T.
 — —, Europe.—Upham, W.
 Submergence, Great Britain.—Hull, E.; Munthe, H.
 —, Polynesia.—Lydekker, R.
 —, West Indies.—Spencer, J. W.
 Subsidence & colliery-workings.—Dickinson, J.
 —, Pacific Coast (U.S.A.).—Blake, W. P.; see also Land.
Subulites.—Koken, E.
Succinea.—Ahnera, J., &c.; Brusina, S.
Suchodus.—Bigot, A.
Suchosaurus.—Sauvage, H. E.
 Sudbury (Suffolk).—Gregory, J. W.
 Suess's 'Geographical Evolution.'—Gregory, J. W.
 Suffolk Crag.—Harmer, F. W.
Sulculofusus.—Vincent, E.
 Sulphate of iron in nature.—Scharizer, R.
 Sulphur.—Millosevich, F.; Schmidt, A.
 Sundsvall (Sweden) stone-implément.—Adlerz, G.
 Sundtite.—Prior, G. P.
 Superior, Lake (N. Am.), copper-deposits.—Wadsworth, M. E.
 —, — (—), iron-ores.—Bacon, D. H.; Brough, B. H.
 —, —. See also Lakes, American Great.
 Surface-deposits.—Reid, C.
 — —, Europe.—Howorth, Sir H. H.
 — —. See also Soils, Drift, Gravels, &c.
 Survey, magnetic.—Lyman, B. S.
 Surveying, geological. See Geological.
 Susake (Greece).—Lacroix, A.
 Sussex iron works.—Lower, M. A.
 —, natural gas.—Anon., 83; Dawson, C.; Hewitt, J. T.
 Swallow-holes. See Caverns.
 Sweden.—Vélain, C.
 —, Åsars.—Geer, G. de; see also Eskers.
 —, banded clays.—Holmquist, P. J.
 —, Chalk echinoderms.—Schlüter, C.
 —, earthquakes.—Svedmark, E.
 —, Geological Survey.—Erdmann, E.
 —, Glacial rivers & lakes.—Upham, W.
 —, iron.—Anon., 28; Lundböhms, H.; Nordenström, G.; Wedding, —.
 —, Palæozoic fauna.—Möberg, J. C.
 —, Quaternary mammalia.—Sernander, R.
 —, regional metamorphism.—Svenomius, F.
 —, shore-lines.—Högbom, A. G.
 —, silver, mercury, &c.—Sjögren, H.
 —, sparagmites.—Högbom, A. G.
 Switzerland.—Carter, W. L.; Schardt, H.
 —, Alps.—Steinmann, G.; see also Alps.
 —, Cretaceous corals.—Koby, F.

- Switzerland, erratic blocks.—Schardt, H.
 —, geology, 1896 & 1897.—Schardt, H.
 —, Pre-Alps & Jura lakes.—Schardt, H.
- Sycidium*.—Seward, A. C.
 Syenite.—Rosenbusch, H.
 —, Urals.—Högbom, A.
 Syenitic rock, Worcestershire.—Coles, C. St. A.
 Sylvanite.—Cumenge, E., &c.; Simpson, E. S.
- Symoliophis*.—Sauvage, H. E.
Symphyllia.—Osasco, E.
Synaphe.—Jones, T. R., &c.
Synastraea.—Söhle, U.
Synbathocrinus.—Koninck, L. G. de.
Syncyclonema & *Synechodus*.—Newton, R. B.
Synhomalonotus.—Pompeckj, J. P.
Synthetodus.—Eastman, C. R.
 Syria (Asia).—Finckh, L.; Kinkelin, F.
 — (—), Tertiary fauna.—Blanckenborn, M.
Syringopora.—Etheridge, R., Jun.; Koninck, L. G. de; Weissermel, W.
Syrnola.—Cossmann, M.
- TABUTEAU, A. O.—Hicks, H.
 Tachylyte, Macquarie Plains.—Stephens, T.
Tæniodomus.—Krause, P. G.
Tæniodon.—Philippi, E.
Tæniopteris.—McCoy, Sir F.; Shirley, J.
 Tænite.—Derby, O. A., &c.
 Talabor R. (Hungary).—Pošewitz, T.
 Talgai (Queensl.).—Rands, W. H.
 Tambach (Thuringia) Permian reptilian footprints.—Pabst, W.
 Tammerfors (Finland).—Sederholm, J. J.
 Tamworth (N.S.W.) opal.—Porter, D. A.
Tancredia.—Philippi, E.
 Tandil, Sierra del (Argentina).—Nordenskjöld, O.
 Tantalite.—Brögger, W. C.; Lovisato, D.; Warren, C. H.
 Tapajós River (Brazil).—Katzer, F.
 Tapiolite.—Warren, C. H.
 Tapirs, ancestors of.—Gaudry, A.
 —, Quercy phosphates.—Gaudry, A.
Tapirus.—Böhm, G.; Gaudry, A.
 Taracz R. (Hungary).—Pošewitz, T.
 Tarragona (Spain).—Palacios, P.
 Tasmania.—Harcourt-Smith, J.; Johnston, R. M.; Stephens, T.
 —, copper.—Mackenney, C. H. W.
 —, goldfields.—Schmeisser, K.
 —, igneous rocks.—Twelvetrees, W. H., &c.
 —, iron.—Dauncey, W. G.; Jones, D.
 —, Limurite.—Twelvetrees, W. H., &c.
 —, minerals.—Montgomery, A.; Peterd, W. F.; Twelvetrees, W. H., &c.
- TATE, T.—Carter, W. L.; Hicks, H.
 Tatra Mts. (Hungary).—Uhlig, V.
Tatusia.—Wortman, J. L.
 Taunus (Hesse).—Schauf, W.
 Taylor's Falls (Minn.).—Berkey, C. P.
 — (—), igneous rocks.—Winchell, N.
 Tcheliabinsk (Orenburg).—Beck, R.
 — (—) & Ekaterinburg Ry.—Morozewicz, I.
 Tchiatur (Caucasus).—Macco, A.; Pourcel, A.
 Tectonic geology.—Fournier, E.; Guéhard, A.; Powell, J. W.; Slichter, C. S.; Van Hise, C. R.; Zürcher, P.
Tectus.—Koken, E.; Roman, F.
 Teefn, Swabian Tertiary anthropoid ape.—Branco, W.
 Tehuantepec Isthmus (C. Am.).—Spencer, J. W.
Teinostoma.—Papp, K.
 Tejon (Lower) Fauna.—Stanton, T. W.
Tellina.—Almera, J., &c.; Clark, W. B.; Frič, A.; Mayer-Eymar, C.; Penecke, K. A.; Stanton, T. W.; Vincent, E.
Tellinomya.—Koninck, L. G. de.
 Telluride, W. Australia.—Pittman, E. F.
 — ores.—Lakes, A.
 Tellurides of gold.—Simpson, E. S.
 Tellurium.—Cossa, A.
 Temes-Kövesd (Hungary).—Adda, K. von.
 Temiscaming Lake (Canada).—Barlow, A. E., &c.
Tennodiscus.—Koken, E.
 Temperature, rock.—Morano, F.
 — of strata, Niddrie.—Martin, R.
Tempskya.—Stenzel, K. G.
 Tenasserim (Burma).—Sutherland, W.
 Tenke (Hungary).—Szontagh, T. von.
 Tennessee (U.S.A.).—Walcott, C. D., &c.
 — (—) phosphates.—Hayes, C. W.
Tentaculites.—Dun, W. S.
 Tepee butte.—Gilbert, G. K.
 Tephroite.—Rosenbusch, H.
Terataspis.—Whitfield, R. P.
Terebra.—Söhle, U.
Terebratella.—Bittner, A.; Vincent, É.
Terebratula.—Almera, J., &c.; Böhm, G.; Böse, E.; Cossmann, M.; Futterer, C.; Kayser, E.; Loriol, P. de; Mayer-Eymar, C.; Roman, F.
Terebratulina.—Reid, C.; Stanton, T. W.; Vincent, E.
Teredo.—Clark, W. B.
 Teregova (Hungary).—Adda, K. von; Schafarzik, F.
 Terraces, Columbia River.—Russell, I. C.
 —, submerged.—Hull, E.
 Tertiary, Agram Mts.—Gorjanovic, C.
 —, Algeria.—Depéret, C.; Ficheur, E.
 — *Anas*-eggs, Spain.—Olavarria, M. de.
 —, Anglo-Belgian basin.—Harmer, F. W.
 —, Antarctic.—Sharman, G., &c.
 — anthropoid ape-teeth, Swabian Alps.—Branco, W.
 —, Antwerp.—Raeynaekers, D.

- Tertiary, Argentina.—Church, G. E.
 —, Barcelona.—Almera, J.
 —, bears.—Gaillard, C.
 —, Belgium. *See* Belgium.
 —, birds, Messel.—Wittich, E.
 —, Bologna.—Bortolotti, E.
 —, Bournemouth.—Reid, C.
 —, brachiopoda. *See* Brachiopoda.
 —, bryozoa, Sardinia.—Angelis d'Ossat, G. de.
 —, —, Victoria (Austr.).—Maplestone, C. M.
 —, California.—Merriam, J. C.
 —, Canary Is.—Rothpletz, A., &c.
 —, Carniola.—Teller, F.
 —, cave-mammalia.—Wilson, E.
 —, cetacea.—Sinzov, J.; Toula, F.
 —, Colombia.—Nicholas, F. C.
 —, Colorado.—Emmons, S. F., &c.
 —, connexion of S. Africa & S. America.
 —, Lydekker, R.
 —, corals. *See* Corals.
 —, Crimea.—Andrussov, N.
 —, crustacea. *See* Crustacea.
 —, Devon.—Reid, C.; Teall, J. J. H.
 —, Dismal Swamp.—Woolman, L.
 —, Eastbourne.—Reid, C.
 —, echinoidea. *See* Echinoidea.
 —, elevated limestone-reefs, Fiji.—Agassiz, A.
 —, England.—Geikie, Sir A.
 —, — (E.).—Harmer, F. W.
 —, — (W.).—Hudleston, W. H.
 —, fauna, Algeria.—Depéret, C.; Répe-
 lin, J.
 —, —, Argentina.—Ameghino, A.
 —, —, Australian older.—Tate, R.
 —, —, Balkan Peninsula.—Brusina, S.; Stefanescu, S.
 —, —, Belgium.—Vincent, É.; Vin-
 cent, G.
 —, —, Borneo.—Krause, P. G.
 —, —, Burma.—Nœtling, F.
 —, —, California.—Osborn, H. F.
 —, —, Egypt.—Gregory, J. W.;
 Newton, R. B.
 —, —, France (S.).—Depéret, C.;
 Harlé, É.
 —, —, Greece & Turkey.—Penecke,
 K. A.
 —, —, Hungary.—Koch, A.
 —, —, Italy.—Osasco, E.; Prato, A.
 del; Ristori, G.; Simonelli, V.; Vinassa
 de Regny, P. E.
 —, —, Malta.—Cooke, J. H.
 —, —, New Mexico.—Matthew, W.
 D.
 —, —, Paris Basin.—Cossmann, M.
 —, —, Patagonia.—Ameghino, A.
 —, —, Sardinia.—Angelis d'Ossat, G.
 de.
 —, —, Sicily.—Gregorio, A. de.
 —, —, Spain.—Almera, J.; Coss-
 mann, M.; Graells, M. de la P.;
 Schröd, J.
 —, —, Syria.—Blanckenborn, M.
 —, —, Victoria (Austr.).—Pritchard,
 G. B.
- Tertiary fauna, Wiesbaden.—Kinkelin,
 F.
 —, —, Wyoming.—Scott, W. B.
 —, —, fishes. *See* Fishes.
 —, —, foraminifera. *See* Foraminifera.
 —, —, Moravia.—Tausch, L. von.
 —, —, France.—Bigot, A.; Boistel, —;
 Degrange-Touzin, A.; Dollfus, G. E.;
 Grossouvre, A. de; Loriol, P. de;
 Nicolas, H.; Pellat, E.; Tardy, C.;
 Welsch, J.
 —, —, gasteropoda. *See* Gasteropoda.
 —, —, Gippsland.—Dennant, J., &c.
 —, —, Hérault.—Depéret, C.; Roman,
 F.; Rouville, P. G. de.
 —, —, Hesbaye.—Velge, G.
 —, —, Holland.—Harmer, F. W.; Lorie,
 J.; Velge, G.
 —, —, *Ichnium* footprints, Baden.—
 Böhm, G.
 —, —, Jura.—Boistel, —.
 —, —, Kansas.—Haworth, E., &c.
 —, —, mammalia. *See* Mammalia.
 —, —, man.—Mello, J. M.; *see also* Man.
 —, —, marine marl, Theben-Neudorf.—
 Schaffer, F.
 —, —, mollusca. *See* Cephalopoda, Gas-
 teropoda, &c.
 —, —, Inola.—Scarabelli, G., &c.
 —, —, W. Indies.—Guppy, R. J. L.
 —, —, monkeys.—Branco, W.; Harlé, E.
 —, —, Namur.—Velge, G.
 —, —, Netherlands.—Harmer, F. W.;
 Raeymaekers, D.
 —, —, ostracoda. *See* Ostracoda.
 —, —, Ottakring.—Abel, O.
 —, —, Paris Basin.—Dollfus, G. F.;
 Gosselet, J.; Munier-Chalmas, E.
 —, —, Patagonia.—Hauthal, R.; Nor-
 denskjöld, O.; Ortmann, A. E.
 —, —, plants.—Seward, A. C.; Stenzel,
 K. G.
 —, —, Arctic.—Bulman, G. W.; Toll,
 E. von.
 —, —, Belgium.—Delheid, E.
 —, —, Chile.—Philippi, R. A.
 —, —, Dordogne.—Rivière, E.
 —, —, Germany.—Schlechtendal, D.
 H. R. von.
 —, —, Hants.—Reid, C.
 —, —, Rumania.—Marion, A. F.,
 &c.
 —, —, Styria.—Penecke, K. A.
 —, —, Tyrol.—Lorenz von Liburnau,
 J., Sen.
 —, —, Wienerwald.—Paul, C. M.
 —, —, Provence.—Bresson, A.; Vasseur,
 G.
 —, —, Radstadt.—Mojsisovics, E. von.
 —, —, reptilia. *See* Reptilia.
 —, —, rhinoceroses.—Osborn, H. F.
 —, —, rock-constituents.—Cayeux, L.
 —, —, Rome.—Angelis d'Ossat, G. de;
 Cerulli-Irelli, S., &c.
 —, —, Sambre & Meuse.—Forir, H.
 —, —, sandstone-veins, Saxony.—Kal-
 kowski, E.
 —, —, Skåne.—Gromwall, K. A.

- Tertiary struthious birds' eggs.—Eastman, C. R.
 — turtle.—Laube, G. C.
 —, Tuscany.—Lotti, B.; Vinassa de Regny, P. E.
 —, unglata.—Roth, S.
 —, U.S.A., Eastern.—Clark, W. B.
 —, Victorian Stylasteridæ.—Hall, T. S.
 Tesla Coal (Cal.).—Horsewell, F. J.
Tessastrum.—Rüst, H.
Testudo & *Tetracodon*.—Emmons, S. F., &c.
Tetragonolepis.—Sauvage, H. E.
Tetraraptus.—Elles, G. L.
Tetrahedrina.—Rüst, H.
 Tetrahedrite.—Petterd, W. F.
Tetrataxis.—Schellwien, E.
 Tetschen a. d. Elbe (Prussia).—Hibsch, J. E.
 Texas (U.S.A.).—Branner, J. C.
 — (—), Jurassic.—Cragin, F. W.
Teatularia.—Bagg, R. M., Jun.; Chapman, F.; Schellwien, E.; Schrodt, J.; Upton, C.
 Texture-scale, rock.—Jevons, H. S.
 Thallium minerals.—Balta, J.
 Thames Basin.—White, H. J. O.
 — estuary.—Sorby, H. C.
 — goldfield (N.Z.).—McKay, A.; Park, J.; Schmeisser, K.; Wilson, G.
 — Valley.—Prestwich, Sir J.; Shrubsole, O. A.
 — — Drift.—Johnson, J. P.
 — — gravels.—Salter, A. E.
Thamnastræa.—Koby, F.
Thamnograptus.—Whiteaves, J. F.
 Thasos (Ægean Sea).—Launay, L. de.
 Theben-Neudorf (Hungary).—Schaffer, F.
Thecacampa.—Clark, W. B.
Theconus.—Rüst, H.
Thecoseris.—Koby, F.
Thecosphæra, *Thecalyptra*, *Theocampe*, *Theocapsa*, *Theocorys*, & *Theopodium*.—Rüst, H.
 Theralite.—Rosenbusch, H.
 Theriozoic Beds.—Howorth, Sir H. H.
 Thermal Conductivity, Prov. Rome rocks.—Morano, L.
Thinnfeldia.—Hollick, A.; Newberry, J. S.; Shirley, J.
 Thinolite.—Edwards, A. M.
 Thomsonite.—Gentil, L.; Winchell, N. H.
 Thorite.—Truchot, P.
 Thorncombe (Dorset).—Cornish, V.
 Thousand Is. (Ont.).—Adams, F. D.
Thracia.—Almera, J., &c.; Philippi, E.
 Thüringerwald (Germany) ore-deposit.—Mentzel, H.
 Thuringite.—Dalmer, K.
Thuya & *Thuyites*.—Newberry, J. S.
Thysanopyge.—Kayser, E.
 Tibet.—Hedin, S.
 Tierra del Fuego (S. Am.).—Kyle, J. J.; Nordenskjöld, O.
Tiliaphyllum.—Newberry, J. S.
 Till, Illinois & Kansas.—Leverett, F.
 —, Scotland.—Wright, J.
 Time-divisions.—Chamberlin, T. C.
 Tin, Bolivia.—Ochsenius, C.
 —, Cornwall, &c.—Collins, J. H.
 —, Dutch East Indies.—Beck, R.
 —, Mexico.—Ingalls, W. R.
 —, N.S.W.—Coghlan, T. A.; Jaquet, J. B.
 —, Perak.—Wray, L.
 —, Tasmania.—Harcourt-Smith, J.
 Tinguaita.—Washington, H. S.
 Tintic (Utah).—Maguire, —.
 Tirah (N.W. India).—Holdich, Sir T. H.
 Tirlmont (Brabant).—Daimeries, A.
 Tirso Valley (Sardinia).—Riva, C.
 Tissington (Derby).—Hind, W.
Tissotia.—Crick, G. C.; Peron, A.
 Titanite.—Rodewyk, A.
Titanocarcinus.—Ristori, G.
 Tithonian.—Haug, E.; Marcou, J.
 —, Austria, Lr.—Abel, O.
 — Chamidæ.—Paquier, V.
 — radiolaria.—Vinassa de Regny, P. E.
 —, Rumania.—Popovici, V.
 Tittelmünde (Courland).—Toll, E. von, &c.
 Tödi district (Switzerland).—Steinmann, G.
 Tomsk (Siberia).—Inostrantzev, A. A.
 Tonalite-gneiss, Carinthia.—Graber, H. V.
 Tongrian.—Velge, G.
 Topaz-quartz-porphry, Mt. Bischoff.—Twelvetrees, W. H., &c.
 Torbanite.—Seward, A. C.
 Torbernite.—Walker, T. L.
Tornatella.—Cossmann, M.
 Toronto (Canada).—Coleman, A. P.
 — (—), earthquakes.—Stupart, R. F.
 — Formation.—Leverett, F.
 Torralba (Sardinia).—Achiardi, G. d'.
 Tortoises, Tertiary.—Roman, F.
 Toulouse (Haute-Garonne).—Harlé, É.
 Tourmaline.—Derby, O. A.; Högbom, A. G.; Walker, T. L.
Tournourella.—Oppenheim, P.
 Tourves Lake (Var).—Delebecque, A.
Toxachelys.—Wagner, G.
Toxodon.—Roth, S.
Trachyceras.—Palacios, P.
 Trachyte.—Rosenbusch, H.
 —, phosphatized, Clipperton Atoll.—Teall, J. J. H.
 Trail Creek (B.C.).—Austin, W. L.; Turner, W. B.
 Trail-Tornac (Gard).—Rouville, P. G. de.
Trametes.—Seward, A. C.
 Transcaspian (Asia).—Böhm, G.; Walther, J.
 — depression.—Kropotkin, A.
 Transvaal (S. Africa). See Africa (S.); also Gold; Bowden, F. W.; Bordeaux, A.; Draper, D.; Hatch, F. H.; Lloyd, H.; Regan, W. F.; Sawyer, A. R.

- Transvaal (S. Africa), auriferous conglomerate.—Becker, G. F.; Denny, G. A.
 — (—), coalfields. — Anon., 27; Gascoyne, R.; Peile, W.
 — (—), diamonds.—Bawden, F. W.; Draper, D.; Molengraaf, G. A. F.; Prister, A.
 — (—), igneous rocks.—Henderson, J. A. L.
 — (—), glaciation.—Draper, D.; Frames, M. E.; Heslop, W. T.; Molengraaf, G. A. F.; Prister, A.; White, F.
 — (—), Permo-Carboniferous or Triassic plants.—Draper, D.
 — (—), volcanic eruptions. *See* Witwatersrand.
 Transylvania (Hungary). — Nopcsa, F. B.
 — (—) Alps.—Toula, F.
 Travertine-fauna, Thuringia.—Weiss, A.
 Trayas, Le (Var).—Martel, E. A.
 Trefusis Point (Cornwall).—Stephens, F. J.
Tremadictyon.—Oppliger, F.
Tremanotus.—Koken, E.
 Tremerichion (Flint). — Pollen, G. C. H.
 Trent Valley, alluvium.—Fox-Strangways, C.
 Trenton (Canada).—Whiteaves, J. F.
 — Limestone crinoidea.—Whiteaves, J. F.
 — Series conglomerates.—Sardeson, F. W.
Tretospira.—Philippi, E.
Triaetiscus.—Rüst, H.
 Trias.—Arthaber, G. von; Mojsisovics, E. von, &c.; Renevier, E.
 —, S. Africa.—Exton, H.
 —, Algeria.—Bertrand, M.; Blayac, J., &c.
 —, Austria.—Benecke, E. W.
 —, Bavarian Alps.—Schlosser, M.
 —, Brazil.—Siemiradzki, J. von.
 —, Bündner Oberland. — Steinmann, G.
 —, Carniola.—Kossmat, F.
 — cephalopoda, entomostraca, plants, &c. *See* Cephalopoda, &c.
 — conglomerates, Vosges.—Bleicher, —
 — corals.—Felix, J.
 —, Dobrudscha.—Anastasiu, V.
 —, *Estherie*.—Jones, T. R.
 — fauna, Carinthia.—Geyer, G.
 —, Württemberg. — Philippi, E.
 — footprints, &c.—Beasley, H. C.
 —, Germany.—Benecke, E. W.; Stettner, G.; Wagner, R.
 —, Isère.—Lory, P.
 —, Jura plants, Queensl.—Shirley, J.
 —, Lanes & East Coast Ry.—Fox-Strangways, C.
 —, Lombardy.—Becker, H.
 —, Lunz Sandstone in.—Bittner, A.
 Trias, nomenclature.—Arthaber, G. von, &c.; Böhmersheim, A. B. von; Mojsisovics, E. von, &c.; Renevier, E.; Suess, E., &c.
 —, Sardinia.—Tommasi, A.
 —, Tyrol.—Hammer, W.
 —, Vicentino.—Törnquist, A.
Tribrachyocrinus.—Koninck, L. G. de.
Tricalycites.—Hollick, A.
Tricarpellites.—Newberry, J. S.
Tricentes.—Matthew, W. D.
Triceratops.—Emmons, S. F., &c.; Marsh, O. C.
Trichomanites.—Shirley, J.
Trichospongia.—Whiteaves, J. F.
Tricolocapsa.—Rüst, H.
 Trieste (Austria).—Mazelle, E.
Triforis.—Cossmann, M.; Kaunhowen, F.
Trigonia.—Abel, O.; Frič, A.; Loriol, P. de; Newton, R. B.; Stremóuchov, D. P.; Törnquist, A.
Trigonia, Russian Secondary.—Stremóuchov, D. P.
Trigonoarca.—Newton, R. B.
Trigono-carbon.—Seward, A. C.
Trigonodus-dolomite fauna.—Philippi, E.
Trigonograptus.—Elles, G. L.
 Trilobites.—Delgado, J. F. N.; Holm, G.; Kayser, E.; Kerforme, F.; Lebesconte, P.; Leyh, C. Fr.; Möberg, J. C.; Pompeckj, J. F.; Reed, F. R. C.; Whitfield, R. P.
 —, blind.—Reed, F. R. C.
 —, Cambrian.—Berkey, C. P.; Brögger, W. C.; Etheridge, R., Jun.; Matthew, G. F.; Möberg, J. C., &c.
 —, Devonian.—Clarke, J. M.
 —, Palæozoic.—Kayser, E.; Koninck, L. G. de; *see also* Cambrian, &c.
 —, Silurian.—Whiteaves, J. F.
 —, spines.—Beecher, C. E.
 Trinidad (W.I.).—Guppy, R. J. L.
Trionyx.—Clark, W. B.; Depéret, C.
Triphylopteris.—Shirley, J.
Tripodiscium & Tripodictya.—Rüst, H.
Triptychia.—Almera, J., &c.
 Tripuhyite.—Gaubert, P.; Hussak, E., &c.
Tristichia.—Seward, A. C.
Tritaxia.—Schrodt, J.
Triton.—Almera, J., &c.; Vincent, G.
Tritonium.—Kaunhowen, F.; Reis, O. M.
Trivia.—Rothpletz, A., &c.
Trochalia.—Roman, F.
Trochamnina.—Grzybowski, J.
Trochobolus.—Oppliger, F.
Trochocyathus.—Rothpletz, A., &c.; Söhle, U.
Trochodiscus.—Rüst, H.
Trochograptus.—Elles, G. L.
 Trochoid foraminifera.—Bagg, R. M., Jun.
Trochonema.—Koken, E.
Trochoseropis.—Söhle, U.

- Trochoscilia*.—Nøtting, F.; Söhle, U.
Trochus.—Cossmann, M.; Frič, A.; Kaunhowen, F.; Koken, E.; Nøtting, F.; Reis, O. M.; Roman, F.; Vinassa de Regny, P. E.
Trococochlea.—Bell, A.
 Trondhjem (Norway) shore-lines.—Upham, W.
Trophon.—Almera, J., &c.; Pilsbry, H. A.
 Tropics, Glacial Age in.—White, F.
 Troyes (Aube).—Fliche, P.
Truncatulina.—Chapman, F.; Grzybowski, J.; Schrodt, J.
Tryblidium.—Berkey, C. P.
Trypanaxis.—Cossmann, M.
 Tubes, Vervan Limestone.—Fox, H., &c.
Tubina.—Koken, E.
Tudicla.—Vincent, G.
 Tufa, Blackpool Interglacial deposits.—Humphrey, R.
 —, Gaubert River.—Rivière, É.
 —, Montigny Quaternary.—Dollfus, G. F.
 —, St. Pierre de Livron.—Martel, E. A.
 Tundras, Europe.—Geikie, J.
 Tungsten-ores, N.S.W.—Carne, J. E.
 Tunis (N. Africa).—Haug, E.
 — (—), Cretaceous.—Pervinquier, L.
 — (—), geological literature, 1897.—Peron, A.
 — (—), Sahara.—Johnston, Sir H. H.
 TUNNER, P. VON.—Anon., 1; Raymond, R. W.
 Turbinolidae.—Penecke, K. A.
Turbo.—Bell, A.; Frič, A.; Hawell, J.; Kaunhowen, F.; Reis, O. M.
Turbonilla.—Almera, J., &c.; Guppy, R. J. L.
Turricula.—Koken, E.
 Turin (Piedmont), elephant-remains.—Portis, A.
 Turkestan (Asia).—Böhm, G.; Kropotkin, A.; Walther, J.
 — (—), Eastern.—Hedin, S.
 — (—), glaciers.—Anon., 38.
 Turkey.—Launay, L. de; Philippson, —.
 —, Tertiary fauna.—Penecke, K. A.
 Turner's Falls (Mass.).—Jefferson, M. S. W.
 Turonian, Algeria.—Welsch, J.
 — ammonites.—Choffat, P.
 — fishes.—Priem, F.
 —, Honiton.—Jukes-Browne, A. J.
 —, Portugal.—Choffat, P.
Turricula.—Kaunhowen, F.
Turrilites.—Choffat, P.; Crick, G. C.; Söhle, U.
Turritella.—Almera, J., &c.; Bell, A.; Clark, W. B.; Cossmann, M.; Frič, A.; Guppy, R. J. L., &c.; Kaunhowen, F.; Kinkelin, F.; Koken, E.; Nøtting, F.; Reis, O. M.; Söhle, U.; Stanton, T. W.; Vinassa de Regny, P. E.; Vincent, G.
Tursiops.—Prato, A. del.
 Turtles, Cretaceous.—Wagner, G.; Wieland, G. R.
 —, Tertiary.—Gilbert, J. Z.; Laube, G. C.
 Tuscany (Italy), minerals.—Achiardi, G. d'.
 — (—), Tertiary.—Lotti, B.; Vinassa de Regny, P. E.
 TUTE, J. S.—Hudleston, W. H.
 Twinning, crystals.—Goldschmidt, V.
 Ty Newydd Caves (Flint).—Pollen, G. C. H.
 Tyler's Hill (Herts).—Hopkinson, J.
Tylo dendron.—Potonié, H.
Tylostoma.—Roman, F.
Tylotoma.—Stefănescu, S.
Tylo trochus.—Koken, E.
 Type-specimens.—Marsh, O. C.
 Types, American Museum, N.Y.—Whitfield, R. P., &c.
Typhis.—Reid, C.
 Tyrol (Austria).—Cathrein, A.; Diener, C.; Spechtenhauser, B.
 — (—), earthquakes.—Becke, F.
 — (—), glaciers.—Penck, A.
 — (—), Permian.—Diener, C.
 — (—), Trias.—Hammer, W.
 — (—), water.—Blaas, J.
 Ufa (Russia).—Netchaev, A.
 Uinta Formation—mammalia.—Scott, W. B.
 Uintaite.—Eldridge, G. H.
Ulodendron.—Dawson, Sir J. W.
Ulrichia.—Jones, T. R., &c.
Ultimus.—Guppy, R. J. L., &c.
 Umberumberka lode (N.S.W.).—Dudley, U.
Umbonium.—Kaunhowen, F.
Umbonula.—Angelis d'Ossat, G. de, &c.
 Umbria (N. Italy).—Verri, A.
 — (—), earthquakes.—Agamennone, G.
 Underground sedimentation.—Meunier, S.
Undularia.—Philippi, E.; Tommasi, A.
 Ungulata, S. Am. Tertiary.—Roth, S.
 —, Eocene.—Emmons, S. F., &c.
Unicardium.—Loriol, P. de; Philippi, E.
Unio.—Almera, J., &c.; Blanckenborn, M.; Brusina, S.
 United Kingdom. See Great Britain, &c.
 United States.—Baker, M.
 —, Eocene.—Clark, W. B.
 —, glaciation.—Chamberlin, T. C.
 —, Great Lakes.—Spencer, J. W.
 —, hydrography.—Newell, F. H.
 —, Jurassic.—Marsh, O. C.
 —, lead & zinc-ores.—Hedburg, E.
 —, Pacific Coast oscillations.—Blake, W. P.
 —, vanadium & molybdenum in rocks.—Hillebrand, W. F.

- United States, water-supply.—Darton, W. H.; Newell, F. H.; *see also* Water.
- , Western coalfields.—Bain, H. F., &c.
- Upheavals, land.—Lapparent, A. de; Oehsenius, C.
- Uphill (Somerset).—Wilson, E.
- Upper Austria. *See* Austria (Upper).
- Upware (Cambs), Corallian.—Wedd, C. B.
- Uralichas*.—Delgado, J. F. N.
- Uralite.—Petterd, W. F.
- Urals (Russia).—Bauerman, H.; Beck, R.; Belinfante, L. L.; Bertrand, M.; Frazer, P.; Kamenski, G.; Kusnetzov, S.; Louis, H.; Morozevicz, I.; Murray, —; Sabatini, V.; Stuckenberg, A.; *see also* Russia.
- (—), garnets.—Vorobiev, V. I.
- (—), iron. *See* Iron.
- (—), river-courses & soils.—Kopalov, A. V.
- Urde, Mt. (Rumania).—Munteanu, G.
- Urgonian, Dauphiné.—Paquier, V.
- Uronician.—Callaway, C.
- Urosyca*.—Stanton, T. W.
- Ursus*.—Morton, G. H.; Ristori, G.
- , teeth.—Niezabitowski, E.
- Utah (U.S.A.).—Maguire, —.
- Ute Pass (Col.), sandstone-dykes.—Crosby, W. O.
- Utica Epoch ocean-current.—Ruedemann, R.
- Uwaga (Galicia).—Teisseyre, W.
- Vadsö (Finmark).—Reusch, H.; Schiötz, A. E.
- Vaginulina*.—Bagg, R. M., Jun.; Chapman, F.; Schrodt, J.
- Vaihingen (Würt.).—Stettner, G.
- Valenciennesia*.—Brusina, S.
- VALENTIN, J.—Anon., 11.
- Valleriite.—Petren, J.
- Valley-terraces.—Holdich, Sir T. H.
- Valleys, submerged.—Codrington, T.; Hull, E.; Upham, W.
- , submarine.—Spencer, J. W.
- Vallis Vale (Cornwall).—Anon., 77.
- Valognes (Manche).—Nordez, — Le.
- Valuevite.—Fels, G.
- Valvata*.—Almera, J., &c.; Brusina, S.; Kört, W.
- VAN BENEDEN, P. J. *See* Beneden, P. J. van.
- Vanadinite.—Petterd, W. F.; Redlich, K. A.
- Vanadium-bearing rocks, U. S. A.—Hillebrand, W. F.
- minerals.—Balta, J.
- Vancouver (B.C.).—Gosnell, R. E.
- Var (France) lakes.—Delebecque, A.
- Varaita Valley (Piedmont), alluvium.—Stella, I. A.
- Varangerfjord (Norway).—Reusch, H.; Schiötz, A. E.
- Vascoevras*.—Choffat, P.
- Vauluse (France), Tertiary.—Pellat, E.
- Vaud (Switzerland), earthquakes.—Gauthier, L.
- Vein-rocks.—Rosenbusch, H.
- , Odenwald.—Chelius, C.
- , orthoclase.—Lindgren, H.
- walls.—Rickard, T. A.
- Veins, Gt. Orme's Head copper.—Morton, G. H.
- , Charters Towers auriferous.—Paull, W. J.
- , contact-metamorphism, &c.—Lacroix, A.
- , Cornwall, &c.—Collins, J. H.
- , metalliferous.—Williams, A., Jun.
- , Nevada City gold-quartz.—Lindgren, W.
- , sandstone.—Kalkowski, E.
- Venericardia*.—Clark, W. B.; Cossmann, M.
- Veneritapes*.—Vincent, É.
- Venerupis*.—Kinkelin, F.
- Venetia (N. Italy), river-sands.—Artini, E.
- Venetian Alps.—Vacek, M.
- , Neocomian ammonites.—Parona, C. F.
- , Tertiary mollusca.—Vinassa de Regny, P. E.
- Plain (N. Italy), river-changes.—Nicolis, E.
- rivers (Italy).—Omboni, G., &c.
- Venezuela (S. Am.).—Sievers, W.
- Venilicardia*.—Frič, A.
- Ventricardia*.—Koken, E.
- Venus*.—Almera, J., &c.; Frič, A.
- Verania*.—Koken, E.
- Vercors (Dauphiné).—Martel, E. A.
- Vermetus*.—Clark, W. B.; Kaunhowen, F.; Stuckenberg, A.
- Vermicularia*.—Reid, C.
- Vermiculus*.—Reis, O. M.
- Vermiporella*.—Siegert, L.
- Vermont (U.S.A.), Cambrian.—Matthew, G. F.
- Vermeilina*.—Bagg, R. M., Jun.; Grzybowski, J.
- Vernon (Eure).—Dollfus, G. F.
- Verrucano, Bündner Oberland.—Steinmann, G.
- Vertebraria*.—Draper, D.
- Vertes Mts. (Hungary).—Papp, K.
- Veryan (Cornwall) limestone.—Fox, H., &c.
- Vestanå (Skåne).—Bäckström, H.; Weibull, M.
- Vestanite.—Weibull, M.
- Vesuvius (Italy).—Lapparent, A. de; Lorenzo, G. de; Matteucci, R. V.; Pasquale, F.
- (—), gases.—Nasini, —.
- Viburnum*.—Newberry, J. S.
- Vicentino Trias fauna.—Törnquist, A.
- Victoria (Austr.).—Hunter, S.; Schmeisser, K.; Stirling, J.; Travis, J., &c.
- (—), brown coal.—Stirling, J.
- (—), Older Tertiary fauna.—Pritchard, G. B.

- Victoria (Austr.), Silurian corals.—Dun, W. S.
 — (—), Tertiary bryozoa.—Maplestone, C. M.
 — (—), Tertiary Stylasteridæ.—Hall, T. S.
 Vienna (Lr. Austria).—Toula, F.
 — Sandstone, Erlaf Valley.—Paul, C. M.
 Vieux-Condé (Nord).—Anon., 2.
 Vilaine Valley (Ille-et-Vilaine).—Lebesconte, P., &c.
 Villacidro (Sardinia).—Lotti, B.
 Villefranche (Rhône), Quaternary gravels.—Gaillard, —.
 Villefranche-sur-Saône (Rhône).—Dollfus, G. F.
 Villejuif (Seine-et-Oise).—Laville, A.
 Villers-sur-Mer (Calvados).—Brasil, L.
 Vincennes (Ind.).—Newson, J. F.
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 Virginia (U.S.A.).—Campbell, M. R., &c.; Clark, W. B.; Walcott, C. D., &c.
 — (—), Cretaceous.—Fontaine, W. M.
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 — (—), petroleum.—White, I. C.
 Visé (Liège), Carboniferous fishes.—Destinez, P.
Vishnuites.—Diener, C.
 Visinsö Series, Gotland.—Dusén, P.
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 Vitrolles Stage, Provence.—Vasseur, G.
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 — rocks. See Igneous rocks.
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 —, Italy.—Günther, R. T.; see also Vesuvius.
 —, Java.—Gallois, E.
 —, Mud.—Nøtling, F.
 —, New Zealand.—Cadell, H. M.
 —, Puy-de-Dôme.—Lacroix, A., &c.
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 —, Sicily.—Guzzanti, C.
 Volga River (Russia).—Boule, M.; see also Russia.
 Volgian.—Abel, O.; Haug, E.
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Volutilithes.—Clark, W. B.; Cossmann, M.; Kaunhowen, F.; Nøtling, F.; Reis, O. M.
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Volutomorpha.—Nøtling, F.
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Vrazia.—Brusina, S.
 Vughs, Broken Hill.—Baye, H. G.
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 WACHSMUTH, C.—Bather, F. A.
 Wadnaminga goldfield (S. Austr.).—Brown, H. Y. L.
Waldheimia.—Böse, E.
 Wales, Drift.—Prestwich, Sir J.
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 —, mines, &c.—Atkinson, J. B., &c.; Foster, C. Le N.
 — (N.).—Foster, C. Le N.; Strahan, A.
 — (—), caves.—Pollen, G. C. H.
 — (—), minerals.—Munby, A. E.
 — (—), slates.—Reade, T. M., &c.
 — (S.), coalfield.—Anon., 16, 18, 20; Galloway, W.; Jordan, H. K.; Strahan, A.
 — (—), submerged valleys.—Codrington, T.
 Wallsend Colliery (Northumberland).—Aytton, H.; Forster, T. E.
 Walrus, America (N.E.).—Rhoads, S. N.
 Walton-on-the-Hill (Surrey).—Whitaker, W., &c.
 Waluweite.—Fels, G.
 Warlingham (Surrey).—Salter, A. E., &c.
 Washington (D.C.).—Darton, N. H.
 — Terr. (U.S.A.).—Anon., 56; Turner, W. B.
 Water.—Dawkins, W. B.; De Rance, C. E.; Kemna, A.
 —, Australia (W.).—Maitland, A. G.
 —, Bavarian thermal.—Lupin, F. von.
 —, Bohemia.—Hanamann, J.
 —, Bournemouth.—Reid, C.
 —, Bristol.—Pearson, H. W.
 —, Brünn.—Tietze, E.
 —, Chile mineral.—Marten, P.
 —, Colorado.—Emmons, S. F., &c.; Gilbert, G. K.

- Water, Dakota.—Darton, N. H.; Gilbert, G. K.
 —, Engadin mineral.—Moesch, C.
 —, Hobart.—Stephens, T.
 —, Illinois.—Carney, J. A.; Leverett, F.
 —, Indiana.—Ball, T. H.
 —, Iowa.—Calvin, S., &c.
 —, Kansas mineral.—Davies, H. E.; Knerr, E. B.
 —, Lisbon.—Choffat, P.
 —, *See also* Mineral waters.
 —, Modena underground water-level variations.—Pantanelli, D.
 —, Newton Nottage.—Madan, H. G.
 —, Po Valley underground.—Stella, A.
 —, Pougues mineral.—Friedel, G.
 —, Royston.—Warren, H.
 —, sheds.—Smith, W. S. T.
 —, Spa (Liège).—Dewalque, G.; Halleux, A.
 —, surface-tension denudation.—Ladd, G. E.
 —, Trias.—Morton, G. H.
 —, Tyrol.—Blaas, J.
 —, U.S.A.—Darton, N. H.; Newell, F. H.
 —, Ways, America (C).—Spencer, J. W.
 —, Yorks.—Fairley, T.
 Waterloo (Brabant).—Mourlon, M.
 Wealden.—Marcou, J.
 —, fauna.—Dawson, C.
 —, flora.—Seward, A. C.
 Weathered zone between Glacial deposits, U.S.A.—Leverett, F.
 Weathering, Diabase.—Watson, T. L.
 —, limestone.—Viola, C.
 —, sandstone.—Borchardt, L.
 —, rock. *See* Rocks.
 Webnerite.—Prior, G. T., &c.
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 Weiden Valley (Hungary).—Telegd, L. R. von.
 Weinböhl (Saxony).—Kalkowski, E.
 Wells. *See also* Artesian.
 —, Indiana.—Veatch, A. C.
 —, Iowa.—Norton, W. H.
 —, Middlesex.—Whitaker, W.
 —, Newton Nottage ebbing & flowing.—Madan, H. G.
 Wemmelian.—Couturieaux, J.; Mourlon, M.
 —, fishes, Belgium.—Storms, R.
 West Indies.—Guppy, R. J. L.; Spencer, J. W.
 —, Tertiary mollusca.—Guppy, R. J. L., &c.
 Westerloo (Antwerp) boring.—Ertborn, O. van, &c.
 Western Australia. *See* Australia (W.).
 Westland goldfield (N.Z.).—Wilson, G.
 Westleton (Suffolk).—Harner, F. W.
 —, Drift.—Salter, A. E.
 Westmoreland moraines.—Upham, W.
 Weston-super-Mare (Somerset).—Wilson, E.
 Westphalia (Germany) coalfields.—Anon., 7.
 — (—), Devonian classification.—Hundt, R.
 Weyer (Upper Austria).—Bittner, C.
 Weymouth (Dorset).—Monckton, H. W., &c.
 — (—), Oxford Clay fishes.—Woodward, A. S.
 Whale-remains, Liverpool.—Morton, G. H.
 Whin Sill, Great (Northumberland).—Hutchings, W. M.
 Whitadder Vale (Berwicks).—Stevenson, W.
 Whitby (Yorks) Lias fishes.—Woodward, A. S.
 Whitchurch (Bucks).—Davies, A. M.
 White Cliffs opal-fields, Wilcannia.—Gipps, F. G. de V.
 —, River (Wy.) Oligocene.—Scott, W. B.
 Wiborg (Finland).—Berghell, H.
 Wichita (Kan.), boring.—Mead, J. R.
Widdringtonites.—Hollick, A.; Newberry, J. S.
 Wienerwald (Lr. Austria).—Paul, C. M.
 Wiesbaden (Nassau).—Kinkelin, F.
 Wight (I. of).—Geikie, Sir A.; Prestwich, Sir J.; Shephard, J. E.
 Wilcannia (N.S.W.).—Gipps, F. G. de V.
 Willerzies (Namur).—Gosselet, J.
Williamsonia.—Newberry, J. S.; Seward, A. C.
 WILSON, E.—Anon., 41.
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 Wind River fauna, Colorado.—Osborn, H. F.
 Windworn stones.—Wittich, E.
 WINKLER, T. C.—Hicks, H.
 Winnipeg, Lake (Canada).—Whiteaves, J. F.
 Wisconsin (U.S.A.) Drift.—Bain, H. F.
 — (—), Driftless region.—Squier, G. H.
 — (—), road-metal materials.—Huntington, E.
 Witherite.—Weisbach, A.
 Witkopje Pan (Transvaal), plant-beds.—Andrews, A. J.
 Witwatersrand (Transvaal).—Denny, G. A.; Hatch, F. H.
 — (—), coalfields.—Sawyer, A. R.
 — (—), conglomerates.—Draper, D.
 — (—), glaciation. *See* Transvaal.
 — (—), Goldfields.—Regan, W. F.; *see also* Transvaal, Africa (S.), Gold.
 — (—), later volcanic eruptions.—Draper, D.; Frames, M. E.; Heslop, W. T.
 — (—), Main Reef.—Wilkinson, W. F.
 Woëvre R. (Ardennes).—Nicklès, R.
 Woking (Surrey).—Meeson, F.
 Wolds N. escarpment (Yorks).—Stather, J. W.

- Wolfenbüttel (Brunswick).—Fraas, E.
 Wolfram.—Carne, J. E.
 Wolframite.—Lovisato, D.
 Wolfsberg (Hungary).—Telegd, L. R. von.
 Wookey Hole Cave (Somerset).—Pereira, C. P. A. de L.
 Woolwich Beds, Eastbourne.—Reid, C.
 Worms Heath (Surrey).—Salter, A. E., &c.
 WORTH, R. N.—Anon., 5.
Worthenia.—Koken, E.
 Wupper R. basin (Rh. Prussia).—Dammann, C.
 Württemberg (Germany).—Branco, W.; Eck, H.; Philippi, E.; Stettner, G.
 — (—), earthquakes.—Schmidt, A.
 — (—), *Trigonodus-dolomite*.—Philippi, E.
 Wyneghem (Antwerp) boring.—De-walque, G.
 Wyoming (U.S.A.).—Walcott, C. D., &c.
 — (—), Jurassic fishes & reptilia.—Knight, W. C.
- Xanthophyllite.—Fels, G.
Xanthosia.—Carter, J.
Xenoneura.—Comstock, J. H.
Xenophora.—Fried, A.; Kaunhowen, F.; Reid, C.
 Xenotime in European rocks.—Derby, O. A.
Xerobates.—Gilbert, J. Z.
Xiphactinus.—Stewart, A.
Xiphodictya, *Xiphosphæra*, & *Xiphostylus*.—Rüst, H.
- Yalgoo (W. Austr.).—Gibbons, P. L.
 Yarmouth (Iowa).—Leverett, F.
 Yatulian.—Gurney, H. P.
 Ybbsthal (Lr. Austria).—Paul, C. M.
 Yellowstone Park (Wy.).—Walcott, C. D., &c.
 Yenangyan (Burma).—Nætling, F.
 Yilgaru (W. Austr.).—Black, V.; Halse, E.
Yoldia.—Almera, J., &c.
 Yoredale Series.—Hind, W.
 Yorke Peninsula (S. Austr.).—Etheridge, R., Jun.
Yorkia.—Walcott, C. D.
 Yorkshire.—Crofts, W. H.; Davis, P.; Drake, H. C.; Dyson, T., &c.; Geikie, Sir A.; Lamplugh, G. W.; Shephard, J. E.; Sheppard, T.; Stather, J. W.
 — coalfield.—Anon., 25.
 — flora.—Kidston, R.
- Yorkshire coalfield, South.—Durnford, H. St. J.
 — coast.—Fox-Strangways, C.
 — Lias gasteropoda.—Hawell, J.
 — moors.—Miall, L. C.
 —, water-supply.—Fairley, T.
 Yotnian.—Gurney, H. P.
 Yukon district (N.W. Canada).—Anon., 12; Gosnell, R. E.; Haverly, C. E.; Ogilvie, W.
 — River (N.W. Canada).—Lakes, A.
- Zafra*.—Cossmann, M.
Zagrabica.—Brusina, S.
 Zagram (Croatia). See Agram.
 Zalatna (Hungary).—Gesell, A.
Zamites.—Brown, H. Y. L., &c.; Seward, A. C.
Zanclodon.—Fraas, E.
 Zaphrentidæ.—Weissermel, W.
Zaphrentis.—Fraipout, J., &c.; Kouinck, L. G. de; Struve, A.; Stuckenberga, A.
Zeilleria.—Loriol, P. de; Roman, F.
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 Zetrud-Lumay (Brabant).—Daimeries, A.
 Zinc-blende, British Columbia.—Gwillim, J. C., &c.
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 —, Sardinia.—Capacci, C.; Corsi, A.; Lotti, B.
 —, Sweden.—Löfstrand, G.
 —, United States.—Hedburg, E.
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 Zoitzberg (Reuss).—Zimmermann, E.
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- Abh. schw. paläont. Gesellsch.* See *Mém. Soc. paléont. suisse.*
- Abh. senckenb. naturf. Gesellsch.* Abhandlungen herausgegeben von der senckenbergischen naturforschenden Gesellschaft. Frankfurt-am-Main.
- Abs. Proc. Geol. Soc.* Abstracts of the Proceedings of the Geological Society. London.
- Actes Soc. sci. Chili.* Actes de la Société scientifique du Chili. Santiago de Chile.
- Alabama Geol. Surv.* Alabama Geological Survey. Montgomery (Ala.).
- Am. Geol.* American Geologist. Minneapolis (Minn.).
- Am. Journ. Sci.* American Journal of Science. New Haven (Conn.).
- Am. Nat.* American Naturalist. Boston (Mass.).
- Analyst.* Analyst (Society of Public Analysts). London.
- An. Mus. Nac. Buenos Aires.* Anales del Museo Nacional de Buenos Aires. Buenos Aires.
- An. Soc. cient. Argent.* Anales de la Sociedad científica Argentina. Buenos Aires.
- Ann. Acad. Roy. Belg.* Annuaire de l'Académie Royale des Sciences, des Lettres et des Beaux-Arts de Belgique. Brussels.
- Ann. Géol. et Paléont. Palerme.* Annales de Géologie et de Paléontologie. Palermo.
- Ann. k.-k. naturhist. Hofmus. Wien.* Annalen des kaiserlich-königlichen naturhistorischen Hofmuseums. Vienna.
- Ann. Mag. Nat. Hist.* Annals and Magazine of Natural History. London.
- Ann. Mines, Paris.* Annales des Mines. Paris.
- Ann. N.Y. Acad. Sci.* Annals of the New York Academy of Sciences. New York.
- Ann. Observ. Nat. Athènes.* Annales de l'Observatoire National d'Athènes. Athens.
- Ann. R. Univ. Pisa.* Annuario della Reale Università di Pisa. Pisa.
- Ann. Rep. Am. Mus. Nat. Hist. N.Y.* Annual Report of the American Museum of Natural History. New York.
- Ann. Rep. Chicago Acad. Sci.* Annual Report of the Chicago Academy of Sciences. Chicago (Ill.).
- Ann. Rep. Dep. Mines, N.S.W.* Annual Report of the Department of Mines and Agriculture, New South Wales. Sydney.

- Ann. Rep. Dep. Mines Queensl.* Annual Report of the Under Secretary for Mines, Queensland. Brisbane.
- Ann. Rep. Geol. Comm. Cape Colony.* Annual Report of the Geological Commission. Department of Agriculture. Cape Town.
- Ann. Rep. Geol. Surv. Canada.* Annual Report of the Geological Survey of Canada. Ottawa. See *Summ. Rep.*
- Ann. Rep. Geol. Surv. Queensl.* Annual Progress Report of the Geological Survey of Queensland. Brisbane.
- Ann. Rep. Geol. Surv. W. Austr.* Annual Progress Report of the Geological Survey. Perth (W. Austr.).
- Ann. Rep. Iowa Geol. Surv.* See *Rep. Iowa Geol. Surv.*
- Ann. Rep. Mus. Comp. Zool.* Annual Report of the Assistant in Charge of the Museum of Comparative Zoology at Harvard College. Cambridge (Mass.).
- Ann. Rep. N.Y. State Mus.* Annual Report of the Regents of the New York State Museum. Albany (N.Y.).
- Ann. Rep. Public Mus. Milwaukee.* Annual Report of the Board of Trustees of the Public Museum of the City of Milwaukee. Milwaukee (Wisc.).
- Ann. Rep. Smiths. Inst. Rep. U.S. Nat. Mus.* Annual Report of the Board of Regents of the Smithsonian Institution. Report of the United States National Museum. Washington (D.C.).
- Ann. Rep. U.S. Geol. Surv.* Annual Report of the United States Geological Survey. Washington (D.C.).
- Ann. Rep. Wellington Coll. Nat. Sci. Soc.* Annual Report of the Wellington College Natural Science Society. Wellington College.
- Ann. Rep. Yorks. Phil. Soc.* Annual Report of the Yorkshire Philosophical Society. York.
- Ann. Sci. nat. (Zool. & Palé.).* Annales des Sciences naturelles: Zoologie et Paléontologie. Paris.
- Ann. Soc. géol. Belg. Liège.* Annales de la Société géologique de Belgique. Liège.
- Ann. Soc. géol. Nord.* Annales de la Société géologique du Nord. Lille.
- Ann. Soc. R. malac. Belg.* Annales de la Société Royale malacologique de Belgique. Brussels.
- Arch. f. Anthr. & Geol. Schleswig-Holsteins.* Archiv für Anthropologie und Geologie Schleswig-Holsteins und der benachbarten Gebiete. Kiel.
- Arch. Mus. Hist. nat. Lyon.* Archives du Muséum d'Histoire naturelle de Lyon. Lyon.
- Arch. naturw. Landesd. Böhmen.* Archiv der naturwissenschaftlichen Landesdurchforschung von Böhmen. Prague.
- Arch. néerland. Sci.* Archives des Sciences exactes et naturelles, publiées par la Société hollandaise des Sciences à Harlem. La Haye.
- Arch. Sci. phys. et nat. Genève.* Archives des Sciences physiques et naturelles. Geneva.
- Arch. Ver. naturgesch. Meckl.* Archiv des Vereins der Freunde der Naturgeschichte in Mecklenburg. Neubrandenburg.
- Athenæum.* Athenæum Journal. London.
- Atti Acc. Archeol. Napoli.* Atti dell' Accademia di Archeologia, Lettere e Belle Arti. Naples.
- Atti Congr. geogr. ital.* Atti del III. Congresso geografico italiano. Florence.
- Atti R. Acc. Lincei, Rendic.* Atti della Reale Accademia dei Lincei, Rendiconti. Rome.
- Atti R. Acc. Sci. Padova.* Atti e Memorie della Reale Accademia di Scienze, Lettere ed Arti in Padova. Padua.
- Atti R. Acc. Sci. Torino.* Atti della Reale Accademia delle Scienze di Torino. Turin.
- Atti Soc. tosc. Sci. nat.* Atti della Società toscana di Scienze naturali. Pisa.
- Beitr. Geophys. Leipzig.* Beiträge zur Geophysik. Leipzig.
- Beitr. Paläont. Oesterr.-Ung.* Beiträge zur Paläontologie und Geologie Oesterreich-Ungarns und des Orients. Vienna.
- Ber. naturf. Gesellsch., Freiburg i. B.* Berichte der naturforschenden Gesellschaft. Freiburg i. B.
- Ber. oberhess. Gesellsch. Nat.-Heilk.* Bericht der oberhessischen Gesellschaft für Natur- u. Heilkunde. Giessen.
- Ber. oberrhein. geol. Ver. Marburg.* Bericht über die 32. Versammlung des oberrheinischen geologischen Vereins in Marburg. Stuttgart.
- Ber. senckenb. naturf. Gesellsch.* Bericht der senckenbergischen naturforschenden Gesellschaft. Frankfurt-am-Main.

- Ber. wetterau. Gesellsch. Hanau.* Bericht der wetterauischen Gesellschaft für die gesammte Naturkunde zu Hanau a. M. Hanau.
- Berg-hütt. Jahrb. Wien.* Berg- und hüttenmännisches Jahrbuch der kaiserlich-königlichen Bergakademien zu Leoben und Příbram und der königlich-ungarischen Bergakademie zu Schemnitz. Vienna.
- Bergens Mus. Aarvog.* Bergens Museums Aarvog. Bergen.
- Bihang k. svenska Vet.-Akad. Handl.* Bihang till kongliga svenska Vetenskaps-Akademiens Handlingar. Stockholm.
- Bol. Acad. Nac. Cordoba.* Boletín de la Academia Nacional de Ciencias en Cordoba. Buenos Aires.
- Bol. Comm. geogr. e geol. São Paulo.* Boletim da Comissão geographica e geologica de São Paulo. São Paulo (Brazil).
- Bol. Inst. geogr. Argent.* Boletín del Instituto geográfico Argentino. Buenos Aires.
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- Bol. Soc. Geogr. Lisboa.* Boletim da Sociedade de Geographia de Lisboa. Lisbon.
- Bol. Soc. Nac. Minería, Santiago.* Boletín de la Sociedad Nacional de Minería. Santiago de Chile.
- Boll. R. Com. geol. Ital.* Bollettino del Reale Comitato geologico d'Italia. Rome.
- Boll. Soc. geol. ital.* Bollettino della Società geologica italiana. Rome.
- Brit. Assoc. Handb.* British Association Handbook. Bristol.
- Bull. Acad. Imp. Sci. St.-Petersb.* Bulletin de l'Académie Impériale des Sciences. St. Petersburg.
- Bull. Acad. Roy. Belg.* Bulletins de l'Académie Royale des Science, des Lettres et des Beaux-Arts de Belgique. Brussels.
- Bull. Am. Geogr. Soc.* Bulletin of the American Geographical Society. New York.
- Bull. Am. Mus. Nat. Hist., N.Y.* Bulletin of the American Museum of Natural History. New York.
- Bull. Chicago Acad. Geol. Surv.* Bulletin of the Chicago Academy of Science, Geological and Natural History Survey. Chicago (Ill.).
- Bull. Comm. géol. Finlande.* Bulletin de la Commission géologique de Finlande. Helsingfors.
- Bull. Com. géol. Russie.* Bulletins du Comité géologique. St. Petersburg.
- Bull. Essex Inst., Salem.* Bulletin of the Essex Institute. Salem (Mass.).
- Bull. Geol. Inst. Univ. Upsala.* Bulletin of the Geological Institution of the University of Upsala. Upsala.
- Bull. Geol. Soc. Am.* Bulletin of the Geological Society of America. Rochester (N.Y.).
- Bull. Geol. Surv. W. Austr.* Bulletin of the Geological Survey of Western Australia. Perth (W. Austr.).
- Bull. Geol. Univ. Cal.* Bulletin of the Department of Geology, University of California. Berkeley (Cal.).
- Bull. Intern. Acad. Sci. Cracovie.* Bulletin International de l'Académie des Sciences. Cracow.
- Bull. Mus. Comp. Zool.* Bulletin of the Museum of Comparative Zoology at Harvard College. Cambridge (Mass.).
- Bull. Mus. Hist. nat. Paris.* Bulletin du Muséum d'Histoire naturelle. Paris.
- Bull. Nat. Hist. Soc. New Brunswick.* Bulletin of the Natural History Society of New Brunswick. St. John (N.B.).
- Bull. Soc. Anthropol. Brux.* Bulletin de la Société d'Anthropologie de Bruxelles. Brussels.
- Bull. Soc. belge Géol. Brux.* Bulletin de la Société belge de Géologie, de Paléontologie et d'Hydrologie. Brussels.
- Bull. Soc. bot. France.* Bulletin de la Société botanique de France. Paris.
- Bull. Soc. franç. Min.* Bulletin de la Société française de Minéralogie. Paris.
- Bull. Soc. géol. France.* Bulletin de la Société géologique de France. Paris.
- Bull. Soc. Hist. nat. Autun.* Bulletin de la Société d'Histoire naturelle d'Autun. Autun.
- Bull. Soc. Hist. nat. Toulouse.* Bulletin de la Société d'Histoire naturelle de Toulouse. Toulouse.
- Bull. Soc. Imp. Nat. Moscou.* Bulletin de la Société Impériale des Naturalistes de Moscou. Moscow.
- Bull. Soc. oural. Sci. nat.* Bulletin de la Société ouralienne d'Amateurs des Sciences naturelles. Ekaterinburg.
- Bull. Soc. R. malac. Belg.* See *Ann. Soc. R. malac. Belg.*
- Bull. Soc. sci. & méd. Ouest, Rennes.* Bulletin de la Société scientifique et médicale de l'Ouest. Rennes.
- Bull. Soc. vaud. Sci. nat.* Bulletin de la Société vaudoise des Sciences naturelles. Lausanne.

- Bull. U.S. Nat. Mus.* Bulletin of the United States National Museum (Smithsonian Institution). Washington (D.C.).
- Canad. Rec. Sci.* Canadian Record of Science. (Natural History Society of Montreal.) Montreal.
- Cheltenham Coll. Nat. Hist. Mag.* Cheltenham College Natural History Magazine. Cheltenham.
- Chem. News.* Chemical News. London.
- Coll. Guard.* Colliery Guardian. London.
- Colo. Coll. Studies.* Colorado College Studies. Colorado Springs (Colo.).
- Com. Mus. Nac. Buenos Aires.* Comunicaciones del Museo Nacional de Buenos Aires. Buenos Aires.
- Comm. Dir. Trab. geol. Portugal.* Communicações da Direcção dos Trabalhos geologicos de Portugal. Lisbon.
- C. R. Acad. Sci. Paris.* Comptes-rendus hebdomadaires des Séances de l'Académie des Sciences. Paris.
- C. R. Assoc. franç. Av. Sci.* Comptes-rendus de l'Association française pour l'Avancement des Sciences. Paris.
- C. R. Congrès géol. internat.* Comptes-rendus du Congrès géologique international. St. Petersburg.
- C. R. Soc. helv. Sci. nat.* Compte-rendu des Travaux présentés à la Séance de la Société helvétique des Sciences naturelles. Geneva.
- Dan. geol. Undersög.* Danmarks geologiska Undersögelse. Copenhagen.
- Denkschr. k. Akad. Wissensch. Wien.* Denkschriften der kaiserlichen Akademie de Wissenschaften: Mathematisch-naturwissenschaftliche Classe. Vienna.
- Dep. Mines, N.S.W.* Department of Mines and Agriculture, New South Wales. Sydney.
- Dep. Mines Queensl.* Department of Mines, Queensland. Brisbane.
- Eclogæ Geol. Helv.* Eclogæ Geologicae Helvetiae. Lausanne.
- Engin. Mag.* Engineering Magazine. London.
- Erläut. geol. Karte Ung.* Erläuterungen zur geologischen Specialkarte der Länder der Ungarischen Krone. Budapest.
- Fennia.* Fennia. Bulletin de la Société de Géographie de Finlande. Helsingfors.
- Festschr. 32. Wanderversamml. bayer. Landw.* Festschrift gewidmet den Teilnehmern an der 32. Wanderversammlung bayerischer Landwirthe in Nürnberg, 1895. Nürnberg.
- Field Columbian Mus.* Field Columbian Museum Publications. Chicago (Ill.).
- Földt. Közl.* Földtani Közlöny. [Geological Magazine.] Budapest.
- Gen. Rep. Geol. Surv. India.* General Report on the Work carried on by the Geological Survey of India. Calcutta.
- Geogn. Jahresh., München.* Geognostische Jahreshefte. Munich.
- Geogr. Jahrb.* Geographisches Jahrbuch. Gotha.
- Geogr. Journ.* Geographical Journal (Royal Geographical Society). London.
- Geo. Fören. Stockh. Förh.* Geologiska Föreningens i Stockholm Förhandlingar. Stockholm.
- Geol. Mag.* Geological Magazine. London.
- Geol. Soc. Wash.* Geological Society of Washington. Washington (D.C.).
- Geol. Surv. Canada. Contr. Canad. Palæont.* Geological Survey of Canada. Contributions to Canadian Palæontology. Ottawa.
- Geol. Surv. Queensl., Publications.* Geological Survey of Queensland: Publications. Brisbane.
- Geol. Surv. W. Va.* Geological Survey of West Virginia. Morgantown (Va.).
- Gesch. Wissensch. Deutschl.* Geschichte der Wissenschaften in Deutschland. Herausgegeben durch die historische Commission bei der königlich-bayerischen Akademie der Wissenschaften. Munich.
- 'Glasnik.' Soc. Hist. nat. Croatica.* Journal of the Natural History Society of Croatia. Zagreb (Agram).
- Hist. Berwicks. Nat. Club.* History of the Berwickshire Naturalists' Club. Alnwick.
- Ibis.* The Ibis. London.
- Irish Nat.* Irish Naturalist. Dublin.
- Jaarb. Mijnc. Ned. O.-Ind.* Jaarboek van het Mijnuwezen in Nederlandsch Oost-Indië. Amsterdam.
- Jahrb. f. Berg- u. Hüttenw. Sachsen.* Jahrbuch für das Berg- und Hüttenwesen im Königreiche Sachsen. Freiberg.
- Jahrb. k.-k. geol. Reichsanst.* Jahrbuch der kaiserlich-königlichen geologischen Reichsanstalt. Vienna.
- Jahrb. k.-preuss. geol. Landesanst.* Jahrbuch der königlich-preussischen geologischen Landesanstalt. Berlin.

- Jahrb. k.-ung. geol. Anst.* Jahrbuch der königlich-ungarischen geologischen Anstalt. Budapest.
- Jahrb. nassauisch. Ver. f. Naturk.* Jahrbücher des nassauischen Vereins für Naturkunde. Wiesbaden.
- Jahrb. Schw.-Alpenclub.* Jahrbuch des Schweizer-Alpenclub. Bern.
- Jahresb. Ver. Naturw. Braunschweig.* Jahresbericht des Vereins für Naturwissenschaft zu Braunschweig. Brunswick.
- Jahresh. Ver. Naturk. Württ.* Jahreshefte des Vereins für vaterländische Naturkunde in Württemberg. Stuttgart.
- Journ. Acad. Nat. Sci. Philad.* Journal of the Academy of Natural Sciences. Philadelphia.
- Journ. Anthropol. Inst.* Journal of the Anthropological Institute. London.
- Journ. Asiat. Soc. Bengal.* Journal of the Asiatic Society of Bengal. Calcutta.
- Journ. Bombay Branch R. Asiat. Soc.* Journal of the Bombay Branch of the Royal Asiatic Society. Bombay.
- Journ. Ceylon Branch R. Asiat. Soc.* Journal of the Ceylon Branch of the Royal Asiatic Society. Colombo.
- Journ. Chem. Soc.* Journal of the Chemical Society. London.
- Journ. China Branch R. Asiat. Soc.* Journal of the China Branch of the Royal Asiatic Society. Shanghai.
- Journ. Cinc. Soc. Nat. Hist.* Journal of the Cincinnati Society of Natural History. Cincinnati (Ohio).
- Journ. Coll. Sci. Tokyo.* Journal of the College of Science, Imperial University. Tokyo.
- Journ. Conch., Paris.* Journal de Conchyliologie. Paris.
- Journ. East India Assoc.* Journal of the East India Association. London.
- Journ. Geol. Chicago.* Journal of Geology. Chicago (Ill.).
- Journ. Hamilton Assoc. (Canada).* Journal and Proceedings of the Hamilton Association. Hamilton (Ont.).
- Journ. Iron & Steel Inst.* Journal of the Iron and Steel Institute. London.
- Journ. Linn. Soc.* Journal of the Linnean Society. London.
- Journ. Marine Biol. Assoc. U.K.* Journal of the Marine Biological Association of the United Kingdom. Plymouth.
- Journ. Northants Nat. Hist. Soc.* Journal of the Northamptonshire Natural History Society and Field Club. Northampton.
- Journ. R. Agric. Soc.* Journal of the Royal Agricultural Society. London.
- Journ. R. Asiat. Soc. Gt. B.* Journal of the Royal Asiatic Society of Great Britain and Ireland. London.
- Journ. R. Inst. Cornwall.* Journal of the Royal Institution of Cornwall. Truro.
- Journ. R. Micr. Soc.* Journal of the Royal Microscopical Society. London.
- Journ. Roy. Soc. N.S.W.* Journal and Proceedings of the Royal Society of New South Wales. Sydney.
- Journ. Soc. Arts.* Journal of the Society of Arts. London.
- Journ. Vict. Inst. London.* Journal of the Transactions of the Victoria Institute. London.
- K. danske Vidensk.-Selsk. Afh.* Kongelige danske Videnskaberne-Selskabs naturvidenskabelig og matematisk Afhandling. Copenhagen.
- K. svenska Vet.-Akad. Handl.* Kongliga svenska Vetenskaps-Akademien Handlingar. Stockholm.
- K. ung. geol. Anst.* Königlich-ungarische geologische Anstalt. Budapest.
- Kansas Univ. Quart.* Kansas University Quarterly. Lawrence (Kan.).
- Knowledge.* Knowledge. London.
- Lond. Edinb. Dubl. Phil. Mag.* London, Edinburgh, and Dublin Philosophical Magazine and Journal of Science. London.
- Lunds Univ. Årssk.* Lunds Universitets Årsskrift. Lund.
- Magy. Kir. Földtani Intézet.* See *K. ung. geol. Anst.*
- Maryland Geol. Surv.* Maryland Geological Survey. Baltimore (Md.).
- Matér. Carte géol. Suisse.* Matériaux pour la Carte géologique de la Suisse. Commission géologique. Bern.
- Mater. Geol. Russ.* Materialien zur Geologie Russlands. Herausgegeben von der kaiserlichen mineralogischen Gesellschaft. St. Petersburg.
- Math. u. Naturw. Ber. Ung.* Mathematische und naturwissenschaftliche Berichte aus Ungarn. Budapest.
- Meddel. Dansk geol. Foren.* Meddelelser fra Dansk geologisk Forening. Copenhagen.
- Meddel. geogr. Fören. Finland.* Meddelanden af geografiska Föreningen i Finland. Helsingfors.

- Meddel. Grönland.* Meddelelser om Grönland, udgivne af Commissionen for Ledelsen af de geologiske og geographiske Undersøgelser i Grönland. Copenhagen.
- Meddel. Upsala Univ. Min. geol. Inst.* Meddelanden från Upsala Universitets mineralogisk-geologiska Institution. [A.C. *Geol. Fören. Stockh. Förh.*] Stockholm.
- Mém. Acad. Imp. Sci. St. Pétersb.* Mémoires de l'Académie Impériale des Sciences. St. Petersburg.
- Mém. Acad. Roy. Belg.* Mémoires de l'Académie Royale des Sciences, des Lettres et des Beaux-Arts de Belgique. Brussels.
- Mém. Acad. Sci. Dijon.* Mémoires de l'Académie des Sciences, Arts et Belles-Lettres. Dijon.
- Mem. Am. Mus. Nat. Hist., N.Y.* Memoirs of the American Museum of Natural History. New York.
- Mem. Boston Soc. Nat. Hist.* Memoirs of the Boston Society of Natural History. Boston.
- Mem. Com. geol. España.* Memorias de la Comisión del Mapa geológico de España. Madrid.
- Mém. Com. géol. Russie.* Mémoires du Comité géologique. St. Petersburg.
- Mém. cour. Acad. Roy. Belg.* Mémoires couronnés et autres Mémoires publiés par l'Académie Royale des Sciences, des Lettres et des Beaux-Arts de Belgique. Brussels.
- Mem. Geol. Surv. England & Wales.* Memoirs of the Geological Survey of England and Wales. London.
- Mem. Geol. Surv. India.* Memoirs of the Geological Survey of India. Calcutta.
- Mem. Geol. Surv. N.S.W.* Memoirs of the Geological Survey of New South Wales. Sydney.
- Mem. Geol. Surv. N.Y.* Memoirs of the Geological Survey of the State of New York. State Museum. University of the State of New York. Albany (N.Y.).
- Mem. Geol. Surv. U.K.* Memoirs of the Geological Survey of the United Kingdom. London, Glasgow, &c.
- Mem. Manch. Lit. Phil. Soc.* Memoirs and Proceedings of the Manchester Literary and Philosophical Society. Manchester.
- Mem. R. Acc. Sci. Torino.* Memorie della Reale Accademia delle Scienze. Turin.
- Mem. R. Astron. Soc.* Memoirs of the Royal Astronomical Society. London.
- Mem. R. Ist. lomb.* Memorie del Reale Istituto lombardo di Scienze e Lettere. Milan.
- Mem. Soc. cient. Ant. Alzate.* Memorias y Revista de la Sociedad científica 'Antonio Alzate.' Mexico.
- Mém. Soc. géol. France (Paléont.).* Mémoires de la Société géologique de France. Paléontologie. Paris.
- Mém. Soc. paléont. suisse.* Mémoires de la Société paléontologique suisse. Geneva, &c.
- Mém. Soc. Phys. & Hist. Nat. Genève.* Mémoires de la Société de Physique et d'Historie naturelle de Genève. Geneva.
- Mém. Soc. R. malac. Belg.* See *Ann. Soc. R. malac. Belg.*
- Min. Mag.* The Mineralogical Magazine and Journal of the Mineralogical Society. London.
- Min. petr. Mitth.* Mineralogische und petrographische Mittheilungen. Vienna.
- Mines & Minerals, Scranton.* Mines and Minerals. Scranton (Pa.).
- Minutes of Proc. Inst. C.E.* Minutes of Proceedings of the Institution of Civil Engineers. London.
- Mitth. badisch. geol. Landesanst.* Mittheilungen der grossherzoglich badischen geologischen Landesanstalt. Heidelberg.
- Mitth. naturf. Gesellsch. Bern.* Mittheilungen der naturforschenden Gesellschaft in Bern. Bern.
- Mitth. nat. Ver. Steiermark.* Mittheilungen des naturwissenschaftlichen Vereines für Steiermark. Graz.
- Monogr. Palæont. Soc.* Monographs of the Palæontographical Society. London.
- Monogr. U.S. Geol. Surv.* Monographs of the United States Geological Survey. Washington (D.C.).
- N. J. f. Min.* Neues Jahrbuch für Mineralogie, Geologie und Paläontologie. Stuttgart.
- Nat. Geogr. Mag. Wash.* National Geographical Magazine (National Geographical Society). Washington (D.C.).
- Nat. Sci.* Natural Science. Edinburgh.

- Natur u. Offenbarung.* Natur und Offenbarung. Münster (Pr.).
- Nature.* Nature. London.
- Notizbl. Ver. f. Erdk. Darmstadt.* Notizblatt des Vereins für Erdkunde und der grossherzoglichen hessischen geologischen Landesanstalt. Darmstadt.
- Nouv. Arch. Mus. Hist. nat. Paris.* Nouvelles Archives du Muséum d'Histoire naturelle. Paris.
- Nouv. Mém. Soc. Imp. Nat. Moscou.* Nouveaux Mémoires de la Société Impériale des Naturalistes de Moscou. Moscow.
- Nova Acta Ac. Cæs. Leop.-Car.* Nova Acta Physico-Medica Academiae Cæsareæ Leopoldino-Carolinæ Germanicæ Naturæ Curiosorum. Halle.
- Öfvers. K. Vet.-Akad. Förh.* Öfversigt af Kongliga Vetenskaps-Akademiens Förhandlingar. Stockholm.
- Ottawa Nat.* Ottawa Naturalist. Ottawa.
- Overs. K. danske Vidensk.-Selsk. Forh.* Oversigt over det Kongelige danske Videnskabernes-Selskabs Forhandlingar. Copenhagen.
- Palæontographica.* Palæontographica. Beiträge zur Naturgeschichte der Vorzeit. Stuttgart.
- Palæontographia italica.* Palæontographia italica. Memorie di Paleontologia. Pisa.
- Papers & Rep. Min. & Mining, N.Z.* Papers and Reports relating to Minerals and Mining, N.Z. Wellington (N.Z.).
- Peterm. Mitth.* Petermann's Mittheilungen. Gotha.
- Petroleum Rev.* Petroleum Review. London.
- Phil. Trans. Roy. Soc.* Philosophical Transactions of the Royal Society. London.
- Photogr. Journ.* Photographic Journal. (Royal Photographic Society.) London.
- Pirámide.* La Pirámide. La Plata (Argent.).
- Proc. Acad. Nat. Sci. Philad.* Proceedings of the Academy of Natural Sciences. Philadelphia (Pa.).
- Proc. Am. Acad. Arts & Sci.* Proceedings of the American Academy of Arts and Sciences. Boston (Mass.).
- Proc. Am. Phil. Soc.* Proceedings of the American Philosophical Society. Philadelphia (Pa.).
- Proc. & Trans. Croydon Microsc. & Nat. Hist. Club.* Proceedings and Transactions of the Croydon Microscopical and Natural History Club. Croydon.
- Proc. & Trans. N. S. Inst. Sci.* Proceedings and Transactions of the Nova Scotian Institute of Science. Halifax (N.S.).
- Proc. & Trans. Roy. Soc. Canada.* Proceedings and Transactions of the Royal Society of Canada. Ottawa.
- Proc. Asiatic Soc. Bengal.* Proceedings of the Asiatic Society of Bengal. Calcutta.
- Proc. Bath Nat. Hist. F. C.* Proceedings of the Bath Natural History and Antiquarian Field Club. Bath.
- Proc. Belfast Nat. F. C.* Proceedings of the Belfast Naturalists' Field Club. Belfast.
- Proc. Biol. Soc. Washington.* Proceedings of the Biological Society of Washington. Washington (D.C.).
- Proc. Birmingham Nat. Hist. Soc.* Proceedings of the Birmingham Natural History and Philosophical Society. Birmingham.
- Proc. Boston Soc. Nat. Hist.* Proceedings of the Boston Society of Natural History. Boston (Mass.).
- Proc. Bristol Nat. Soc.* Proceedings of the Bristol Naturalists' Society. Bristol.
- Proc. Cambridge Phil. Soc.* Proceedings of the Cambridge Philosophical Society. Cambridge.
- Proc. Canad. Inst.* Proceedings of the Canadian Institute. Toronto.
- Proc. Cotteswold Nat. F. C.* Proceedings of the Cotteswold Naturalists' Field Club. Gloucester.
- Proc. Dorset Nat. Hist. F. C.* Proceedings of the Dorset Natural History and Antiquarian Field Club. Dorchester.
- Proc. Geol. Assoc.* Proceedings of the Geologists' Association. London.
- Proc. Linn. Soc.* Proceedings of the Linnean Society. London.
- Proc. Linn. Soc. N.S.W.* Proceedings of the Linnean Society of New South Wales. Sydney.
- Proc. Liverp. Geol. Soc.* Proceedings of the Liverpool Geological Society. Liverpool.
- Proc. Malacol. Soc.* Proceedings of the Malacological Society. London.
- Proc. Midland Inst. M. E.* Proceedings of the Midland Institute of Mining, Civil, and Mechanical Engineers. Newcastle-upon-Tyne.

- Proc. Roy. Inst. Gt. B.* Proceedings of the Royal Institution of Great Britain. London.
- Proc. Roy. Irish Acad.* Proceedings of the Royal Irish Academy. Dublin.
- Proc. R. Phys. Soc. Edinb.* Proceedings of the Royal Physical Society of Edinburgh. Edinburgh.
- Proc. Roy. Soc.* Proceedings of the Royal Society. London.
- Proc. Roy. Soc. Edinb.* Proceedings of the Royal Society of Edinburgh. Edinburgh.
- Proc. Roy. Soc. Tasm.* Proceedings of the Royal Society of Tasmania. Hobart.
- Proc. Roy. Soc. Victoria (Austr.).* Proceedings of the Royal Society of Victoria. Melbourne.
- Proc. Soc. Bibl. Arch.* Proceedings of the Society of Biblical Archæology. London.
- Proc. S. Wales Inst. Engin.* Proceedings of the South Wales Institute of Engineers. Cardiff.
- Proc. U.S. Nat. Mus.* Proceedings of the United States National Museum (Smithsonian Institute). Washington (D.C.).
- Proc. Univ. Durham Phil. Soc.* Proceedings of the University of Durham Philosophical Society. Newcastle-upon-Tyne.
- Proc. verb. Soc. R. malac. Belg.* Procès-verbaux des Séances de la Société Royale malacologique de Belgique. Brussels.
- Proc. Wash. Acad. Sci.* Proceedings of the Washington Academy of Sciences. Washington (D.C.).
- Proc. Yorks. Geol. Soc.* Proceedings of the Yorkshire Geological and Polytechnic Society. Halifax.
- Proc. Zool. Soc. London.* Proceedings of the Zoological Society. London.
- Q. J. G. S.* Quarterly Journal of the Geological Society. London.
- Q. J. R. Met. Soc.* Quarterly Journal of the Royal Meteorological Society. London.
- Quarry.* The Quarry. London.
- Rec. Geol. Surv. N.S.W.* Records of the Geological Survey of New South Wales. Sydney.
- Rendic. R. Ist. lomb.* Reale Istituto lombardo di Scienze e Lettere. Rendiconti. Milan.
- Rep. Austr. Assoc. Adv. Sci.* Report of the Australasian Association for the Advancement of Science. Sydney (N.S.W.).
- Rep. Austr. Mus.* Report of the Trustees of the Australian Museum. Sydney (N.S.W.).
- Rep. Brit. Assoc.* Report of the British Association for the Advancement of Science. London.
- Rep. Brit. S. Africa Co.* Report on the British South Africa Company. London.
- Rep. Dep. Mines, W. Austr.* Report of the Department of Mines, W. Australia. Perth (W. Austr.).
- Rep. Inst. Mines & Forests Brit. Guiana.* Report of the Council of the Institute of Mines and Forests on the Gold and Forest Industries of British Guiana. Georgetown (Demerara).
- Rep. Iowa Geol. Surv.* Report of the Iowa Geological Survey. Des Moines (Iowa).
- Rep. Rugby School Nat. Hist. Soc.* Report of the Rugby School Natural History Society. Rugby.
- Rep. U.S. Nat. Mus.* Report of the United States National Museum. Washington (D.C.).
- Rep. Univ. Geol. Surv. Kansas.* Reports of the University Geological Survey of Kansas. Topeka (Kan.).
- Rev. Cienc., Lima.* Revista de Ciencias. Lima.
- Rev. Inst. geogr. & hist. Bahia.* Revista mensal do Instituto geographico e historico da Bahia. Bahia.
- Rev. Mus. La Plata.* Revista del Museo de La Plata. La Plata.
- Rev. Sci. Paris.* Revue Scientifique. Paris.
- Riv. ital. Paleont. Bologna.* Rivista italiana di Paleontologia. Bologna (*late Parma*).
- Riv. Min. e Crist. ital. Padova.* Rivista di Mineralogia e Cristallografia italiana. Padua.
- Rochester Nat.* Rochester Naturalist. Rochester.
- Rozpr. Akad. Umiej. Krakow.* Rozprawy Akademii Umiejętności Wydział matematyczno-przyrodniczy. Cracow.
- Samml. geol. R.-Mus. Leiden.* Sammlungen des geologischen Reichs-Museums in Leiden. Leiden.
- Schr. naturf. Gesellsch. Danzig.* Schriften der naturforschenden Gesellschaft in Danzig. Danzig.

- Schr. physik.-ökonom. Gesellsch. Königsb.* Schriften der physikalisch-ökonomischen Gesellschaft. Königsberg in Pr.
- Sci.-Gossip.* Science-Gossip. London.
- Sci. Trans. R. Dublin Soc.* Scientific Transactions of the Royal Dublin Society. Dublin.
- Scot. Geogr. Mag.* Scottish Geographical Magazine. (Royal Scottish Geographical Society.) Edinburgh.
- Sitz. Gesellsch. naturf. Freunde, Berlin.* Sitzungsberichte der Gesellschaft naturforschender Freunde. Berlin.
- Sitz. k. Akad. Wissensch. Wien.* Sitzungsberichte der königlich-kaiserlichen Akademie der Wissenschaften in Wien. Vienna.
- Sitz. k.-bayr. Akad.* Sitzungsberichte der mathematisch-physikalischen Classe der königlich-bayerischen Akademie der Wissenschaften. Munich.
- Sitz. k.-preuss. Akad. Wissensch. Berlin.* Sitzungsberichte der königlich-preussischen Akademie der Wissenschaften. Berlin.
- Sitz. Naturf.-Gesellsch. Dorpat.* Sitzungsberichte der Naturforscher-Gesellschaft bei der Universität Jurjew. Dorpat.
- Sitz. niederrhein. Gesellsch. Nat. &c., Bonn.* Sitzungsberichte der nieder-rheinischen Gesellschaft für Natur- und Heilkunde zu Bonn. Bonn. See *Verh. naturh. Ver. preuss. Rheinl.*
- Sitz. u. Abh. Gesellsch. 'Isis.'* Sitzungsberichte und Abhandlungen der naturwissenschaftlichen Gesellschaft 'Isis' in Dresden. Dresden.
- Smiths. Miscell. Coll.* Smithsonian Miscellaneous Collections. Washington (D.C.).
- Spelunca.* 'Spelunca.' Bulletin de la Société de Spéléologie. Paris.
- Summ. Progr. Geol. Surv. U.K.* Summary of Progress of the Geological Survey of the United Kingdom. London.
- Summ. Rep. Geol. Surv. Canada.* Summary Report of the Geological Survey of Canada. Ottawa.
- Sver. geol. Undersökn. Afh.* Sveriges geologiska Undersöknings Afhandlingar. Stockholm.
- Trans. Acad. Sci. St. Louis.* Transactions of the Academy of Science of St. Louis. St. Louis (Mo.).
- Trans. Am. Inst. M.E.* Transactions of the American Institute of Mining Engineers. New York.
- Trans. Cardiff Nat. Soc.* Transactions of the Cardiff Naturalists' Society. Cardiff.
- Trans. Connect. Acad.* Transactions of the Connecticut Academy of Arts and Sciences. New Haven (Conn.).
- Trans. Devon. Assoc.* Transactions of the Devonshire Association for the Advancement of Science. Plymouth.
- Trans. Edinb. Geol. Soc.* Transactions of the Edinburgh Geological Society. Edinburgh.
- Trans. Geol. Soc. S.A.* Transactions of the Geological Society of South Africa. Johannesburg.
- Trans. Guernsey Soc. Nat. Sci.* Transactions of the Guernsey Society of Natural Science. Guernsey.
- Trans. Herts. Nat. Hist. Soc.* Transactions of the Hertfordshire Natural History Society and Field Club. Hertford.
- Trans. Hull Geol. Soc.* Transactions of the Hull Geological Society. Hull.
- Trans. Inst. Mining & Metall.* Transactions of the Institution of Mining and Metallurgy. London.
- Trans. Inst. M. E.* Transactions of the Institution of Mining Engineers. Newcastle-upon-Tyne.
- Trans. Kansas Acad. Sci.* Transactions of the Kansas Academy of Science. Topeka (Kan.).
- Trans. Leicester Lit. & Phil. Soc.* Transactions of the Leicester Literary and Philosophical Society. Leicester.
- Trans. Linn. Soc.* Transactions of the Linnean Society. London.
- Trans. Manch. Geol. Soc.* Transactions of the Manchester Geological Society. Manchester.
- Trans. N. Engl. Inst. Min. & Mech. Eng.* Transactions of the North of England Institute of Mining and Mechanical Engineers. Newcastle-upon-Tyne.
- Trans. N.Z. Inst.* Transactions and Proceedings of the New Zealand Institute. Wellington (N.Z.).
- Trans. N.Z. Inst. M. E.* Transactions of the New Zealand Institute of Mining Engineers. Auckland (N.Z.).
- Trans. Perth. Soc. Nat. Sci.* Transactions and Proceedings of the Perthshire Society of Natural Science. Perth.

- Trans. R. Geol. Soc. Cornwall.* Transactions of the Royal Geological Society of Cornwall. Penzance.
- Trans. Roy. Irish Acad.* Transactions of the Royal Irish Academy. Dublin.
- Trans. Roy. Soc. Canada.* Transactions of the Royal Society of Canada. Ottawa.
See *Proc. & Trans. Roy. Soc. Canada.*
- Trans. Roy. Soc. S. Austr.* Transactions of the Royal Society of South Australia. Adelaide.
- Trans. S.A. Phil. Soc.* Transactions of the South African Philosophical Society. Cape Town.
- Trans. Texas Acad. Sci.* Transactions of the Texas Academy of Science. Austen (Tex.).
- Trans. Wagner Free Inst. Sci., Philad.* Transactions of the Wagner Free Institute of Science. Philadelphia (Pa.).
- Trans. Wisc. Acad. Sci. &c.* Transactions of the Wisconsin Academy of Science, Arts, and Letters. Madison (Wisc.).
- Trans. Zool. Soc. London.* Transactions of the Zoological Society. London.
- Travaux Sect. géol. Cab. S.M. St.-Pétersb.* Travaux de la Section géologique du Cabinet de Sa Majesté. St. Petersburg.
- Travaux Soc. Nat. St. Pétersb.* Travaux de la Société des Naturalistes de St. Pétersbourg. St. Petersburg.
- Verh. deutsch. wissensch. Ver. Santiago.* Verhandlungen des deutschen wissenschaftlichen Vereins zu Santiago de Chile. Valparaiso.
- Verh. k.-k. geol. Reichsanst.* Verhandlungen der kaiserlich-königlichen geologischen Reichsanstalt. Vienna.
- Verh. k.-k. zool.-bot. Gesellsch. Wien.* Verhandlungen der kaiserlich-königlichen zoologisch-botanischen Gesellschaft in Wien. Vienna.
- Verh. naturh. Ver. preuss. Rheinl.* Verhandlungen des naturhistorischen Vereins der preussischen Rheinlande, Westfalens und des Regierungs-Bezirks Osnabrück. Bonn.
- Verh. russ.-k. min. Gesellsch.* Verhandlungen der russisch-kaiserlichen mineralogischen Gesellschaft. St. Petersburg.
- Verh. schw. naturf. Gesellsch.* Verhandlungen (Actes) der schweizerischen naturforschenden Gesellschaft. Bern, &c.
- Verh. siebenbürg. Vereins f. Naturw.* Verhandlungen und Mittheilungen des siebenbürgischen Vereins für Naturwissenschaften. Hermannstadt.
- Vort. Ver. naturw.-Kennt. Wien.* Vorträge des Vereines zur Verbreitung naturwissenschaftlicher Kenntnisse. Vienna.
- W. Va. Geol. Surv.* See *Geol. Surv. W. Va.*
- Year-book Dep. Agric. U.S.A.* Year-book of the Department of Agriculture. Washington (D.C.).
- Yn Lioar Manninagh.* 'Yn Lioar Manninagh,' Journal of the Isle of Man Natural History and Antiquarian Society. Douglas (I. of M.).
- Zeitschr. deutsch. geol. Gesellsch.* Zeitschrift der deutschen geologischen Gesellschaft. Berlin.
- Zeitschr. f. Berg-, Hütt.-Salinenw.* Zeitschrift für das Berg-, Hütten- und Salinenwesen im preussischen Staate. Berlin.
- Zeitschr. f. Kryst.* Zeitschrift für Krystallographie und Mineralogie. Leipzig.
- Zeitschr. f. Naturw. Sachsen.* Zeitschrift für Naturwissenschaften. Organ des naturwissenschaftlichen Vereins für Sachsen und Thüringen. Stuttgart.
- Zeitschr. f. prakt. Geol.* Zeitschrift für praktische Geologie. Berlin.

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 —, Austrian.—Diener, C.; Schellwien, E.; Toul, F.; Wähler, F.
 —, Bavarian.—Böse, E.
 —, Bernese.—Loriol, P. de; Rollier, L.; Schardt, H.
 —, Carboniferous.—Frech, F.
 —, Carnic.—Angelis d'Ossat, G. de; Diener, C.; Geyer, G.; Schellwien, E.; Vigo, G.
 —, Chablais.—Franchi, S.; Haug, E.; Schardt, H.
 Alps, Cottian.—Franchi, S.; Kilian, W. Stella, A.; Termier, P.
 —, Dauphiné.—Arnaud, F.; Ville-noisy, F. de.
 —, Dolomite.—Ogilvie, M. M.
 —, Eastern.—Böse, E.; Diener, C.
 —, Fribourg.—Hug, O.
 —, glacier-variations.—Forel, F. A.; Reid, H. F.; Richter, E.
 —, glaciers (ancient).—Favre, A., &c.
 —, Glarus.—Baltzer, A.
 —, Graian.—Mattirollo, I. E.
 —, ice-age.—Richter, E.
 —, Italian.—Franchi, S.; Philippi, E.; Törnquist, A.
 —, Judic.—Diener, C.
 —, Lepontine.—Spezia, G.
 —, Maritime (France).—Franchi, S.; Guébbard, A.; Marcelin, C.
 —, Noric.—Diener, C.
 —, Northern.—Böse, E.
 —, Pennine.—Mercanton, P. L.
 —, Rhetian.—Diener, C.; Hammer, W.; Kunzli, E.
 —, Savoy.—Bonney, T. G.; Duparc, L.; Favre, A., &c.; Franchi, S.; Haug, E.; Schardt, H.
 —, Southern.—Forel, F. A.
 —, Styrian.—Dorler, A. F.
 —, Swabian.—Thürach, H.
 —, Swiss.—Forel, A.; Haug, E.; Philippi, E.; Richter, E.; Schardt, H.; Taramelli, T.
 —, torsion-structure.—Ogilvie, M. M.
 —, Venetian.—Franchi, S.; Vinassa de Regny, P.
 Alresford (Wilts).—Hawkins, C. E., &c.
 Alsace-Lorraine (Germany).—Benecke, E. W.; Bleicher, —; Hagmann, G. See also Lorraine.
 Altenburg, nr. Aix-la-Chapelle (R.-Pr.).—Gräff, L.
 — (Germany).—Keilhack, K.
 Alumina - separation from magmas.—Pratt, J. H.
 Aluminite.—Kaiser, E.
 Aluminium.—Packard, R. L.
Alveolina.—Earland, A.
Alveolites.—Etheridge, R., Jun.
Amaltheus.—Skeat, E. G., &c.
Amalropsis.—Reis, O. M.
 Amber.—Kunz, G. F.
Amberleya.—Greppin, E.
Amblyosiphonella.—Diener, C.
Ambonychia.—Venukov, P. N.
 Ambrite.—Bedson, P. P.
Amelanchier.—Newberry, J. S.
 America, Tertiary camels.—Wortman, J. L.
 — (Central).—Douvillé, H.; Montessus de Ballore, F. de; Sapper, C. See also Panama, &c.
 — (North).—Dall, W. H.; Dofflein, F.; Frech, F.; Hobbs, W. H.; Keyes, C. R.; Leith, C. K.; Lucas, F. A.; Matthew, G. F.; Taylor, F. B.; Trautschold, H. A. von. See also U.S.A., Alaska, Canada, Cambrian, &c.

- America (South).—Ameghino, F.; Montessus de Ballore, F. de; Villareal, F. *See also* Argentina, Brazil, &c.
- American Museum of Natural History (N.Y.).—Osborn, H. F.; Whitfield, R. P.
- Amethyst.—Kunz, G. F.
- Amia*.—Cope, E. D.; Newton, E. T.
- Amiurus*.—Cope, E. D.
- Ammonites*, Carboniferous.—Frech, F.; Tzvetav, M.
- , Cretaceous.—Anthula, D. J.; Bode, G.; Crick, G. C.; Hill, R. T., &c.; Kloos, J. H.; Logan, W. N.; Peron, A.; Sarasin, C.; Simionescu, J.; Skeat, E. G., &c.; Strahan, A.; Wil-liston, S. W., &c.
- , Jurassic.—Benecke, E. W.; Buckman, S. S.; Crick, G. C.; Engel, —; Fucini, A.; Greco, B.; Greppin, E.; Hug, O.; Loriol, P. de; Nelli, B.; Parona, C. F.; Pompeckj, J. F.; Siemiradzki, J. von; Skeat, E. G., &c.; Strahan, A.
- , shells, transport of.—Walther, J.
- , Trias.—Arthaber, G. von; Hermann, F.; Picard, K.; Törnquist, A.; Toula, F.
- Amphibia, Permian.—Braili, F.; Stickler, L.
- Amphibolite.—Daly, R. A.; Dörler, A. F.; Emerson, B. K.; Mouret, G.; Reiss, W., &c.; Turner, H. W.
- Amphibrachium*.—Hinde, G. J.
- Amphicyon*.—Gaillard, C.; Schlosser, M.
- Amphiope*.—Airaghi, C.
- Amphistegina*.—Sangiorgi, D.
- Amplexus*.—Diener, C.
- Ampullina*.—Greppin, E.; Johnson, C. W.; Koken, E.; Skeat, E. G., &c.
- Amstelian.—Harmer, F. W.
- Anussium*.—Gregorio, A. de; Newton, R. B.
- Amynilisipes*.—Fritsch, A.
- Analcite.—Clarke, F. W., &c.; Coleman, A. P.; Kloos, J. M.
- Analysis, volcanic rocks.—Bonjean, E. *See also* Igneous rocks.
- Ananchites*.—Anthula, D. J.
- Anatase.—O'Reilly, J. P.
- Anchitherium*.—Cope, E. D.
- Anchura*.—Johnson, C. W.
- Ancillaria*.—Gregorio, A. de.
- Ancistrocrania*.—Huene, F. von.
- Ancoioceras*.—Buckman, S. S.
- Ancona (Italy).—Peolo, P.
- Andalusite.—Teall, J. J. H.
- Andes (S. Am.).—Bonney, T. G.; Burckhardt, C.; Conway, Sir M.; Törnquist, A.; Wehrli, L.
- Andesite.—Alboran, I.; Bauer, K.; Becke, F.; Felix, J., &c.; Gregory, H. E.; MacLeod, W. A.; Reiss, W., &c. *See also* Igneous rocks.
- Andover (Hants).—Bennett, F. J., &c.
- Andromeda*.—Andersson, G.; Hollick, A.
- Anemia*.—Newberry, J. S.
- Angelica*.—Andersson, G.
- Anglesey (Wales).—Bonney, T. G., &c.; Greenly, E.; Matley, C. A.
- Anglesite.—Millosevich, F.
- Angola (Africa).—Bleicher, —; Lecomte, R. P.
- Anhydrite.—De Rance, C. E.
- Anisimova (Toms).—Pelz, H. H. von.
- Anisoceras*.—Redlich, K. A.
- Anisodonta*.—Dall, W. H.
- Annelida, Devonian.—Green, U.
- Annularia*.—Frech, F.; Zeiller, R.
- Annulosa.—Whidborne, G. F.
- Anognmius*.—Stewart, A.
- Anomia*.—Dall, W. H.; Gregorio, A. de; Nelli, B.; Philippi, R. A.; Rutot, A.; Woods, H.
- Anomocare*.—Matthew, G. F.
- Anorthite.—Pratt, J. H.; Viola, C.
- Antarctic.—Arétowski, H.; Chun, —; Murray, Sir J.; Prior, G. T.
- Anthophyllite.—Pratt, J. H.
- Anthracite, New Zealand.—Evans, W. P.
- , Röntgen rays &.—Couriot, —.
- , U.S.A.—Parker, E. W.
- Anthracodesmus*.—Peach, B. N.
- Anthracolulus*.—Fritsch, A.
- Anthracomya*.—Hind, W.
- Anthrapalæmon*.—Jones, T. R., &c.
- Antilles, *see* West Indies.
- Antilope*.—Redlich, K. A.
- Antimonite.—Worobieff, V. von.
- Antimony.—Coghlan, T. A.; Hintze, C.; Parker, E. W.; Peach, B. N., &c.
- Antioquia (Colombia).—Cragoe, S.; Granger, H. G., &c.
- Antwerp (Belgium).—Ertborn, O. van; Van den Broeck, E.
- (—) Docks.—Bernays, E.
- Auzio (Rome).—Neviani, A.
- Aparchites*.—Matthew, G. F.
- Apatite.—Boeris, G.
- Ape, Quaternary.—Harlé, E.
- Apedogyria*.—Buckman, S. S.
- Apeibopsis*.—Gümbel, C. W.
- Apennines (Italy).—Cassetti, M.; Riva, C.; Stefani, C. de, &c.; Vinassa de Regny, P. E.; Zaccagna, D.
- Apiocrinus*.—Strahan, A.
- Aplite.—Lacroix, A.
- Apophyllite.—Hennig, A.; Kaiser, E.; Kloss, J. H.
- Aporrhais*.—Reis, O. M.; Skeat, E. G., &c.
- Aptychus*.—Hug, O.; Strahan, A.
- Apuan Alps (Tuscany).—Zaccagna, D.
- Apulia (Italy).—Verri, A., &c.
- Aquila (Abruzzo).—Stefani, C. de, &c.
- Arabia.—Kossmat, F., &c.
- Arachnoidea, Permian.—Fritsch, A.
- Aragonite.—Zimányi, K.
- Aralia*.—Hollick, A.; Krasser, F.; Newberry, J. S.
- Araucaria*.—Newberry, J. S.
- Arborescent Carboniferous Limestone.—Woodward, H. B.

- Arbuckle Hills (Ind. Terr.).—Vaughan, T. W.
- Arca*.—Dall, W. H.; Greco, B.; Martin, K.; Mayer-Eymar, C.; Philippi, B.; Reis, O. M.; Steinmann, G., &c.; Woods, H.
- Arcevia (C. Italy).—Vinassa de Regny, P. E.
- Archaean, Belgium.—Van den Broeck, E.
- , Colombia.—Reiss, W., &c.
- , Finland.—Sederholm, J. J.
- , Malvern.—Groom, T. T.
- , Mexico.—Felix, J., &c.
- , Sweden.—Högbom, A. G.
- Archæoniscus*.—Strahan, A.
- Archæophilus*.—Ameghino, F.
- Archæopteris*.—Zeiller, R.
- Archæonodon*.—Newton, R. B.
- Archicapsa*.—Hinde, G. J.
- Archidesmus*.—Peach, B. N.
- Archiscudderia*.—Fritsch, A.
- Arcomya*.—Törnquist, A.
- Arctic.—Bruce, W. S.; Cleve, P. T.; Fromme, J.; Garwood, E. J.; Golletzen, B. B.; Hamberg, A.; Markham, A. H.; Monaco, Prince A. de; Nathorst, A. G.; Pompeckj, J. F.; Tchernyshev, T., &c.
- Arctic fauna, Charente Quaternary.—Boule, M., &c.
- Arctica*.—Skeat, E. G., &c.
- Arctomys*.—Kissling, E.
- Arctostaphylos*.—Andersson, G.
- Ardennes.—Barrois, C.; De Windt, J.; Leriche, M.
- Ardriahig Series.—Hill, J. B.
- Arenig, Scotland.—Peach, B. N., &c. See also Ordovician.
- Arthusina*.—Burhenne, H.
- Argèles (Hautes-Pyrénées).—Bresson, A.
- Argentiferous manganese, Mendoza.—Kyle, J. J.
- Argentina (S. Am.).—Ameghino, F.; Anon., 17; Burckhardt, C.; Church, G. E.; Kayser, E.; Kurtz, F.; Mercerat, A.; Pragner, H.; Roth, S.; Wehrli, L. See also Patagonia.
- Argillaceous rocks, Diamantina.—Derby, O. A.
- Argyllshire.—Wilkinson, S. B., &c.
- Arietites*.—Hug, O.; Pompeckj, J. F.
- Arisaig Series, Nova Scotia.—Whiteaves, H. S.
- Arizona (U.S.A.).—Blake, W. P.; Lord, E. C. E.
- Arkansas (U.S.A.).—Bain, H. F.; Schmitz, E. J.; Williams, H. S.
- Aroostook volcanic area (Maine).—Gregory, H. E.
- Arpalites*.—Törnquist, A.
- Arran (I. of).—Geikie, Sir J.; Hutton, J.
- Arsenates, natural.—Hartley, E. G. J.
- Arsenic.—Mügge, O.
- Art, Geology &c.—Coates, H.
- Artesian wells, Upper (Austria).—Com-menda, H.
- Artesian wells, Budapest.—Kalecsinszki, A. von.
- , Ghent.—Coune, G.
- , Iowa.—Bain, H. F.; Beyer, S. W.; Calvin, S.; Macbride, T. H.; Mosnat, H. R.; Norton, W. H.; Udden, L.
- , Italy.—Stella, A.; Vinassa de Regny, P. E.
- , London.—Sclater, P. L.
- , New Brunswick.—Matthew, G. F., &c.
- , New South Wales.—Boulton, J. W.
- , New Zealand.—Marchbanks, J.
- , Ohio.—Orton, E.
- , Queensland.—Maitland, A. G.
- , theory of.—Herzberg, A.; Ochsenius, C.
- Arthrolycosa*.—Fritsch, A.
- Arthropoda, Cretaceous.—Williston, S. W., &c.
- , Permian.—Fritsch, A.
- Artinskian.—Karpinski, A.; Tchernyshev, T.
- Artiodactyla.—Scott, W. B. See also Mammalia.
- Arundo*.—Noé, A.
- Arzeu Massif (Algeria).—Ficheur, E.
- ARZRUNI, A. E.—Fantappiè, L.; Romanovskii, E. O.
- Asaphus*.—Bolton, H.; Frech, F.; Reed, F. R. C.; Schmidt, F.
- Asbestos.—Brugnatelli, L.; Parker, E. W.
- Ashbourne (Derby).—Arnold-Bemrose, H. H.
- Ash-neck, Philipstoun.—Cadell, H. M., &c.
- Asia, Carboniferous.—Frech, F.
- , Central.—Bittner, A.; Friederichsen, M.
- , Eastern.—Koch, A.
- Asia Minor.—Glenn, W.; Kayser, E.; Rosiwal, A.; Thomaé, W. F. A.; Toulou, F.; Zeiller, R.
- Aspen (Colo.).—Spurr, J. E.
- Asphalt.—Bedson, P. P.; Lakes, A.; Parker, E. W.; Taff, J. A.; White, I. C.
- Aspidichthys*.—Whiteaves, J. F.
- Aspidium*.—Newberry, J. S.
- Aspidoceras*.—Canavari, M.; Skeat, E. G., &c.
- Asplenites*.—Krasser, F.
- Assam.—Smith, F. H.
- Assche (Brabant).—Vincent, G.
- Assuan (Egypt).—Brunhes, J.
- Asta, Cima d' (Tyrol).—Salomon, W.
- Astarte*.—Anthula, D. J.; Benecke, E. W.; Reis, O. M.; Skeat, E. G., &c.; Strahan, A.
- Asterocalamites*.—Frech, F.; Zeiller, R.
- Asteroceras*.—Pompeckj, J. F.
- Asteroides, Palæozoic.—Gregory, J. W.
- Asterophyllites*.—Zeiller, R.
- Asterozoa, Devonian.—Whidborne, G. F.

- Astieria*.—Simionescu, J.
Astrarium.—Rutot, A.
Astrangia.—Oppenheim, P.
Astroecenia.—Logan, W. N.
 Astroni (Phlegraean Fields).—Pampaloni, L.
 Asturias (Spain).—Jones, J. A.
 Asuel (Bern).—Rollier, L.
 Asulkan glacier (B. Columbia).—Vaux, G., &c.
 Atacama (Chili).—Darapsky, L.; Nordenskjöld, O.; San Roman, F. J., &c.
 ATHERSTONE, W. G.—Exton, H.; Jones, T. R.; Whitaker, W.
 Atherstone (Warwick).—Fox-Strangways, C.
 Athougua (Estremadura).—Nehring, A.
Athyris.—Burhenne, H.; Diener, C.; Frech, F.
 Atlantic marine deposits.—Peake, R. E., &c.
 — sub-oceanic features.—Fisher, O.; Hudleston, W. H.; Hull, E.; Spencer, J.
 — trachyte.—Termier, P.
 Atlas Mts. (Morocco).—Thomson, J.
 Atmospheric basis for glacial periods.—Chamberlin, T. C.
Atractites.—Toula, F.
Atrina.—Dall, W. H.
Atruria.—Brives, A.; Parona, C. F.
Atrypa.—Tchernyshev, T., &c.; Venukov, P. N.
 ATTWOOD, M.—Whitaker, W.
 Au (Lower Austria).—Arthaber, G. von.
Aucella.—Anthula, D. J.; Brives, A.; Wollemann, A.
Auchenia.—Wortman, J. L.
 Auckland I. (Antarctic).—Prior, G. T.
 Augite.—Pelikan, A.
 Auk, Great, see *Alca*.
Aulostegas.—Diener, C.; Frech, F.
 Aurichalcite.—Achiardi, G. d'; Riva, C.
 Auriferous conglomerates.—Bawden, F. W.; Becker, G.; Bleloch, W.; Draper, D.; Frames, M. E.; Kuntz, J.; Lakes, A.; Prister, A.; Sawyer, A. R.; White, A.
 — Iodes.—Don, J. D.; Hoover, H. C. See also Veins, Gold, &c.
 Aust Cliff (Gloucester).—Pentecost, H.
 Austerlitz (Moravia).—Stache, G., &c.
 Austin (Tex.).—Hill, R. T., &c.
Austinocrinus.—Anthula, D. J.
 Australasia.—Coghlan, T. A.; Gray, G., &c.
 Australia, Geology, 1897.—Etheridge, R., Jun., &c. See also Coal, Gold, &c.
 —, mercury.—Anon., 45.
 —, oceanography.—Fowler, W.
 —, physical geography.—Thomas, J. P.
 — (Central).—David, T. W. E., &c.
 — (N.W.).—Bassett-Smith, P. W.
 — (S.).—Brown, H. Y. L.; Coghlan, T. A.; David, T. W. E., &c.; Diesel-dorff, A.; Tate, R.
 Australia (W.).—Bancroft, G. J.; Blatchford, T.; Bulman, H. F.; Card, G. W.; Coghlan, T. A.; Crockett, L. L.; Fletcher, L.; Gascuel, L.; Hine, E. W., &c.; Hoover, H. C.; Maitland, A. G.; Pittman, E. F.; Rickard, T. A.; Simpson, E. S.
 Austria (Lower).—Abel, O.; Bittner, A.; Paul, C. M.; Redlich, K. A.; Schaffer, F.; Toula, F.
 — (Upper).—Commenda, H.; Toula, F.
 Austria-Hungary.—Becke, F.; Dreger, J.; Frech, F.; Hauecorne, W., &c.; John, C. von; Knett, J.; Mojsisovics, E. von; Priwoznik, E.; Richthofen, F. von; Seidl, F.; Stache, G.; Suess, F. E.; Woldrich, J. N. See also Tyrol, &c.
 Austrian Alps.—Diener, C.; Toula, A.
 — Society of Engineers.—Brough, B. H.
 Auvergne (France).—Bréon, R.; Dickson, E., &c.; Duboin, A. E., &c.; Lepierre, C.; Michel-Lévy, A.; Mouret, G.; Nelli, B.; Parmentier, F.; Repelin, J.
 Aves.—See Birds.
 Avesnes (Nord).—Anon., 4.
Avicula.—Bittner, A.; Philippi, R. A.; Reis, O. M.; Skeat, E. G., &c.; Strahan, A.; Williston, S. W., &c.
Aviculopecten.—Diener, C.; Frech, F.
 Aviemore (Inverness).—Wallace, T. D.
 Avigliana (Piedmont).—Boeris, G.
 Awe, Loch (Argyll).—Hill, J. B.
 Axinite.—Zimanyi, K.
 Ayot (Herts).—Monckton, H. W.
 Ayrshire (Scotland).—Peach, B. N., &c.
 Azurite.—Buttgenbach, H.; Riva, C.
 Bacchus Marsh (Vict.).—Brittlebank, C. C., &c.
 Bacteria, fossil hydrocarbons &.—Renault, B.
Bactrites.—Holm, G.; Holzappel, E.; Whiteaves, J. F.
Bactroceras.—Holm, G.
Baculites.—Redlich, K. A.; Reis, O. M.; Williston, S. W., &c.
 Baden (L. Austria).—Schaffer, F.
 — (Germany).—Böhm, G.; Regelmann, K.; Schalch, F.; Steinmann, G.
 Bagshot Sand, Dorset.—Reid, C.
 Bahia (Brazil).—Furniss, H. W.; Pragner, H.
Baiera.—Hjorth, A.; Steinmann, G.
 Baikal, Lake (Siberia).—Kulakov, P. V.
 Bailleul (Nord).—Gosselet, J.
 Bajocian.—Greppin, E.; Nicklès, R.
 Bakal mines (Orenburg).—Bauerman, G.
 Bala rocks. See Ordovician.
 Balaton Lake (Hungary).—Traxler, L.
Balatonites.—Arthaber, G. von; Picard, K.
 Balbriggan (Co. Dublin).—Gardiner, C. I.

- Balhoulan quarry (Perth).—Coates, H., &c.
 Balkan, Little (Turkestan).—Böhm, G.
 Ballantrae (Ayr).—Geikie, Sir A., &c.
 Ballersbach (Hesse).—Kayser, E.
 Ballon d'Asace (Vosges).—Bleicher, —, &c.; Collot, —.
 Baltic, Chalk.—Grönwall, K. A.; Hennig, A.; Ravn, J. P. J.; Stolley, E.
 — Drift.—Bonney, T. G., &c.
 — Glacier.—Howorth, Sir H. H.
 — Silurian.—Schmidt, F.; Stolley, E.
 Bangor (Caernarvon).—Greenly, E.
 Banka (D. E. I.).—Schoorman, J. A.; Verbeek, R. D. M.
 Banket.—Becher, G. F.; Bleloch, W.; Prister, A. *See also* Gold, &c.
 Barbados (W.I.).—Bedson, P. P.; Bois, G. du.
Barbatia.—Hennig, A.; Woods, H.
 Bären See (Hungary).—Lengyel, B. von.
 Barents Sea (Arctic).—Bruce, W. S.
 Baritina.—Millosevich, F.
 Barium sulphate, sandstones &c.—Clowes, F.; Wedd, C. B.
 Barnard Castle (Durham).—Manson, R. T.
 Baroda State (Bombay).—Foote, R. B.
 Baronov I. (Alaska).—Szachno, M.
 Barrémian.—Tobler, A.
 Barren Lands (Canada).—Tyrrell, J. B.
Barroisia.—Ravn, J. P. J.
 Bars, geological agency of river.—Lühmann, H.
 Barytes.—Parker, E. W.; Regelman, K.
 Basalt, Iceland.—Thoroddsen, T.
 —, King Charles Land.—Hamberg, A.
 —, Mexico.—Felix, J., &c.
 —, occurrence.—Bauer, K.
 —, Siebengebirge.—Kloos, J. H.
 —, Skye (I. of).—Clough, C. T., &c.
 —, Styria.—Sigmond, A.
 —, Württemberg.—Fraas, E.
 Basle (Switzerland).—Greppin, E.
 Bastnäsite.—Hillebrand, W. F.
 Bath (Somerset).—Anon., 59; Morgan, C. L.
Bathmoceras.—Holm, G.
 Bathonian, Indre.—Cossmann, M.
 Bathurst (N.S.W.).—Ross, W. J. C.
Batrachium.—Andersson, G.
 Baudou (Hainaut).—Cornet, J.
 Bauxite.—Packard, R. L.
 Bavaria.—Gümbel, C. W., &c.; Reis, O. M.; Schwarz, A.; Thürach, H.; Weithofer, K. A.; Weinschenk, E.
 Bavarian Alps.—Böse, E.
 — Wald.—Weinschenk, E.
 Bazár valley (N.W. India).—Hayden, H. H.
 Beaches, cusps.—Jefferson, M. S. W.
 —, Denmark.—Rördam, K.
 —. *See also* Raised Beaches, Shingle-grading, &c.
^c Bear I. (Arctic).—Böhm, J.; Nathorst, A. G.
 Bears, Tertiary, &c.—*See Ursus*.
 Beaune (Côte d'Or).—Michel-Lévy, A., &c.
 Beauraing (Namur).—Forir, H.
 Bedfordshire.—Whitaker, W.
 Beer (Devon) building-stone.—Masey, P. E.
 Bega R. (Hungary).—Adda, K.
 Beinwyl (Solothurn).—Rollier, L.
Belemnitella.—Cesáro, G.; Grossouvre, A. de; Strahan, A.; Williston, S. W., &c.
Belemnites.—Benecke, E. W.; Strahan, A.
 Belfast (Antrim).—Young, R.
 Belfort (Haut-Rhin).—Bleicher, —, &c.; Collot, —; Nicklès, R.
 Belgium.—Bayet, L.; Bernays, E.; Bertiaux, —; Buttgenbach, H.; Cesáro, G.; Cornet, J.; Coune, G.; Delheid, E.; Destinez, P.; Dewalque, G.; De Windt, G.; Dollfus, G.; Ertborn, O. van; Fineuse, —; Forir, H.; Fourmarier, P.; Frech, F.; Gosselet, J.; Gutmann, H.; Habets, A.; Harmer, F. W.; Hauchecorne, W., &c.; Lancaster, A.; Leriche, M.; Limburg-Stirum, A. de; Lohest, M.; Malaise, C.; Mourlon, M.; Raeymaeker, D.; Rutot, A.; Soreil, G.; Stainier, X.; Vallée Poussin, C. de la; Van den Broeck, E.; Velge, G.; Vincent, E.; Vincent, G. *See also* Coalfields, Tertiary, &c.
 BELL, D.—Whitaker, W.
 Belle Plaine (Iowa).—Mosnal, H. R.
Bellerophon.—Frech, F.; Venukov, P. N.
Bellinurus.—Jones, T. R., &c.
Belodon.—Gorjanović-Kramberger, C.
Belonorhynchus.—Woodward, A. S.
Beneckia.—Picard, K.
Benedenius.—Boulenger, G. A.
 Bengal (India) mica.—Smith, A. M.
 Benguela (Angola).—Lacomte, R. P.
 BENNIE, J.—Whitaker, W.
 Bentinck Co. (Queensl.).—Skertchly, S. B. J.
 Benton formation.—Darton, N. H.
Berardius.—Koch, A.
Berberis.—Newberry, J. S.
 Berchtesgaden (Bavaria).—Böse, E.
 Berdskoie (Tomsk).—Derjavin, A.
 Bermuda.—Peake, R. E., &c.
 Bern (Switzerland).—Baltzer, A.; Rollier, L.
 BERNARD, F.—Bergeron, J.; Perrier, E.
 Bernese Jura (Switzerland).—Loriol, P. de; Rollier, L.
 Bernissart (Hainaut).—Van den Broeck, E., &c.
 Berrias-deposits.—Tobler, A.
 Berwick-upon-Tweed.—Gunn, W.
 Beryl.—Kunz, G. F.; Pratt, J. H.
 Besoeke (Java).—Koperberg, I. J.
 Betchworth (Surrey).—Stebbing, W. P. D.

- Betula*.—Andersson, G.; Lindgren, W., &c.; Newberry, J. S.
 Beugin (Nord).—Anon., 2.
Beyrichia.—Kayser, E.; Matthew, G. F.; Tchernyshev, T., &c.; Venukov, P. N.
Beyrichites.—Arthaber, G. von; Toula, F.
Beyrichocrinus.—Waagen, W., &c.
 BIELZ, E. A.—Capesius, J.
 Bienne, Lake (Bern).—Steinmann, G.
 Bihar (Hungary).—Szontagh, T. von.
 Billiton (D.E.I.).—Verbeek, R. D. M.
Bilobites.—Venukov, P. N.
Biloculina.—Fornasini, C.
 BRNNEY collection.—Seward, A. C.
 Binnite.—Prior, G. T., &c.
 Biotite.—Reiss, W., &c.; Turner, H. W.; Walker, T. L.; Woldrich, J. N.
 —Tinguaité.—Sears, J. H.
 Birds, Cretaceous.—Seeley, H. G.; Williston, S. W., &c.
 —, geological relations.—Case, E. C.
 —, Jurassic.—Case, E. C.
 —, lake-dwellings.—Andrews, C. W.
 —, New Zealand.—Andrews, C. W.; Hutton, F. W.
 —, Quaternary.—Boule, M.; Knowles, W. J.; Ussher, R. J.
 —, Tertiary.—Andrews, C. W.
 Bird's egg, Dakota Miocene.—Farrington, O. C.
 Biscay (Spain).—Gill, W.
 —, Bay of.—Hudleston, W. H.; Hull, E.
 Bismuth.—Arzruni, A.; Bodenbender, W.; Bois, G. du; Coghlan, T. A.; White, I. C.
Bison.—Lucas, F. A.
 Bisternitz (Hungary).—Schaffer, F.
 Black-earth, Russia.—Sibirtzev, N.
 Black Hills (Dakota).—Ward, L. F.
 Blackpool (Lancs.) gypsum-boulder.—Stirrup, M.
 Blagodat (Urals).—Bauerman, H. *See also* Iron, &c.
 Blanc, Cap (Algeria).—Duparc, L., &c.
 Blanc Mt. (France).—Bonney, T. G.; Duparc, L., &c.; Favre, A., &c.
 Blanska (Moravia).—Stache, G., &c.
Blarnia.—Cope, E. D.
 Blastoidea.—Bather, F. A.
 Bleckede a. d. Elbe (Hanover).—Ochsenius, C.
 Blende.—Bertiaux, A.
 Blödite.—Darapsky, L.
 Bluestone, New York.—Gordon, J. B.
 Bobrownik (Silesia).—Hauchecorne, W.
 Bodenmais (Bavaria).—Weinschenk, E.
 Bodenwerder plateau (Brunswick).—Kloos, J. H.
 Boghead coal.—Bertrand, C. E.
 Bogs, Germany.—Müller, G.
 Bohemia.—Anon., 31; Becke, F.; Frech, F.; Fritsch, A.; Goethe, J. W. von; Hibsich, J. E.; Jahn, J. J.; Knett, J.; Launay, L. de; Mojsisovics, E. von; Perner, J.; Schubert, R.; Semper, M.; Waagen, W., &c.; Woldrich, J. N.
Bohemiacrinus.—Waagen, W.
Bohemilla.—Holm, G.
 Boise Ridge (Ido.).—Lindgren, W., &c.
 Bokhara (Central Asia).—Bittner, A.; Krafft, A. von; Rickmer, W. R.
 Bolderberg (Limbourg).—Dewalque, G.
 Bolderian.—Dewalque, G.; Dollfus, G.
 Bolivia.—Conway, Sir M.; Coutouly, — de; Pasley, C. S.
 Bologna (Emilia).—Sangiorgi, D.; Vignassa de Regny, P. E.
Bombax.—Krasser, F.
 Bombs, obsidian.—Krause, P. G.
 Bone-deposit, Port Kennedy.—Mercer, H. C.; Rope, E. D.
 Bonfingen (Württ.).—Koken, E.
 Boom Clay fauna.—Delheid, E.
 Borings, Abram.—Keen, J.
 —, Australia (S.).—Tate, R.
 —, Belfast.—Young, R.
 —, Courland.—Toll, E. von.
 —, England (N.).—De Rance, C. E.; Holmes, T. V.
 —, France (N.).—Anon. 17; Breton, L.; Gosselet, J.
 —, Gotland.—Erdmann, E.
 —, Hanover.—Kloos, J. H.; Ochsenius, C.
 —, Hungary.—Kalecsinszky, A. von.; Schaffer, F.
 —, Lanacken.—Fincuse, —.
 —, London.—Sclater, P. L.
 —, Ors.—Leriche, M.
 —, Prussia.—Jentzsch, A.
 —, Sussex.—Martin, E. A.
 —. *See also* Artesian wells.
 Bormida R. (Liguria).—Airaghi, G. di.
 BORNEMANN, J. G.—*See* Dollo, D.
 Borneo.—Anon., 70; Burls, H. T.; Easton, N. W.; Hinde, G. J.; Martin, K.; Newton, R. B., &c.
 Bornholm (Baltic).—Deecke, W.; Grönwall, K. A.; Hjorth, A.; Ravn, J. P. J.; Rördam, K.; Ussing, N. V.
Bornia.—Dall, W. H.
 Borovlianka (Tomsok).—Petz, H. H. von.
Borsonia.—Reis, O. M.
 Børssum (Brunswick).—Knoop, —.
 Boskowitz (Moravia).—Stache, G.
 Bosnia, meteorites.—Hödlmoser, C.
 —, ores, &c.—Priwoznik, E.
 Bosphorus.—Kayser, E.; Rosiwal, A.; Toula, L.
 Boston (Lincoln).—Whitaker, W.
 BOSWORTH, J. A.—Whitaker, W.
 Bothnia, Gulf of.—Geer, G., &c.
 Bothnian.—Sederholm, J. J.
Botrydistya.—Hall, J., &c.
 Böttingen (Württ.).—Dieltien, —.
Bouëina.—Steinmann, G.
 Boulders, Denmark.—Milthers, V.
 —, Lancs.—Reade, T. M.; Stirrup, M.
 —, New York State.—Gilbert, G. K.
 —, Russia.—Meunier, S.
 —. *See also* Glacial deposits.
 Boulder-clay, Cheshire.—Reade, T. M.
 —, Great Central Ry.—Thompson, B.
 —pavement, Wilson.—Gilbert, G. K.

- Boulonnais (France).—Munier-Chalmas, —.
- Bourboule (Auvergne).—Bréon, R.
- Bourguetia*.—Koken, E.; Strahan, A.
- Bowlingite.—Winchell, N. H.
- Bowmore (Argyll).—Wilkinson, S. B., &c.
- BOYLE, R., on earthquakes.—Gerland, G.
- Brabant (Belgium).—De Windt, J. *See also* Tertiary, &c.
- Brachiopoda, Cambrian.—Matthew, G. F.; Walcott, C. D.
- , Carboniferous.—Foord, A. H.; Frech, F. *See also* Palæozoic.
- , Cretaceous.—Anthula, D. J.; Hill, R. T., &c.; Posselt, H. J.; Redlich, K. A.; Reis, O. M.; Rutot, A.; Skeat, E. G., &c.
- , Devonian.—Burhenne, A.; Frank, W.; Kayser, E.; Scupin, H.; Tchernyshev, T., &c.; Whidborne, G. F.; Whiteaves, J. F. *See also* Palæozoic.
- , Jurassic.—Greco, B.; Jäkel, O.; Nelli, B.; Skeat, E. G., &c.; Strahan, A.
- , Palæozoic.—Huene, F. H. von.
- , Permian.—Semper, M.
- , Permo-Carboniferous.—Diener, C.; Tchernyshev, T., &c.
- , Silurian.—Cornet, J.; Huene, F. H. von; Venukov, P. N.
- , Tertiary.—Athanasii, S.; Bernays, E.; Gümbel, C. W., &c.; Lahille, F.; Reis, O. M.
- , tracks.—Jäkel, O.
- , Triassic.—Bittner, A.; Gemmelaro, G. G.; Törnquist, A.; Toula, F.
- Brachyodus*.—Andrews, C. W.
- Brachysaurus*.—Williston, S. W., &c.
- Brancoceeras*.—Tzvetev, M.
- Brasenia*.—Newberry, J. S.
- Brasiliana*.—Buckman, S. S.
- Brazil.—Anon., 46; Derby, O. A.; Geinitz, H. B.; Hussak, E.; Katzer, F.; Ribeiro, A. R. *See also* Diamonds, Manganese, &c.
- Bražná (Bohemia).—Irmler, A.
- Breccias, Craven limestone.—Marr, J. E.
- , Davos.—Jennings, A. V.
- , Grizzly Peak.—Stone, G. H.
- , Permian.—King, W. W.
- Bresse (France).—Depéret, C.
- Briançonnais (France).—Kilian, W.; Termier, P.
- BRIART, A.—Bergeron, J.; Dupont, E.; Erthorn, O. van.
- Brideend (Glam).—Newton, E. T.
- Brighton (Sussex).—Johnson, J. P.; Martin, E. A.; Sherborn, C. D.
- Bristol.—Morgan, C. L.; Wethered, E. B.; Woodward, H. B.
- Britanny (France).—Barrois, C.; Duflos, E.; Dupont, E.; Herries, R. S.; Kerfome, F.; Lacroix, A.; Meeson, F.
- British Association, Bristol, 1898. — Huddleston, W. H.; Stirrup, M.
- British Association, Dover, 1899. — Anon., 39, 53, 55, 71; Foster, Sir M.; Geikie, Sir A.
- Carboniferous correlation.—Hind, W., &c.
- Columbia. — Brewer, W. M.; Monekton, G. F.; Raper, A.; Reed, F. R. C.
- Guiana.—Hargreaves, T. S., &c.
- Honduras.—Sapper, C.
- Isles. *See* England, Great Britain, &c.
- minerals.—Spencer, L. J.
- Museum (Natural History). — Bather, F. A.; Crick, G. C.; Meeson, F. — volcanoes.—Bonney, T. G.
- Brochantite.—Riva, E.
- Brodieia*.—Buckman, S. S.
- Broken Hill (N.S.W.).—Beck, H.; Hlawatsch, C.
- BRONGNIART, C.—Milne-Edwards, A., &c.; Stirrup, E.
- Bronteus*.—Burhenne, H.; Clarke, J. M.; Holm, G.
- Brookite.—O'Reilly, J. P.
- Brooksella*.—Walcott, C. D.
- Brown-coal, Bohemia.—Anon., 31.
- insects, Rott.—Schlechtender, D. von.
- , Magdeburg.—Wahnschaffe, F.
- , Rhenish Prussia.—Heusler, C.
- Broxburn shale.—Cadell, H. M., &c.
- Brühl (R.-Pruss.).—Heusler, C.
- Brünn (Moravia).—Makovski, A.
- Brunswick (Germany).—Bode, G.; Fromme, J.; Kloos, J. H.; Knoop, —; Maas, M.; Richter, —; Wollemann, A.
- , New. *See* New Brunswick.
- Brussels (Belgium).—Erthorn, O. van; Lambert, G. *See also* Tertiary, &c.
- Brüx (Bohemia).—Launay, L. de; Suess, F. E.
- Bryograptus*.—Hall, T. S.
- Bryozoa, Cretaceous.—Hennig, A.
- , Devonian.—Whidborne, G. F.; Whiteaves, J. F.
- , Permo-Carboniferous.—Diener, C.
- , Tertiary.—Neviani, A.
- Bucegiu massif (Rumania).—Martonne, E. de.
- Buchenstein Valley (Dolomites).—Ogilvie, M. M.
- Buckow (Brandenburg).—Wahnschaffe, F.
- Bucks.—Davies, A. M.
- Budapest (Hungary).—Halaváts, J.; Kalecsinszky, A. von; Melczér, G.; Oppenheim, G.
- Budleigh Salterton (Devon).—Woodward, H. B., &c.
- Buenos Ayres (Argent.).—Scott, T.
- Buffalo Hump (Ido).—Maguire, —.
- Building-stones, England.—Elsden, J. V., &c.
- , Iowa.—Bain, H. F.; Beyer, S. W.; Macbride, T. H.; Norton, J. A.; Udden, W. H.

- Building-stones, Maryland.—Mathews, E. B.; Merrill, G. P., &c.
 —, theoretical values.—Rosiwal, A.
 —, U.S.A.—Day, W. C.
 —, weathering.—Rosiwal, A. *See also* Weathering.
- Builth (Brecknock).—Elles, G. L.
 Bukovina (Austria).—Mojsisovics, E. von.
 Bulgaria.—Cvijic, J.; Hauchecorne, W., &c.; Oppenheim, P.
 Bungoron I. (D.E.I.).—Krause, P. G.
Bunomeryx.—Wortman, J. L.
 BUNSEN, R. W. E.—Anon., 14; Van Tieghem, P.
 Bure series, Esneux.—Vallée Poussin, C. de la.
 Burham (Kent).—Dibley, G. E.
 Burma.—Grimes, G. E.
 Burning-mines, Summit Hill (Pa.).—Morgaroth, W. C.
 Burnsall (Yorks).—Dakyns, J. R., &c.
Burtinopsis.—Prato, A. del.
 Busca (Piedmont).—Stella, A.
 Bushey (Herts).—Blake, J. F.
 BUSSCHERE, L.—Rutot, A.
 Buxton (Derby).—Arnold-Bemrose, H. H.
 Buzen (Rumania).—Sutherland, D. A.
- Caban Group.—Lapworth, H.
Cabomba.—Newberry, J. S.
 Cach (India). *See* Cutch.
Cadulus.—Dall, W. H.
Cænopus.—Cope, E. D.
 Caernarvonshire.—Greenly, E.; Rutley, F.
 Calabria (Italy).—Hutton, J.; Stefani, C. de; Viola, C.
 Calais (P. de C.).—Barrois, C.
 Calamine.—Buttgenbach, H.; Clark, F. W., &c.; Riva, C.
 —, coal in.—Libert, J.
 Calamite-roots.—Lomas, J.
Calamitopsis.—Bonarelli, G.
Calappa.—Bouvier, E. L.
Calathospongia.—Hall, J., &c.
 Calaveras Co. (Cal.).—Lakes, A.
 — skull.—Dall, W. H.
 Calcaire grossier.—Gosselet, J.
 Calcareous tufa, Villerot.—Cornet, J.
Calceola.—Burhenne, H.
 Calcspongia.—Beede, J. W.; Diener, C.; Hinde, G. J.
 Calcite.—Buttgenbach, H.; Fromme, J.; Melczer, G.; Möberg, J. C.
 — crystallization of *Belemnitella*, &c.—Cesáro, G.
 Calder Valley (Yorks).—Spencer, J.
Caleidocrinus.—Waagen, W., &c.
 California (U.S.A.).—Anderson, F. M.; Beck, R.; Dall, W. H.; Day, T. D.; Hershey, O. H.; Lakes, A.; Lord, E. C. E.; Newell, F. H., &c.; Parker, E. W.; Stearns, R. E. C.; Turner, H. W.
 California, Lower (Mexico).—Krusch, P.; Landero, C. F.
- Calla*.—Andersson, G.
Calliostoma.—Cossmann, M.; Dall, W. H.
Callipteridium.—Frech, F.
Callista.—Williston, S. W., &c.
Callopristodus.—Jäkel, O.
 Callovian, Denmark.—Skeat, E. G., &c.
Caloneis.—Hartz, N., &c.
 Calossahatchie R. (Florida).—Hall, J., &c.
Calpiocrinus.—Waagen, W., &c.
Calycites.—Newberry, J. S.
Calymene.—Frech, F.
Calymmatotheca.—Zeiller, R.
 Calypso's I. *See* Malta.
Calyptocaris.—Jones, T. R.
Camarasaurus.—Osborn, H. F.
Camarophoria.—Diener, C.
Camarotechia.—Whiteaves, J. F.
 Cambrai (Nord).—Gosselet, J.
 Cambrian, Belgium.—De Windt, J.; Limburg-Stirum, A. de.
 — Bornholm.—Grönwall, K. A.
 —, brachiopoda, &c. *See* Brachiopoda, &c.
 —, British Columbia.—Reed, F. R. C.
 —, Canada.—Matthew, G. F.
 —, classification.—Frech, F.
 —, France.—De Windt, J.
 —, Isle of Man.—Bolton, H.
 —, Malvern.—Groom, T. T.
 —, Massachusetts.—Hobbs, J.
 —, medusæ.—Walcott, C. D.
 —, Sweden.—Holm, G.; Möberg, J. C.; Törnquist, S. L.
 —, Virginia.—Catlett, E.
 'Cambridge Greensand' foraminifera.—Chapman, F.
 Cambridge (Mass) Museum of Comparative Zoology. *See* Museums.
 Camden chert (Tenn.).—Safford, J. M., &c.
Camelomeryx.—Scott, W. B.
Camelops.—Wortman, J. L.
Camelus.—Wortman, J. L.
 Camerino (Italy).—Canavari, M.
Camerophoria.—Frech, F.
 Campbell I. (Antarctic).—Prior, G. T.
 Campiglia marittima (Tuscany).—Achiardi, G. d'.
 Campine (Limburg).—Mourlon, M.
Camptolithus.—Lindström, G.
Camptosaurus.—Marsh, O. C.
Campylosepia.—Picard, K.
 Canada.—Adams, F. D.; Anon., 44; Bell, R.; Blue, A.; Coleman, A. P.; Collie, N.; Cope, E. D.; Dawson, G. M.; Ells, R. W.; Grant, C. C.; Lambe, L. M.; Matthew, G. F.; Matthew, J. B.; Miller, W. G.; Nicol, W.; Penck, A.; Penhallow, D. P.; Trautschold, H. A. von; Tyrrell, J. B.; Walker, B. E.; Wilcox, W. D. *See also* Lakes, America (N.), &c.
Canavaria.—Oppenheim, P.
Cancellaria.—Ihering, H. von; Newton, R. B.
Candona.—Strahan, A.

- Canis*.—Cope, E. D.; Haggmann, G.; Harlé, E.
Canisp (Sutherland).—Currie, J.
 Cannock (Staff.).—Lapworth, C., &c.
 Cantal (France).—Mouret, E.
 Cape Colony.—Anon., 25, 28; Corstorphine, G. S.; Dunn, E. J.; Frames, M. E.; Leith, G.; Rogers, A. W.; Schwarz, E. H. L.
 —. See also Coal, &c.
 Caperr (Patagonia).—Fletcher, L.
 Capra.—Haggmann, G.
Caprina-limestone, Mexico.—Felix, J., &c.
Caprinidæ.—Stefano, G. di.
Capulus.—Bernays, E.
Carabalia.—Böhm, J.
 Caradoc Series, Scotland.—Peach, B. N., &c.
 Carbo-Permian. See Permo-Carboniferous.
 Carbon dioxide, oceanic.—Tolman, G. F., jun.
Carbonia.—Jones, T. R., &c.
 Carbonic acid, Schuls-Tarasp.—Mæsch, C.
Carbonicola.—Hind, W.
 Carboniferous, arborescent limestone.—Woodward, H. B.
 —, Australia.—Dun, W. S.
 —, Belgium.—Buttgenbach, H.; Destinez, P.; Dewalque, G.; Fourmarier, P.; Frech, F.; Habets, A.; Lohest, M.; Stainer, X.; Velge, G.
 —, British.—Arnold-Bemrose, H. H.; Butterworth, J.; Geikie, Sir A.; Gibson, W.; Gunn, W.; Hind, W.; Jones, T. R.; Kirkby, J. W.; Sollas, W. J.; Wethered, E. B., &c.
 —, China.—Frech, F.
 —, conglomerate, Melmerby.—Marr, J. E.
 —, crustacea, &c. See Crustacea, &c.
 —, Europe.—Frech, F.; Hind, W.
 —, France.—Bergeron, J.; Bertrand, C. E. Bresson; A.; Caralp, —.
 —, Heraclea.—Zeiller, R.
 —, Holland.—Stainer, X.
 —, Indiana.—Grabau, A. W.
 —, Iowa.—Bain, H. F.; Beyer, S. W.; Calvin, S.; Macbride, T. H.; Norton, W. H.; Udden, J. A.
 —, Ireland.—Crick, G. C.; Foord, A. H.
 —, Kansas.—Beede, J. W.; Haworth, E., &c.; Prosser, C. S.
 —, Kent.—Dawkins, W. B.; Etheridge, R.
 — life-zones.—Garwood, E. J.; Hind, W.
 — Limestone, Belgium.—Velge, G.
 —, Congleton Edge.—Gibson, W., &c.
 —, Craven.—Dakyns, J. R.; Marr, J. E.
 —, Fife.—Kirkby, J. W.
 —, Malvern.—Groom, T. T.
 Carboniferous, Man (Isle of).—Lamplugh, G. W.
 —, Mexico.—Felix, J., &c.
 —, Mississippi.—Keyes, C. R.
 —, Nebraska.—Prosser, C. S.
 —, New South Wales.—Dun, W. S.; Etheridge, R., Jun.
 —, Pennsylvania.—Gresley, W. S.
 —, Russia.—Tzwetav, M.; Tchernyshev, T.
 —, Scotland.—Gunn, W.; Hind, W.; Jones, T. R., &c.; Kirkby, J. W.; Laurie, M.; Peach, B. N.
 —, subdivisions.—Hind, W.
 —, Transvaal.—Frech, F.
 —, United States.—Udden, J. A.
 —, Yorkshire.—Hind, W.; Spencer, J.; Wellburn, E. D.
 Carcare (Liguria).—Airaghi, C.
Carcharias.—Priem, F.; Vinassa de Regny, P. E.
Carcharodon.—Delheid, E.; Vinassa de Regny, P. E.
Cardiaster.—Schlüter, C.
Cardinia.—Philippi, R. A.
Cardinocrania.—Huene, F. H. von.
Cardioceras.—Loriol, P. de.
Cardiola.—Tchernyshev, T., &c.
Cardiomorpha.—Hind, W.
Cardiopteris.—Dun, W. S.; Zeiller, R.
Cardita.—Brives, A.; Gregorio, A. de.
Cardium.—Alessandri, G. de; Hennig, A.; Hill, R. T., &c.; Kinkelin, F.; Newton, R. B.; Reis, O. M.; Skeat, E. G., &c.; Steinmann, G., &c.; Stiffe, A. W.; Strahan, A.
Carex.—Andersson, G.
Cariacus.—Cope, E. D.
Carinthia (Austria).—Stache, G., &c.
 Carlisle (Cumberland).—Holmes, T. V.
 Carlsbad (Bohemia).—Knett, J.
 Carnac (Britanny).—Duflos, E.
 Carnic Alps.—Diener, C.; Geyer, G.; Vigo, G.; Schellwien, E.
 Carniola (Austria).—Marinitsch, —; Stache, G., &c.
 Carnotite.—Friedel, G., &c.
Carolia.—Dall, W. H.
Carolicrinus.—Waagen, W., &c.
Carolina (N.).—Judd, J. W., &c.; Pratt, J. H.
 — (S.).—Day, T. D.
 Caroline Is.—Christian, F. W.
 Carpathians.—Athanasiu, S.; Martonne, E. de; Simionescu, J.
 Carpena (Liguria).—Vinassa de Regny, P. E.
Carpinus.—Newberry, J. S.
Carpocanistrum.—Vinassa de Regny, P. E.
Carpolithes.—Hjorth, A.; Newberry, J. S.
Carposphæra.—Hinde, G. J.
 Carrara (Tuscany).—Winwood, H. H.
 Carrickfergus (Antrim).—Egan, F. W., &c.
 Carrigaghalla Series.—Reed, F. R. C.
 Carshalton (Surrey).—Whitaker, W., &c.

- Cartennian.—Brives, A.
Carya.—Newberry, J. S.
 Cascina (Tuscany).—Maccaferri, R., &c.;
 Vinassa de Regny, P. E.
 Cassel (Nord).—Gosselet, J.
Cassia.—Lindgren, W., &c.; Newberry,
 J. S.
Cassianella.—Nelli, B.
 Cassinelle (Liguria).—Airaghi, C.
Cassis.—Gregorio, A. de; Johnson, C.
 W.; Martin, K.
 Cassiterite.—Prior, G. T.; Vogt, J. H. L.
 Castello d'Alessandria, Monte (Pied-
 mont).—Peola, P.
 Castleton (Derby).—Stokes, A. H.
 Catania (Sicily).—Marinelli, O.; Nelli,
 B.
 Catesby (Northants).—Thompson, B.
 Catoco (Angola).—Lecomte, R. P.
Catopygus.—Strahan, A.
Caturus.—Woodward, A. S.
 Caucasus (Russia).—Anthula, D. J.;
 Belinfante, L. L.; Birkinbine, J.;
 Dingelstedt, V.; Emmons, S. F.;
 Frazer, P.; Löwinson-Lessing, F.;
 Spendiarov, L.; Strejev, E. N.;
 Tchernyshev, T.
 Caverns & Caves, Alpes-Maritimes.—
 Marcelin, C.
 ———, Bohemia.—Launay, L. de.
 ———, Carniola.—Marinitsch, —.
 ———, Côte d'Or.—Gailmard, J.
 ———, Dakota.—Owen, L. A.
 ———, Dauphiné. — Mellier, M.;
 Villenoisy, F. de.
 ———, Dévoluy.—Martel, E. A.
 ———, discovered 1890-97.—Martel,
 E. A.
 ———, Estremadura.—Nehring, A.
 ———, Fermanagh.—Plunkett, T.
 ———, Fribourg.—Margueritte, R.
 ———, Gard.—Marrel, A.; Martel,
 E. A.
 ———, Hérault.—Mazauric, —.
 ———, Istria.—Marinitsch, —.
 ———, Jura.—Fournier, E.
 ———, limestone.—Barnes, J., &c.
 ———, Lot.—Viré, A.
 ———, Malay.—Ridley, H. N.
 ———, Mexico.—Felix, J., &c.
 ———, Moravia.—Trampler, R.
 ———, New South Wales.—Trickett,
 O.
 ———, Salzburg.—Függer, E.
 ———, Savoy.—Triboulet, M.
 ———, Styria.—Herius, C. G.; Mari-
 nitsch, —.
 ———, Wales.—Pollen, G. C. H.
 ———, Weston-super-Mare.—Wil-
 son, E.
 ———, Wookey Hole. — Mansel-
 Pleydell, J. C.
 ———, Württemberg.—Fraas, E.
 ———, Yorkshire.—Cuttriss, S. W.
Cavolinia.—Vinassa de Regny, P. E.
 Célas (Gard).—Laurent, L.
Celastrus.—Lindgren, W., &c.
 Celebes Is.—Rücking, H.
 Celestite.—Millosevich, F.; Mügge, O.
Celtidophyllum.—Krasser, F.
Celtis.—Newberry, J. S.
Cenellipsis.—Hinde, G. J.; Vinassa de
 Regny, P. E.
Cenococcum.—Andersson, G.
 Cenomanian, Ohlstadt.—Söhle, U.
Cenosphæra.—Hinde, G. J.; Vinassa de
 Regny, P. E.
 Central City (Colo.).—Lakes, A.
Cephalaspis.—Traquair, R. H.
Cephalogale.—Felix, J., &c.; Gaillard,
 C.
Cephalomys.—Ameghino, F.
 Cephalopoda, British Museum.—Crick,
 G. C.
 ———, Carboniferous. — Crick, G. C.;
 Foord, A. H.; Frech, F.; Tzvetav,
 M.
 ———, Cretaceous.—Anthula, D. J.;
 Bode, G.; Crick, G. C.; Grossouvre,
 A. de; Hill, R. T., &c.; Leriche, M.;
 Logan, W. N.; Madsen, V.; Peron,
 A.; Redlich, K. A.; Rutot, A.; Sara-
 sin, C.; Simionescu J.; Whiteaves,
 J. F.; Williston, S. W., &c.
 ———, crystalline arrangement of test.—
 Cesáro, G.
 ———, Devonian.—Barrois, C.; Holzapfel,
 E.; Kayser, E.; Whiteaves, J. F.
 ———, Jurassic.—Benecke, E. W.; Buck-
 man, S. S.; Canavari, M.; Crick, G. C.;
 Fuscini, A.; Greco, B.; Greppin, E.;
 Hug, O.; Loriol, P. de; Nelli, B.;
 Parona, C. F.; Pompeckj, J. F.;
 Siemiradzki, J. von; Skeat, E. G., &c.;
 Strahan, A.
 ———, Permo-Carboniferous.—Diener, C.;
 Tchernyshev, T., &c.
 ———, Silurian.—Holm, G.; Venukov,
 P. N.
 ———, Tertiary.—Oppenheim, R.; Parona,
 C. F.
 ———, Triassic.—Arthaber, G. von; Bitt-
 ner, A.; Hermann, F.; Picard, K.;
 Törnquist, A.; Toulà, F.
Ceratites.—Arthaber, G. von; Hermann,
 F.; Törnquist, A.; Toulà, F.
Ceratodictya.—Hall, J., &c.
Ceratophyllum.—Andersson, G.
Ceratopora.—Graubau, A. W.
Ceratopyge-limestone.—Holm, G.
Ceratotrochus.—Hennig, A.
 Cerigo I. (Greece).—Leonhard, R.
Ceriocerinus.—Brives, A.
Cerithioderma.—Cossmann, M.
Cerithium.—Brives, A.; Cossmann, M.;
 Greppin, E.; Martin, K.; Nelli, B.;
 Reis, O. M.; Skeat, E. G., &c.;
 Strahan, A.
 Cerussite.—Kaiser, E.; Ohm, H.; Riva,
 C.
 Cervulidæ.—Kinkel, F.
Cervus.—Hagmann, G. *See also* Elk,
 &c.
Cestracion.—Woodward, A. S.
 Cetacea, Tertiary.—Koch, A.; Prato, A.
 del; Simonelli, V.

- Ceylon.—Diersche, M.
 Chablais (Savoy).—Haug, E.; Frauchi, S.; Schardt, H.
 Chadwell spring (Herts).—Hopkinson, J.
Chenocariss.—Jones, T. R., &c.
Chaetodon.—Gorjanović-Kramberger, C.
 Chalcopyrite.—Buttgenbach, H.; Hartley, E. G. J.
Chalicotherium.—Cope, E. D.
 Chalk, Baltic.—Bonney, T. G., &c.; Grönwall, K. A.; Hennig, A.; Posselt, H. J.; Ravn, J. P. J.; Stolley, E.
 —, Beer.—Masey, P. E.
 —, Brighton.—Johnston, J. P.; Martin, A. E.
 —, Brunswick.—Bode, G.
 —, Caucasus.—Anthula, D. J.
 —, deposits.—Martin, E. A.
 —, Dorset.—Reid, C.; Strahan, A.
 —, echinodermata.—Rowe, A. W.
 —, fishes.—Woodward, A. S.
 —, Istria.—Redlich, K. A.
 —, Kent.—McDakin, S. G.
 —, Moravia.—Krasser, F.
 —, phosphatic.—Cornet, J.
 —, quartz-grains in.—Meunier, S.
 —, Rumania.—Redlich, A. S.
 —, Russia.—Krishtafovich, N.
 —, Surrey.—Martin, E. A.
 —, Syria.—Kinkel, F.
 —, Texas.—Hill, R. T., &c.
 —, Yorkshire.—Lamplugh, G. W.
 Chalosse, La (Landes).—Jacquot, E., &c.
Chama.—Reis, O. M.
 Champlain Epoch.—Upham, W.
 Champorecher Valley (Graian Alps).—Mattiolo, I. E.
 Channel, English.—Allen, E. J., &c.; Hallez, P.; Worth, R. H.
 CHAPER, M.—Douvillé, H.
 CHAPMAN, F.—Whitaker, W.
Chara.—Noé, A.
 Charente (France).—Boule, M., &c.
 Charlton (Kent).—Whitaker, W.
 Charnwood Forest (Leicester).—Fox-Strangways, C., &c.
 Charters Towers (Queensland).—Jack, R. L., &c.
Chartonia.—Buckman, S. S.
 Chartreuse massif (Isère).—Révil, H.
 Châtillon (Côte d'Or).—Michel-Lévy, A., &c.
Cheiropyge.—Diener, C.
 Chelonia, Tertiary.—Porta, V. A.
 —, Triassic.—Fraas, E.
 Cheltenham (Gloucester).—Anon., 58; Buckman, S. S.
Chemnitzia.—Koken, E.
 Chemung Group.—Clarke, J. M.; Prosser, C. S.
Chenopsis.—Brives, A.
 Chepstow (Monmouth).—Wood, J. G.
 Cherts.—David, T. W., &c.; Hinde, G. J.; Safford, J. M.
 Cheshire.—Lomas, J.; Reade, T. M.
 Chesil beach (Dorset).—Cornish, V.; Strahan, A.
 Chessington (Surrey).—Stebbing, W. P. D.
 Chettaba massif (Algeria).—Ficheur, A.
 Cheviot Hills (Northumberland).—Kynaston, H.
 Cheyenne Sandstone.—Prosser, C. S.
 Chiabergia, Monte (Piedmont).—Boeris, G.
 Chiaturi (Caucasus).—Birkinbine, J.; Drake, F.
 Chicago (Ill.).—Leverett, F.
 Chignecto Bay (New Brunswick).—Trueman, G. J.
 Chile (S. Am.).—Arzruni, A.; Burckhardt, C.; Darapsky, L.; Gascoyne, R.; Gimenez, J. V.; Labastie, F.; Nordenskjöld, O.; Ortmann, A. E.; Philippi, R. A.; San Roman, F. J., &c.; Steinmann, G., &c.; Villareal, F.; Walker, G. B.; Wehrli, L. *See also* Magellan Terr.
 Chillesfordian.—Harmer, F. W.
 Chilton (Bucks).—Davies, A. M.; White, H. J. O.
 Chimborazo (Ecuador).—Bonney, T. G.
Chimæra.—Vinassa de Regny, P. E.
 China.—Bourne, F. S.; Dieseldorff, A.; Frech, F.; Glass, J. G. H., &c.; Heguer, E., &c.; Koch, A.; Turley, R. T.; Wingate, A. M. S.
Chironomus-tracks.—Andersson, G.
 Chiroptera, Miocene.—Gaillard, C.
Chiropteris.—Steinmann, G., &c.
 Chitichun (Himalayas).—Diener, C.
 Chitral (Himalayas).—Conway, Sir M.
Chlamys.—Greco, B.
 Chlorastolite.—Winchell, A. N.
 Choco, the (Colombia).—Granger, H. G., &c.
 Choctaw-Nation asphalt (Ind. Terr.).—Taff, J. A.
Chondrites.—Bolton, H.
Chondrosteus.—Woodward, A. S.
Chonetes.—Frech, F.; Venukov, P. N.; Whidborne, G. F.
 Christmas I. (Indian Ocean).—Andrews, C. W.
 Chrome-iron-ore.—Glenn, W.; Pratt, J. H.; Thomas, W. F. A.
 Chrysoberyl.—Brugnattelli, L.
 Chrysolite.—Kunz, G. F.
Chrysophrys.—Priem, F.; Vinassa de Regny, P. E.
 Chrysoprase.—Kunz, G. F.
Cicuta.—Anderson, G.
Cidaris.—Strahan, A.
Cincinnati.—Cossmann, M.
Cinetoconia.—Renault, B.
Cinnamomum.—Newberry, J. S.
Cinulia.—Johnson, C. W.
 Ciplu (Hainaut).—Cornet, J.
Circe.—Noetling, F.
Cirrus.—Greco, B.
Cladocora.—Vaughan, T. W.
Cladodus.—Wellburn, E. D.
Cladophlebis.—Hjorth, A.

- Cladophyllia*.—Gregory, J. W.
Claosaurus.—Williston, S. W.
 Classification, Carboniferous.—Hind, W.
 —, geological.—Forsyth-Major, C. I.;
 Keyes, C. R.; Murlon, M.; Van den
 Broeck, E.
 —, S. Africa.—Corstorphine, G.
 S., &c.
 —, rock. *See* Rock.
Clathrocyclus.—Vinassa de Regny, P. E.
Clathrosporgia.—Hall, J., &c.
 Clausthal (Harz).—Gebhardt, —.
Clava.—Dollfus, G., &c.
Clavagella.—Brives, A.
Clavatula.—Gregorio, A. de.
 Clavier (Liège).—Destinez, P.
 Claygate (Surrey).—Stebbing, W. P. D.
 Clay-ironstone deposits, Westphalia &
 Hanover.—Kossmann, —.
 —-shale manure, Tuscany.—Ancona,
 G. d'.
 —-veins.—Gresley, W. S.
 Clays, classification. *See* Rock-classifica-
 tion.
 —, Belgium.—Ertborn, O. van.
 —, Ottawa basin.—Ells, R. W.
 —, Pskov Gov.—Glinka, K.
 —, United States.—Calvin, S., &c.;
 Lakes, A.; Middleton, J.; Ries, H.
 Cleavage. *See* Slaty cleavage.
Clemmys.—Cope, E. D.
Cleodictya.—Hall, J., &c.
Clepsydrosporgia.—Hall, J., &c.
 Clermont-Ferrand (Puy-de-Dôme).—
 Poskin, A.
Clidastes.—Williston, S. W.
Clidophorus.—Bittner, A.
 Clifford, Mt. (Queensland).—Dunstan,
 B.
 Clifton (Bristol).—Wethered, E. B.
 Cliftonite.—Fletcher, L.
 Climates, geological.—Harmer, F. W.;
 Mackie, W.; Manson, M.; Probst, J.
 Clinohedrite.—Penfield, S. L., &c.
Clonograptus.—Hall, T. S.
 Clwyd, Vale of (N. Wales).—Strahan,
 A.
Clypeaster.—Airaghi, A.
Clypeaster-beds, Gizeh.—Fourtau, R.
 Coal, Africa (S.).—Dunn, E. J. *See also*
 Cape Colony, &c.
 —, algæ.—Bertrand, C. E.
 —, Arkansas.—Bain, H. F.
 —, Australasia.—Coghlan, T. A.;
 Maitland, A. G.
 —, bacteria.—Renault, B.
 —, Belgium.—Stainier, X.; Velge, G.
 —, Boghead.—Bertrand, C. E.
 —, Bohemia.—Anon., 31; Fritsch, A.
 —, Bosnia.—Priwoznik, E.
 —, British Columbia.—Monckton, G.
 F.
 —, calamine with.—Libert, J.
 —, Canada.—Johnson, G.
 —, Cape Colony.—Anon., 25, 28;
 Dunn, E. J.
 —, Chile.—Gascoyne, R.; Steinman,
 G., &c.; Walker, G. B.
 Coal, China.—Bourne, F. S.; Dieseldorff,
 A.; Glass, J. G.; Heguer, E.
 —, Colorado.—Lakes, A.
 —, England (S.E.).—Dawkins, W. B.;
 Etheridge, R. *See also* Gt. Britain,
 &c.
 — fires.—Haldane, J. S.
 —, formation of. *See* —, origin.
 —, Great Britain, &c.—Brown, T. F.;
 Foster, C. Le N.
 —, Holland.—Forir, H.; Harzé, E.
 —, Hungary.—Böckh, J., &c.
 —, India.—Griesbach, C. L.; Grundy,
 J.
 —, Indian Terr.—Bain, H. F.
 —, Indiana.—Ashley, G. H.
 —, Japan.—Jordan, P.
 —, Kansas.—Bain, H. F.; Haworth,
 E., &c.
 —, Magallanes.—Chiapponi, M.
 —, Maryland.—Randolph, B. S.
 —, Mexico.—Dumble, E. T.
 —, Michigan.—Holmes, C.
 —, Missouri.—Bain, H. F.
 —, Montana.—Weed, W. H., &c.
 —, Natal.—Gray, C. J.
 —, New South Wales.—Coghlan, T.
 A.; McLachlan, D. C.; Pittman,
 E. F.
 —, New Zealand.—Bedson, P. P.;
 Bulman, H. F.; Cadman, A. J.;
 Evans, W. P.; McKay, A.; Wilson,
 E., &c.
 —, origin of.—Bertrand, C. E.; Gres-
 ley, W. S.; Lühmann, H.; Renault,
 B.
 —, Peru.—Griffith, W.
 —, plants. *See* Plants.
 —, Prisches paper.—Bertrand, C.
 —, Queensland.—Cameron, W. E.;
 Dunstan, B.; Jack, R. L.; Sellheim,
 P. F.
 — question.—Brown, T. F.
 —, Rhodesia.—Anon., 26; Wilkinson,
 W. F.
 —, Röntgen rays &.—Couriot, —.
 —, Servia.—Heguer, E.
 —, Tierra del Fuego.—Chiapponi, M.
 —, United States.—Parker, E. W.
 —, Transvaal.—Draper, D.; Dunn, E.
 —, Utah.—Maguire, —.
 —, Victoria (Austr.).—Coghlan, T.
 A.
 —, Washington Terr.—Anon., 48.
 —, Zululand.—Gray, C. J. *See also*
 Coalfields.
 Coalfields, Africa (S.).—Draper, D.;
 Dunn, E. *See also* Coal.
 —, Australia (W.).—Maitland, A. G.
 —, Austria.—Frech, F.
 —, Belgium.—Buttgenbach, H.; De-
 walque, G.; Forir, H.; Fourmarier,
 P.; Frech, F.; Gutmann, H.; Habets,
 A.; Lohest, M.; Soreil, G.; Stainier,
 X.; Velge, G.
 —, Bohemia.—Frech, F.
 —, Chile.—Gascoyne, R.; Walker, G.
 B.

- Coalfields, Dover.—Dawkins, W. B.; Etheridge, R.
 —, England.—Anon., 20, 21, 24, 29, 30, 33, 35; Frech, F.; Geikie, Sir A.; Gibson, W.; Gutmann, H. *See also* Dover, &c.
 —, Europe.—Frech, F.
 —, France.—Bertraud, M.; Fournier, E.; Frech, F.; Gutmann, H.; Mieg, M.; Peron, A.
 —, Germany.—Bertrand, M.; Cremer, L.; Frech, F.; Gutmann, H.
 —, New Zealand.—Park, J.
 —, Puget Sound.—Willis, B.
 —, Scottish.—Anon., 34; Weir, R.
 —, Siberia.—Dun, R. L.
 —, Transvaal. *See* Coal.
 —, Victoria (Austr.).—Anon., 32.
 —, United States.—Anon., 27; Bain, H. F.; Dinsmore, A.; Lakes, A.; Parker, E. W.; Roy, A.
 —, Wales.—Geikie, Sir A.; Anon., 23.
 —, World.—Frech, F.
 Coalton (Ky.).—Roy, A.
 Coast-lithology, France.—Thoulet, J.
 — weathering.—Anon., 6; Cornish, V.; Davis, W. M.; Gulliver, F. P.; Péroche, J.; Rigaux, H.; Rördam, K.; Thoulet, J.; Wheeler, W. H.
 Cobalt.—Öhmichen, H.; Wharton, J.
 Cocoliths, Cretaceous.—Williston, S. W., &c.
 Cocconeis.—Hartz, N., &c.
 Cocosseris.—Kiär, J.; Lindström, G.
 Cocculus.—Rivière, E.
 Cochliolepis.—Dall, W. H.
 Cod, Cape (Mass.).—Lamson-Scribner, F.; Shaler, N. S.; Upham, W.
 Codonaster.—Whidborne, G. F.
 Cœlacanthus.—Wellburn, E. D.
 Cœliocrinus.—Whidborne, G. F.
 Cœloceras.—Hug, O.; Skeat, E. G., &c.
 Cœlochrysalis.—Greco, B.
 Cœlonautilus.—Tzwetæv, M.
 Cœlonothis.—Nelli, B.
 Cœlorhynchus.—Priem, F.
 Cœlosmia.—Tomes, R. F.
 Cœlosphæridium.—Stolley, E.
 Cœlostylina.—Koken, E.
 Cœnograptus.—Meek, A.
 COLCHESTER, W.—Anon., 37; Whitaker, W.
 Coleraine (Vict.).—Hogg, E. G.
 Colley Hill (Reigate).—Bullen, R. A.
 Collie coalfield (W. Austr.).—Maitland, A. G.; Pittman, E. F.
 Collonia.—Cossmann, N.
 Collyrites.—Spendiarov, L.
 Colombia (S. Am.).—Cragoe, S.; Granger, H. G., &c.; Nichols, H. W., &c.; Reiss, W., &c.; White, R. B.
 Colorado (U.S.A.).—Kirchner, W. C. G.; Lakes, A.; Logan, W. N.; Rivington, C. W.; Spurr, J. E.
 Coloradoite.—Hillebrand, W. F.
 Coloration. *See* Minerals, Rocks, &c.
 Columbella.—Johnson, C. W.; Steinmann, G., &c.
 Columbia lava-plain, Oregon, &c.—Manson, M.
 Comarum.—Andersson, G.
 Comblain-au-Pont (Liège).—Destinez, P.
 Comblain-la-Tour (Liège).—Van den Broeck, E.
 Comoseris.—Strahan, A.
 Compare-Robert Ridge (Piedmont).—Boeris, G.
 Concentric weathering.—Hopkins, T. C.
 Conchidium.—Frank, W.
 Concretions, tubular, &c.—Abbott, G.
 Condroz massif (Namur).—Destinez, P.; Mourlon, M.
 Confolens (Charente).—Michel-Lévy, A., &c.
 Congeria.—Dall, W. H.
 —zone, Inola.—Toldo, G.
 Congleton Edge (Cheshire).—Gibson, W., &c.
 Conglomerate, Melmerby.—Marr, J. E.
 Conglomerates, Severn basin Permian.—King, W. W.
 —, Turin Hills Miocene.—Roccati, A. *See also* Auriferous, Dwyka, &c.
 Congo (W. Africa).—Carpiaux, E.; Cornet, J.; Lohest, M.
 Congress, Geological, Paris (1900).—Barrois, C.; Gaudry, A.; Leriche, M.; Thevenin, A.
 —, —, St. Petersburg.—Belinfante, L. L.; Beyschlag, F.; Bittner, A.; Blake, J. F.; Böckh, E.; Emmons, S. F.; Forel, F. A.; Frazer, P.; Frech, F.; Gurney, H. P.; Inostranzev, A.; Lœwiuon-Lessing, F.; Lugeon, M., &c.; Markovski, A.; Meli, R.; Nikitin, S.; Seeley, H. G.; Sibertzev, N.; Tchernyshev, T.; Walter, J.
 Connecticut (U.S.A.).—Davis, W. M.
 Conocardium.—Frech, F.
 — R. Valley (—).—Emerson, B. K.
 Constantine (Algeria). *See* Algeria.
 Contact-metamorphism.—Achiardi, G. d'; Böhmig, P. O.; Brauns, R.; Busz, K.; Clements, J.; Evans, W. P.; Hill, J. B.; Merrill, G. P.; Peach, B. N., &c.; Reiss, W.; Van Hise, C. R.
 Continents.—Lapparent, A. de.
 Conularia.—Ruedemann, R.
 Conus.—Brives, A.; Gregorio, A. de.
 Conway (Caernarvon).—Rutley, F.
 Coolgardie (W. Austr.).—Blatchford, T.; Gascuel, L.; Pittman, E. F.
 COPE, E. D.—King, H. D.; Scott, W. B.
 Copenhagen (Denmark).—Dames, W. B.; Grönwall, K. A.; Rördam, K.
 Copiapœa.—Steinmann, G.
 Copper, Australasia.—Coghlan, T. A.
 —, Bolivia.—Coutouly, — de.
 —, California (Lower).—Krusch, P.
 —, Chile.—Gimenez, J. V.
 —, chlorate of.—Bourgeois, L.
 —, Hungary.—Boeckh, J., &c.
 —, iodic.—Dieseldorff, A.

- Copper, New South Wales.—Carne, J. E.; Dieseldorff, A.; McLachlan, D. C.
 —, Tuscany.—Achiardi, G. d'; Lotti, B.
 —, United States.—Kirchoff, C.
 Copt Pt. (Kent).—McDakin, S. G.
Coptesoma.—Airaghi, C.
 Coquimbo (Chile).—Nordenskjöld, O.
 Coral-atoll, Funafuti.—Sollas, W. J.
 — reefs, Australia (N.W.).—Basset-Smith, P. W.
 —, Fiji.—Agassiz, A.
 —, West Indies.—Doflein, F.
 Corallian, Dorset.—Strahan, A.
Coralliophaga.—Dall, W. H.
Coralliophila.—Martin, K.
 Corals, Carboniferous.—Etheridge, R., Jun.; Grabau, A. W.; Lambe, L. M.
 —, Cretaceous.—Gregory, J. W.; Hennig, A.; Logan, W. N.; Reis, O. M.; Tomes, R. F.; Vaughan, T. W.; Wollemann, A.
 —, Devonian.—Angelis d'Ossat, G. de; Burhenne, H.; Grabau, A. W.; Kayser, E.; Lambe, L. M.; Lindström, G.
 —, Jurassic.—Strahan, A.; Whiteaves, J. F.
 —, Permo - Carboniferous. — Diener, C.
 Corals, Silurian. — Etheridge, R., Jun.; Kiär, J.; Lambe, L. M.; Lindström, G.; Venukov, P. N.
 —, Tertiary.—Delheid, E.; Gregory, J. W.; Oppenheim, P.; Reis, O. M.; Vaughan, T. W.
Coraster.—Anthula, D. J.
Corbicella.—Skeat, E. G., &c.
 Corbières (Aude).—Grossouvre, A. de.
Corbis.—Meyer-Eymar, C.; Strahan, A.
Corbula.—Martin, K.; Reis, O. M.; Skeat, E. G., &c.; Steinmann, G., &c.; Strahan, A.
Cordaites.—Potonié, H.
 Cordierite.—Gemböck, H.; Teall, J. J. H.
 Cornbrash, Dorset.—Strahan, A.
 CORNET, J.—Bergeon, J.
Cornulites.—Whidborne, G. F.
Cornus.—Newberry, J. S.
 Cornwall.—Collins, J. H.; Davison, C.; Enys, J. D.; Fox, H.; Green, U.; Hill, J. B.; Hinde, G. J.; Stephens, F. J.
 Coromandel (N.Z.).—McLeod, W. A.
 Corpallie (Liège).—Buttgenbach, H.
 Corrosion-figures.—Daly, R. A.
 Corundum.—Blue, A.; Coleman, A. P.; Geikie, Sir A.; Holland, T. H.; Miller, W. G.; Morozewicz, J.; Mügge, O.; Parker, E. W.; Pratt, J. H.; Teall, J. J. H.; Thomae, W. F. A.
Corylus.—Hulth, J. M.; Newberry, J. S.; Rivièrè, E.
Corynopteris.—Zeiller, R.
Coryphodon.—Osborn, H. F.
Cosmiolithus.—Lindström, G.
Cosmogyrria.—Buckman, S. S.
 Côte-d'Or (France).—Galimard, J.
 Cotopaxi (Ecuador).—Bonney, T. G.
 Cottian Alps.—Frauchi, S.; Kilian, W.; Stella, A.; Termaier, P.
 Coularie Ravine (Haute-Garonne). — Barrois, C.
 Council Bluffs (Ia.).—Shimek, B.
 Courland (Russia).—Nikitin, S.; Toll, E. von.
 Cowbridge (Glamorgan).—Howard, F. T.
 Crabs, oldest.—Kinkelin, F.
 —, Miocene.—Bouvier, E. L.
 Crag, East Anglian.—Harmer, F. W.; Lankester, E. R.
Crania.—Huene, F. H. von; Posselt, H. J.; Whidborne, G. F.
Craniella.—Huene, F. H. von; Whidborne, G. F.
Craniscus.—Huene, F. H. von.
Crassatella.—Ihering, H. von; Reis, O. M.
Cratægus.—Newberry, J. S.
 Crater Lake (Or.).—Diller, J. S.
 Craven (Yorks.).—Carter, W. L.; Dakyns, J. R.; Marr, J. E.
Crenella.—Dall, W. H.
Creniceras.—Loriol, P. de.
 Cretaceous, Algeria.—Peron, A.
 —, America (N.).—Newberry, J. S.
 — ammonites. See Ammonites, &c.
 —, Angola.—Bleicher, —.
 —, Argentina.—Ameghino, F.; Kurtz, F.; Roth, S.
 —, Austria-Hungary. — Bittner, A.; Krasser, F.; Oppenheim, P.; Paul, C. M.; Redlich, K. A.; Simionescu, J.
 —, Baltic.—Grönwall, K. A.; Hennig, A.; Hjorth, A.; Ravn, J. P. J.; Stolley, E.
 —, Bavaria.—Reis, O. M.; Söhle, U.
 —, Belgium.—Cornet, J.; Ertborn, O. van; Rutot, A.; Van den Broeck, E.
 —, Brunswick & Hanover.—Bode, G.; Kloos, J. H.; Maas, M.; Richter, —; Wollemann, A.
 —, Chile.—Philippi, R. A.
 —, Denmark.—Grönwall, K. A.; Posselt, H. J.; Ravn, J. P. J.; Skeat, E. G., &c.
 —, England (S.). — Dakin, S. G.; Elsdon, V., &c.; Martin, E. A.; Masey, P. E.; Reid, C.; Rowe, A. W.; Strahan, A.
 —, France.—Crossman, M.; Fournier, E.; Glangeaud, P.; Gosselet, J.; Leriche, M.; Parent, H.; Priem, F.; Thoulet, J.
 —, Greenland.—Madsen, V.; White, D.
 —, Italy.—Alessandri, G. de; Fornasini, C.; Parona, C. F.
 —, Jamaica.—Vaughan, T. W.
 —, Lebanon, Mt.—Woodward, A. S.
 —, Madagascar.—Boule, M.
 —, Mexico.—Felix, J., &c.
 —, Morocco.—Thomson, J.

- Cretaceous, Patagonia.—Ameghino, F.; Ihering, H. von; Kurtz, F.; Roth, S.
 —, Peru.—Douville, H.
 —, Rhodes I. (Ægean Sea).—Bukowski, G. von.
 —, Rumania.—Martonne, E. de; Redlich, K. A.
 —, Russia.—Krishtafovich, N.; Pavlov, A. V.; Stremouchov, D. P.; Zebrikov, W.
 —, Saxony.—Müller, G.
 —, Servia.—Steinmann, G.
 —, Swiss Alps.—Baltzer, A.; Tobler, A.
 —, Syria.—Kinkelin, F.
 —, Turkestan.—Böhm, G.
 —, United States.—Bain, H. F.; Calvin, S.; Darton, N. H.; Douville, H.; Haworth, E., &c.; Hill, R. T.; Hollick, A.; Johnson, C. W.; Ladd, G. E.; Logan, W. N.; Prosser, C. S.; Stewart, A.; Ward, L. F.; Wieland, G. R.; Williston, S. W., &c. *See also* Reptilia, &c.
 —, Venetian Alps.—Böhm, G.
 —, Westphalia.—Wollemann, G.
 —, Yorkshire.—Lamplugh, G. W.
 Crête-Sèche glacier-overflow (Valais).—Mercanton, P. L.
Crickia.—Buckman, S. S.
 Crimea (Russia).—Bayard, —; Tchernyshev, T.; Zebrikov, W.
 Crinoidea, Carboniferous.—Beede, J. W. *See also* Palæozoic.
 —, Cretaceous.—Anthula, D. J.; Reid, C.; Springer, F.; Williston, S. W., &c.; Woodworth, W. McM.
 —, crystalline arrangement of.—Cesáro, G.
 —, Devonian.—Whidborne, G. F.; Whiteaves, J. F. *See also* Palæozoic.
 —, Jurassic.—Strahan, A.
 —, Palæozoic, &c.—Bather, F. A.
 —, Silurian.—Sardeson, F. W.; Stolley, E.; Waagen, W., &c.
 —, Triassic.—Toula, F.
Crioceras.—Anthula, D. J.; Skeat, E. G., &c.
 Cripple Creek (Colo.).—Lakes, A.
Cristatella.—Andersson, G.
 Croatia.—Gorjanović-Kramberger, C.; Koch, F.
 Crocodiles, Cretaceous.—Williston, S. W., &c.
Crocodylus.—Leriche, M.
 CROCQ, J.—Mourlon, M.
 Croisette, Cape (Bouches-du-Rhône).—Fournier, E.
 Croisic, Le (Loire-Inférieure).—Tardy, —.
 Croizat (Auvergne).—Parmenter, F.
 CROSSE, H.—Bergeron, J.; Dautzenberg, P.; Poyard, C.
Crossotheca.—Zeiller, R.
 Crown Point Station (C. Austr.).—David, T. W. E., &c.
 Croydon (S. Austr.).—Tate, R.
 Crozon (Finistère).—Kerforme, F.
 Crush-conglomerate, Anglesey.—Matley, C. A.
 Crustacea, Cambrian.—Bolton, H.; Matthew, G. F.; Möberg, J. C.; Reed, F. R. C.
 —, Carboniferous.—Jones, T. R., &c.; Reed, F. R. C.
 —, Cretaceous.—Kinkelin, F.; Strahan, A.; Williston, S. W., &c.
 —, Devonian.—Burhenne, H.; Clarke, J. M.; Jones, T. R., &c.; Kayser, E.; Laurie, M.; Tchernyshev, T., &c.; Whiteaves, J. F.
 —, gastric teeth.—Jones, T. R.
 —, Jurassic.—Strahan, A.
 —, Permian.—Fritsch, A.; Jones, T. R., &c.
 —, Permo-Carboniferous.—Diener, C.; Tchernyshev, T., &c.
 —, shower of fossil.—Fourtau, R.
 —, Silurian.—Canavari, M.; Frech, F.; Holm, G.; Jones, T. R., &c.; McCoy, Sir F.; Schmidt, F.; Semper, M.; Venukov, P. N.
 —, Tertiary.—Bouvier, E. L.; Oppenheim, P.; Studer, T.
Cryphaeus.—Burhenne, H.; Kayser, E.
Cryptodictya.—Hall, J., &c.
 Crystalline rocks, classification.—Jannettaz, E.; Lapparent, A. de; Moragos, G.; Rosenbusch, H.
 —, —, New York State.—Smyth, C. H. J.
 —, —. *See also* Igneous rocks.
 Crystallography.—Barlow, W.; Baumhauer, H.; Beckenkamp, J.; Buttgenbach, H.; Cesáro, G.; Fedorov, E. von; Frischauf, J.; Goldschmidt, V.; Jannettaz, E.; Lehmann, O.; Lewis, W. J.; Panebianco, R.; Pratt, J. H.; Schmidt, A.; Sommerfeldt, E.; Tonkovite, F.; Viola, C.; Wallerant, F.
 Crystals, densities.—Berkeley, Earl of.
 —, etched figures.—Daly, R. A.; Viola, C.
 —, liquid in.—Rinne, F.
 —, structure.—Barlow, W.; Baumhauer, —; Lehmann, O.; Lewis, W. J.
 —, twinning.—Baumhauer, H.; Goldschmidt, V.
Ctenis.—Hjorth, A.
Ctenodonta.—Hind, W.
Ctenoptychius.—Jäkel, O.
Ctenostreom.—Philippi, R. A.
Ctenothrissa.—Woodward, A. S.
 Cuba (W. I.).—Birkinbine, J.
 Cuckfield (Sussex).—Seeley, H. G.
Cucullæa.—Hennig, A.; Reis, O. M.; Skeat, E. G., &c.
 'Cuestas'.—Davis, W. M.
 Cuillins (Skye).—Harker, A.
 Culm, glacial stræ in.—Wahnschaffe, F.
 —, Moravian-Silesian.—Kerner, F.
Cultrigera.—Rutot, A.
 Cumberland.—Anon., 67; Holmes, T. V.; Mantle, H. G.

- Cumberland (Ind.).—Randolph, B. S.
 Curacautin (Chile).—Burckhardt, C.
 Cusps, beach.—Jefferson, R. S. W.
 Cutch (India).—Oldham, R. D.
 Cuvilly (Oise).—Leriche, M.
 Cuxton (Kent).—Dibley, G. E.
 Cyanite.—Crick, G. C.
Cyathodictya.—Hall, J., &c.
Cyathophyllum.—Frech, F.; Venukov, P. N.
Cybele.—Read, F. R. C.
Cycadeoidea.—Lomas, J.; Strahan, A.; Ward, L. F.; Wieland, G. R.
Cyclocypeus.—Newton, R. B.
Cyclocerinus.—Stolley, E.
Cyclonema.—Venukov, P. N.
Cyclostoma.—Gregorio, A. de.
Cyclostreon & *Cylichna*.—Reis, O. M.
Cymbella.—Hartz, N., &c.
Cynonycteris.—Gaillard, C.
Cyonasua.—Ameghino, F.
Cyphaspis.—Burhenne, H.
Cyphloceras.—Buckman, S. S.
Cypræa.—Johnson, C. W.; Martin, K.
 Cypress Hills (N.W. Canada).—Cope, E. D.
Cypricardella.—Hind, W.
Cypricardia.—Törnquist, A.; Venukov, P. N.
Cypricardinia.—Burhenne, H.
Cypridea, *Cyprina*, & *Cypris*.—Strahan, A.
Cyrcædia.—Johnson, C. W.
Cyrena.—Martin, K.; Strahan, A.
Cyrtia.—Venukov, P. N.
Cyrtina.—Burhenne, H.
Cyrtocalpis.—Hinde, G. J.; Vinassa de Regny, P. E.
Cyrtoceras.—Foord, A. H.
Cyrtograptus.—Perner, J.
Cytherea.—Steinmann, G., &c.; Strahan, A.
Cytheridea.—Scott, T.
Dacosaurus.—Strahan, A.
Dactyloceras.—Hug, O.
Dactylotheca.—Zeiller, R.
 Dakota (U.S.A.).—Darton, N. H.; Farrington, O. C.; Lakes, A.; Owen, L. A.; Ward, L. F.
 — Beds, Patagonia.—Kurtz, F.
 — Sandstone, bird-tracks.—Williston, S. W.
Dalmanella.—Frech, F.
 Dalmatia (Austria).—Bukowski, G.; Kerner, F.; Mojsisovics, E. von.
 Dalradian rocks, Malverns.—Groom, T. T.
 — —, Scotland.—Geikie, Sir A.; Hill, J. B.
 DAMES, W. B.—Anon., 8; Lindström, G.; Tietze, E.; Whitaker, W.
Danaëites.—Zeiller, R.
 Danube, Baden part.—Schalch, F.
Danubites.—Toula, F.
Daonella.—Volz, W.
Daphnia.—Andersson, G.
 Darling Downs (Queensl.).—Skertchly, S. B. J.
 Darlington (Durham).—Manson, R. T.
 Dartmoor (Devon).—Busz, K.; Somervail, A.; Ussher, W. A. E.
 Dasycladaceæ.—Felix, J., &c.
 DAUBRÉE, G. A.—Jottrand, G.
 Dauphiné (France).—Arnaud, F.; Ville-noisy, F. de.
 DAVID, T. W. E.—Whitaker, W.
 Davos Valley (Grisons).—Jennings, A. V.
 Davyn. See Nephelite.
 DAWSON, Sir J. W.—Anon., 15; Woodward, H. B.
Dayia.—Cornet, J.
 Dean, Forest of (Gloucester).—Anon., 60.
 Dearness Valley (Durham).—Elweu, T. L.
 De Beer's Mine (Kimberley).—Bonney, T. G.
 Decomposition. See Weathering.
 Deep-sea deposits.—Peake, R. E., &c.
 Deer, gigantic Irish.—Kermode, P. M. C.
 Dego (Liguria).—Acraghi, C.
 Delessite.—Winchell, N. H.
Delheidia.—Delheid, E.
Delphinula.—Cossmann, M.
 Denbighshire coalfield.—Anon., 23.
Denckmannia.—Buckman, S. S.
Dendracis.—Vaughan, T. W.
Dendrocelum.—Andersson, G.
Dendrodus.—Whiteaves, J. F.
Dendrophyllia.—Hennig, A.
 Denée (Namur).—Buttgenbach, H.
 Denmark.—Bröggild, O. B.; Dames, W. B.; Eberlin, P.; Grönwall, K. A.; Hartz, N., &c.; Hulth, J. M.; Jessen, A.; Madsen, V.; Maire, L. Le, &c.; Milthers, V.; Posselt, H. J.; Ravu, J. P. J.; Rördam, K.; Skat, E. G., &c.; Steenstrup, K. J. V.
Dentalium.—Brives, A.; Cossmann, M.; Dall, W. H.; Greppin, E.; Strahan, A.
Dentex.—Vinassa de Regny, P. E.
 Denudation.—Chree, C.; Davis, W. M.; Geikie, J.; Martonne, E. de; Péroche, J.; Stoney, C. J.; Thoulet, J.; Wheeler, W. H.
 Deposition.—Chree, C.; Stoney, G. J.
Derbyia.—Frech, F.; Semper, M.
 Derbyshire.—Arnold-Bemrose, H. H.; Fox-Strangways, C., &c.; Holroyd, W. F., &c.; Sollas, W. J.
Dermatochelys.—Williston, S. W.
 Desert, Atacama.—San Roman, F. J.
 Deserts.—Rein, J.
Desmoceras.—Anthula, D. J.
Deuterotherium.—Ameghino, F.
 Devillian.—De Windt, J.
 Devizes (Wilts).—Bennett, F. J.
 Dévoluy (Hautes-Alpes).—Martel, E. A.
 Devon.—Busz, K.; Hunt, A. R.; Somervail, A.; Ussher, W. A. E.; Whidborne, G. F.
 Devonian, Arctic.—Tchernyshev, T.
 —, Ardennes.—Barrois, C.

- Devonian, Argentina.—Kayser, E.
 —, Arkansas.—Williams, H. S.
 —, Belgium.—Defrenne, B.; Desti-
 nez, P.; Lohest, M., &c.; Limburg-
 Stirum, A. de.
 —, Brittany.—Barrois, C.; Kerforne,
 F.
 —, Canada.—Whiteaves, J. F.
 —, classification.—Hind, W.
 —, Cornwall.—Fox, H.; Green, U.;
 Woodward, A. S.
 —, Devon & Somerset.—Whidborne,
 G. F.
 —, England.—Hind, W.
 —, fauna.—Scupin, H.
 —, Germany (W.).—Burhenne, H.;
 Jäkel, O.; Kayser, E.; Loretz, —;
 Winterfeld, F.
 —, Héroult.—Bergeron, J.
 —, Hesse.—Burhenne, H.; Frank,
 W.
 —, Illinois.—Eastman, C. R.; Weller,
 S.
 —, Indiana.—Grabau, A. W.
 —, Iowa.—Calvin, S., &c.; Norton,
 W. H.; Udden, J. A.
 —, Malvern.—Groom, T. T.
 —, Mexico.—Felix, J., &c.
 —, Moravia.—Kretschmer, F.
 —, Nassau.—Fuchs, A.
 —, New South Wales.—David, T. W.
 E.; Etheridge, R., Jun.; Hinde, G. J.;
 Luther, D. D.; Prosser, C. S.
 —, New York State.—Clarke, J. M.;
 Gordon, J. B.
 —, radiolaria. — David, T. W. E.;
 Hinde, G. J.
 —, Russia.—Holzapfel, E.
 —, Scotland.—Peach, B. N.; Reid, J.,
 &c.
 —, Sweden.—Kiär, J.; Lindström,
 G.
 —, Turkey.—Kayser, E.
 —, Waigatz I.—Tchernyshev, T.
 —, Wisconsin.—Monroe, C. E., &c.
 DEVALQUE, G., celebration.—Soreil,
 G.
 Dewalquea.—Hollick, A.
 Diabase, Brittany.—Lacroix, A.
 —, Colombia.—Reiss, W., &c.
 —, Jersey.—Parkinson, J.
 —, Tasmania.—Stephens, T.
 Diamantina (Brazil).—Derby, O. A.
 Diamond-pipes.—Bonney, T. G.; Draper,
 D.
 Diamonds, African.—Beck, R.; Bonney,
 T. G.; Draper, D.; Molengraaff, G.
 A. F.
 —, Brazilian.—Hussak, E.; Pragner,
 H.
 —, formation of.—Crookes, W.
 —, mineral accompanying.—Hussak,
 E.
 —, New South Wales.—McLachlan,
 D. C., &c.
 —, origin of.—Bonney, T. G.; Kunz,
 G. F.
 —, parent-rock.—Bonney, T. G.
 Diamonds, United States.—Hobbs, W.
 H.; Kunz, G. F.; Maguire, —; Turner,
 H. W.
 Diaspore.—Flink, G.
 Diastoma.—Rutot, A.
 Diatoma.—Hartz, N., &c.
 Diatomacea, Dismal Swamp.—Wool-
 man, L.
 —, Franz-Josef Land.—Cleve, P. T.
 Diatomaceous deposits, Denmark.—
 Hartz, N., &c.
 Dicallocephalus.—Holm, G.
 Dichellograptus.—Meek, A.
 Dichograptus.—Hall, T. S.; Meek, A.
 Dicksonites.—Zeiller, R.
 Dicolocapsa.—Hinde, G. J.; Vinassa de
 Regny, P. E.
 Dicranognmus.—Tchernyshev, T.
 Dicranograptus.—Meek, A.
 Diroceras.—Toula, F.
 Dirocercus.—Redlich, K. A.
 Dictyastrum.—Hinde, G. J.
 Dictyocephalus.—Vinassa de Regny,
 P. E.
 Dictyodus.—Wittich, E.
 Dictyograptus.—Bolton, H.
 Dictyometra.—Vinassa de Regny, P. E.
 Dictyomitra.—Hinde, G. J.
 Dictyonema.—Bolton, H.; Hall, T. S.
 Dictyophyllum.—Hjorth, A.
 Dictyopteris.—Frech, F.
 Dictyospongia.—Hall, J., &c.
 Didymograptus.—Hall, T. S.; Meek, A.
 Dielasma.—Diener, C.; Frech, F.; Sem-
 per, M.
 Diepenbeeck (Limburg).—Ertborn, O.
 van.
 Diestian.—Bernays, E.; Harmer, F. W.;
 Velge, G.
 Diestite, Von.—Cumenge, E.
 Digby basin (N.S.).—Bailey, L. W.
 Diluvium. See Quaternary, &c.
 Dimorphism of foraminifera.—Van den
 Broeck, E.
 Dimorphoceras.—Frech, F.
 Dimya.—Dall, W. H.
 Dinarites.—Toula, F.
 Dinocyon.—Schlosser, M.
 Dinocystis.—Bather, F. A.
 Dinornis.—Andrews, C. W.
 Dinosauria, Cretaceous.—Osborn, H. F.
 —, Jurassic.—Marsh, O. C.
 Dinothierium.—Redlich, K. A.
 Dione.—Noetling, F.
 Diopside.—Boeris, G.; Lacroix, A.
 Diorite.—Bauer, K.; Salomon, W. See
 also Igneous rocks.
 Diospyros.—Kirchner, W. C. G.
 Diphyphyllum.—Etheridge, R., Jun.
 Diplodon.—Simonelli, V.
 Diplodonta.—Dall, W. H.
 Diplodus.—Eastman, C. R.; Wellburn,
 E. D.
 Diploëpora.—Lindström, G.
 Diplograptus.—Meek, A.
 Diploneis.—Hartz, N., &c.
 Diploria.—Vaughan, T. W.
 Diplothemema.—Frech, F.; Zeiller, R.

- Dipteridophyllum*.—Krasser, F.
Dipterus.—Fourmarier, P.; Jäkel, O.; Udden, J. A.
 Dirt-storms. See Dust-storms.
Discina.—Benecke, E. W.; Whidborne, G.; Venukov, P. N.
Discites.—Frech, F.; Tzvetæv, M.
 Disco I. (Greenland).—Steenstrup, K. J. V.
Discocyclina.—Newton, R. B., &c.
Discohelix.—Cossmann, M.
Discopteris.—Zeiller, R.
 Dismal Swamp (Va.).—Woolman, L.
Distriactus.—Hinde, G. J.
Dithyrocaris.—Jones, T. R., &c.
Ditrupe.—Rovereto, G.
 Divining-rod.—Dixon, H. N.; Thompson, B.
 Djurjura (Algeria).—Ficheur, E.
 Dnieper R. (Russia).—Hörnes, R.; Tchernyshev, T.
 Dogger' Ammonites.—Hug, O., —, Baden.—Schalch, F.
Dolatocrinus.—Whiteaves, J. F.
 Dolerite, New Zealand.—MacLeod, W. A.
 —, Portugal.—Choffat, P.
 —, Tideswell Dale.—Arnold-Bemrose, H. H.
Dolichopteris.—Holm, G.
Dolium.—Martin, K.
 Dolmens, weathering of.—Duflos, E.
 Dolomite, Alps.—Ogilvie, M. M.; Philippi, C.
 —, Durness, &c.—Geikie, Sir A.
 —, Elba.—Achiardi, G. d'.
 Dolomitic limestone, Austria.—Ogilvie, M. M.; Toul, F.
 Domahida (Hungary).—Halaváts, J.
 Domanik range (Russia).—Holzapfel, E.
 Don Valley (Ont.).—Penhallow, D. P.
Donax.—Dall, W. H.; Williston, S. H., &c.
 Donetz basin (Russia).—Emmons, S. F.; Tchernyshev, T.
 D'ORBIGNY'S 'Paléontologie française,' dates.—Sherborn, C. D.
 Dorchester (Dorset).—Reid, C.
 Dore, Mt. (Auvergne).—Michel-Lévy, A.; Parmentier, F.
Doritites.—Rebel, H.
 Dormice, fossil.—Major, C. I. F.
 Dorset.—Elford, E. J.; Luxmoore, C. M.; Mansel-Pleydell, J. C.; March, H. C.; Reid, C.; Strahan, A.
 Dortmund (R.-Pruss.).—Stockfleth, F.
Dorysphæra.—Hind, G. J.; Vinassa de Regny, P. E.
Dosinia.—Noetling, F.; Steinmann, G., &c.
 Douglas coalfield (Lanark.).—Weir, R.
 Douling (Somerset).—Anon., 65.
Douvilleceras.—Crick, G. C.
 Dover (Kent).—Bullen, R. A.; Dawkins, W. B.; Etheridge, R.; McDakin, S. G. See also British Association.
 DOWKER, G.—Anon., 38.
 Drakensberg (Natal).—Churchill, F. F. 'Dreikanter.' See Windworn stones.
Dreissensia.—Brusina, S.
Drepanaster.—Whidborne, G. F.
 Dresden (Saxony).—Beck, R.; Nessig, R.
 Drift, Budapest.—Halaváts, J.
 —, England.—Chapman, F.; Clinch, G.; Holmes, T. V.; Salter, A. E.; Stather, J. W.; Whitaker, W., &c.
 —, Germany (N.).—Wahschaffe, F., &c.; Zimmermann, E.
 —, Gris-Nez Cretaceous.—Parent, H.
 —, Möen & Rügen.—Bonney, T. G., &c.
 —, nomenclature.—Kennard, A. S.; Salter, A. E.
 —, Schorl-rock.—Salter, A. E.
 —, United States.—Bain, H. F.; Beyer, S. W.; Calvin, S.; Gilbert, G. K.; Leonard, A. G.; Leverett, F.; Macbride, T. H.; Norton, W. H.; Udden, J. A.; Upham, W.
 —, See also Glacial deposits.
 Driftless-region boulder, Wisconsin.—Squier, G. H.
Druppalonche.—Hinde, G. J.
Druppula.—Hinde, G. J.; Vinassa de Regny, P. E.
 Drusberg deposits.—Tobler, A.
Dryandra.—Krasser, F.
Dryopithecus.—Harlé, E.
Dryopteris.—Lindgren, W., &c.
 Dubuque (Iowa).—Bain, H. F.
 Dunderland (Norway).—Sjögren, H.
 Dunes, Fiji.—Agassiz, A.
 —, Finland.—Rosberg, J. E.
 —, formation of.—Anon., 71; Cornish, V.; Lamson-Scribner, F.
 —, Limbourg.—Mourlon, M.
 —, Wissant.—Anon., 6; Rigaux, H.
 Durham coalfield.—Anon., 30, 35.
 Durness (Sutherland).—Geikie, Sir A.
 Dust, red-rain.—Steel, T.
 Dust-storms.—Hershey, E. O. See also Æolian deposits.
 Dutch East Indies.—Bonney, T. G.; Easton, N. W.; Koperberg, I. J.; Krause, P. G.; Leclercq, J.; Martin, K.; Rücking, H.; Schröder van der Kolk, J. L. C.; Schuurman, J. A.; Verbeek, R. D. M.
 —, Guiana.—Hennecke, L.; Raymond, R. W.
 Dwyka Conglomerate.—Corstorphine, G. S., &c.; Draper, D.; Jones, T. R.; Molengraaf, G. A. F.; Prister, A.
 Dykes, Cheviot Hills.—Kynaston, H.
 —, Massachusetts.—Sears, J. H.; Washington, H. S.
 —, ore-deposits &.—Turner, H. W.
 —, S. John's Bay (Me.).—Bascom, F.
 —, Scotland.—Kynaston, H.; Peach, B. N., &c.
 Earth, age of.—Geikie, Sir A.; Kelvin, Lord.
 —, crust.—Chree, C.; Cole, G. A. J.; Gregory, J. W.; Günther, S.; Lapparent, A. de; Rudzki, M. P.; Stoney, G. J.; Wagner, H.

- Earth, evolution.—Hutton, F. W.; Klossovski, A.; Lefort, F.
 —. See also Geology.
 —, glacial period &.—Rudzki, M. P.
 —, magnetism, Kursk.—Sokolov, V. D.
 —, movements, Anglesey.—Matley, C. A.
 —, —, distribution.—Le Conte, J.; Milne, J.
 —, —, Great Lakes (N. Am.).—Gilbert, G. K. See also Earthquakes, &c.
 —, —, Man (I. of).—Lamplugh, G. W.
 —, —, Melmerby.—Marr, J. E.
 —, —, plan of.—Gregory, J. W.
 —, —, sculpture.—Geikie, J.
 —, —, surface of.—Heiderich, F.
 —, —, Theory of.—Hutton, J.
 Earthquakes, America (C. & S. Am.).—Montessus de Ballore, F. de.
 —, —, Argentina.—Anon., 17.
 —, —, Australasia.—Hogben, G.
 —, —, Austria-Hungary.—Becke, F., &c.; Hörnes, R.; Knett, J.; Mojsisovics, E. von; Seidl, F.; Woldrich, J. N.
 —, —, Belgium.—Lancaster, A.; Munck, E. de.
 —, —, Cornwall.—Davison, C.
 —, —, distribution.—Cancani, A.; Ehlert, R.; Gerland, G.; Hecker, O.; Knott, C. G.; Milne, J.; Omori, F.; Rudzki, M. P.
 —, —, Greece.—Eginitis, D.
 —, —, Haiti.—Agamennone, G.
 —, —, Hereford.—Davison, C.; Greenly, E.
 —, —, India.—Oldham, R. D.
 —, —, Italy.—Baratta, M.; Moderni, P.; Mojsisovics, E. von.
 —, —, Manchester.—Stirrup, M.
 —, —, spurious.—Davison, C.
 —, —, Sweden.—Svedmark, E.
 —, —, Turkey.—Agamennone, G.
 —, —, Württemberg.—Schmidt, A.
 —. See also Seismographs, &c.
 Ecca-Beds.—Corstorphine, G. S., &c.; Dunn, E. J.
 Echinobrissus.—Strahan, A.
 Echinocaris.—Jones, T. R.
 Echinoconus & Echinocorys.—Strahan, A.
 Echinocystis.—Sollas, W. J.
 Echinoidea, Cretaceous.—Anthlna, D. J.; Bonazelli, G.; Hennig, A.; Hill, R. T., &c.; Kinkelin, F.; Lorient, P. de; Reid, C.; Rowe, A. W.; Schlüter, C.; Strahan, A.
 —, —, Devonian.—Destinez, P.; Whidborne, G. F.
 —, —, Jurassic.—Spendiarov, L.; Strahan, A.
 —, —, Silurian.—Sollas, W. J.
 —, —, Tertiary.—Airaghi, C.; Lorient, P. de; Oppenheim, P.
 Echinolampas.—Airaghi, C.; Lorient, P. de.
 Eclogite, S. African diamonds &.—Bonney, T. G.
 —, —, Styria.—Dorler, A. F.
 Ectenodictya.—Hall, J., &c.
 Ectocentrites.—Wähner, F.
 Ectomaria.—Donald, J.
 Ecuador (C. Am.).—Regel, F.
 Eddystone to Start Pt., sea-bottom.—Allen, E. J., &c.; Worth, R. H.
 Edentata, America (S.).—Ameghino, F. See also Mammalia.
 Edestus.—Karpinski, A.
 Edinburgh Science & Art Museum. See Museums.
 Edmondia.—Hind, W.
 Edmondidæ.—Hind, W.
 Edwards plateau (Tex.).—Hill, R. T., &c.
 Eger (Bohemia).—Goethe, J. W.
 Eggenburg (L. Austria).—Abel, O.
 Egypt.—Andrews, C. W.; Anon., 69; Blauckenhorn, M.; Brunhes, J.; Fourtau, R.; Hull, E.; Mayer-Eymar, C.; Newton, R. B.; Priem, F.; Walker, F. A.
 Eifel (Rh.-Pruss.).—Kayser, E.
 —, —, Fault.—Dewalque, G.; Forir, H.; Soreil, G.
 Eileticus.—Fritsch, A.
 Eisenkappel (Carinthia).—Stache, G., &c.
 Elb Valley (Savoy).—Beck, R.
 Elba.—Achiardi, G. d'; Manassee, E.; Matteucci, R. V.; Stefani, C. de.
 Elephas, Sewalik.—Woodward, H.
 —, —, Sicily.—Gregorio, A. de.
 —, —, Yorkshire.—Sheppard, T.
 Elephas-beds, Budapest.—Halaváts, J.
 Eleutherocrania.—Huene, F. H. von.
 Eliomys.—Major, C. I. F.
 Elipsodon.—Roth, S.
 Elk, French.—Harlé, E.
 —, —, Irish.—Kermode, P. M. C.
 Ellipsoidium & Ellipso stigma.—Hinde, G. J.
 Ellipsocephalus.—Vinassa de Regny, P. E.
 Elloughton (Yorks.).—Sheppard, T.
 Elonichthys.—Wellburn, E. D.
 Elotherium.—Cope, E. D.
 Emarginula.—Greco, B.; Rutot, A.
 Embrun (Hautes-Alpes).—Martin, D.
 Emerald.—Kunz, G. F.; Pratt, J. H.
 Emery. See Corundum.
 Emigration, palæontological.—Van den Broeck, E.
 Empetrum.—Andersson, G.
 Empo.—Stewart, A.
 Enallaster.—Hill, R. T., &c.
 Encrinites.—Waagen, W., &c.
 Encrinurus.—Reed, F. R. C.
 Encrinurus.—Toula, F.
 Endoceras.—Hohn, G.
 Endophyllum.—Etheridge, R., Jun.
 England, building-stones.—Elsden, J. V.
 —, —, Carboniferous, &c. See Carboniferous, &c.
 —, —, Congress map.—Hauchecorne, W., &c.

- England, Geological Survey.—*See* Geological Surveys.
- (E.), Gault.—Davies, A. M.
- (N.), anhydrite.—De Rance, C. E.
- (S.), geology.—Hudleston, W. H.
- (—), watersheds.—Martin, A. E.
- (S.W.), schorl-rock pebbles.—Salter, A. E.
- English Channel.—Allen, E. J.; Hallez, P.; Worth, R. H.
- Enneberg (Dolomite Alps).—Ogilvie, M. M.
- Enstatite.—Bonney, T. G., &c.; Pratt, J. H.
- Enteles*.—Frech, F.
- Enteletes*.—Diener, C.; Semper, M.
- Entolium*.—Greco, B.
- Entomis*.—Venukov, P. N.
- Entomostraca, Carboniferous.—Jones, T. R., &c.
- , Cretaceous & Jurassic.—Strahan, A.
- , Silurian.—Venukov, P. N.
- Eocene, Bavaria.—Reis, O. M.
- , Belgium.—Ertborn, O. van; Vincent, E.
- , climate & seas.—Semper, M.
- , Egypt.—Fourtau, R.; Priem, F.
- , Jamaica.—Vaughan, T. W.
- , Moldavia.—Athanasiu, S.
- , Paris Basin.—Grossouvre, A. de; Leriche, M.; Ramond, G.
- , shark-and-skate teeth.—Woodward, A. S.
- , United States.—Johnson, C. W.; Lucas, F. A.
- , Victoria (Austr.).—Hinde, G. J.
- , *See also* Tertiary, Corals, &c.
- 'Eoliths,' S. African.—Leith, G. *See also* Implements.
- Eopalaëozoic.—Mathew, G. F.
- Ephippioceras*.—Frech, F.; Tzvetav, M.
- Epiaster*.—Hill, R. T., &c.
- Epididymite.—Flink, G.
- Epidote.—Boeris, G.; Palache, C.
- , schists, Colombia.—Reiss, W., &c.
- Epithemia*.—Hartz, N., &c.
- Epsom salts, Texas.—Harper, H. W.
- Equisetum*.—Andersson, G.; Newberry, J. S.
- Equus*.—Marek, J.; Pomel, A.
- 'Erebus' & 'Terror' rock-collection.—Prior, G. T.
- Erie, Lake (N. Am.).—Gilbert, G. K.
- Erinaeus*.—Gaillard, C.
- Eriptycha*.—Cossmann, M.
- Erisocrinus*.—Beede, J. W.
- Erith (Kent).—Whitaker, W.
- Erosion, peneplain-theory &c.—Smith, W. S. T.
- , aqueous.—Lapparent, A. de.
- , *See also* Weathering, &c.
- Erratic boulders, British Isles.—Kendall, P. F.
- , Russia.—Meunier, E.
- , *See also* Boulders, Glacial deposits, &c.
- Eruptive rocks, classification.—Jannettaz, E.; Lapparent, A. de; Lœwinson-Lessing, F.; Rosenbusch, H.
- , Colombia.—Reiss, W., &c.
- , Predazzo, &c.—Huber, O. von.
- , *See also* Igneous rocks.
- Eryilia & Erycina*.—Dall, W. H.
- Eryops*.—Braili, F.; Stickler, L.
- Erythraea (N.E. Africa).—Sabatini, V.
- Erzgebirge (Hungary).—Telegd, L. R. von.
- (Saxony).—Becke, F.; Lohmann, H.
- Esneux (Liège).—Destinez, P.; Vallée Poussin, C. de la.
- Essex Co. (Mass.).—Washington, H. S.
- Esterel (Var).—Zürcher, P.
- Estheriina*.—Jones, T. R.
- Esthonia (Russia).—Tchernyshev, T.
- Estonioceras*.—Holm, G.
- Etched figures. *See* Crystals.
- Etchémian.—Matthew, G. F.
- Etna (Sicily).—Bonney, T. G.
- Etblattina*.—Fritsch, A.
- Etoile massif (Bouches-du-Rhône).—Fournier, E.; Repelin, J.
- Eucalyptus*.—Krasser, F.
- Eucadia*.—Sollas, W. J.
- Eudidymite.—Flink, G.
- Eugaster*.—Whidborne, G. F.
- Euktoolith.—Lœwinson-Lessing, F.; Rosenbusch, H.
- Euloma*.—Frech, F.
- Eunella*.—Whiteaves, J. F.
- Euomphalus*.—Frech, F.; Toula, F.; Venukov, P. R.
- Euphoberia*.—Fritsch, A.
- Euphyllites*.—Wähner, F.
- Euprotogonia*.—Osborn, H. F.
- Europe, Carboniferous.—Frech, W.; Hind, W.
- , Geological Congress Map.—Bey-schlag, F.; Hauchecorne, W., &c.
- , orography.—Lapparent, A. de; Meunier, S.
- , rocks.—Jannettaz, E.
- , submerged plateau (W.).—Fisher, O.; Hudleston, W. H.; Hull, E.; Spencer, J. W.
- , Tertiary & Quaternary climates (N.W.).—Harmer, F. W.
- , volcanoes, &c. *See* Volcanoes, &c.
- Eurypterus*.—Holm, G.; Semper, M.; Venukov, P. N.
- , beds, Pentland Hills.—Laurie, M.
- Euspatangus*.—Airaghi, C.
- Euspongilla*.—Andersson, G.
- Eusthenoceras*.—Foord, A. H.
- Eustylus*.—Koken, E.
- Euthemon*.—Sollas, W. J.
- Eutrochus*.—Reis, O. M.; Toula, F.; Waagen, W.
- Euxenite.—Prior, G. T.
- Evolution, climatic.—Harmer, F. W.; Manson, M.
- , geological changes &c.—Dupont, E.; Van der Broeck, E.
- , planetary.—Lefort, F.

- Exastylarium* & *Exastylus*.—Vinassa de Regny, P. E.
- Exelissa*.—Grepin, E.
- Exeter (Devon).—Woodward, H. B., &c.
- Exogyra*.—Hill, R. T., &c.; Philippi, R. A.; Reid, C.; Rutot, A.; Strahan, A.; Williston, S. W., &c.
- Fagus*.—Newberry, J. S.; Rivière, C. 'Fahlerz'.—Prior, G. T., &c.
- Fahlun (Sweden).—Howorth, Sir H. H.
- Famennian.—Destinez, P.; Lohest, P.
- Faroe Is.—Lomas, J.
- Fasciolaria*.—Logan, W. N.
- Faults, Clausthal.—Gebhardt, —, Craven.—Marr, J. E.
- , measurement.—Spurr, J. E.
- , thrusting.—De Rance, C. E.
- , Tyrol.—Ogilvie, M. M.
- 'Fava' & diamonds.—Hussak, E.
- Favosites*.—Etheridge, R.; Jun.; Lindström, G.
- Felis*.—Gaillard, C.; Hagemann, G.
- Felsite, Waterford.—Reed, F. R. C.
- Felsitic lavas, Conway.—Rutley, F.
- — —, Snowdon.—Dakyns, J. R.
- — —. See also Igneous rocks.
- Felsö (Hungary).—Koch, A.
- Felspars.—Becke, F.; Currie, J.; Fedorov, E. von; Howitt, A. W.; Iwasaki, C.; Ries, H.; Viola, C.; Wallerant, H.
- , as climatic indicators.—Mackie, W.
- , See also Muscovite, &c.
- Felspathic rocks, Colombia.—Reiss, W.
- Félu (Hainaut).—Velge, G.
- Fenestella*.—Diener, C.; Whidborne, G. F.
- Fergusonite.—Prior, G. T.
- Fermanagh caves (Ireland).—Plunkett, T.
- Ferns, Carboniferous.—Dun, W. S.; Frech, F.
- , Mesozoic.—Seward, A. C.
- , See also Plants.
- Ferretté massif (Vosges).—Bleicher, —, &c.
- Ficula*.—Martin, K.
- Ficus*.—Hollick, A.; Kirchner, W. C. G.; Laurent, L.; Lindgren, W., &c.; Newberry, J. S.
- Fiedlerite.—Smith, G. F. H.
- Fife (Scotland).—Jones, T. R., &c.; Kirkby, J. W.
- Fiji Is. (Pacific).—Agassiz, A.; Eakle, A. S.
- Filicundi (Lipari Is.).—Bergeat, A.
- Filograna*.—Kovereto, G.
- Fimbria*.—Alessandri, G. de.
- Finistère (France).—Kerforne, F.
- Finke Valley (C. Austral.).—David, T. W. E., &c.
- Finkenwalde (W. Prussia).—Wahn-schaffe, F.
- Finland.—Ailio, J.; Andersson, G.; Borg, V.; Gurney, H. P.; Hammarström, R.; Hilber, V.; Hult, R.; Meunier, S.; Rosberg, J. E.; Sederholm, J. J.; Streng, A. E.; Tchernyshev, T.
- Fiorite.—Achiardi, G. d'.
- Fire-clays, Europe.—Ries, H.
- Fishes, Carboniferous.—Arthaber, G. von; Boulenger, G. A.; Fourmarier, P.; Jäkel, O.; Kinkelin, F.; Wellburn, E. D.
- , Cretaceous.—Bonarelli, G.; Hay, O. P.; Jäkel, O.; Priem, F.; Sauvage, H. E.; Stewart, A.; Williston, S. W.; Woodward, A. S.
- , Devonian.—Eastman, C. R.; Kinkelin, F.; Jäkel, O.; Traquair, R. H.; Udden, J. A.; Whiteaves, J. F.; Woodward, A. S.
- , Jurassic.—Jäkel, O.; Sauvage, H. E.; Skeat, E. G., &c.; Woodward, A. S.
- , Mediterranean, &c.—Hull, E.
- , Permian.—Karpinski, A.
- , Quaternary.—Vinassa de Regny, P. E.
- , Silurian.—Jäkel, O.; Venukov, P. M.
- , Tertiary.—Cope, E. D.; Delheid, E.; Gorjanovič-Kramberger, C.; Jäkel, O.; Newton, E. T.; Priem, F.; Storms, R.; Wittich, E.; Woodward, A. S.
- , Triassic.—Bittner, A.
- Fissure wells, New Brunswick. — Matthew, G. F.
- Fissurella*.—Cossmann, M.
- Fissurella* & *Fistulana*.—Dall, W. H.
- Fistulipora*.—Lindström, G.; Whidborne, G. F.
- Flamborough Hd. (Yorks).—Lamplugh, G. W.
- Flandrian.—Rutot, A.
- Flint.—Cole, G. A. J.; Hill, R. T., &c.
- , *Cidaris* in.—Kloss, J. H.
- implements. See Implements.
- Floating slate fragments, Patagonian seas.—Nordenskjöld, E.
- Flora. See Plants.
- Florida.—Day, T. D.
- Florissant (Colo.).—Kirchner, W. C. G.
- FLOWER, SIR W.—Anon., 13; Lydekker, R.; Van Tieghem, P.; Woodward, H.
- Fluorine, mineral waters with.—Duboin, A.; Leprier, C.; Parmentier, F.
- , phosphates with.—Andersson, J. G., &c.
- Fluorspar.—Meli, R.; Parker, E. W.
- Flysch, Moldavia.—Athanasii, S.
- Folding, earth.—Bourgeat, —; Guebbard, A.; Jennings, A. V.; Ogilvie, M. M.
- , —. See also Earth-movements.
- Folkestone (Kent).—McDakin, S. G.
- Florida (U.S.A.).—Dall, W. H.
- Footprints, Dakota-Sandstone.—Williston, S. W.
- , Jurassic.—Marsh, O. C.
- , Kiwi-like bird.—Hutton, F. W.
- , Triassic.—Seeley, H. G.
- Forabosco (Venetia).—Gregorio, A. de.

- Foraminifera.—Schellwien, E.
 —, Carboniferous.—Frech, F.; Van den Broeck, E.
 —, Cretaceous.—Chapman, F.; Fornasini, C.; Martin, E. A.; Redlich, K. A.
 —, dimorphism.—Van den Broeck, E.
 —, Quaternary.—Reade, T. M., &c.
 —, rubble-drift.—Chapman, F.
 —, Tertiary.—Dervieux, E.; Earland, A.; Fornasini, C.; Newton, R. B.; Sangiorgi, D.; Van den Broeck, E.
 Foraporta, Mte. (Basilicata).—Greco, B.
 Forelands.—Gulliver, F. P.
 Forest-marble, Dorset.—Strahan, A.
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 Forsterite.—Clough, C. T., &c.
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 Fossarus.—Cossmann, M.
 Fossils, age of strata &c.—Marsh, O. C.
 —, distribution of.—Blake, J. F.
 —, problematical.—Sacco, F.
 FOWLER, SIR J.—Anon., 49; Whitaker, W.
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 Framzelle (Pas-de-Calais).—Breton, L.
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 Franconian (Bavaria).—Koken, E.; Schwarz, A.; Thurach, H.
 Frankfort-on-Main (Germany).—Kinke-
 lin, F.; Wittich, E.
 Franklin I. (Antarctic).—Prior, G. T.
 Franklin (N. J.)—Penfield, S. L. &c.;
 Wolf, J. E.
 Franz Josef Land (Arctic).—Cleve, P. T.;
 Pompeckj, J. F.
 Fraxinus.—Newberry, J. S.
 FRAZER, W.—Pim, G.
 Frederick Henry Bay (Tasmania).—
 Stephens, T.
 Frederikshavn (Denmark).—Jessen, A.
 Freiburg (Baden).—Steinmann, G.
 Freienwalde (Brandenburg).—Brendt, G.
 French Guiana.—Levat, E. D.
 — Niger Terr. (W. Africa).—Guy, C.
 Freudenthal (Silesia).—Stache, G., &c.;
 Tietze, E.
 Fribourg (Switzerland).—Hug, O.;
 Margueritte, R.
 FRIEDEL, C.—Cannizzaro, —.
 Frondicularia.—Chapman, F.; Fornasi-
 ni, C.
 Fulcrella.—Dall, W. H.
 Fulgurites.—Bonney, T. G.; Hobbs, W.
 H.; Knibbs, G. H., &c.
 Fuller's Earth.—Day, D. T.
 Funafuti (Ellice Is.).—Sollas, W. J.
 Fungi, distribution of.—Potonié, H.
 Furness (Lancs.).—De Ranee, C. E.
 Fusoides.—Reis, O. M.
 Fusulina.—Frech, F.
 Fusus.—Brives, A.; Gregorio, A. de;
 Johnson, C. W.; Logan, W. N.;
 Mayer-Eymar, C.; Steinmann, G.,
 &c.
 Fuveau (Bouches-du-Rhône).—Bertrand,
 M.; Fournier, E.
 Gabbro, Caernarvon.—Cope, T. H.
 —, Colombia.—Reiss, W.
 —, Lofoden Is.—Kolderup, C. F.
 —, Norrland.—Lundböhms, H.
 —, Pegli.—Parkinson, J.
 —, Tuscany.—Manasse, E.
 Galateia.—Cort, H. de.
 Galena.—Miers, H. A.; Weed, W. H.,
 &c.
 Galeocerdo.—Vinassa de Regny, P. E.;
 Wittich, E.; Woodward, A. S.
 Galerix.—Gaillard, C.
 Galeus.—Woodward, A. S.
 Galloway (Scotland).—Peach, B. N., &c.
 GALTON, SIR D. S.—Anon., 42.
 Ganomalite.—Penfield, S. L., &c.
 Gard (France).—Marrel, A.; Martel, E.
 A.
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 Domage, —.
 Garnet.—Föhr, —; Hidden, W. E., &c.;
 Kunz, G. F.; Palache, C.; Parker, E.
 W.
 Garnetiferous rock, Broken Hill.—Beck,
 R.
 Garonne gravels (France).—Harlé, E.
 Gas (natural), composition of.—Phillips,
 F. C.
 — (—), New Zealand.—McKay, A.
 — (—), Sussex.—Dawson, C.
 — (—), United States.—Beyer, S.
 W.; Lakes, A.; Oliphant, F. H.;
 Udden, J. A.; White, I. C.
 Gasteropoda, Cambrian.—Holm, G.
 —, Carboniferous.—Frech, F.
 —, Cretaceous.—Anthula, D. J.;
 Bode, G.; Cossmann, M.; Felix, J.,
 &c.; Hill, R. T., &c.; Johnson, C.
 W.; Kinkelinn, F.; Logan, W. N.;
 Reis, O. M.; Rutot, A.; Strahan, A.;
 Wollemann, A.

- Gasteropoda, Devonian.—Kayser, E.; Whiteaves, J. F.
 —, Jurassic.—Cossmann, M.; Greco, B.; Greppin, C.; Hawell, J.; Skeat, E. G., &c.; Strahan, A.
 —, Quaternary.—Gregorio, A. de; Martin, H.; Newton, R. B.
 —, Silurian.—Donald, J.; Holm, G.; Ruedemann, R.; Venukov, P. N.
 —, Tertiary.—Bernais, E.; Böhm, J.; Brives, A.; Cossmann, M.; Dall, W. H.; Dollfus, G., &c.; Gorjanovič-Kramberger, K.; Gregorio, A. de; Ihering, H. von; Johnson, C. W.; Leriche, M.; Martin, K.; Mayer-Eymar, C.; Newton, R. B.; Reis, O. M.; Steinmann, G., &c.; Ugolini, P. R.; Vinassa de Regny, P. E.; Vincent, E.
 —, Triassic.—Bittner, A.; Koken, E.
Gastrochæna.—Hennig, A.
 Gaubert R. (Dordogne).—Rivière, E.
 Gauderdorf (L. Austria).—Abel, A.
 Gault, Bucks.—Davies, A. M.
 —, Denmark.—Skeat, E. G., &c.
 —, Dorset.—Strahan, A.
 —, Folkestone.—McDakin, S. G.
 —, Moscow.—Stremouchov, D. P.
Gebia.—Dall, W. H.
 Gedgravian.—Harmer, F. W.
 Gedinne (Namur).—Forir, H.
 Gehlenite.—Brauns, R.
Geinitzia.—Richter, —.
 Gellivaara (Sweden).—Bauerman, H.; Louis, D. A.
Gemma.—Dall, W. H.
 Gems.—Erdmann, E.; Kunz, G. F.; Maguire, —.
 Geography, physical.—Davis, W. M., &c.—United States.—Boutwell, J. M.
 Geological classification.—Dollfus, G.; Lapparent, A. de; Renevier, E.
 — literature, 1896-98.—Toula, F.
 — Museum, Jermyn St. *See* Museums.
 — Society, Medals, &c.—Whitaker, W.
 — of America.—Hovey, E. O.
 — of Berlin.—Dieseldorff, A.; Hauchecorne, W.
 — Survey, Algeria. — Brives, A.; Pomel, A.
 —, Austria-Hungary.—Stache, G.; (Laboratory).—John, C. von, &c.
 —, Belgium.—Dewalque, G.; Mourlon, M.
 —, Canada.—Dawson, G. M.
 —, Denmark.—Maire, L. le., &c.; Posselt, H. J.; Rördam, K.; Skeat, E. G., &c.
 —, England & Wales.—Bennett, F. J.; Dakyns, J. R.; Geikie, Sir A.; Hawkins, C. E.; Reid, C.; Strahan, A.; Ussher, W. A. E.; Whitaker, W.
 —, Finland.—Ailio, J.; Sederholm, J. J.
 —, France.—Michel-Lévy, A., &c.
 —, Great Britain.—Geikie, Sir A. &c.
 Geological Society, Hesse.—Lepsius, R.
 —, Hungary.—Böckh, J.
 —, India.—Griesbach, C. L.
 —, Iowa.—Calvin, S., &c.
 —, Ireland.—Egan, F. W.; Geikie, Sir A.
 —, Maryland.—Clark, W. B.
 —, New South Wales.—Dean, H.; McLachlan, D. C.; Pittman, E. F.
 —, Russia.—Karpinski, A. P.
 —, Scotland.—Barrow, G., &c.; Geikie, Sir A.; Grant-Wilson, J. S., &c.; Peach, B. N., &c.; Wilkinson, S. B., &c.
 —, Virginia (W.).—White, I. C.
 —, United States.—Trautschold, H. A. von; Walcott, C. D., &c.
 — surveying.—Dahlböhm, T.; Hopkins, T. C.; Lohest, M.
 — terms, Italian.—Botti, U.
 — text-books.—Lapparent, A. de; Lapworth, C.
 — time-divisions.—Renevier, E.
 Geologists past & present.—Zittel, K. A.
 Geology, applied.—Elsden, J. V.; Herrmann, O.
 —, art &.—Coates, H.
 —, Australian 1897.—Etheridge, R., Jun., &c.
 —, century of.—Coates, H.; Foster, Sir M.; Zittel, K. A.
 —, education &.—Mangin, —.
 —, evolution &.—Dupont, E.; Vandenberg, E.
 —, experimental.—Meunier, S.
 —, geophysical.—Günther, S.; Lapparent, A. de.
 —, Great Britain, 1898.—Griffin, C.
 —, history of.—Zittel, K. A.
 —, plant-distribution &.—Macco, A.; Macnair, P.; Pammel, L. H.
 —, Queensland.—Shirley, J.
 —, & sanitary science.—Whitaker, W.
 —, Switzerland, 1827.—Schardt, H.
 —, technological.—Balta, J.
 —, tectonic.—Guebhard, A.
 —, topography &.—Kahle, P.
 Geophysics.—Günther, S.; Lapparent, A. de.
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Georgiellus.—Möberg, J. C.
Geosaurus.—Strahan, A.
Gephyceras.—Holzapfel, F.
Gerhardtite.—Bourgeois, L.
 German Deep-sea Expedition.—Chun, —
 Germany, Coalfields.—Dewalque, G.; Forir, H.; Frech, F.; Gutmann, G.; Lohest, M.; Soreil, G.
 —, Congress map.—Hauchecorne, W., &c.
 —, Diluvial.—Steinmann, G.
 —, glaciation.—Keilhack, K.; Wahnschaffe, F.
 —, Lenne Slates.—Winterfeld, F.
 —, Lüderich Beds.—Winterfeld, F.
 —, peat.—Müller, G.

- Germany, Quaternary.—Jentsch, A.; Müller, G.
 —, Trias.—Branco, W. von; Fraas, E.; Koken, E.; Regelmann, K.; Van't Hoff, J. H., &c.
 —. *See also* Bavaria, &c.
Gerwillia.—Philippi, R. A.; Skeat, E. G. &c.; Strahan, A.
Geyeria.—Buckman, S. S.
 Ghent (Flanders).—Coune, G.
 Giant's Kettles, Assuan.—Brunhes, J. —, Stavelot.—Dewalque, G.
Gibbula.—Cossmann, M.
 GILLI, F. D.—Baratta, M.
 Gilpin Co. (Colo.).—Rickard, F.
 Gimlet granite-quarries (N. Wales).—Anon., 61.
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 Gizeh (Egypt).—Fourtau, R.; Priem, F.
 Glacial age. *See* Ice-age.
 — boulders, Loire-Inférieure.—Tardy, —.
 — deposits, Australia.—Brittlebank, C. C., &c.; David, T. W. E., &c.; Hogg, E. G.
 —, Canada.—Ells, R. W.
 —, Cheshire & N. Wales.—Lomas, J.; Reade, T. M.
 —, classification. — Woodworth, J. B.
 —, Courland.—Toll, E. von.
 —, Cumberland.—Holmes, T. V.
 —, Dearness Valley.—Elwen, T.
 L.
 —, Denmark.—Jessen, A.; Madson, V.; Rørdam, K.; Steenstrup, K. J. V.
 —, diamonds in N. American.—Hobbs, W. H.
 —, Europe.—Harmer, F. W.
 —, Germany (N.).—Deecke, W.; Geinitz, E.; Keilhack, K.; Wahnschaffe, F., &c.
 —, Great Central Railway.—Thompson, B.
 —, Iowa.—Bain, H. F.; Beyer, S. W.; Calvin, S.; Leonard, A. G.; Macbride, H. R.; Norton, W. H.; Udden, J. A.
 —, Morocco.—Thomson, J.
 —, New England.—Emerson, B. K.; Upham, W.; Woodworth, J. B.
 —, New York.—Brigham, A. P.; Gilbert, G. K.
 —, Puget Sound.—Willis, B.
 —, Russia.—Nikitin, S.
 —, Sweden.—Högbom, A. G.; Hollender, A.; Holmström, L.; Westman, J.
 —, Thuringia.—Zimmermann, E.
 —, United States.—Sardeson, F. W.; Upham, W.
 —, Württemberg.—Koken, E.
 Glacial deposits. *See also* Glaciation.
 — epochs.—Chamberlin, T. C.; Glandeaud, P.; Hull, E.
 — erosion, Sweden.—Högbom, A. G.
 — gravel, England (S.).—March, H. C.
 — moraine, African Permian.—Jones, T. R.
 — period, earth &.—Rudski, M. P.
 —, underground temperature &.—Fisher, O.
 — phenomena, Spitsbergen.—Garwood, E. J.
 — plants.—Reid, C.
 — striae, Magdeburg Culm.—Wahnschaffe, F.
 Glaciated boulder, Wisconsin driftless region.—Squier, G. H.
 — valleys, Cuillins.—Harker, A.
 —, Faroes.—Lomas, J.
 Glaciation, Algeria.—Mahé, —.
 —, American Great Lakes.—Leverett, F.; Taylor, F. B.
 —, Argentina.—Wehrli, L.
 —, Australasia.—Hitchcock, C. H.
 —, Australia (Central & S.).—David, T. W. E., &c.
 —, Bern.—Steinmann, G.
 —, Canada.—Tyrrell, J. B.
 —, Cape Cod.—Shaler, N. S.
 —, Carpathians.—Martonne, E. de.
 —, Denmark.—Böggild, O. B.
 —, England (S.).—March, H. C.
 —, Germany.—Lohmann, H.; Wahnschaffe, F.; Wittich, E.
 —, Iceland.—Thoroddsen, T.
 —, Indiana & Ohio.—Bownockers, J. A.
 —, Massachusetts.—Woodworth, J. B.
 —, Michigan.—Mudge, E. H.
 —, Nova Scotia.—Bailey, L. W.
 —, Rhode I.—Woodworth, J. B.
 —, Schönbach (Tübingen).—Koken, E.
 —, Skye.—Harker, A.
 —, Spitsbergen.—Garwood, E. J.
 —, volcanoes &.—Harboe, E. G.; Semper, M.
 —, Yorkshire.—Cole, E. M.
 Glacier commission.—Richter, E.
 — movement.—Tobler, A.
 — overflow, Crête-Sèche.—Mercanton, P. L.
 — variations.—Forel, F. A.; Reid, H. F.; Richter, E.
 Glaciers, Africa (S.).—Green, J. D.
 —, Alaska.—Keilhack, K.
 —, Andes.—Conway, Sir M.
 —, British Columbia.—Vaux, G., &c.
 —, Colombia.—White, R. B.
 —, Norway.—Westman, J.
 —, Spitsbergen.—Garwood, E. J.
 —, Sweden.—Hollender, A.; Westmann, J.
 —, Swiss.—Favre, A., &c.; Forel, F. A.; Lomas, J.; Reid, H.; Richter, E.; Schardt, H.

- Glamorganshire.—Geikie, Sir A.; Howard, F. T.
- Glarus Alps.—Baltzer, A.
- Glassia*.—Venukov, P. N.
- Glastonbury (Somerset).—Andrews, C. W.; Mansel-Pleydell, J. C.
- Glauberite.—Darapsky, L.
- Glauber's salt.—Kalecsinszki, A.
- Glaucochroite.—Penfield, S. L., &c.
- Glauconia*.—Alessandri, G. de.
- Glauconitic limestone, Kimeridge Clay.—Davies, A. M.
- Glauco-phane-rocks.—Parkinson, J.; Rosenbusch, H.
- Glenelg limestone (Inverness).—Clough, C. T., &c.
- Globigerina*.—Fornasini, C.; Martin, E. A.; Williston, S. W., &c.
- marls.—Harrison, J. B., &c.
- shales.—Schauf, W.
- GLOCKELSTHURN, L. T. von.—Dreger, —.
- Glomeropsis*.—Fritsch, A.
- Glossopteris*.—Zeiller, R.
- Glossotherium*.—Moreno, F. P.
- Glycimeris*.—Dall, W. H.; Ihering, H. von; Reis, O. M.
- Glyphioceras*.—Crick, G. C.; Frech, F.
- Glyphodon*.—Roth, S.
- Glyptostrobos*.—Newberry, J. S.
- Gneiss, biotite.—Reiss, W., &c.; Woldrich, J. N.
- , Cottian Alps.—Stella, A.
- , Massachusetts.—Emerson, B. K.
- Godalming (Surrey).—Coomara-Swamy, A. K.
- Gold, Africa (S.).—Becker, G. F.; Gray, C. J.; Schlichter, H.; Steuart, D. S. S.; Wilkinson, W. F. *See also* Africa (S.).
- , — (W.).—Irvine, J.
- , Australasia.—Coghlan, T. A.
- , Australia (S.).—Dieseldorff, A.
- , — (W.).—Bancroft, G. J.; Becher, S. J.; Blatchford, T.; Bulman, H. F.; Gascuel, L.; Hine, E. W.; Rickard, T. A.
- , Bohemia.—Irmler, A.
- , Bokhara.—Krafft, A. von.
- , British Guiana.—Hargreaves, T. S., &c.
- , California.—Hershey, O. H.; Lakes, A.; Turner, H. W.
- , Colombia.—Cragoe, S.; Granger, H. G., &c.; Nichols, H. W.
- , Colorado.—Lakes, A.; Purington, C. W.; Rickard, F.
- conglomerates. *See* Auriferous.
- , Cornwall & Ireland.—Stephens, F. J.
- deposition.—Skey, W.
- deposits.—Gordon, H. A.; Hintz, E.; Hobbs, W. H.; Toula, F.
- , Devon.—Stephens, F. J.
- , Dutch Guiana.—Hennecke, L.
- , Hungary.—Böckh, J., &c.; Gesell, A.
- , Idaho.—Lindgren, W., &c.; Maguire, —.
- Gold, Illinois.—Hershey, O. H.
- , Mexico.—Landers, C. F.; Ordóñez, E.
- , Montana.—Weed, W. H., &c.
- , New Mexico.—Stone, G. H.
- , New South Wales.—Atkinson, A. A.; Card, G. W.; Carne, J. E.; McLachlan, D. C.; Pittman, E. F.; Slee, W. H. J.; Watt, J. A.
- , New Zealand.—Cadman, A. J.; McKay, A.; Maclaren, J. M.; Park, J.; Skey, W.; Wilson, G.
- , Nova Scotia.—Woodman, J. E.
- , Ontario.—Bain, J. W.
- , origin of.—Gordon, H. A.
- , Panama.—Hershey, O. H.
- , Philippine Is.—Anon., 43.
- , placers.—Levat, E. D.
- , Queensland.—Jack, R. L., &c.; Sellheim, P. F.; Skertchly, S. B. J.
- , Russia.—Nitze, H. B. C.
- , Scotland & Wales.—Stephens, F. J.
- , Siberia.—Batz, R. de.
- , tables of amount.—Morton, G. H.
- , United States.—Toula, F.
- Goldschmidtite.—Hobbs, W. H.
- Golling (Salzburg).—Simionescu, J.
- Gomphoceras*.—Holzapfel, E.
- Gomphotherium*.—Wortman, J. L.
- Gongylospongia*.—Hall, J., &c.
- Goniatites*.—Barrois, C.; Crick, G. C.
- Goniocidaris*.—Sollas, W. J.
- Goniograptus*.—Hall, T. S.
- Goniopteris*.—Newberry, J. S.
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- Goslarite.—Gräff, L.
- Gosport (Hants).—Hildred, E. T.
- Gotland (Sweden).—Andersson, G.; Erdmann, E.; Hulth, J. M.
- GOULD, E.—Whitaker, W.
- Gozo (Maltese Is.).—Cook, J. H.
- Grahamite.—White, I. C.
- Graian Alps (Savoy).—Mattirol, I. E.
- Grammatodon*.—Woods, H.
- Grammont, (Vendée).—Bureau, L.
- Grampian Hills (Scotland).—Geikie, Sir A.
- Grand R. (Mich.).—Mudge, E. H.
- (Tex.).—Hill, R. T., &c.
- Grängesberg (Svealand).—Hedberg, N.
- Granite, age of.—Stefani, C. de.
- , Ariège.—Lacroix, A.
- , California.—Turner, H. W.
- , Cape Colony.—Corstorphine, G. S., &c.
- , Colombia.—Reiss, W., &c.
- , Dartmoor.—Busz, R.; Somervail, A.
- , Egypt.—Walker, F. A.
- , Elba.—Achiardi, G. d'; Stefani, C. de.
- , experiments on.—Bauer, K.
- , Germany.—Böhmig, P. O.; Herrmann, O.; Lühmann, H.
- , Italy.—Stefani, C. de.

- Granite, Jersey.—Parkinson, J.
 —, kaolinization of.—Sestini, F.
 —, Londonderry & Tyrone.—Cole, G. A. J.
 —, Norrland.—Lundböhm, H.
 —, Ontario.—Adams, F. D.
 —, Predazzo.—Huber, O. von.
 —, sandstone-dykes in.—Ussing, N. V.
 —, Scotland.—Anon., 64; Geikie, Sir A.; Hutton, J.; Peach, B. N., &c.
 —, Sorrel, Mt.—Watts, W. W.
 —, United States.—Day, W. C.
 —, Wales (N.).—Anon., 61.
 —. *See also* Igneous rocks.
 Granitic breccias.—Stone, G. H.
 — dykes.—Washington, H. S.
 Granitoid pebbles, N.R. conglomerate.—
 Hunt, A. R.
 Graphite.—Acheson, E. G.; Day, D. T.;
 Diersche, M.; Koch, F.; McLachlan,
 D. C.; Parker, E. W.; Weinschenk, E.
 Graptolites.—Bolton, H.; Hall, T. S.;
 Holm, G.; Meek, A.; Perner, J.;
 Törnquist, S. L.
 Graslitz (Bohemia).—Becke, F.
 Grassington (Yorks.).—Dakyns, J. R.,
 &c.
 'Grauwacke.'—Dewalque, E.; Vallée
 Poussin, C. de la.
 — zone, Alps (E.).—Toula, F.
 Gravels, Ayot.—Monckton, H. W.
 —, Bresse.—Depéret, C.
 —, Dorset.—Reid, C.
 —, Garonne.—Harlé, F.
 —, Idaho.—Lindgren, W., &c.
 —, Jura (French).—Meunier, S.
 —, Kent.—Clinch, G.
 —, manganese in.—Hinton, M. A. C.
 —, Moreton-in-the-Marsh.—Buck-
 man, S. S.
 —, Nirry.—Rabelle, —.
 —, plateau.—March, H. C.
 —, Pretoria.—Leith, G.
 —, Styria.—Östreich, K.
 —, Thames Valley.—Kennard, A. S.
 —, Weimar.—Michal, P.; Weiss, A.;
 Wüst, E.
 —, Yorkshire.—Sheppard, T.
 —. *See also* Drift, &c.
 Gravity, earth-movement &. — Ehlert,
 R.; Hecker, O.
 —, measurements.—Pfaff, F. W.
 Great Britain, Geological Survey. *See*
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 —, mining industries.—Atkin-
 son, J. B., &c.; Foster, C. Le N.,
 &c.
 — Central Railway.—Thompson, B.
 — Crosby (Lancs.).—Reade, T. M.
 Greben, Cape (Waigatz I.).—Tcherny-
 shev, T., &c.
 Greece.—Hauchecorne, W., &c.; Launay,
 L. de.
 GREEN, A. H.—Miall, L. C.
 Greenland.—Bruce, W. S.; Eberlin, P.;
 Madsen, V.; Möberg, J. C.; Mügge,
 O.; Nathorst, A. G.; Steenstrup, K.
 J. V.; White, D.
 Greensand, Dorset.—Strahan, A.
 'Green Series,' Anglesey.—Matley, C. A.
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 A.
 Grewia.—Newberry, J. S.
 Griqualand East (Cape Colony).—Frames,
 M. E.
 Gris-Nez (Pas-de-Calais).—Parent, H.
 Grive-Saint-Alban (Isère).—Gaillard, C.
 Grizzly Peak (Colo.).—Stone, G. H.
 Gröden Pass (Tyrol).—Ogilvie, M. M.
 Gruenwaldia.—Venukov, P. N.
 Grumia.—Oppenheim, P.
 Gryphea.—Athanasii, S.; Hill, R. T.,
 &c.; Mayer-Eymar, C.; Philippi, R.
 A.; Redlich, K. A.; Strahan, A.
 Gryphodictya.—Hall, J., &c.
 Guatemala (C. Am.).—Sapper, C.
 Guiana, *see* British, Dutch, &c.
 Guildford (Surrey).—Coomara-Swamy,
 A. K.
 Gulo.—Hagmann, G.
 Gubiera.—Hjorth, A.
 Gwastaden Group.—Lapworth, H.
 Gyalumare Mts. (Hungary).—Palfy, M.
 von.
 Gymnites.—Arthaber, G. von.
 Gypsum.—Parker, E. W.; Vater, H.;
 Viola, C.
 — boulders.—Reade, T. M.; Stirrup,
 M.
 Gyrodisca.—Dall, W. H.
 Gyrosteus.—Woodward, A. S.
 Hachau (Bavaria).—Reis, O. M.
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 Hadlow (Kent).—Elsden, J. V., &c.
 Hagiastrium.—Hinde, G. J.; Vinassa
 de Regny, P. E.
 'Haidesand,' Dresden.—Nessig, R.
 Haiti (W. I.).—Agamennone, G.; Tip-
 penhauer, L. G.
 Halberstadt (Saxony).—Müller, G.
 Haldon (Devon).—Woodward, H. B.,
 &c.
 Halifax (Yorks.).—Wellburn, E. D.
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 Hamites.—Rutot, A.
 Hammatoceras.—Benecke, E. W.;
 Greco, B.
 Hampshire.—Whitaker, W., &c.
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 J. S., &c.
 Hanau (Prussia).—Reinach, A. von.
 Hancockite.—Penfield, S. L., &c.
 Hanover (Germany).—Bode, G.; Kloos,
 J. H.; Kossmann, —; Müller, G.
 Haplistion.—Tchernyshev, T.
 Haplophragmium.—Chapman, F.
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- Hardanger lakes (Norway).—Monckton, H. W.
 Hardingen (Pas-de-Calais).—Bertrand, C. E.
 Hardystonite.—Lümann, H.; Wolff, E.
 Harefield (Middlesex).—Hopkinson, J.
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Harpoceras.—Benecke, E. W.; Hug, O.; Loriol, P. de; Skeat, E. G., &c.
 HARRISON, J. B.—Whitaker, W.
 Harrow Weald (Middlesex).—Blake, J. F.
 Harvard College Museum.—Agassiz, A. *See also* Museums.
 Harz (Germany).—Gebhardt, —; Koch, M.; Lümann, H.; Müller, G.
 Harzrände (Schleswig-Holstein).—Stolley, E.
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 Haüyne.—Brauns, R.
 'Haüyne-trachyte.'—Twelvetrees, W. H., &c.
 Hawaiian Is. (Pacific).—Bonney, T. G.; Day, D. T.
 HAYTER, H.—Whitaker, W.
 Headlands.—Gulliver, F. P.
 HÉBERT, E.—Bergeron, J.
Hecticoceras.—Loriol, P. de.
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Hedera.—Hollick, A.
 Heidelberg (Baden).—Regelmann, K.
Heleocharis.—Andersson, G.
Heliastrea.—Oppenheim, P.
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Helicodictya.—Hall, G. J.
Helicopodes.—Perner, J.
Helicoprion.—Karpinski, A.
Heliolites.—Angelis d'Ossat, G. de; Etheridge, R., Jun.; Kiär, J.; Lindström, G.
Heliosestrum, *Heliosoma*, & *Heliosphæra*.—Hinde, G. J.
Helix.—Gregorio, A. de.
Helminthosporium.—Renault, B.
Helodus.—Wellburn, E. D.
 Helsingör (Sjælland).—Rördam, K.
 Helvetian, Verona.—Oppenheim, P.
Hemiaster.—Hill, R. T., &c.; Schlüter, C.
Hemicidaris.—Strahan, A.
Hemiomus.—Seeley, H. G.
Hemiphoberia.—Fritsch, A.
Hemiphrynus.—Fritsch, A.
Hemipneustes.—Airaghi, C.
Hemiptychina.—Frech, F.
 Heraclea (Asia Minor).—Zeiller, R.
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 Hercynian.—Groom, T. T.
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 Hermoso, Mte. (Argent.).—Mercerat, A.
 HERODOTUS & Geology. — Walker, F. A.; Zittel, K. A.
Herowalina.—Felix, J., &c.
Herpestis.—Gaillard, C.
 Hertfordshire.—Blake, J. F.; Hopkinson, J.; Monckton, H. W.; Whitaker, W.
 Herzegovina (Austria).—Oppenheim, P.
Hesperornis.—Williston, S. W.
 Hesse (Germany).—Burhenne, H.; Cheilus, C.; Frank, W.; Kayser, E.; Klemm, G.; Lepsius, R.; Lüdecke, C.; Wittich, E.
 Hessite.—Hillebrand, W. F.
 Hestal (Liège).—Bertiaux, A.; Forir, H., &c.
Heterangium.—Lomas, J.
Heteroceras.—Williston, S. W., &c.
Heterocosmia.—Koken, E.
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 Heteromorphite.—Spencer, L. J.
 Heulandite.—Rinne, F.
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Hibbertia & *Hibbertina*.—Jones, T. R., &c.
 HICK, T.—Cash, W.
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 Hildesheim (Hanover).—Bode, G.
Hildoceras.—Greco, B.; Hug, O.
 Hildoceratidæ.—Buckman, S. S.
 Hilleröd (Sjælland).—Rördam, K.
 Hill-End goldfield (N.S.W.).—Pittman, E. F.
 Hills Clay.—Bode, G.; Kloos, J. H. — conglomerate.—Wollemann, A.
 Himalayas (Asia).—Bittner, A.; Diener, C.
Hindsia.—Martin, K.
 Hinges, lamellibranch.—Bertrand, F.; Noetling, F.; Philippi, E.
Hiannites.—Greco, B.; Strahan, A.
Hipparion.—Pomel, A.
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Hippurites.—Alessandri, G. de; Redlich, K. A.; Toucas, —.
 Hirshals & Hjöring (Denmark).—Jensen, A.
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Holaster.—Hennig, A.; Reid, C.; Strahan, A.
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 Honduras (C. Am.).—Sapper, C.
Hoplites.—Sarasin, C.; Simionescu, J.; Skeat, E. G., &c.

- Hormotoma*.—Donald, J.
 Hornblende.—Daly, R. A.
 ———-granite.—McMahon, C. A.
 ———-schist.—Coates, H., &c.
 HORNE, J.—Whitaker, W.
 Horse, Quaternary.—Marek, J.
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 Hudson Bay (Canada).—Bell, R.
 Huelva (Spain).—Vogt, J. H. L.
 Humber Gap (Yorks).—Stather, J. W.
 Hundisberg (Magdeburg). — Wahn-
 schaffe, F.
Hungarites.—Törnquist, A.; Toula, A.
 Hungary.—Adda, K.; Böckh, H.; Ge-
 sell, A.; Halaváts, J.; Hornsitzki, H.;
 Ilosvay, L. von; Kalecsinszki, A.;
 Kalmann, W., &c.; Koch, A.; Leng-
 gyel, B. von; Louis, D. A.; Melzer,
 G.; Oppenheim, G.; Palfy, M. von;
 Poschwitz, T.; Schafarik, F.; Schaffer,
 F.; Schmidt, A.; Staub, M.; Szontagh,
 T. von; Treitz, P. *See also* Austria-
 Hungary, &c.
 Hungerford (Berks). — Bennett, F. J.,
 &c.
 Hunstanton (Norfolk).—Whitaker, W.,
 &c.
 Huron, Lake (N. Am.).—Gilbert, G. K.
 Huronian.—Coleman, A. P.; Leith, C.
 K.
Hustedia.—Frech, F.
 Huy (Liège).—Forir, H.
⁴ Hvita²-deposits, Disco.—Steenstrup, K.
 J. V.
Hyæna.—Hagmann, G.; Harlé, E.
Hyattia & *Hyattina*.—Buckman, S. S.
Hybodus.—Bittner, A.; Jäkel, O.; Skeat,
 E. G., &c.
 Hyderabad (Deccan).—Syed Ali Bilgrami,
 S. U.
Hydriodictya.—Hall, J., &c.
Hydrobia.—Leriche, M.
 Hydrography, N. German glacial. —
 Keilhack, K. *See also* Water.
Hydroïdes.—Rovereto, G.
⁴ Hydrometamorphism.²—Merrill, G. P.
 Hydromica, New Jersey.—Clarke, F. W.
 Hydrosilicates of Alumina.—Glinka, K.
 HYLAND, J. S.—Whitaker, W.
Hymenophyllites.—Zeiller, R.
Hynoceras.—Hall, J., &c.
Hypertragulus.—Cope, E. D.; Scott,
 W. B.
Hyphantænia.—Hall, J., &c.
Hyppum.—Kirchner, W. C. G.
Hystrix.—Bosco, C.
 Ibbenbüren (Westphalia).—Ohm, H.
Icanotia.—Phillips, R. A.
 Ice-action, Spitsbergen.—Garwood, E. J.
 ———-age.—Krauss, —; Richter, E. *See*
 Glacial period, &c.
 Ice-dams, Great Lakes (N. Am.).—
 Taylor, F. B.
 Iceland.—Fennell, C. W.; Thoroddsen,
 T.
 Icelandic shallows.—Hudleston, W. H.
 Ice-motion.—Mügge, O.
 Icenian.—Harmer, F. W.
 Ice-sheet, Greenland. — Eberlin, P.;
 Mügge, O.
 ———, Sweden.—Hollender, A.
Ichthyocrinus.—Waagen, W., &c.
Ichthyornis.—Williston, S. W.
Ichthyosaurus.—Strahan, A.
Icohilus.—Roth, S.
 Idaho (U.S.A.).—Hague, E.; Lindgren,
 W., &c.; Maguire, —.
 Idice Valley (Bologna).—Sangiorgi, F.
 Idocrase.—Buttgenbach, H.
 Igfinger massif (Tyrol).—Kunzli, E.
 Ightham ossiferous fissure (Kent). —
 Newton, E. T.
 Igneous magmas.—*See* Magmas.
 ——— rocks, Adamello massif.—Lepsius,
 R.
 ———, Africa (S.).—Bonney, T. G.
 ———, Alaska.—Szachno, M.
 ———, Alboran I.—Becke, F.
 ———, Algeria.—Duparc, L., &c.
 ———, Alps. — Duparc, L., &c.;
 Franchi, S.; Gembock, H.; Jennings,
 A. V.; Salomon, W.; Stella, A.
 ———, analysis of.—Bonjean, E.
 ———, Anglesey.—Bonney, T. G.,
 &c.; Greenly, E.; Matley, C. A.
 ———, Antarctic.—Prior, G. T.
 ———, Ariège.—Lacroix, A.
 ———, Arizona & New Mexico.—
 Lord, E. C. E.
 ———, Asia (E.).—Jankovski, V.;
 Koch, A.
 ———, Asia Minor.—Lacroix, A.;
 Rosiwal, A.; Toula, F.
 ———, Atlantic.—Termier, P.
 ———, Austria-Hungary. — Dörler,
 A. F.; Huber, O. von; Jahn, J. J.;
 Pelikan, A.; Rzehak, A.; Salomon,
 W.; Sigmond, A.; Suess, F. E.;
 Vigo, G.
 ———, Auvergne.—Bréon, R.; Dick-
 son, E., &c.; Michel-Lévy, A.; Mouret,
 G.; Repelin, J.; Uselade, J.
 ———, average composition of Bri-
 tish.—Harker, A.
 ———, Baden.—Brauns, R.
 ———, Belgium.—Vallée-Poussin, C.
 de la, &c.
 ———, Bohemia.—Woldřich, J. N.
 ———, Bosphorus. — Rosiwal, A.;
 Toula, F.
 ———, Brittany.—Barrois, C.; La-
 croix, A.
 ———, British. — Geikie, Sir A.;
 Harker, A.; Keegan, P. Q.; Teall, J.
 J. H.
 ———, building-stones.—Elsden, J.
 V.; Herrmann, O.
 ———, California.—Lord, E. C. E.;
 Turner, H. W.

- Igneous rocks, Canada.—Coleman, A. P.; Nichol, W. (?)
 ———, Caucasus.—Læwinson-Lessing, F.; Tchernyshev, T.
 ———, Cheviot Hills.—Kynaston, H.
 ———, China.—Koch, A.
 ———, classification, &c.—Cole, G. A. J.; Jamnettaz, E.; Lapparent, A. de; Læwinson-Lessing, F.; Moragas, G.; Rosenbusch, H.; Walther, J.
 ———, Colombia.—Nichols, H. W., &c.; Reiss, W., &c.
 ———, Colorado.—Lakes, A.
 ———, Congleton Edge.—Gibson, W., &c.
 ———, Connecticut Valley.—Emerson, B. K.
 ———, Corrèze.—Suess, F. E.
 ———, Derbyshire.—Arnold-Bemrose, H. H.; Holroyd, W. F., &c.
 ———, Devon.—Busz, R.; Hunt, A. R.; Somervail, A.
 ———, Dolomite Alps.—Ogilvie, M. M.
 ———, Dutch East Indies.—Krause, P. G.; Schröder van der Kolk, J. L. C.
 ———, Egypt.—Walker, F. A.
 ———, Elba.—Achiardi, G. d'; Matteucci, R. V.; Stefani, C. de.
 ———, Erythraea.—Sabatini, V.
 ———, experiments on.—Bauer, K.
 ———, Fiji Is.—Eakle, A. S.
 ———, Hanover.—Lühmann, H.
 ———, Hesse.—Frank, W.
 ———, Iceland.—Thoroddsen, T.
 ———, Ireland.—Cole, G. A. J.; Harker, A.; Reed, F. R. C.
 ———, Italy.—Manasse, E.; Pampaloni, L.; Parkinson, J.; Sabatini, V.; Stefani, C. de; Vinassa de Regny, P. E.; Viola, C.: Washington, H. S.
 ———, Jersey.—Parkinson, J.
 ———, Kansas.—Eckel, E. I. C.
 ———, kaolinization of.—Sestini, F.
See also Weathering, &c.
 ———, Kerguelen I.—Hogg, E. G.*
 ———, King Charles Land.—Hamberg, A.
 ———, Leicestershire.—Watts, W. W.
 ———, Lipari Is.—Bergeat, A.
 ———, Lofodan Is.—Kolderup, C. F.
 ———, magmas. *See* Magmas.
 ———, Maine.—Bascom, F.; Gregory, H. E.
 ———, Malvern Hills.—Groom, T. T.
 ———, Massachusetts.—Emerson, B. K.; Sears, J. H.; Washington, H. S.
 ———, Mexico.—Diller, J. S.; Williams, H. S.
 ———, minerals.—Finckh,—
 ———, Montana.—Weed, W. H., &c.
 ———, Morocco.—Thomson, J.
 ———, New Jersey.—Clarke, F. W.; Phillips, A. H.; Ransome, F. L.
 ———, New South Wales.—Beck, R.; Howitt, A. W.
 ———, New York State.—Smyth, C. H., jun.
- Igneous rocks, New Zealand.—Cushing, H. P.; Hutton, F. W.; McKay, A.; MacLeod, W. A.; Park, J., &c.
 ———, Norrland.—Lundböhöm, H.
 ———, phenocrysts in.—Flett, J. S.; Pirsson, L. V.
 ———, Piedmont.—Pioliti, G.; Roccati, A.
 ———, Rhodes I. (Ægean Sea).—Bukowski, G. von.
 ———, Rumania.—Athanasiu, S.; Nicolau, T.
 ———, Russia.—Læwinson-Lessing, F.; Morozovich, I.
 ———, San Clemente I.—Smith, W. S. T.
 ———, Saxony.—Beck, R.; Böhmig, P. O.
 ———, Scotland.—Cadell, H. M., &c.; Clough, C. T., &c.; Coates, H., &c.; Dow, R.; Geikie, Sir A.; Harker, A.; Hill, J. B.; Hutton, J.; McMahon, C. A.; Peach, B. N., &c.; Wilkinson, S. B., &c.
 ———, Siebengebirge.—Kloos, J. H.
 ———, Silesia.—Pelikan, A.
 ———, Sumatra.—Milch, L.
 ———, Sweden.—Högbom, A. G.; Holmquist, P. J.; Lundböhöm, H.
 ———, Tasmania.—Stephens, T.; Twelvetrees, W. H., &c.
 ———, Taunus.—Schauf, W.
 ———, Trebizonde.—Lacroix, A.
 ———, Wales.—Cope, T. H.; Dakyns, J. R.; Harker, A.; Rutley, F.
 ———, Washington Terr.—Russell, I. C., &c.
 ———, Württemberg.—Fraas, E.
Iguanodon.—Dupont, E.; Strahan, A.; Van der Broeck, E.
Ilex.—Kirchner, W. C. G.
Ilford (Essex).—Holmes, T. V.
Illænus.—Holm, E.; Venukov, P. N.
Illecillewaet glacier (B. Columbia).—Penck, A.; Vaux, G., &c.
Ille-et-Vilaine (France).—Barrois, C.; Kerforne, F.
Illinois (U.S.A.).—Dinsmore, A.; Eastman, C. R.; Leverett, F.; Weller, S.
Illyés lake (Hungary).—Lengyel, B. von.
Ilmenite.—Boeris, G.
Ilse (Brunswick).—Bode, G.
Imola (Emilia).—Toldo, G.
Implements, flint.—Bird, C.; Holroyd, W. F., &c.; Lomas, J.; Makowski, A.; Mansel-Pleydell, J. C.; Marsh, H. C.; Rutot, A.
 ———, stone.—Frames, M. E.; Hershey, O. H.; Jones, T. R.; Knowles, W. J.; Leith, G.; Makowski, A.; Phillips, W. A.; Pomel, A.; Wilson, T.
Incrustations, Rockanje calcareous.—Lorié, J.
Indi-Moraro District (N.S.W.).—Howitt, A. W.; Kitson, A. E., &c.
India.—Conway, Sir M.; Diener, C.; Griesbach, C. L.; Grundy, J.; Holland,

- T. H.; Oldham, R. D.; Syed Ali Bilgrami, S. U.; Turner, H. G. *See also* Himalayas, &c.
- Indian Terr. (U.S.A.).—Bain, H. F.; Vaughan, T. W.
- Indiana (U.S.A.).—Ashley, G. H.; Bow-nocker, J. A.; Leverett, F.
- Indre (France).—Cossmann, M.
- Indwe (Cape Colony).—Anon., 25.
- Inflataster*.—Anthula, D. J.
- Infusoria in coal.—Renault, B.
- Infusorial earth.—Parker, E. W.
- Inland-ice, Greenland.—Eberlin, P.; Mügge, O.
- Inman Valley (S. Austral.).—David, T. W. E.
- Inoceramus*.—Alessandri, G. de; Darton, N. H.; Hill, R. T., &c.; Kinkelin, F.; Kloos, J. H.; Müller, G.; Philippi, R. A.; Reid, C.; Strahan, A.; Williston, S. W., &c.
- Insect-tracks.—Andersson, G.
- Insectivora, Miocene.—Gaillard, C.
- Insects, Palæozoic.—Fritsch, A.; Peach, B. N.
- , Tertiary.—Dietlen, —; Rebel, H.
- Institution of Mining Engineers, first.—Brough, B. H.
- Interglacial period.—Brickenden, L.
- Inverness.—Clough, C. T.; Wallace, T. D.
- Iowa (U.S.A.).—Bain, H. F.; Beyer, S. W.; Calvin, S.; Leonard, A. G.; Macbride, T. H.; Mosnat, H. R.; Norton, W. H.; Pammel, L. H.; Shimek, B.; Udden, J. A.
- Ireland.—Atkinson, J. B., &c.; Cole, G. A. J.; Egan, F. W., &c.; Foord, A. H.; Foster, C. Le N., &c.; Geikie, Sir A.; Hauchecorne, W., &c.; Kinahan, G. H.; Reed, F. R. C.
- Iris*.—Andersson, G.; Newberry, J. S.
- Irish Elk.—Kermode, P. M. C.
- Great Auk. — Knowles, W. J.; Ussher, R. J.
- stone-implements.—Knowles, W. J.
- Irkutsk (Siberia).—Kulakov, P. V.
- Iron, Alabama.—Phillips, W. B.
- , Australasia.—Coghlan, T. A.
- , Austria-Hungary.—Böckh, J., &c.; Louis, D. A.; Kretschmer, F.; Priwoznik, E.
- , Bavaria.—Reis, O. M.
- , Colombia.—Nichols, H. W., &c.
- , Hanover.—Kossmann, —.
- , Hyderabad.—Syed Ali Bilgrami, S. U.
- , Lorraine.—Hoffmann, L.; Villain, P.
- , Luxemburg.—Hoffmann, L.
- , Marquette.—Birkinbine, J.
- , meteoric.—Cohen, E.; Dahlblom, T.; Davison, J. M.; Fletcher, L.; Hartley, W. N., &c.
- , Midlands.—Walford, E. A.
- , New South Wales.—McLachlan, D. C.
- , Norway.—Sjögren, H.
- Iron ores, origin of.—Hartley, W. N., &c.
- , Portugal.—Vogt, J. H. L.
- , pyrites. *See* Pyrites.
- , Russia.—Bauerman, H.; Bayard, —; Frazer, P.; Mikhailovskii, V.; Nikitin, S.
- , Scotland.—Peach, B. N., &c.
- , Silesia.—Hauchecorne, W.
- , Spain.—Alzolo, P. de; Gill, W.; Jones, J. A.; Vogt, J. H. L.
- , Superior, Lake.—Birkinbine, J.; Head, J., &c.
- , Sweden.—Åkerman, R.; Bauerman, H.; Beck, R.; Hedberg, N.; Louis, D. A.; Lundböhms, H.; Nordenström, G.; Teyssier, —.
- , Tunisia.—Prost, A.
- , United States.—Birkinbine, J.; Chance, H. M.; Weed, W. K.
- , Westphalia.—Kossmann, —.
- Isar Valley (Bavaria).—Günbel, C. W., &c.
- Isastræa*.—Strahan, A.
- ISCHER, G.—Schardt, H.
- Ischnochiton*.—Dall, W. H.
- Isenburg, Neu- (Hesse).—Klemm, G.
- Isère (France).—Mellier, M.
- Isis*.—Hennig, A.
- Isle of Man. *See* Man (I. of).
- Ismid (Asia Minor).—Toula, F.
- Isorca*.—Woods, H.
- & *Isocardia*.—Greco, B.; Hennig, A.
- Isocardia - cor* zone. — Bernays, E.; Harmer, F. W.
- Isoëtes*.—Andersson, G.
- Isostasy. *See* Gravity.
- Istria (Austria).—Oppenheim, P.; Redlich, K. A.
- Italian Geographical Congress.—Taramelli, T.
- Italy.—Achiardi, G. d'; Airaghi, C.; Alessandri, G. de; Ancona, G. d'; Angelis d'Ossat, G. de; Baratta, M.; Bergeat, A.; Boeris, G.; Bonarelli, G.; Bosco, C.; Botti, U.; Brignatelli, L.; Canavari, M.; Cassetti, M.; Cocchia, E.; Deriveux, E.; Fornasini, C.; Franchi, S.; Franco, P.; Fucini, A.; Greco, B.; Gregorio, A. de; Hauchecorne, W., &c.; Lorenzo, G. de; Lotti, B.; Manasse, E.; Matteucci, R. V.; Moderni, P.; Nelli, B.; Palazzo, L.; Pampaloni, L.; Parona, C. F.; Peola, P.; Philippi, E.; Piolti, G.; Porta, V. A.; Portis, A.; Prato, A. del; Riccob, A.; Riva, C.; Roccati, A.; Rovereto, G.; Sabatini, V.; Sacco, F.; Salle, E.; Schaffer, F.; Spezia, E.; Simonelli, V.; Stefani, C. de; Stefano, G. di; Stella, A.; Strüver, G.; Toldo, G.; Ugolini, P. R.; Verri, A.; Vigo, G.; Vinassa de Regny, P. E.; Viola, C.; Washington, H. S.; Winwood, H. H.; Zaccagna, D.; Zambonini, F.
- *See also* Piedmont, &c.
- Itzehoe (Holstein).—ppenheim, P.
- Ivory, Mammoth.—Lydekker, R.

- Irybridge (Devon).—Ussher, W. A. E.
Ixelles (Brabant).—Delheid, E.
- Jacksonite.—Winchell, N. H.
Jadeite.—Kunz, G. F.; Piolti, G.
Jamaica (W.I.).—Hill, R. T., &c.
JAMES, J. T.—Stanton, T. W.
Jamesville Lake (N.Y.).—Peake, R. E., &c.; Quereau, E. C.
Janassa.—Jäkel, O.; Wellburn, E. D.
Janira.—Redlich, K. A.
JANNETTAZ, F.—Gaudry, A.
Japan.—Bonney, T. G.; Jinbō, K.; Jordan, P.
Jasper, Borneo.—Hinde, G. J.
Java (D. E. I.).—Ardailon, E.; Bonney, T. G.; Koperberg, J. J.; Leclercq, J.; Martin, K.; Verbeek, R. D. M.
Jeffersonite.—Hillebrand, W. F.
Jenolan Caves (N.S.W.).—Mingaye, J. C. H.
JEREMEJEV, P. V.—Anon., 18.
Jersey.—Parkinson, J.
Jiu Valley (E. Carpathians).—Martonne, E. de.
'Joanneum.'—Hörnes, R.
Johannesburg (Transvaal).—Draper, D.; Hatch, F. H. *See also* Witwatersrand.
Joint-planes & thrusting.—De Rance, C. E.
Jordan Valley (Palestine).—Hull, E.
Joufia.—Böhm, G.
Judica, Mt. (Catania).—Marinelli, O.; Nelli, B.
Judicarian Alps.—Diener, C.
Judicarian-Asta region (Tyrol).—Ogilvie, M. M.
Judith Mts. (Mont.).—Weed, W. H., &c.
Juglans.—Kirchner, W. C. G.; Lindgren, W.
Julia.—Dall, W. H.
Julus.—Dietlen, —; Fritsch, A.
Jura, French.—Bourquet, —; Fournier, E.; Kilian, W.; Rollier, L.
—, Swabian.—Engel, —.
—, Swiss.—Loriol, P. de; Mühlberg, M.; Rollier, L.; Schardt, H.
Jurassic, Algeria.—Ficheur, E.
—, Alsace-Lorraine.—Benecke, E. W.
—, Ammonites, &c. *See* Ammonites, Cephalopoda, &c.
—, Angola.—Bleicher, —.
—, Argentina.—Ameghino, F.
—, Austrian Alps.—Wähner, F.
—, Baden.—Böhm, G.; Schalch, F.; Steinmann, G.
—, Basilicata.—Greco, B.
—, Black Hills (S. Dak.).—Marsh, O. C.; Wieland, G. R.
—, Borneo.—Martin, K.
—, Bornholm.—Deecke, —; Hjorth, A.
— boulders, Denmark.—Skeat, E. G., &c.
—, Brunswick.—Kloos, J. H.;
—, Carpathians.—Simionescu, J.
—, Caucasus.—Spensiarov, I.
Jurassic, Chile.—Philippi, R. A.
—, Dover (Straits of).—Hallez, P.
—, England.—Buckman, S. S.; Elford, E. J.; Fox-Strangways, C.; Mansel-Pleydell, J. C.; Reid, C.; Strahan, A.
—, Foraporta, Mte.—Greco, B.
—, France.—Anthelin, C.; Bleicher, —, &c.; Cossmann, M.; Kilian, W.; Munier-Chalmas, —; Nicklès, R.; Parent, H.; Repelin, I.; Sauvage, H. F.
—, Franz-Josef-Land.—Pompeckj, J. F.
—, Hanover.—Bode, G.
—, Himalayas.—Diener, C.
—, Liguria.—Vinassa de Regny, P. E.
—, Lombardy.—Parona, C. F.
—, Mexico.—Felix, J., &c.
—, Moravia.—Remeš, M.
—, Portugal.—Choffat, P.; Pompeckj, J. F.
—, Sicily.—Nelli, B.
—, Switzerland.—Hug, O.; Loriol, P. de; Mühlberg, M.
—, Tuscany.—Fucini, A.
—, Tyrol.—Ogilvie, M. M.; Vacek, M.
—, Württemberg.—Koken, E.
Jütland (Denmark).—Grönwall, K. A.
Juvavian.—Bittner, A.
- Kachh (India). *See* Cutch.
Kaiserstuhl (Baden).—Brauns, R.
Kalgoorlie (W. Austr.).—Baneroff, G. J.; Becher, S. J.; Bulman, H. F.; Card, G. W.; Gascuel, L.; Pittman, E. F.
Kamchatka.—Barrett-Hamilton, G. E. H.; Jankovski, V.
Kammerberg (Bohemia).—Goethe, J. W. von.
Kampecaris.—Peach, B. N.
Kander (Baden).—Böhm, G.
Kanker (Carniola).—Stache, G., &c.
Kansas Drift. *See* Drift.
Kansas (U.S.A.).—Bain, H. F.; Beede, J. W.; Haworth, G.; Lucas, F. A.; Prosser, C. S.; Stewart, A.; Ward, H. L.; Williston, S. W., &c.
Kaolin.—Ries, H.; Rördam, K.
— casts.—Staub, M.
Kaolinite.—Glinka, K.
Kaolinization by roots.—Sestini, F.
Kapas basin (Borneo).—Anon., 70.
Karlsbad (Bohemia).—Goethe, J. W. von; Knett, J.
Karoo Beds.—Corstorphine, G. S., &c.
—, coal in sub.—Draper, D.; Dunn, E. J.
'Karren,' Rumania.—Martonne, E. de.
Karst (Austria).—Anon., 78.
Kazania.—Tchernyshev, T.
Kelloway fauna, Carpathians.—Simionescu, J.
Kelyphite.—Mrha, J.
Kennmare (Kerry).—Cole, G. A. J.; Kinahan, G. H.
Kennebecasis Valley (Canada).—Matthew, F.

- Kennedy, Port (Penn.).—Cope, E. D.; Mercer, H. C.
- Kent.—Clinch, G.; Dawkins, W. B.; Dibley, G. E.; Eldsen, J. V., &c.; Etheridge, R.; Whitaker, W.
- Kentrolite.—Warren, C. H.
- Kepplerites*.—Loriol, P. de.
- Kerch (Crimea).—Bayard, —.
- Kerguelen I. (Ind. Ocean).—Hogg, E. G.
- Kerosene-shale.—Bertrand, C. E.; Coghlan, T. A.
- Kidstonia*.—Zeiller, R.
- Kiirunavaara (Norrbotten).—Bauerman, H.; Lundböhm, H.; Teyssier, —.
- Kimberley (Cape Colony).—Bonney, T. G.
- Kimberlite.—Bonney, T. G.
- Kimeridge-Clay glauconitic limestone.—Davies, A. M.
- Kimeridgian, Dorset.—Strahan, A.
- Kinabalu, Mt. (N. Borneo).—Burls, H. T.
- King Charles Land (Spitsbergen).—Hamberg, A.; Nathorst, A. G.
- Kingena*.—Hall, R. T., &c.
- Kinross (Scotland).—Peach, B. N., &c.
- Kirkbya*.—Jones, T. R., &c.
- Kirchheim (Württ.).—Fraas, E.
- Kirkinton Sandstone.—Holmes, T. V.
- Klinödrit. *See* Clinohedrite.
- 'Klippen,' Austria (Lower).—Abel, O.
- , Himalayas.—Diener, C.
- , Pyrenees.—Stuart-Menteth, P. W.
- , Rumania.—Athanasii, S.
- , Switzerland.—Mühlberg, F.; Tobler, A.
- Klondyke (N.W. Canada).—Emerson, H.; Nordenskjöld, O.; Tyrrell, J. B.
- Knaresborough (Yorks).—Burrell, B. A.
- Kochendorf (Württ.).—Branco, W. von; Endriss, K.; Fraas, E.; Lüger, —; Miller, K.
- Kochkar (Urals).—Nitze, H. B. C., &c.
- Kolozsvár (Hungary).—Koch, A.
- Kolyvane (Toms).—Derjavin, A.
- Kongsberg (Norway).—Vogt, J. H. L.
- König Karl Land. *See* King Charles Land.
- Koninckites*.—Toula, F.
- Koralp (Styria).—Dörler, A. F.
- Kosciusko, Mt. (N.S.W.).—Howitt, A. W.; Kitson, A. E., &c.
- Kragerö (S. Norway).—Wells, J. F.
- Kremerite.—Chester, A. H.
- Kressenberg (Bavaria).—Reis, O. M.
- Kromau (Moravia).—Suess, F. E.
- Kruzov I. (Alaska).—Szachno, M.
- Kuchh (India). *See* Cutch.
- Kumatology.—Cornish, V.
- Kumi (New Zealand).—Hutton, F. W.
- Kunstadt (Moravia).—Krasser, F.
- Kursk (Russia).—Sokolov, V. D.
- Kyshtym (Perm.).—Frazer, P.
- Labiosa*.—Dall, W. H.
- Labyrinthodonts, Tasmania. — Twelve-trees, W. H., &c.
- Lacar, Lake (Argent.).—Wehrli, L.
- Laccopteris*.—Hjorth, A.
- Ladoga, Lake (Russia).—Ailio, J.
- Lägern massif (Switzerland).—Mühlberg, F.
- Lagonegro (Basilicata).—Greco, B.; Riva, C.
- Lagoons.—Newsom, J. F.
- Lagopsis*.—Major, C. I. F.
- Lahn R. (Germany).—Burhenne, H.
- Laibach (Carniola).—Seidl, F.
- Lairg (Sutherland).—McMahon, C. A.
- Lajas (Argent.).—Burckhardt, C.
- Lake-basins.—Vigilino, F.
- dwellings, Glastonbury.—Andrews, C. W.; Mansel-Pleydell, J. C.
- Lakes, American (N.) Great.—Gilbert, G. K.; Hobbs, W. H. *See also* Superior, &c.
- , Bavarian.—Schwager, A.
- , Canadian Rocky Mts.—Wilcox, W. D.
- , Finnish.—Hammarström, R.; Streng, A. E.
- , Norwegian.—Monckton, H. W.
- Lambertina*.—Oppenheim, P.
- Lamellibranchiata, Carboniferous.—Brede, J. W.; Frech, F.; Hind, W.; Schellwien, E.
- , Cretaceous.—Alessandri, G. de; Anthula, D. J.; Bode, G.; Böhm, G.; Collot, —; Darton, N. H.; Felix, J., &c.; Hennig, A.; Hill, R. T., &c.; Ihering, H. von; Johnson, C. W.; Logan, W. H.; Philippi, R. A.; Redlich, K. A.; Reid, C.; Reis, O. M.; Rutot, A.; Skeat, E. G., &c.; Stefano, G. di; Strahan, A.; Tate, R.; Toucas, —; Wollemann, A.
- , Devonian.—Hind, W.; Kayser, E.; Newton, R. B.; Tchernyshev, T., &c.
- hinges.—Bernard, F.; Nætling, F.; Philippi, R. A.
- , Jurassic.—Benecke, E. W.; Greco, B.; Nelli, B.; Philippi, R. A.; Skeat, E. G., &c.; Strahan, A.; Woods, H.
- morphology.—Philippi, E.
- , Permian-Carboniferous.—Diener, C.; Schellwien, E.; Tchernyshev, T., &c.
- , Quaternary.—Cort, H. de; Dall, W. H.; Gregorio, A. de; Newton, R. B.; Stearns, R. E. C.
- , Silurian.—Venukov, P. N.
- , Tertiary.—Athanasii, S.; Bernays, E.; Böckh, H.; Böhm, J.; Brives, A.; Brusina, S.; Dall, W. H.; Dollfus, G., &c.; Gorjanovič-Kramberger, K.; Gregorio, A. de; Gümbel, C. W., &c.; Ihering, H. von; Leriche, M.; Martin, K.; Mayer-Eymar, C.; Newton, R. B.; Reis, O. M.; Steinmann, G., &c.; Tate, R.; Toldo, G.; Ugoilino, P. R.; Vinassa de Regny, P. E.; Vincent, E.
- Lamellibranchiata, Triassic.—Bittner, A.; Törnquist, A.; Toula, F.; Volz, W.
- Lamna*.—Priem, F.; Woodward, A. S.

- Lamnidae, Bruxellian.—Delheid, E.
 Lanaeken (Limbourg).—Fimeuse, —
 Lanarkshire.—Peach, B. N., &c.; Weir, R.
 Lancashire.—Anon., 21; Butterworth, J.; De Rance, C. E.; Morton, G. H.; Reade, T. M.; Stirrup, M.; Stokes, A. H.
 Langebergen (Cape Colony).—Rogers, A. W.
 'Lapiez.' See 'Karren.'
 Land-forms.—Davis, W. M.; Geikie, J.; Lapparent, A. de.
 —slips.—Greim, G.; Griesbach, C. L.; Kästner, A.
 —upheavals.—Bell, R.; Geer, G. de; Gilbert, G. K.
 Landenian.—Raeymaekers, D.
 Landes (France).—Jacquot, E., &c.
 Landquart & Landwasser Rivers (Gri-
 sons).—Jennings, A. V.
 Langbeinite.—Mallet, F. R.
 Langsett (Yorks).—Watts, W.
 Lantivet Bay (Cornwall).—Woodward, A. S.
 Lapugy (Hungary).—Koch, A.
 LAPWORTH, C.—Whitaker, W.
Lastrea.—Newberry, J. S.
 Laterite.—Bauer, M.
Latira.—Walcott, C. D.
Latirus.—Johnson, C. W.
 Latite.—Lœwinson-Lessing, F.
 LA TOUCHÉ, J. D.—Hopkinson, J.
Laubeocrinus.—Waagen, W., &c.
 Lauenberg a. d. Elbe (Hanover).—
 Geinitz, E.; Keilhack, K.
 Laumontite.—Lüdecke, O.
 Laurel, Mt. (N.J.).—Johnson, C. W.
 Laurentian (N. Am.).—Leith, C. W.
 See also Geological Survey, Canada.
 — lakes.—Gilbert, G. K.
 Laurionite.—Smith, G. F. H.
 Laurium (Greece).—Launay, L. de;
 Smith, G. F. H.
 Lauter Valley (Rh. Bavaria).—Bay-
 berger, F.
 Lavacille (Venetia).—Gregorio, A. de.
 Laval (Mayenne).—Herries, R. S.
 Lavas.—Bauer, K.; Dakyns, J. R.;
 Felix, J., &c.; Rutley, F.; Thoroddsen, T. See also Igneous rocks.
 LEA (ISAAC) collection.—Johnson, C. W.
 Lead, Australasia.—Coghlan, T. A.
 — crystals & lead-glance.—Miers, H. A.
 — distribution of.—Hintze, C.
 —, Hungary.—Böckh, J., &c.
 Lead-minerals, Laurium.—Smith, G. F. H.
 —, New South Wales.—McLachlan, D. C.
 —, Scotland.—Peach, B. N., &c.
 —, United States, &c.—Kirchoff, C.
 Leadhillite.—Spencer, L. J.
 Leadhills (Scotland).—Peach, B. N., &c.
 Lebanon, Mt. (Syria).—Woodward, A. S.
Lebedictya.—Hall, J., &c.
Lebescontia.—Jones, T. R., &c.
 Lech Valley (Tyrol).—Weithofer, K. A.
Leda.—Dall, W. H.; Gümbel, C. W., &c.; Nelli, B.; Reis, O. M.
 Lefte (Lombardy).—Portis, A.; Taramelli, T.
Leguminosites.—Newberry, J. S.
 Leicestershire.—Anon., 20; Fox-Strangways, C., &c.
 — granite.—Watts, W. W.
 Leighton Buzzard (Beds.).—Nichols, H. B.
 Leimen (Baden).—Regelmann, K.
 Leine Valley (Hanover).—Kloos, J. H.
Leioclema.—Whidborne, G. F.
Leiopteria.—Tchernyshev, T.
 Lellinge (Sjælland).—Grönwall, K. A.
 Lemming, fossil.—Nehring, A.
 Lemongan (Java).—Verbeek, R. D. M.
 Lenhamian.—Harmer, F. W.
 Lenne Slates, Germany (W.).—Loretz, —; Winterfeld, F.
 Leoben (Styria).—Redlich, K. A.
Leperditia.—Tchernyshev, T., &c.
Lepidesthes.—Whidborne, G. F.
Lepidocyclina.—Newton, R. B.
Lepidodendron.—Frech, J.; Lomas, J.; Zeiller, R.
Lepidophloios.—Dawson, Sir J. W.; Seward, A. C.
 Lepontine Alps. See Alps.
Lepracanthus.—Wellburn, E. D.
Leptecodon.—Williston, S. W.
Leptichthys.—Stewart, A.
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Leptograptus.—Hall, T. S.; Wellburn, E. D.
Leptomeryx.—Cope, E. D.; Scott, W. B.
 Leptonacea.—Dall, W. H.
Leptophyllia.—Tomes, R. F.; Vaughan, T. W.
Leptoreodon.—Scott, W. B.; Wortman, J. L.
Leptothyra.—Cossmann, M.
Lesleya.—Steinmann, G., &c.
 Leucite.—Lacroix, A.
 Leucophœnicites.—Penfield, S. L., &c.
 Leun (Wetzlar).—Burhenne, H.
 Levantian.—Bukowski, G. von.
 Leverrierite.—Termier, P.
 Leyden Museum.—Reichenbach, E. S., von.
 Lias, Algeria.—Ficheur, E.
 —, ammonites.—Hug, O.; Parona, C. F.; Wähner, F.
 —, Austrian Alps.—Wähner, F.
 —, Borneo.—Martin, K.
 —, Bornholm.—Deecke, W.
 —, Cumberland.—Holmes, T. W.
 —, Denmark.—Skeat, E. G., &c.
 —, fishes.—Sauvage, H. E.; Woodward, A. S.
 —, Foraporta, Mte.—Greco, B.
 —, gasteropoda.—Hawell, J.
 —, Great Central Railway.—Thompson, B.
 —, Hanover.—Kloos, J. H.

- Lias, ironstones.—Walford, E. A.
 —, reptilia.—Spens, W.
 —, Tuscany.—Fucini, A.
 —, Whitby.—Hawell, J.; Woodward, A. S.
 Libollite.—Gomes, J. P.
 Lichas.—Tchernyshev, T., &c.
 Lichfield (Staff).—Lapworth, C., &c.
 Liège (Belgium).—Forir, H., &c.; Habets, A.; Lohest, M.
 — (—), coal-measures north of.—Dewalque, G.; Forir, H.; Lohest, M.; Soreil, G.
 Liévin (Pas-de-Calais).—Cornet, J.
 Lignite, Gardanne.—Domage, —.
 —, Leffe.—Portis, A.; Taramelli, T.
 —, Magellan Terr.—Chiapponi, M.
 —, origin of.—Fliche, P.; Renault, B.
 —, United States.—Parker, E. W.
 Liguria (Italy).—Airaghi, C.
 Lille (Nord).—Anon., 7; Gosselet, J.
 Lillia.—Buckman, S. S.; Hug, O.
 Lima.—Dall, W. H.; Greco, B.; Hennig, A.; Philippi, R. A.; Redlich, K. A.; Reis, O. M.; Strahan, A.; Törnquist, A.; Toula, F.
 Lima (Peru).—Rios, J. A. de los.
 Limatula.—Reis, O. M.
 Limbourg heath (Belgium & Holland).—Dewalque, G.; Ertborn, O. van; Mourlon, M.; Stainier, X.; Stürtz, B.
 Limestone, Africa (S.).—Rogers, A. W., &c.
 —, arborescent.—Woodward, H. B.
 —, Borneo.—Hinde, G. J.
 —, Carboniferous.—Sollas, W. J.
 —, Derbyshire.—Arnold-Bemrose, H. H.
 —, Forest of Dean.—Anon., 60.
 —, Glenelg.—Clough, C. T., &c.
 —, Hautes-Pyrénées.—Bresson, A.
 —, knolls.—Dakyns, J. R.; Marr, J. E.
 —, Michigan.—Sherzer, W. H.
 —, Montabuzard.—Dollfus, G., &c.
 —, Moravia.—Pelikan, A.
 —, New South Wales.—David, T. W. E.
 —, Scandinavian Palæozoic.—Högbom, A. G.
 —, subterranean excavations.—Barnes, J., &c.
 —, Tuscany.—Salle, E.
 —, United States.—Day, W. C.
 Linnæa.—Dall, W. H.; Leriche, M.
 Linnæus & Linnocardium.—Gorjanovič-Kramberger, K.
 Limonite.—Raymond, R. W.
 Limopsis.—Hennig, A.; Reis, O. M.
 Limulus.—Holm, G.
 Limurite.—Twelvetrees, W. H., &c.
 Linarite.—Riva, C.
 Lindenfels (Hesse).—Chelius, C.
 Lindstromaster.—Gregory, J. W.
 Linerina.—Newton, R. B., &c.
 Lingula.—Strahan, A.; Whidborne, G. F.
 Lingulella.—Walcott, C. D.
 Linoporella.—Felix, J., &c.
 Linopteris.—Zeiller, R.
 Lintia.—Airaghi, C.
 Lintonite.—Winchell, A. N.
 Lioceras.—Buckman, S. S.; Greco, B.; Greppin, E.
 Liopistha.—Reis, O. M.
 Liosphæra.—Hinde, G. J.; Vinassa de Regny, P. E.
 Liotia.—Dall, W. H.
 Lipari Is.—Bergeat, A.; Matteucci, R. V.
 Liquidambar & Liriodendron.—Newberry, J. S.
 Lisbon (Portugal).—Choffat, P.
 Lithapium.—Hinde, G. J.; Vinassa de Regny, P. E.
 Lithocampe.—Vinassa de Regny, P. E.
 Lithographic stone.—Day, D. T.
 Lithological homotaxis.—Lomas, J. See also Sedimentary rocks, &c.
 Lithology. See Igneous rocks, &c.
 Lithophaga.—Dall, W. H.
 Lithophyllum.—Etheridge, R., Jun.
 Lithostrobus.—Hinde, G. J.; Vinassa de Regny, P. E.
 Lithothamnium.—Redlich, K. A.
 Littorina.—Greppin, E.
 Littorina-sea shore-lines in Finland.—Ailio, J.
 Littleborough (Yorks).—Wellburn, E. D.
 Lituites.—Holm, G.
 Lituola.—Chapman, F.
 Liverpool (Laues).—Morton, G. H.
 Lives (Namur).—Dewalque, G.
 Livny (Orel).—Mikhailovski, V.
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 Llandeilo rocks. See Ordovician, &c.
 — Series, Scotland.—Peach, B. N., &c.
 Llanvaches (Monmouth).—Howard, F. T., &c.
 Llyn Eigiau (Caernarvon).—Cope, T. H. Loam. See Soils.
 Lobopsammia.—Hennig, A.
 Loch-Awe Series.—Hill, J. B.
 Lodes, California.—Lakes, A.
 —, Colorado.—Rickard, F.
 Loess, Brünn.—Makovsky, A.
 —, Germany.—Steinmann, G.; Wüst, E.
 —, Iowa.—Bain, H. F.; Beyer, S. W.; Calvin, S.; Machride, T. H.; Norton, W. H.; Shimek, B.; Udden, J. A.
 —, origin of.—Sardeson, F. W.; Shimek, B.; Udden, J. A.
 —, Russia.—Sibirtzev, N.
 —. See also Æolian.
 LÖWENSON-LESSING'S rock-classification.—Anon., 1.
 Lofoden Is. (Norway).—Kolderup, C. F.
 Lojo, Lake (Finland).—Streng, A. E.
 Lökken (Denmark).—Jessen, A.
 Lombardy (Italy).—Alessandri, G. de; Brugnatelli, L.; Parona, C. F.; Portis, A.
 Lomma (Scania).—Holmström, L.
 Loncasaurus.—Ameghino, F.
 Lonchopteris.—Frech, F.

- London, artesian boring.—Slater, P. L.
 — & North-Western Railway.—
 Arnold-Bemrose, H. H.
 — Clay, Dorset.—Reid, C.
 —, Museums. *See* Museums.
 — water-supply.—Hunter, W.
 Londonderry (Ireland).—Cole, G. A. J.
 Long I. (N.Y.).—Upham, W.
 — Mt. (Montgomery).—Elles, G. L.
 Lonjica (Slavonia).—Gorjanovič-Kram-
 berger, K.
Lonsdaleia.—Diener, C.
 'Loreley'-rock (Rhine).—Fuchs, A.
 Lorraine.—Benecke, E. W.; Hoffmann,
 L.; Koken, E.; Villain, P.
 Lot (France).—Viré, A.
 Louvain (Brabant).—Mourlon, M.
 Lower Austria, &c. *See* Austria (Lower),
 &c.
Loxonema.—Koken, E.; Venukov, P. N.
 Lublin (Prussia).—Krishtafovitch, N.
Lucapina.—Dall, W. H.
Lucina.—Dall, W. H.; Ihering, H. von;
 Nelli, B.; Newton, R. B.; Skeat, E.
 G., &c.; Steinmann, G., &c.; Strahan,
 A.; Tate, R.; Williston, S. W.
Luciniola.—Skeat, E. G., &c.
 ЛУЦЫ, W. C.—*See* Whitaker, W.
 Luderich deposits (W. Germany).—
 Winterfeld, F.
 Ludlow Series, Scotland.—Peach, B. N.,
 &c. *See* also Silurian, &c.
Ludwigia & Ludwigna.—Buckman, S.
 S.
 Luminosity, mineral.—Keilhack, F.
Lunulicardium.—Venukov, P. N.
 Luossavaara (Norrbotten).—Lundböhm,
 H.; Teyssier, —.
 Lurlei.—*See* Loreley.
 Lutetian.—Ramond, G.
Lutra.—Cope, E. D.
Lutraria.—Steinmann, G.
 Luxembourg.—Hoffmann, L.
Lycænites.—Bebel, H.
Lycopodium.—Reid, J.
Lycopus & Lysimachia.—Andersson, G.
Lyginodendron.—Lomas, J.
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Lynchus.—Cope, E. D.; Hognann, —.
Lyrodietya.—Hall, J., &c.
Lytoceras.—Anthula, D. J.; Fucini, A.;
 Hug, O.
Lyttonia.—Diener, C.

Macacus.—Harlé, E.
 McCox, Sir F.—Anon., 12; Woodward,
 H.
 McMAHON, C. A.—Whitaker, W.
 Macon Co. (N. Car.).—Judd, J. W., &c.;
 Pratt, J. H.
Macrocephalites.—Loriol, P. de.
Macrodon.—Hennig, A.
Macromactra & Maetra.—Dall, W. H.
Mactrella & Mactrotoma.—Dall, W. H.
 Madupite.—Löwinson-Lessing, F.
Magas.—Posselt, H. J.; Rutot, A.
 Magdeburg (Prussia).—Wahnschaffe, F.
 Magellan Terr. (S. Am.).—Chiapponi, M.;
 Ihering, H. von; Moreno, F. P. *See*
 also Patagonia, &c.
 Magellanian Beds.—Moreno, F. P.;
 Ortmann, A. E.
 Magmas, igneous.—Anon., 1; Jaggard,
 T. A., Jun.; Lapparent, A. de; Lö-
 winson-Lessing, F.; Michel-Lévy, A.;
 Morozewich, J.; Pratt, J. H.; Rosen-
 busch, H.; Teall, J. J. H.
 —, minerals in.—Finckh, —.
 Magnesite.—Zambonini, F.
 —carbonate mineral, new.—Brugna-
 telli, L.
 —salts. *See* Stassfurt.
 —sulphate, Texas.—Harper, H. W.
 Magnetic ore-deposits.—Dahlblom, T.
 —sand. *See* Pyrrhotite.
 —surveying of iron-ores.—Norden-
 ström, G.
 Magnetites.—Birkinbine, J.; Lacroix, A.
Magnolia.—Hollick, A.; Newberry, J. S.
 Magwe (Burma).—Grimes, G. E.
 Maine (U.S.A.).—Gregory, H. E.
 Mainz (Hesse).—Wittich, E.
Majanthemophyllum.—Krasser, F.
 Malachite.—Buttgenbach, H.
 Malaspina Glacier (Alaska).—Keilhack,
 K.
 Malayan Archipelago.—Koto, B.; Ridley,
 H. N.
 Malham (Yorks.).—Carter, W. L.
 Malmesbury Beds.—Corstorphine, G. S.,
 &c.
 Maltese Is.—Cooke, J. H.
 Malvern Hills.—Groom, T. T.
 Malvoisin (Namur).—Defrenne, B.
 Mammalia, Cretaceous.—Ameghino, F.;
 Roth, S.; Seeley, H. G.
 —, geological classification &—
 Major, C. I. F.
 —, Jurassic.—Strahan, A.
 —, origin of.—Case, E. C.; Marsh,
 O. C.; Osborn, H. F.
 —, Quaternary.—Ameghino, F.;
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 M.; Cope, E. D.; Fraas, E.; Gallardo,
 A.; Gaudry, A.; Gregorio, A. de;
 Grévy, C.; Hagnmann, G.; Halaváts, J.
 Harlé, E.; Jentzsch, A.; Kissling, E.;
 Knoop, —; Lohest, M.; Lucas, F. A.;
 Makowski, A.; Mansel-Pleydell, J. C.;
 Miller, G. S., Jun.; Moreno, F. P.,
 &c.; Mourlon, M.; Newton, E. T.;
 Pomel, A.; Portis, A.; Reichenbach,
 E. S. von; Suess, E., &c.; Whitaker,
 W., &c.; Woodward, A. S.
 Mammalia, Tertiary.—Ameghino, F.;
 Andrews, C. W.; Bosco, C.; Case, E.
 C.; Cope, E. D.; Gaillard, C.; Grévy,
 C.; Harlé, E.; Kinkelin, F.; Koch,
 A.; Lankester, E. R.; Major, C. I. F.;
 Marek, J.; Mercerat, A.; Nehring,
 A.; Osborn, H. F.; Portis, A.; Prato,
 A. del; Redlich, K. A.; Ristori, G.;
 Schlosser, M.; Scott, W. B.; Simo-
 nelli, V.; Toulou, F.; Woodward, H.
 —, Triassic.—Case, E. C.

- Mammalian deposits, Domahida & Mérc.
 —Halaváts, J.
 —, Weimar.—Wüst, E.
 —teeth.—Ameghino, F.
 Mammoth, Condroz.—Mourlon, M.
 —, Hudson Bay.—Bell, R.
 —, ivory.—Lydekker, R.
 —, man &.—Hutchinson, H. N.
 Makowski, A.
 Man, antiquity of.—Cole, G. A. J.;
 Evans, Sir J.
 —, Calaveras skull.—Dall, W. H.
 —, Palæolithic.—Hutchinson, H. N.;
 Wilson, T.
 —, Quaternary.—Makowski, A.
 Pomel, A.
 —(Isle of).—Bolton, H.; Kermode,
 P. M. C.; Lamplugh, G. W.; Lomas, J.
 —(—), mines, &c.—Atkinson, J. B.,
 &c.; Foster, C. Le N.
 Manchester (Lancs).—Stirrup, M.
 —(Mass.).—Sears, J. H.
 —, Sheffield, & Lincolnshire Railway.
 —Thompson, B.
 Manchuria (China).—Turley, R. T.
 Manganese, Australasia.—Coghlan, T. A.
 —, Brazil.—Anon. 46; Furniss, H.
 W.; Ribeiro, A. R.
 —, Caucasus.—Birkinbine, J.; Drake,
 F.
 —, India.—Birkinbine, J.; Turner,
 H. G.
 —, Mendoza.—Kyle, J. J.
 —, nodules, N.S.W.—Doherty, W. M.
 —, river-gravels with.—Hinton, M.
 A. C.
 —, Spain.—Head, J.
 —, United States.—Birkinbine, J.
 Manhattau (Kan.).—Eckel, E. C.
 Manheim (N. Y.).—Smyth, C. H., Jun.
 Manicaria.—Newberry, J. S.
 Manjak.—Bedson, P. P.
 Manselia.—Buckman, S. S.
 Mantellia.—Strahan, A.
 Mantsinsaari I. (Finland).—Ailio, J.
 Manx Slates.—Bolton, H.
 Maps, French geo ogioal.—Krusch, P.
 —, zones and chronological.—Jukes-
 Browne, A. J.
- MAPS.
- AFRICA (NORTH).
 Algeria. Beni - Bou - Mileuk. $\frac{1}{100,000}$
 1897.—Brives, A.
 —. Hamman-R'irha. $\frac{1}{200,000}$ 1897.
 —Brives, A.
 Tunis. Meknas & Nefzas Territories.
 $\frac{1}{200,000}$ & $\frac{1}{60,000}$ 1899.—Prost, A.
- AFRICA (SOUTH).
 Cape Colony (S.W.). $\frac{1}{800,000}$ 1898.—
 Corstorphine, G. S., &c.
 Rhodesia. 1899.—Wilkinson, W. F.
 Transvaal (N.). Murchison Range.
 1 inch = 4'735 miles, and 8½ inches
 = 1 mile. 1899.—Steuart, D. S.
- AFRICA (SOUTH).
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 = 9'47 miles. 1899.—Steuart, D. S.
 —(S.). 1 inch = 10 miles. 1899.—
 Frech, F.
- AMERICA (CENTRAL). $\frac{1}{1,100,000}$ & $\frac{1}{3,000,000}$,
 1899.—Sapper, C.
- WEST INDIES. Jamaica. 1 inch
 = 5 miles. 1899.—Hill, R. T. *See*
also Atlantic.
 —. San Domingo. Haiti (N.W. &
 S.W.). $\frac{1}{200,000}$ (2 maps). 1899.—Tip-
 penhauer, L. G. *See also* Atlantic
 Ocean.
- AMERICA (NORTH).
 CANADA. Brunswick. Kennebecasis
 Valley. 1 inch = 1½ miles. 1898.
 —Matthew, G. F.
 —. Hudson Bay & Great Lakes
 Glaciation. 1899.—Hobbs, W. H.
 —(N.W. Terr.). Klondyke. 1 inch
 = 10 miles. 1899.—Nordenskjöld,
 O.
 —(—). Yukon District. 1898.—
 Spurr, J. E., &c. *See also* United
 States.
 UNITED STATES. 1898.—Walcott,
 C. D.
 —. Alaska. Yukon District. 1898.
 —Spurr, J.
 —. California. Point Reyes Pen-
 insula. 1 inch = 2 miles. 1899.—
 Anderson, F. M.
 —. San Clemente I. 1 inch
 = 3 miles. 1898.—Smith, W. S. T.
 —. Colorado. Aspen District
 (various). 1898.—Spurr, J. E.
 —. Connecticut. 1 inch = 2 miles.
 1898.—Davis, W. M.
 —. Illinois. Chicago, &c. 1897.
 —Leverett, F.
 —. Iowa (various). 1898 & 1899.—
 Bain, H. F.; Beyer, S. W.; Calvin,
 S.; Leonard, A. G.; Macbride, T.
 H.; Norton, W. H.; Udden, J. H.
 —. Kansas. Coal Districts (various).
 1898.—Haworth, E., &c.
 —. Maine. St. John's Bay. 1¼
 inches = 1 mile. 1899.—Bascom,
 F.
 —. Massachusetts. Old Hamp-
 shire Co. (various). 1898.—Emerson,
 B. K.
 —. Montana. 1898.—Weed, W.
 H., &c.
 —. New Jersey. 1899.—Kummel,
 H. B.
 —. New York. 1 inch = 12 miles,
 & 1 inch = 25 miles. 1897.—
 Merrill, F. J. H.
 —. New York State (various)
 1898 & 1899.—Bishop, I. P.; Clarke,
 J. M.; Kummel, H. B.; Luther, D.
 D.; Prosser, C. S.; Ries, H.;
 Smyth, C. H., Jun.
 —. Albany Co. 1 inch = 1
 mile. 1898.—Darton, N. H.

AMERICA (NORTH).

UNITED STATES. Texas. Austen District. 1 inch = 6 miles. 1898.—Hill, R. T., &c.

— Washington Terr. Western Columbian lava-plain. 1899.—Manson, M.

— Puget Sound Coalfields. 1898.—Willis, B.

AMERICA (SOUTH).

Chile. Atacama Desert, &c. In 5 sheets. $\frac{1}{50,000}$. 1899.—San Roman, F. J., &c.

Peru (N.). Piura Coast. $\frac{1}{1,800,000}$. 1899.—Steinmann, G.

ASIA.

BURMA. Yenangyat Oilfield. 16 inches = 1 mile. 1898.—Grimes, G. E.

DUTCH EAST INDIES. Borneo. Mandor. $\frac{1}{50,000}$. 1899.—Easton, N. W.

— Celebes Is. $\frac{1}{2,000,000}$. 1899.—Rücking, H.

— Java. Besoeke. $\frac{1}{20,000}$. 1899.—Koperberg, I. J.

INDIA. Assam. Mikir Hills. 1 inch = 4 miles. 1898.—Smith, F. H.

— Bengal. Nellore Mica Belt. 1 inch = 32 miles. 1899.—Griesbach, C. L.

— Bombay. Baroda State. Kathiawar, 1 inch = 8 miles; & Sankheda Taluka, 1 inch = 1 mile. 1898.—Foote, R. B.

— Cach [Cutch]. 1 inch = 4 miles. 1898.—Oldham, R. D.

KAMCHATKA. 1899.—Barrett-Hamilton, G. E. H.

MALAY ARCHIPELAGO. $\frac{1}{12,500,000}$. 1899.—Koto, B.

RUSSIA (see also Europe).

— Bakal Mines (Orenburg). 1 inch = 2 miles. 1898.—Bauerman, H.

ATLANTIC OCEAN. Atlantic (N.). 1899.—Hudleston, W. H.

— Bermuda - Jamaica. Marine deposits. 1899.—Peake R. E., &c.

— Iceland. $\frac{1}{1,000,000}$. 1899.—Thoroddsen, J.

AUSTRALASIA.

AUSTRALIA (S.). Northern Territory. 1 inch = 20 miles. 1898.—Brown, H. Y. L.

AUSTRALIA (W.). Geological Survey. Collic Coalfield. 1 inch = 40 chains. 1898.—Maitland, A. G.

— (—). Coolgardie Goldfield. 2 inches = 1 mile, & 1 inch = 10 chains (in 4 sheets). 1898.—Blatchford, T., &c.

— (—). Northampton. 4 inches = 1 mile. 1898.—Maitland, A. G.

AUSTRALASIA.

NEW SOUTH WALES. Tamworth. 1 inch = 1 mile. 1899.—David, T. W. E., &c.

NEW ZEALAND. Hauraki Goldfield. 1 inch = 8 miles. 1899.—Park, J., &c.

QUEENSLAND. (Geological Survey. 1 inch = 16 miles. In 6 sheets. 1899.—Jack, R. L., &c.

— Artesian Water Area N. of Hughenden. 1 inch = 16 miles. 1898.—Maitland, A. G.

— (Geological Survey.) Charters Towers Goldfield. 1 inch = 4 chains, 2nd ed., in 6 sheets. 1898.—Jack, R. L.

— Coal and Opal Districts. 1 inch = 170 miles. 1899.—Sellheim, P. F.

— Mt. Morgan (various). 1898.—Jack, R. L.

— Stanthorpe & Warwick. 1 inch = 2 miles, and 1 inch = 1 mile. 1898.—Skertchly, S. B. J.

— Stanwell. 1 inch = 1 mile, & 1 inch = 10 chains. 1898.—Dunstan, B.

VICTORIA. Bacchus Marsh. 4 inches = 1 mile. 1899.—Brittlebank, C. C., &c.

— Coleraine. 1 inch = $\frac{1}{2}$ mile. 1899.—Hogg, E. G.

EUROPE.

Europe. $\frac{1}{25,000,000}$. (1900).—Jannettaz, E.

— Carte géologique internationale de l'Europe. $\frac{1}{1,500,000}$. Part 3. Sheets A iii, A iv, B iii, B iv, C v, D v, D vi. 1898.—Hauchecorne, W., &c.

— Coalfields. 1899.—Frech, F.

AUSTRIA-HUNGARY.

Austria.—K.-k. geologische Reichsanstalt. Geologische Karte der im Reichsrathe vertretenen Königreiche und Länder der österreich-ungarischen Monarchie. $\frac{1}{75,000}$. Parts 1 & 2. Portions of Moravia, Silesia, Carniola, Carinthia, and Styria. 1898.—Stache, G., &c.

Bohemia.—Brüx, $\frac{1}{4,000}$, & Teplitz, $\frac{1}{80,000}$. 1899.—Launay, L. de.

— Mittelgebirge. $\frac{1}{25,000}$. 1899.—Hibsch, J. E.

— (S.). $\frac{1}{50,000}$. 1898.—Woldrich, J. N.

Hungary.—Magy. Kir. Földtani Intézet. A Magyar Korona Országai Területen mivelesben es feltárófélben levo nemesfém, ércz, vasko, &c. $\frac{1}{900,000}$. 1898.—Böckh, J., &c.

Styria.—Mürz & Mur Rivers Valleys. $\frac{1}{750,000}$. 1899.—Östreich, K.

EUROPE.

- Tyrol.—Buchenstein Valley, $\frac{1}{125,000}$;
Gröden Pass, $\frac{1}{115,000}$; Peri-Adriatic
Area of Subsidence, $\frac{1}{2,531,400}$; Sella-
Enneberg District, $\frac{1}{123,000}$ & $\frac{1}{50,000}$. 1899.
—Ogilvie, M. M.
—Karwandel Mts. $\frac{1}{50,000}$. 1898.—
Ampferer, O., &c.
—Nonsberg, &c. $\frac{1}{100,000}$. 1899.—
Hammer, W.
- BELGIUM. Brabant. Tervueren, 1
inch = about 1 kilom. 1899.—
Velge, E.
—Liège. $\frac{1}{100,000}$. 1899.—Forir,
H., &c.
- DENMARK. Bornholm (Baltic). $\frac{1}{100,000}$.
1899.—Deecke, W.
—Geological Survey. Copen-
hagen, &c. $\frac{1}{100,000}$. 1899.—Jessen,
A.; Rördam, K.
—Brede Ladegaard & Lyngby.
 $\frac{1}{12,000}$. 1894.—Rördam, K.
—Helsingör & Hilleröd. $\frac{1}{100,000}$.
1893 & 1899.—Rördam, K.
—Secondary boulders. 1 inch
= about 18 miles. 1898.—Skeat,
E. G., &c.
- FINLAND. $\frac{1}{2,000,000}$. 1899.—Sederholm,
J. J.
—Geological Survey. Finland.
 $\frac{1}{2,500,000}$. 1899.—Sederholm, J. J.
—Mantsinsaari I. (Lake Ladoga).
1 inch = about 800 metres. 1899.
—Ailio, J.
—Tammerfors. $\frac{1}{400,000}$. 1899.—
Sederholm, J. J.
- FRANCE. $\frac{1}{5,000,000}$ (1900).—Jaunnetaz,
E.
—Auvergne. $\frac{1}{3,000,000}$. 1899.—
Mouret, G.
—Bouches du Rhône. Gardanne,
&c. $\frac{1}{133,333}$. 1899.—Domage, —
—Britanny (*various*). 1899.—
Barrois, C.
—Cottian Alps. *See* Italy.
—Hautes Alpes. Briançonnais.
 $\frac{1}{80,000}$. 1899.—Termier, P.
—Landes. $\frac{1}{200,000}$. 1873.—Jacquot,
E., &c.
—Dax & St. Sever. $\frac{1}{80,000}$.
1873-97.—Jacquot, E., &c.
—Service de la Carte géolo-
gique. Carte géologique détaillée de
la France. $\frac{1}{50,000}$.—Michel-Lévy, A.
(Directeur), &c.
98. Châtillon. 1899. Par F.
Maison.
129. Beaune. 1899. Par A.
Michel-Lévy, — Delafond et
— Collot.
154. Confolens. 1899. Par L. de
Launay et J. Welsch.

EUROPE.

- GERMANY. Bavaria. Bodenmais &
Passau. $\frac{1}{100,000}$. 1899.—Weinschenk,
E.
—Middle Franconia. $\frac{1}{500,000}$.
1895.—Schwarz, A.
—Prussia. Lorraine, &c. $\frac{1}{400,000}$.
1898.—Hoffmann, L.
—Rhenish Prussia. Brühl-
Unkel. $\frac{1}{100,000}$. 1897.—Heusler, C.
—Dortmund. $\frac{1}{200,000}$. 1896.
—Stockfleth, F.
—Württemberg. Neckarsulm.
 $\frac{1}{44,000}$. 1899.—Reis, O. M.
- GREAT BRITAIN AND IRELAND.
ENGLAND AND WALES. Anglesey.
1 inch = 4 miles. 1899.—Greenly,
E.
—(N.). 2 inches = 1 mile.
1899.—Matley, C. A.
—Bristol, country round. 1 inch
= 3.15 miles. 1898.—Morgan, C.
L.
—Caernarvonshire. Conway.
2½ inches = 1 mile. 1899.—Rutley,
F.
—Cheshire. Congleton Edge.
4 inches = 1 mile. 1899.—Gibson,
W., &c.
—Cumberland. Syning Gill.
1 inch = 1 mile. 1899.—Mantle, H.
G.
—Derbyshire. Tideswell Dale.
6 inches = 1 mile. 1899.—Arnold-
Bemrose, H. H.
—Dorset. Isle of Purbeck, &c.
1 inch = 4 miles. 1898.—Strahan,
A.
—Weymouth. 1 inch =
1 mile. 1898.—Strahan, A.
—Dover (Straits of), 1899.—
Hallez, P.
—England (S.) & Continent.
1893.—Lambert, G.
—English Channel bottom-de-
posits.—Allen, E. J., &c.; Worth,
R. H. *See also* Dover.
—Geological Survey. 1-inch Map.
46. S.E. Woburn (Drift). 1898.
—Whitaker, W., &c.
92. N.E. Grassington, Pateley
Bridge, Burnsall, &c. 1899.—
Dakyns, J. R., &c.
—N. s. 155. Ather-
stone (Solid & Drift.) 1899.—Fox-
Strangways, C., &c.
—N. s. 248. Ponty-
pridd (Solid & Drift.) 1899.—
Strahan, A., &c.
—N. s. 267. Hunger-
ford (Drift). 1899.—Bennett, F.
J.
—N. s. 282. Devizes
(Drift). 1899.—Bennett, F. J., &c.
—N. s. 283. Andover
(Drift). 1899.—Bennett, F. J., &c.

EUROPE.

ENGLAND AND WALES. Geological Survey. 1-inch Map. N. s. 300. Alresford (Drift). 1898.—Hawkins, C. E., &c.

—, —, —, N. s. 315. Southampton (Drift). 1899.—Whitaker, W., &c.

—, —, —, N. s. 340. Otterton (Drift). 1899.—Ussher, W. A. E.

—, —, —, N. s. 349. Ivy-bridge (Drift). 1899.—Ussher, W. A. E.

—, —, —, N. s. 350. Torquay (Drift). 1898.—Ussher, W. A. E.

—, —, Gloucester. Tortworth. 1 inch = 1 mile. 1898.—Morgan, C. L.

—, —, Kent. 1 inch = $7\frac{1}{2}$ miles. 1899.—Elsden, J. V., &c.

—, —, Hadlow. 1 inch = 4 miles. 1899.—Elsden, J. V., &c.

—, —, (E.). 1 inch = 3.15 miles. 1899.—Dawkins, W. B.

—, —, Malvern Hills (S.). 4 inches = 1 mile. 1899.—Groom, T. T.

—, —, Monmouthshire. Llanvaches. 6 inches = 1 mile. 1899.—Howard, F. T., &c.

—, —, Northumberland. Cheviot Hills. 1 inch = 4 miles. 1899.—Kynaston, H.

—, —, Shropshire (S.E.). 1 inch = 1 mile. 1899.—King, W. W.

—, —, Staffordshire (S.). 1 inch = 4 miles. 1899.—King, W. W.

—, —, Surrey. 1 inch = 5 miles. 1899.—Elsden, J. V., &c.

—, —, Sussex. 1 inch = $9\frac{1}{2}$ miles. 1899.—Elsden, J. V., &c.

—, —, Pulborough, &c. 1 inch = 2 miles. 1899.—Elsden, J. V., &c.

—, —, Thame Valley (part of), 4 inches = 1 mile. 1899.—Davies, A. M.

IRELAND. Geological Survey. 1-inch Map.

29. Carrickfergus. 1898.—Egan, F. W., &c.

SCOTLAND. Argyll. Loch Awe District. 1 inch = 8 miles. 1899.—Hill, J. B.

—, —, Geological Survey. 1-inch Map. 7. Ballantrae. 1898.—Geikie, Sir A., &c.

13. Arran. 1898.—Geikie, Sir A., &c.

19. Bowmore (Argyll). 1899.—Wilkinson, S. B., &c.

40. Kinross. 1898.—Peach, B. N., &c.

57. Forfar, & 67. Stonehaven. 1898.—Barrow, G., &c.

85. Rothes (Drift). 1898.—Grant-Wilson, J. S., &c.

115. Reay. 1898.—Peach, B. N., &c.

EUROPE.

SCOTLAND. Geological Survey. Silurian Rocks of Southern. 1 inch = 10 miles. 1899.—Peach, B. N., &c.

—, —, Lanarkshire. Douglas Coalfield. $\frac{2}{3}$ inch = 1 mile. 1899.—Weir, R.

GREECE. Cerigo & Cerigotto Is. $\frac{1}{300,000}$. 1899.—Leonhard, R.

ITALY. Apennines & Apuan Alps (Tuscany). $\frac{1}{100,000}$. 1898.—Zaccagna, D.

—, —, Lipari Is. [Each] $\frac{1}{50,000}$. 1899.—Bergeat, A.

—, —, Piedmont. Cottian Alps. $\frac{1}{400,000}$. 1899.—Franchi, S.

—, —, Saluzzese Mts. 1 inch = 1 kilom. $\frac{1}{100,000}$. 1899.—Stella, A.

—, —, Turin, &c. $\frac{1}{600,000}$. 1899.—Roccati, A.

—, —, Tuscany. Cascina. $\frac{1}{25,000}$. 1898.

—, —, Vinassa de Regny, P. E.

LEVANT. Rhodes I. $\frac{1}{200,000}$. 1898.

—, —, Bukowski, G. von.

NORWAY. Lofoden Is. 1899.—Kolderup, C. F.

RUMANIA. 1 inch = about $6\frac{1}{2}$ miles. 1898.—Stefanescu, G., &c.

—, —, 1 inch = 25 miles. 1899.—Sutherland, D. A.

RUSSIA. Blagodat (Perm). 1898.—Bauerman, H.

—, —, Crimea, &c. Kerch & Taman. 1 inch = 5 miles. 1899.—Bayard,

—, —, Nijni-Tagilsk (Perm).—1 inch = $1\frac{1}{4}$ miles. 1898.—Bauerman, H.

—, —, Soils. 1 inch = about 311 miles. 1899.—Sibirtzev, N.

—, —, Urals. Turo Platinum District. 1 inch = 13.35 miles. 1899.—Purington, C. W.

—, —, See also Asia & Finland.

SPAIN. Biscay & Santander. $\frac{1}{400,000}$. 1897.—Gill, W.

SWEDEN. Gellivaara. $\frac{1}{17,200}$. 1899.—Bauerman, H.

—, —, Geological Survey. Norrland. $\frac{1}{500,000}$ & $\frac{1}{100,000}$. 1899.—Lundböhlm, H.

—, —, Geological Survey. (Ser. Aa.) Scania. Örkelljunga. $\frac{1}{50,000}$. 1898.

—, —, (Ser. Ac.) Gotland. Ulricehamn. $\frac{1}{100,000}$. 1898.—Lindström, A.

—, —, (Ser. Ba.) Swedish Quaternary Deposits. $\frac{1}{2,000,000}$. 1898.

—, —, (Ser. C.) Jemtland. Rugunda Valley. $\frac{1}{600,000}$ & $\frac{1}{125,000}$.

—, —, 1899.—Högbom, A. G.

EUROPE.

- SWEDEN. Quaternary Deposits. (Ser. C.). Nordmark Mining District. $\frac{1}{24,000}$. 1896.—Pettersson, W.
 —. (—). Norrland. Röhö I., near Alnö I. $\frac{1}{25,000}$. 1899.—Holmquist, P. J.
 —. Iron-ore deposits (Middle). Various. 1899.—Beck, R.
 —. Norrbotten. Kiirunavaara, &c. 1893-99.—Lundböhlm, H.
 —. Scania. Lomma. 1899.—Holmström, L.
- SWITZERLAND. Bernese Jura (*parts of*). $\frac{1}{95,000}$. 1898.—Rollier, L.
 —. Grisons. Davos Valley. 1 inch = 1.6 miles. 1899.—Jennings, A. V.
- WORLD. Carboniferous Seas. 1899.—Frech, F.
- Marattiopsis*.—Hjorth, A.
 Marble.—Anon., 68; Brindley, W.; Buttgenbach, H.; Day, W. C.; Herrmann, O.; Kalb, C. de; Winwood, H. H.
 Marburg (Hesse).—Kayser, E.
 Marcasite.—Hamilton, S. H.
 MARCOU, J.—Bergeron, J.; Whitaker, W.
 MARCY, O.—Crook, A. R.
Marginella.—Brives, A.
Marginifera.—Diener, C.
 Margit Spring (Hungary).—Ilosvay, L. von.
 Maria Valley (Hungary).—Schaffer, F.
 Marine denudation.—Péroche, J.
 — deposits, West Indies.—Peake, R. E.
 —. —. See also Deposition, &c.
Marioerinus.—Whidborne, G. F.
Mariopteris.—Frech, F.; Zeiller, R.
 Mariupol (Ekaterinoslav).—Morozevich, I.; Sokolov, N.
 Marmara (Sea of), N. coast.—Kayser, E.; Rosiwal, A.; Toulia, F.
Marmolatella.—Koken, E.
 Marquette iron, &c. (Mich.).—Birkinbine, J.
 Marseille (Bouches-du-Rhône).—Bertrand, M.; Domage, —; Fournier, E.
 Marseilleveyre massif (—).—Fournier, E.
 MARSH, O. C.—Anon., 11; Beecher, C. E.; Capellini, G.; Lydekker, R.; Van Tieghem, P.; Williams, H.
Marsupites.—Peron, A.; Reid, C.; Strahan, A.
Martesia.—Ithering, H. von.
 Martha's Vineyard (Mass.).—Upham, W.
Martinia.—Bittner, A.; Diener, C.; Semper, M.
 Marwood Beds fauna.—Whidborne, G. F.
 Maryland (U.S.A.).—Clark, W. B.; Gannett, H.; Mathews, E. B.; Merrill, G. P., &c.
 Massachusetts (U.S.A.).—Emerson, B. K.; Sears, J. H.; Washington, H. S.; Woodworth, J. B.
Mastodictya.—Hall, J., &c.
Mastodon.—Lankester, E. R.; Redlich, K. A.
 — beds, Budapest.—Halaváts, J.
Mastoglarvia & *Mastogloia*.—Hartz, N., &c.
Mastopora.—Stolley, E.
 Matabeleland (S. Africa).—Southwood, R. T.
Matonia.—Krasser, F.; Seward, A. C.
 Maubeuge (Nord).—Anon., 4.
 Mauna Loa (Hawaiian Is.).—Bonney, T. G.; Wood, E.
 Maures (Var).—Zürcher, P.
 Mecklenburg (Germany).—Geinitz, F. E.; Müller, G.
 Medina (N.Y.).—Gilbert, G. K.
 Mediterranean basin.—Hull, E.
 —, Tertiary deposits.—Oppenheim, P.
Medullosa.—Lomas, J.; Scott, D. H.
 Medusa.—Paquier, V.; Walcott, C. D.
Medusaster.—Whidborne, G. F.
Meekella.—Frech, F.
Meekoceras.—Bittner, A.
Megacrodon.—Roth, S.
Megalaspis.—Schmidt, F.
Megalichthys.—Wellburn, E. D.
Megalonyx.—Cope, E. D.
 Megalosauridæ.—Ameghini, F.
Megaloxylon.—Seward, A. C.
Megaphyllites.—Arthaber, G. von.
Megatherium, sub-recent.—Ameghino, F.
Megistoerinus.—Whidborne, G. F.; Whiteaves, J. F.
 Méhaigne Valley (Liège).—Rutot, A.
 Meknas' Territory (Tunis).—Prost, A.
 Melanaia.—Cossmann, M.; Martin, K.; Newton, R. B.
 Melanite.—Brauns, R.
Melanopsis.—Strahan, A.
 Melanotekite.—Warren, C. H.
 Melaphyre, Predazzo.—Huber, O. von.
 Melilite.—Kaiser, E.
 Melmerby (Cumberland).—Marr, J. E.
 Melnik (Bohemia).—Woldrich, J. N.
Meloceras.—Foord, A. H.
Melongena.—Mayer-Eymar, C.
Melosira.—Hartz, N., &c.
Mentzelia.—Semper, M.
Menyanthes.—Andersson, G.
Mephytes.—Cope, E. D.
 Mercury, Australia.—Anon., 45.
 —, California.—Lakes, A.
 —, distribution of.—Day, T. D.; Hintz, E.
 —, Ohæawai.—Griffith, A. P.
 —, Tuscany.—Kloos, J. H.
 —, United States.—Day, D. T.
Merista & *Meristina*.—Venukov, P. N.
Meristella.—Tchernyshev, T., &c.
 Merk (Hungary).—Halaváts, J.
 Mersey River.—Nares, Sir G. S.
 Mesch (Holland).—Forir, H.; Harze, E.
 Mesolite.—Winchell, A. N.
Mesomorphia.—Vaughan, T. W.
Mesonacis.—Möberg, J. C.

- Mesothyra*.—Jones, T. R., &c.
 Mesotype.—Friedel, G.
 Mesozoic, Alps.—Franchi, S.
 —, Portugal.—Choffat, P.
 —, Queensland.—Dunstan, P.
 —. See also Jurassic, &c.
 Messethin (Pomerania).—Keilhack, K.
 Meta Range (Campania).—Cassetti, M.
Metadoxides.—Matthew, G. F.
 Metalliferous deposits, Great Britain, &c.
 —Atkinson, J. B., &c.; also Foster, C. Le N., &c.
 —. See also Iron, &c.
 Metals, origin of.—Gordon, H. A.
 Metamorphic rocks, Cottian Alps.—Franchi, S.; Stella, A.
 —, Mont-Blanc massif.—Duparc, L., &c.
 —, Morocco.—Thomson, J.
 —, New South Wales.—Howitt, A. W.
 —, Perthshire.—Coates, H., &c.; Macnair, P.
 —. See also Igneous rocks, &c.
 Metamorphism, Argyllshire.—Hill, J. B.
 —, Derbyshire.—Arnold-Bemrose, H. H.
 —. See also Contact, &c.
Metaxytherium.—Toula, F.
 Meteoric iron.—Cohen, E.; Davison, J. M.; Foote, W. M.; Hartley, W. N., &c.
 Meteorites, Alabama.—Foote, W. M.
 —, Australia (W.).—Fletcher, L.
 —, Bosnia.—Hödlmošer, C.
 —, Carolina (N.).—Ward, H. L.
 —, Chile.—Cohen, E.
 —, classification of.—Weinschenk, E.
 —, Finland.—Meunier, S.
 —, Kansas & Michigan.—Ward, H. L.
 —, Mexico.—Frenzel, A.
 —, origin, &c. of.—Carrington, J. T.; Cole, G. A. J.; Wülfing, E. A.
 —, Patagonia.—Fletcher, L.
 —, Russia (supposed).—Meunier, S.
 —, Texas.—Foote, W. M.
 —, Tongres.—Dewalque, G.
 —, Vendée.—Bureau, L.
Metula.—Johnson, C. W.; Martin, K. 'Meule'.—Gosselet, J.; Leriche, M.
 Meuselwitz (Altenburg).—Keilhack, K.
 Mexican-U.S.A. boundary.—Lord, E. C. E.
 Mexico.—Aguilera, J. G.; Bonney, T. G.; Diller, J. S.; Dumble, E. T.; Felix, J., &c.; Frenzel, A.; Landers, C. F.; Montessus de Ballore, F. de; Ordóñez, E.; Williams, H. S.
 —, College of Mines.—Ramirez, S.
 Meylan (Isère).—Gonnard, F.
 Miargyrite.—Eakle, A. S.
 Mica.—Parker, E. W.; Smith, A. M.; Viola, C.; Walker, T. L.; Wells, J. E.
 — schists.—Bauer, K.
 Michigan (U.S.A.).—Holmes, C.; Sherzer, W. H.
 Michigan, Lake (N. Am.).—Gilbert, G. K.; Phillips, W. A.
Micmacca.—Matthew, G. F.
Micraster.—Reid, C.; Rowe, A. W.
Microceras & Microderoceras.—Fucini, A.
Micrococcus.—Renault, B.
 Micropegmatite-phenocrysts.—Flett, A.
Microplasma.—Etheridge, R., Jun.
 Microscopical petrology.—Rosenbusch, H. See also Petrology.
Microtus.—Cope, E. D.
 Middlesex.—Blake, J. F.; Hopkinson, J.; Slater, P. L.
 Midlands, Liassic ironstone of.—Walford, E. A.
 —, Silurian of.—Anon., 22.
 Migration, geological changes, &c.—Van den Broeck, E.
 Mikir Hills (Assam).—Smith, F. H.
 Millstone Grit.—Spencer, J.; Wellburn, E. D.
 Milwaukee (Wis.).—Monroe, C. E.
 Mineral deposits. See Iron, &c.
 — grains, sectionizing.—Stöber, F.
 — identification.—Elsden, J. V.; Luquer, L. McI.; Schröder van der Kolk, J. L. C.
 — industry, Great Britain, &c.—Atkinson, J. B., &c.; Foster, C. Le N.
 — paints.—Parker, E. W.
 — pseudomorphs.—Döll, E.
 — waters, Australasia.—Gray, G., &c.
 —, Bohemia.—Jahn, J. J.
 —, Egypt.—Walker, F. A.
 —, France.—Carnot, A.; Duboin, A.; Lepierre, C.; Parmentier, F.
 —, Hungary.—Kalmann, W., &c.; Ilosvay, L. von.
 —, New Zealand.—Skey, W.
 —, Pisa.—Maccferri, R., &c.
 —, Portugal.—Lepierre, C.
 —, Russia.—Krotov, P.
 —, Scotland.—Peach, B. N., &c.
 —, United States.—Peale, A. C.
 Mineralizing agents.—Vogt, J. H. L.
 Mineralogical Society, St. Petersburg.—Tchernyshev, T.
 Mineralogy, Styrian.—Ippen, J. A.
 —, text-books of.—Hintze, C.; Lewis, W. J.
 Minerals, Aquitaine Cretaceous.—Glangaud, P.
 —, British.—Spencer, L. J.
 —, chemical character of.—Pancbianco, R.
 —, coloration.—Königsberger, J.; Kraatz, K. von, &c.; Weinschenk, E.; Wöhler, L., &c.
 —, electricity &.—Bijerinck, F.
 —, hardness of.—Erdmann, E.; Schröder van der Kolk, J. L.
 —, in Harz granite.—Lühlmann, H.
 —, Italy.—Viola, C.; Strüver, G.
 —, Japan.—Jinbō, K.
 —, luminosity of.—Keilhack, F.
 —, Mexico.—Aguilera, J. G.

- Minerals, New South Wales.—Card, G. W.; McLachlan, D. C.
 —, origin in magmas.—Finckh, —.
 —, Portugal.—Gomes, J. P.
 —, rock-forming. — Jannettaz, E.; Rosenbusch, H.
 —, Siebengebirge.—Kloos, J. H.; Stürtz, —.
 —, Spa (Liège).—Damseaux, A. de.
 —, Storr, the.—Heddle, M. F.
 —, United States.—Day, T. D., &c.; Kunz, G. F.
 —. *See also* Arsenates, Diamond, &c.
 Mines, Great Britain, &c.—Atkinson, J. B., &c.; Foster, C. Le N.
 —, India.—Grundy, J.
 Minette.—Hoffmann, L.
 Minnesota (U.S.A.).—Hershey, O. H.
 Miocene, Algeria.—Pomel, A.
 —, Bavaria.—Gümbel, C. W., &c.
 —, bird's egg, Dakota.—Farrington, O. C.
 —, Burma.—Grines, G. E.
 —, Dordogne.—Rivière, E.
 —, Egypt.—Andrews, C. W.; Newton, R. B.
 —, Grive-Saint-Alban.—Gaillard, C.
 —, Hatteras, Cape.—Glenn, L. C.
 —, Hungary.—Böckh, H.
 —, Italy.—Gregorio, A. de; Oppenheim, P.; Roccati, A.; Schaffer, F.; Stefani, C. de, &c.; Stefano, G. di; Toldo, G.; Verri, A., &c.
 —, Molasse crustacea.—Studer, F.
 —, Eningen.—Major, C. I. F.
 —, Pikermi & Samos.—Major, C. I. F.
 —, Tyrol.—Weithofer, K. A.
 —. *See also* Tertiary.
Miolania.—Moreno, F. P.
 Mississippi (U.S.A.).—Leverett, F.; Norton, W. H.; Upham, W.
 Mississippian.—Keyes, C. R.
 Missouri (U.S.A.).—Bain, H. F.; Schmitz, E. J.
Mitra.—Johnson, C. W.; Steinmann, G., &c.
 Mittelgebirge (Bohemia).—Hibsch, J. E.
 Moa farmers.—Henry, R.
Modiola.—Greco, B.; Hennig, A.; Philippi, R. A.; Rutot, A.; Skeat, E. G., &c.; Ugolini, P. R.; Williston, S. W., &c.
Modiolaria & Modiolus.—Dall, W. H.
 Moel Tryfaen (Caernarvon).—Greenly, E., &c.
 Møen I. (Baltic).—Bonney, T. G., &c.
 Moffat Series.—Peach, B. N., &c.
 Mohawk Valley (N.Y.).—Brigham, A. P.
 Mokattam (Egypt).—Fourtau, R.
 Molasse, Upper Bavaria. — Gümbel, C. W., &c.
 Moldavia.—Athanasiu, S.
 Moldavite.—Anon., 54; Jahn, J. J.; John, C.; Rzehak, A.
 Moleson, Mt. (Fribourg).—Hug, O.
 Mollenhof (Württ.).—Fraas, E.
Mölleria.—Dall, W. H.
Möllerina.—Frech, F.
 Mollusca, Dismal-Swamp fossil.—Woolman, L.
 —, Dorset.—Mansel-Pleydell, J. C.
 —, Dover Quaternary.—Bullen, R. A.
 —. *See also* Gasteropoda, &c.
Moltkia.—Hennig, A.
 Molucca Is. (D. E. I.).—Schröder van der Kolk, J. L. C.
 Molybdenite.—Michel, L.
 Monazite.—Cathrein, A.; Prior, G. T.
 Mongolia (Asia).—Suess, E., &c.
Monilepora.—Grabau, A. W.; Whiteaves, J. F.
 Monkeys, Tertiary.—Harlé, E.; Pomel, A.
 Monmouthshire.—Howard, F. T., &c. Strahan, A.
Monograptus.—Hall, T. S.; Meek, A.; Perner, J.; Törnquist, S. L.
Monophyllites.—Toula, F.
Monopleura.—Hill, R. T., &c.
Monopteria.—Beede, J. W., &c.
 Monotreme Footprints, Triassic.—Seeley, H. G.
 Montabuzard (Loiret).—Dollfus, G., &c.
Montacuta.—Dall, W. H.
 Montagne Noire (France).—Bergeron, J.
 Montbéliard (Doubs).—Rollier, L.
 Mont-Blanc massif (Savoy).—Bonney, T. G.; Duparc, L., &c.; Favre, A., &c.
 — glaciers.—Martel, E. A.
Montia.—Andersson, G.
Montlivaultia.—Strahan, A.
 Montsaunés (Haute-Garonne).—Harlé, E.
 Monzonite.—Huber, O. von.
 Moore Creek limestone.—Etheridge, R., Jun.
 Moorlands, Yorkshire.—Cole, E. M.; Miall, L. C.
 Moraines, Germany. — Deecke, W.; Geinitz, E.; Keilhack, K.; Wittich, E.
 —, lateral.—Lomas, J.
 —, Massachusetts.—Woodworth, J. B.
 —. *See also* Glacial deposits.
 Moravia (Austria).—Kerner, F.; Krasser, F.; Kretschmer, F.; Makowski, A.; Pelikan, A.; Remeš, M.; Stache, G., &c.; Suess, F. E.; Trampler, R.
 Morbihan (Britanny).—Duflot, E.
 Moreton-in-the-Marsh (Gloucester). — Buckman, S. S.
 Morgan, Mt. (Queensl.).—Jack, R. L.
Moriconia.—Hollick, A.
Morio.—Johnson, C. W.; Martin, K.
 Morocco (N. Africa).—Thomson, J.
Morosporum.—Renault, B.
Morphippus.—Ameghino, F.
 MORTILLET, G. DE.—Bergeron, J.
Mortoniceras.—Hill, R. T., &c.; Williston, S. W., &c.
 Mosaic-like surface, Iceland.—Fennell, C. W.
Mosasaurus.—Williston, S. W., &c.
 Moscovite.—Viola, C.
 Moscow (Russia).—Belinfante, L. L.; Pavlov, A. V.; Stremouchov, D. P.; Tchernyshev, T.

- Moscow-Windau Railway (Russia).—Nikitin, S.
- Moulard (Holland).—Forir, H.; Harzé, E.
- Mud-volcanoes, Rumania.—Sutherland, D. A.
- MUDGE, B. F.—Williston, S. W.
- Mühlthal (L. Austria).—Bittner, A.
- Mulinia.—Dall, W. H.
- Mullion (Cornwall).—Davison, C.; Hinde, G. J.
- Multicolumnastræa.—Vaughan, T. W.
- Münster (Westphalia).—Waagen, W.
- Mur or Mürz R. Valley (Styria).—Österreich, K.
- Murchison Range (Transvaal).—Steuart, D. S. S.
- Murchisonia.—Donald, J.; Venukov, P. N.
- Murcia (Spain).—Wilson, A. P.
- Murex.—Gregorio, A. de; Mayer-Eymar, C.
- Mus Lewisii non *M. Abbotti*.—Newton, E. T.
- Muscardinus.—Major, C. I. F.
- Muschelkalk, Germany.—Branco, W. von, &c.; Koken, E.; Picard, K.
- , Asia Minor.—Toula, F.
- , See also Trias.
- Muscovite.—Baumhauer, H.; Walker, T. Z.
- gneiss, Colombia.—Reiss, W.
- Museum, American Natural History (N.Y.).—Osborn, H. F.; Whitfield, R. P., &c.
- , British (Natural History).—Bather, F. A.; Crick, G. C.; Meeson, F.; Webb, W. M.
- , Cambridge (Mass.).—Agassiz, A.; Eastman, C. R.; Woodward, W. McM.
- , Edinburgh Science & Art.—Woodward, A. S.
- , Ekaterinburg.—Lobanov, D. I.
- , Oxford University.—Sollas, W. J.
- , Paris Natural History.—Boule, M.
- , Penzance.—Collins, J. H.
- , Practical Geology.—Geikie, Sir A.; Meeson, F.
- Mussa (Piedmont).—Strüver, G.
- Mustela.—Cope, E. D.; Gaillard, C.; Newton, E. T.
- Mutiella.—Reis, O. M.
- Myacites.—Strahan, A.
- Myagaulus.—Riggs, E. S.
- Myalina.—Beede, J. W.
- Myingyan (Burma).—Grimes, G. E.
- Myliobatis.—Priem, F.; Vinassa de Regny, P. E.
- Mylodon.—Gallardo, A.; Gaudry, A.; Hauthal, R., &c.; Moreno, F. P.; Woodward, A. S.
- Mylohyus.—Cope, E. D.
- Myoconcha.—Rutot, A.
- Myodes.—Nehring, A.
- Myophoria.—Bittner, A.; Nelli, B.
- Myoxida.—Major, C. I. F.
- Myriastiches.—Sollas, W. J.
- Myrica.—Hollick, A.; Krasser, F.; Lindgren, W., &c.; Newberry, J. S.
- Myriophyllum.—Andersson, G.
- Myriopoda, Palæozoic.—Fritsch, A.; Peach, B. N.
- Myrsine.—Hollick, A.
- Myrtillus.—Andersson, G.
- Myrella.—Dall, W. H.
- Mysidioptera.—Törnquist, A.
- Mytilomorpha.—Hind, W.
- Mytilus.—Dall, W. H.; Philippi, R. A.; Venukov, P. N.
- Nachterstedt (Magdeburg).—Wahnschaffe, F.
- Nagybánya (Hungary).—Koch, A., &c.
- Naini Tal (N.W. India).—Griesbach, C. L.
- Najas.—Andersson, G.
- Namur (Belgium).—Lohest, M., &c.; Velge, G.
- Nancy (Meurthe-et-Moselle).—Anthelin, C.
- Nantucket I. (Mass.).—Curtis, G. C.; Upham, W.
- Naparima Marls & Nariva Beds.—Harrison, J. B., &c.
- Naphtha. See Petroleum.
- Nasonite.—Penfield, S. L., &c.
- Nassa.—Brives, A.; Ugolini, P. R.
- Nassau (Germany).—Fuchs, A.
- Natal (S. Africa).—Churchill, F. F.; Gray, C. J.
- Natica.—Brives, A.; Cossmann, M.; Greco, B.; Gregorio, A. de; Reis, O. M.; Steinmann, G.
- Naticopsis.—Koken, E.
- Natrolite.—Kaiser, E.
- Natuna Is. (D. E. I.).—Krause, P. G.
- Natural Gas. See Gas (natural).
- Naucoris.—Schlechtendal, D. von.
- Nauheim (Hesse).—Wittich, E.
- Naumburgia.—Andersson, G.
- Nautiloidea, Carboniferous.—Frech, F.
- , Devonian.—Holzapfel, E.
- , Silurian.—Holm, G.
- , Tertiary.—Parona, C. F.
- Nautilus.—Arthaber, G. von; Crick, G. C.; Törnquist, A.; Tzwetav, M.
- Neæra.—Rutot, A.
- Neath, Vale of (Glam.).—Geikie, Sir A.
- Nebraska (U.S.A.).—Bain, H. F.; Darton, N. H.; Knight, W. C.; Prosser, C. S.
- Neckarsulm (Württ.).—Reis, O. M.
- Necrogammarus.—Peach, B. N.
- Nezas Territory (Tunis).—Prost, A.
- Negundo.—Newberry, J. S.
- Neidium.—Hartz, N., &c.
- Neithea.—Reid, C.
- Nellore (Bengal).—Griesbach, C. L.
- Nelson (N.Z.).—McKay, A.
- Nemocardium.—Hennig, A.
- Neocomian algæ.—Steinmann, G.
- boulders, Denmark.—Skeat, E. G., &c.
- , Brunswick.—Maas, M.; Richter, —.
- , Moscow.—Pavlov, A. V.

- Neocomian, Prussia.—Bode, G.; Kloos, J. H.; Wollemann, A.
 —, Salzburg.—Simionescu, J.
 —, Switzerland.—Tobler, A.
 —. *See also* Cretaceous.
- Neogene, Russia (S.).—Andrusov, N.
See also Tertiary.
- Neomeris*.—Felix, J., &c.
Neomyiodon.—Ameghino, F.; Gaudry, A.; Hauthal, R., &c.; Moreno, F. P., &c.; Woodward, A. S.
- Nepheline-rocks.—Coleman, A. P.; Ransome, F. L.; Thugutt, St. J.
- Nepheleis*.—Andersson, G.
 Nephelite.—Kaiser, E.
Nereitopsis.—Green, U.
Nerinea.—Alessandri, G. de; Felix, J., &c.
Nerita.—Böhm, G.; Greco, B.; Skeat, E. G., &c.
Neritaria.—Koken, E.
Neritina.—Dall, W. H.
Neritopsis.—Greco, B.; Koken, E.; Skeat, E. G., &c.
 Nerthe massif (Bouches-du-Rhône).—Repelin, J.
Nesodonopsis.—Roth, S.
 Nesquehonite-like mineral.—Brugnattelli, L.
 Nettuno (Rome).—Neviani, A.
 Neufeld (L. Austria).—Redlich, K. A.
Neuropteris.—Frech, F.; Grigorev, N.; Zeiller, R.
 Nevada, Sierra (Cal.).—Turner, H. W.
Neverita.—Gregorio, A. de.
 Newark rocks, New Jersey.—Kümmel, H. B.
 Newbournian.—Harmer, F. W.
 New Brunswick (Canada).—Duff, A. W.; Ganong, W. F.; Matthew, G. F.; Trueman, G. J.
 New England (N. Am.).—Upham, W.; Woodworth, J. B.
 Newhaven (Sussex).—Anon., 62.
 New Jersey (U.S.A.).—Clarke, F. W.; Johnson, C. W.; Kümmel, H. B.; Phillips, A. H.; Ransome, F. L.; Wolf, J. E., &c.
 New Mexico (U.S.A.).—Stone, G. H.
 New Red Conglomerate, Devon.—Hunt, A. R.
 New South Wales.—Anon., 45; Atkinson, A. A.; Boulton, J. W.; Card, G. W.; Carne, J. E.; Coghlan, T. A.; David, T. W. E.; Dean, H.; Dieseldorff, A.; Dun, W. S.; Etheridge, R.; Jun.; Hlawatsch, C.; Hinde, G. J.; Jaquet, J. B.; Knibbs, G. H., &c.; McLachlan, D. C.; Mingaye, J. C. H.; Ross, W. J. C.; Slee, W. H. J.; Trickett, O.; Watt, J. A.
 New York City (U.S.A.).—American Museum of Natural History. *See* Museums.
 — — State (U.S.A.).—Brigham, A. P.; Clarke, J. M.; Cushing, H. P.; Darton, N. H.; Gilbert, G. K.; Gordon, J. B.; Kemp, J. F.; Kümmel, H. B.; Merrill, F. J. H.; Prosser, C. S., &c.; Quereau, E. C.; Ries, H.; Smyth, C. H. J.
 New Zealand.—Bedson, P. P.; Bulman, H. F.; Cadman, A. J.; Coghlan, T. A.; Evans, W. P.; Friedlander, B.; Griffith, A. P.; Henry, R.; Hogben, G.; Hutton, F. W.; McKay, A.; Maclaren, J. M.; MacLeod, W. A.; Marchbanks, J.; Park, J.; Phillips, C.; Skey, W.; Wilson, E., &c.
 Nežarka, Upper (Bohemia).—Woldfich, J. N.
 Ngarara, New Zealand.—Hutton, F. W.
 Niagara Falls (N. Am.).—Taylor, F. B.; Upham, W.
 NICHOLSON, H. A.—Anon., 9; Hinde, G. J.; Lydekker, R.; Trail, J. W. H.; Whitaker, W.
Nicholsonia.—Kiär, J.
 Nickel.—Wharton, J.
Nicomedites.—Toula, F.
 Niger terr., French (W. Africa).—Guy, C.
 Nijni-Tagilsk (Perm).—Bauerman, H.
 Nile deposits.—Fourtau, R.
 — Valley (Egypt).—Hull, E.
Nilssonia.—Hjorth, A.; Newberry, J. S., &c.; Steinmann, G.
 Niobates.—Prior, G. T.
 Niobrara formation.—Darton, N. H.
 Nirry gravel-pit (Aisne).—Rabelle, —.
 'Nixloch' cave (Salzburg).—Függer, E.
Nodosaria.—Chapman, F.
 Nodular granite.—Adams, F. D.
 Nodules, Hardinghen Carboniferous.—Bertrand, C. E.
 —, ironstone.—Walford, E. A.
 NOGUES, —. *See* Bergeron, J.
 Noire, Montagne (Hérault).—Bergeron, J.
 Nomenclature, classification &.—Bittner, A. *See* Rocks, &c.
 —, Drift, &c.—Harmer, F. W.; Kennard, A. S.; Salter, A. E.
Nomismoceras.—Frech, F.
 Nonsberg (Tyrol).—Hammer, W.
 Nord (France).—Anon., 2, 4, 7; Gosselet, J.
Nordenskiöldia.—Newberry, J. S.
 Nordmark (Sweden).—Pettersson, W.
 Norfolk.—Harmer, F. W.
 — (Va.).—Darton, N. H.
 Norian.—Bittner, A.
 Noric Alps.—Diener, C.
Norites.—Arthaber, G. von.
 Normandy (France).—Thoulet, J.
 Norrbotten Län (Sweden).—Bauerman, H.; Lundböhm, H.; Teyssier, —.
 Northampton (W. Austral.).—Maitland, A. G.
 Northamptonshire.—Walford, E. A.
 Northumberland.—Anon., 33; Kynaston, H.
 Norway.—Benedicks, C.; Kiär, J.; Monckton, H. W.; Sjögren, H.; Vogt, J. H. L.; Wells, J. F.; Westman, J.
See also Scandinavia.

- Norwegian boulders, Sjøland.—Miltner, V.
Nothohippus & *Nothopithecus*.—Ameghino, F.
Notidanus.—Vinassa de Regny, P. E.; Woodward, A. S.
Notothyris.—Diener, C.; Frech, F.
 Nottinghamshire.—Meeson, F.
 Novion-le-Comte (Aisne).—Rabelle, —.
 Nova Scotia.—Bailey, L. W.; Woodman, J. E.
 Novaya Zemlya.—Bruce, W. S.; Goletzen, B. B.; Tchernyshev, T., &c.
 Noyon (Aisne).—Gosselet, J.
Nucula.—Beede, J. W., &c.; Dall, W. H.; Philippi, R. A.; Steinmann, G., &c.; Strahan, A.; Woods, H.
Nuculana.—Woods, H.
Nuculidæ.—Hind, W.
Nuculina.—Vincent, E.
 Nummulites.—Newton, R. B., &c.; Sangiorzi, D.
 —, dimorphism.—Van den Broeck, E.
 Nummulitic Limestone, Waziristan.—Earland, A.
Nuphar.—Andersson, G.
 Nyasa plateau (Equatorial Africa).—Boileau, F. F. R.; Wallace, L. A.
Nymphaea.—Andersson, G.
 Nyfan (Bohemia).—Fritsch, A.
Nyssa.—Newberry, J. S.
 Oak, fossil.—Wood, J. G.
 OAKLEY, C.—Whitaker, W.
 Oban (Argyll).—Traquair, R. H.
 Obdemwalden (Switzerland).—Ettlin, E.
 Oberscheld (Hesse).—Kayser, E.
Obolus.—Walcott, C. D.
 Oceanic deposits.—Harrison, J. B., &c.; Peake, R. E., &c.; Murray, Sir J.
 — salt-deposits.—Van't Hoff, J. H., &c.
 Oceanography.—Arctowski, H.; Fowler, T. W.; Hector, Sir J.; Hudleston, W. H.; Lapparent, A. de; Makarov, S.; Murray, Sir J.; Tolman, C. F., Jun.
Ocinebra.—Martin, K.
Oculina.—Reis, O. M.
 Odessa (Kherson).—Kästner, A.
Odontaspis.—Priem, F.; Vinassa de Regny, P. E.; Woodward, A. S.
Odontopteris.—Frech, F.; Zeiller, R.
Odontostoma.—Cossmann, M.
Ækotraustes.—Loriol, P. de.
 Elberg (Hanover).—Kloos, J. H.
 — in Siebengebirge (Rh.-Pruss.).—Kloos, J. H.
 Eningen (S. Baden).—Major, C. I. F.
 Ofen. See Budapest.
 Ohio (U.S.A.).—Bownockers, J. A.; Miller, G. S.; Orton, E.
 Ohlstadt (U. Bavaria).—Söhl, U.
 Oil. See Petroleum, &c.
 Oilfields, Burma.—Grimes, G. E.
 Oil-shale.—Bertrand, C. E.
 Oisans Mts. (Dauphiné).—Villenoisy, F. de.
 Oise Valley (France).—Ramond, G.
 Oit Valley (Rumania).—Redlich, K. A.
 Oklahoma (U.S.A.).—Vaughan, T. W.
Oleostephanus.—Simionescu, J.; Skeat, E. G., &c.
 Old Red Sandstone conglomerate, Melmerby.—Marr, J. E.
 —, fishes.—Traquair, R. H.
 —, insects.—Peach, B. N.
 —, marine origin of.—Reid, J.
 —, plants.—Reid, J., &c.
 —, Shetland.—Anon., 56.
Olenelloides & *Olenellus*.—Möberg, J. C.
Olenellus-zone.—Cole, G. A. J.; Grönwall, K. A.; Möberg, J. C.
 Oligocene, Bavaria.—Weithofer, K. A.
 —, Célas.—Laurent, L.
 —, Hesse.—Wittich, E.
 —, Italy.—Portis, A.
 —, Wight (I. of).—Newton, E. T.
 —. See also Tertiary.
 Oligoclase.—Howitt, A. W.
Oligoketer.—Andersson, G.
 Olivine-rocks, Tyrol.—Hammer, W.
 Olkhon (Siberia).—Kulakov, P. V.
 Olmütz (Moravia).—Stache, G., &c.
 Oltetz Valley (Rumania).—Redlich, K. A.
Omphalophloios.—White, D.
Omphaloptycha.—Koken, E.
Onchometopus.—Schmidt, F.
 Oneonta Sandstone.—Clarke, J. M.
Oniscomorpha.—Fritsch, A.
Onoclea.—Newberry, J. S.
 Ontario (Canada).—Bain, J. W.; Blue, A.; Coleman, A. P.; Miller, W. G.
Onustus.—Grecu, B.
Onychiopsis.—Krasser, F.
 Onyx marbles.—Kalb, C. de.
 Oolite, ammonites.—Buckman, S. S.
 —, Dorset.—Strahan, A.
 —, Le Wast.—Parent, H.
 Oolitic, *Nautilus*.—Crick, G. C.
 — iron, Jura.—Rollier, L.
 —, Kressenberg.—Reis, O. M.
Oonia.—Koken, E.
 Opal.—Achiardi, G. d'; Kunz, G. F.; McLachlan, D. C.; Sellheim, P. F.; Spezia, G.
Ophiocistia.—Sollas, W. J.
 Ophitic rocks, Pyrenees.—Stuart-Menteth, P. W.
 —, Tuscany.—Manasse, E.
Ophiurella.—Whidborne, G. F.
 Ophiuroidea, Devonian.—Whidborne, G. F.
 —, Silurian.—Sollas, W. J.
Opis.—Mayer-Eymar, C.; Philippi, R. A.; Reis, O. M.
Oppelia.—Loriol, P. de.
 Oran (Algeria).—Gentil, L.
 ORBIGNY, C. D', dates.—Sherborn, C. D.
Orbitoides.—Newton, R. B., &c.; Redlich, K. A.
 — beds, Panama.—Douvillé, H.
Orbulina.—Williston, S. W., &c.
Orcagnia.—Oppenheim, P.

- Ordovician, Anglesey.—Matley, C. A.
 —, Co. Dublin.—Gardiner, C. I.
 —, fauna.—Leith, C. K.; Matthew, G. F.; Reed, F. R. C.
 —, Fimistère.—Kerforne, H.
 —, Scotland.—Peach, B. N., &c.
 —, Victoria (Austr.).—Hall, T. S.
 —, *See also* Silurian.
- Ore-deposits, Asia Minor.—Thomae, W. F. A.
 —, Australia (W.).—Hoover, H. C.
 —, California.—Lakes, A.; Turner, H. W.
 —, Caucasus.—Birkinbine, J.; Drake, F.
 —, Chile.—Gimenez, J. V.; Labastie, F.; Nordenskjöld, O.; San Roman, F. J., &c.
 —, China.—Bourne, F. S.; Dieseldorff, A.
 —, Clausthal.—Gebhardt, —.
 —, Colombia.—Nichols, H. W., &c.
 —, Colorado.—Spurr, J. E.
 —, concentration of.—Vogt, J. H. L.
 —, Great Britain, &c.—Atkinson, J. B., &c.; Foster, C. Le N., &c.
 —, Hungary.—Böckh, J., &c.
 —, Japan.—Jordan, P.
 —, magnetic.—Dahlblom, T.
 —, New South Wales.—Beck, H.; McLachlan, D. C., &c.
 —, occurrence of.—Elsden, J. V.; Gürich, G.
 —, origin of.—Hartley, W. N., &c.; Spurr, J. E.; Watson, S.
 —, plants &.—Macco, A.
 —, Queensland.—Jack, R. L., &c.; Skertchly, S. B. J.; Stokes, H. G.
 —, recent.—Watson, S.
 —, replacement.—Turner, H. W.
 —, sources of.—Poster, C. Le N.
 —, surface-alteration.—Hoover, H. C.
 —, United States.—Day, D. T.
 —, *See also* Gold, &c.
- Oregon (U.S.A.).—Diller, J. S.
- Oriostoma.—Venukov, P. N.
- Oriskany Sandstone, Tennessee.—Safford, J. M., &c.
- Orléans (Loiret).—Dollfus, G., &c.
- Ormara (Makran Coast).—Stiffe, A. W.
- ORMEROD, H. M.—Whitaker, W.
- Ornithostoma.—Williston, S. W., &c.
- Orography, tectonic.—Guébbard, A.; Lapparent, A. de.
- Ors (Nord).—Leriche, M.
- Orthacodus.—Jäkel, O.
- Orthis.—Burhenne, H.; Semper, M.; Venukov, P. N.
- Orthoceras.—Foord, A. H.; Holzapfel, E.; Tchernyshev, T., &c.; Toula, F.; Venukov, P. N.; Whiteaves, J. F.
- Orthoclase.—Arthaber, G. von; Iwasaki, C.; Viola, C.
- Orthybodus.—Jäkel, O.
- Oryctocephalus.—Reed, F. R. C.
- Oryctomya.—Dall, W. H.
- Osachila.—Studer, T.
- Osar. *See* Eskers.
- Osmotherium.—Cope, E. D.
- Ostracoda, Cambrian.—Matthew, G. F.
 —, Carboniferous.—Jones, T. R., &c.
 —, Cretaceous.—Strahan, A.
 —, Devonian.—Kayser, E.; Whiteaves, J. F.
 —, Jurassic.—Chapman, F.; Strahan, A.
 —, Quaternary.—Scott, T.
 —, Silurian.—Canavari, M.; Semper, P. N.
 —, shower of fossil.—Fourtau, R.
- Ostrea.—Brives, A.; Dall, W. H.; Darton, N. H.; Gregorio, A. de; Hill, R. T., &c.; Ihering, H. von; Logan, W. N.; Mayer-Eymar, C.; Nelli, B.; Newton, R. B.; Philippi, R. A.; Reis, O. M.; Steinmann, G., &c.; Strahan, A.
 —, *Joannæ* group.—Choffat, P.
- Otodus.—Woodward, A. S.
- Ottawa (Canada).—Ells, R. W.
- Otterton (Devon).—Ussher, W. A. E.
- Ottignies (Brabant).—Mourlon, M.
- Oullins (Rhône).—Fourtau, R.
- Ovis.—Lucas, F. A.; Pomel, A.
- Ooapteris.—Dun, W. S.
- Ovula.—Martin, K.
- Oxford Mineralogical Laboratory.—Hartley, E. G. J.
 —, University Museum.—Sollas, W. J.
- Oxfordian, Swiss.—Loriol, P. de.
- Oxfordshire.—White, H. J. O.
- Oxshott (Surrey).—Stebbing, W. P. D.
- Orycoccus.—Andersson, G.
- Ocyrhina.—Priem, F.; Vinassa de Regny, P. E.; Wittich, E.; Woodward, A. S.
- Oxytoma.—Skeat, E. G., &c.
- Ozarkian.—Le Conte, J.
- Pachycormus.—Sauvage, H. E.; Woodward, A. S.
- Pachycynodon.—Felix, J., &c.
- Pachydiseus.—Anthula, D. J.
- Pachyrhizodus.—Stewart, A.
- Pacific Ocean, volcanoes.—Bonney, T. G.
- Padirac (Lot).—Viré, A., &c.
- Pagliare Hills (Abruzzo).—Parona, C. F.
- Paimpol massif (Britanny).—Barrois, C.
- Pair (Liège).—Destinez, P.
- Pakokku district (Burma).—Grimes, G. E.
- Palæaster.—Whidborne, G. F.
- Palæobalistum.—Priem, F.
- Palæobotany.—Potočić, H. *See also* Plants.
- Palæochorda.—Bolton, H.
- Palæodiscus.—Sollas, W. J.
- Palæoerinaeus.—Gaillard, C.
- Palæolithic implements, &c. *See* Implements, &c.
 —, station, Pas-de-Calais.—Hette, A.
- Palæologus.—Cope, E.
- Palæoneilo.—Hind, W.
- Palæontological zones & provinces.—Blake, J. F. *See also* Zones.
- Palæontologists, past & present.—Zittel, K. A. von.

- Palæontology, evolution & migration.—
 Van den Broeck, E.
 —, history of.—Coates, H.; Van
 Tieghem, P.; Weller, S.; Zittel, K. A.
 von.
 —, zoology &.—Studer, T.
Palæopora.—Kiær, J.
Palæotrochis.—Diller, J. S.; Williams,
 H. S.
 Palæozoic, Belgium.—Forir, H.
 —, British.—Hill, J. B.; Jones, T. R.,
 &c.; Peach, B. N., &c.; Reed, F. R. C.
 —, Canadian.—Lambe, L. M.
 —, cephalopoda, &c. *See* Cephalopoda,
 &c.
 —, Connecticut Valley.—Emerson, B.
 K.
 —, New South Wales.—David, T. W.
 E.; Etheridge, R., Jun.; Hinde, G. J.
 —. *See also* Cambrian, &c.
 Palermo (Sicily).—Gregorio, A. de, &c.
Palissya.—Hjorth, A.
Palmatopteris.—Zeiller, R.
 Palo (Rome).—Neviani, R.
Paludina.—Cossmann, M.; Leriche, M;
 Strahan, A.
Paludomus.—Martin, K.
Palyeiodon.—Roth, S.
 Panpæan-sea deposits.—Church, G. E.
 Panama (C. Am.).—Bouvier, E.;
 Douvillé, H.; Hershey, O. H.; Reiss,
 W., &c.; Zürcher, P.
 Panaria I. (Lipari Is.).—Bergeat, A.
Panopæa.—Strahan, A.
 Pans, South African.—Alison, M. S.;
 Draper, D.
 Pantodonta.—Osborn, H. F.
Pantolambda.—Osborn, H. F.
 Paper-coal.—Bertrand, C. E.
Paquieria.—Buckman, S. S.
Paracynodon.—Schlosser, M.
Parahoplites.—Anthula, D. J.
 Paralaurionite.—Smith, G. F. H.
Parapholas.—Williston, S. W., &c.
Parasmilia.—Hennig, A.
Parhybodus.—Jäkel, O.
 Pari (Tuscany).—Lotti, B.
 Paris (France).—Gosselet, J.; Ramond,
 G.
 — Basin. — Grossouvre, A. de;
 Meunier, S.; Priem, F.; Ramond,
 G.
 — Museum of Natural History. *See*
 Museums.
 Parasite.—Penfield, S. L., &c.
Parka.—Reid, J., &c.
Parnassius.—Rebel, H.
 Pas-de-Calais (France).—Anon., 3, 6;
 Barrois, C.; Hette, A.
 PASQUIER, L. DU.—Favre, A., &c.
 Passau (Bavaria).—Weinschenk, E.
 Patagonia (S. Am.).—Ameghino, F.;
 Andrews, C. W.; Anon., 50; Coss-
 mann, M.; Fletcher, L.; Gaudry, A.;
 Hatcher, J. B.; Hauthal, R., &c.;
 Ihering, H. von; Kurtz, F.; Lahille,
 F.; Mercerat, A.; Moreno, F. P.;
 Nordenskjöld, E.; Woodward, A. S.
 Patagonia (S. Am.). *See also* Magellan
 Terr.
 Pateley Bridge (Yorks).—Dakyns, J.
 R., &c.
Patella.—Gregorio, A. de.
Pattalophyllia.—Oppenheim, P.
Pattonia.—Peach, B. N.
 Payette formation.—Lindgren, W., &c.
Payradeautia.—Ugolini, P. R.
 PEACH, B. N.—Whitaker, W.
 Peat, Canada.—Anon., 44.
 —, Finland.—Andersson, G.
 —, France.—Fliche, P.; Renault, B.
 —, Germany.—Müller, G.
 —, Gotland.—Andersson, G.
 Peat-bog, buried.—Andersson, G.
 Pebble-beds, Garonné.—Harlé, E.
 —, Jura (French).—Meunier, S.
 —, Weimar.—Wüst, E.
 Pebbles, Bavarian.—Thürach, R.
 —, perforated.—Germaud, F.
 —. *See also* Windworn, Schorl-
 rock, &c.
Pecchiola.—Vincent, E.
Pecopteris.—Frech, F.; Newberry, J.
 S.; Zeiller, R.
Pecten.—Athanasji, S.; Benecke, E.
 W.; Böckh, H.; Brives, A.; Dall,
 W. H.; Greco, B.; Gregorio, A. de;
 Hennig, A.; Ihering, H. von; Nelli,
 B.; Philippi, E.; Philippi, R. A.;
 Reid, C.; Reis, O. M.; Skeat, E.
 G., &c.; Steinmann, G., &c.; Stra-
 han, A.; Vincent, E.
Pectolite.—Clarke, F. W., &c.
Pectunculus.—Reis, O. M.; Woods, H.
 Pegli (Liguria).—Parkinson, J.
 Pegmatite.—Flett, J. S.; Turner, H. W.
Peltoceras.—Loriol, P. de.
 Pembrokehire.—Howard, F. T.
Pemmatites.—Tchernyshev, T.
 Peneplains.—Davis, W. M.; Smith, W.
 S. T.
Penniretipora.—Whidborne, G. F.
 Pennsylvania (U.S.A.).—Gresley, W.
 S.
Pentadactylus.—Martin, K.
Pentamerus.—Burhenne, H.; Venukov,
 P. N.
 Pentland Hills (Scotland).—Laurie, M.;
 Peach, B. N., &c.
Pentremitidea.—Whidborne, G. F.
 Penza (Russia).—Bogoslovski, N. A.
 Penzance (Cornwall) Museum.—Col-
 lins, J. H.
 Pépérites.—Repelin, J.
Pephracaris.—Clarke, J. M.
 Peran, Camp de (Côtes-du-Nord).—
 Lacroix, A.
Pereiræa.—Brives, A.
Pericosmus.—Airaghi, C.; Kinkelin, F.
Pericyclus.—Crick, G. C.
Periphragnis.—Roth, S.
Perisphinctes.—Loriol, P. de; Siemi-
 radzki, J. von.
 Perm (Russia).—Seeley, H. G.
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 Knight, W. C.

- Permian, Amphibia, &c. *See* Amphibia, &c.
- , Cumberland.—Anon., 67; Holmes, T. V.
- , gas-coal, Bohemia.—Fritsch, A.
- , glacial moraine, S. Africa.—Jones, T. R.
- , Malvern Hills.—Groom, T. T.
- , Provence.—Zürcher, P.
- , Russia.—Seeley, H. G.; Zeiller, R.
- , Severn Basin.—King, W. W.
- , Tasmania.—Twelvetrees, W. H., &c.
- Permo-Carboniferous flora, Donetz.—Grigorev, N.
- , New South Wales.—Dun, W. S.
- , glaciation, Australia.—Brittlebank, C. C., &c.; David, T. W. E., &c.; Hogg, E. G.
- , Tasmania.—Stephens, T.
- , Himalayas.—Diener, C.
- , Urals, &c.—Tchernyshev, T.
- Perna*.—Philippi, R. A.; Strahan, A.
- Peronoceras*.—Hug, O.
- Perototoma*.—Cossmann, M.
- PERRAUDIN**, J. P.—Forel, F. A.
- Persona*.—Martin, K.
- Perthshire (Scotland).—Coates, H.; Dow, R.; Macnair, P.; Reid, J.; Smith, F.
- Peru (S. Am.).—Douvillé, H., Griffith, W.; Steinmann, G., &c.; Villareal, F.
- Perugia (Umbria).—Bonarelli, G.; Lotti, B.
- Petalodus*.—Jäkel, O.
- Petrographical terms.—Læwinson-Lessing, F.
- Petroleum, Algeria.—Brives, A.
- , Australia.—Coghlan, T. A.
- , Burma.—Grimes, G. E.
- , Canada.—Oliphant, F. H.
- , Colorado.—Lakes, A.
- , Galicia.—Oliphant, F. H.
- , geological probabilities as to.—Orton, E.
- , Hungary.—Böckh, J., &c.; Gesell, A.; Oliphant, F. H.
- , Java.—Oliphant, F. H.
- , New Zealand.—McKay, A.
- , Rumania.—Oliphant, F. H.; Sutherland, D. A.
- , Russia.—Emmons, S. F.; Oliphant, F. H.
- , Transcaspian.—Thiess, F.
- , United States.—Oliphant, F. H.
- , Virginia.—White, I. C.
- , *See also* Manjak, &c.
- Petrology.—Cesàro, G.; Jannettaz, E.; Luquer, L. McL.; Læwinson-Lessing, F.; Moragas, G.; Rosenbusch, H.
- , experimental.—Bauer, K.
- , history of.—Zittel, K. A. von.
- , museum of.—Gratacap, L. P.
- , Styrian.—Ippen, J. A.
- , *See also* Igneous rocks, &c.
- Pettau (Styria).—Stache, G., &c.
- Petzite.—Hillebrand, W. F.
- Peucedanum*.—Anderson, A.
- Phacops*.—Burhenne, H.
- Phacops Potieri*-zone, Ille-et-Vilaine.—Kerforne, F.
- Pharella*.—Williston, S. W., &c.
- Pharostoma*.—Frech, F.
- Pharyngophilus*.—Vinassa de Regny, P. E.; Wittich, E.
- Phatopsis & Philobrya*.—Tate, R.
- Phenacodus*.—Osborn, H. F.
- Phenocrysts.—Flett, A.; Pirsson, L. V.
- Philhedra*.—Huene, F. H. von.
- Philippine Is.—Anon., 43; Becker, G. F.; Day, D. T.
- Philipstoun (Linlithgow).—Cadell, H. M., &c.
- Phillipsia*.—Diener, C.; Reed, F. R. C.
- Phlegrean Fields (Campania).—Pampaloni, L.
- Phœbodus*.—Eastman, C. R.
- Pholadomya*.—Böckh, H.; Hennig, A.; Hill, R. T., &c.; Williston, S. W., &c.
- Pholidops*.—Huene, F. H. von.
- Phonolite.—Bauer, K.; Lakes, A.; Weed, W. H.
- Phororhacos*.—Andrews, C. W.
- Phos*.—Brives, A.
- Phosgenites.—Smith, G. F. H.
- Phosphates, Belgium.—Cesàro, G.; Raeymaekers, D.
- , natural.—Hartley, E. G. J.
- , New South Wales.—Mingaye, J. C. H.
- , Picardy.—Leriche, M.
- , Pyrenees black.—Levat, E. D.
- , Sweden.—Andersson, J. G., &c.
- , United States.—Day, D. T.
- Phosphatic chalk.—Baudour,—; Cornet, J.
- , nodular. *See* 'Meule' & 'Tun.'
- Photographs, geological.—Watts, W. W.
- Phragmites*.—Newberry, J. S.; Noé, A.
- Phragmoceras*.—Holzapfel, E.
- Phragmodictya & Phrismodictya*.—Hall, J., &c.
- Phryganea*.—Fritsch, A.
- Phyllites*.—Lindgren, W., &c.; Newberry, J. S.
- Phyllocarida*.—Jones, T. R., &c.
- Phylloceras*.—Anthula, D. J.; Fucini, A.; Greco, B.; Hug, O.; Loriol, P. de; Wähner, F.
- Phyllograptus*.—Hall, T. S.; Meek, A.
- Phyllopora & opercula.—Holzapfel, E.
- , Palæozoic.—Jones, T. R., &c.; Whiteaves, J. F.
- Phyllothea*.—Zeiller, R.
- Phymatifer*.—Frech, F.
- Phymatoceras*.—Buckman, S. S.
- Physa*.—Leriche, M.; Strahan, A.
- Physospongia*.—Hall, J., &c.
- Phytoptocæcidium & Picea*.—Anderson, G.
- Piacentino (Emilia).—Porta, V. A. Simonelli, V.
- Picardy (France).—Leriche, M. *See also* France, &c.

- Piedmont (Italy).—Derivieux, E.; Franchi, S.; Parona, C. F.; Peola, P.; Roccati, A.; Stella, A.; Strüver, G.
- Pierrefitte (Hautes-Pyrénées).—Bresson, A.
- 'Pietre verdi,' Cottian Alps.—Franchi, S.; Stella, A.
- Pilgrim's Rest (Transvaal).—Fergusson, M.
- Pilton-Beds fauna.—Whidborne, G. F.
- Pinacopora*.—Lindström, G.
- Pine Lake (Ont.).—Adams, F. D.
- Pingente (Istria).—Oppenheim, P.; Redlich, K. A.
- Pinite.—Gembock, H.
- Pinna*.—Dall, W. H.; Philippi, R. A.
- Pinus*.—Andersson, G.; Lindgren, W., &c.
- Pipettella*.—Vinassa de Regny, P. E.
- Pisa (Tuscany).—Rebel, H.
- Pisano, Mte. (Tuscany).—Ugolini, P. R.
- Piscicola*.—Andersson, G.
- Pisidium*.—Gorjanovič-Kramberger, K.; Leriche, M.
- Pistacia*.—Hollick, A.
- Pitch. See Petroleum, &c.
- Pitchstone.—Keegan, P. Q.
- Pithecanthropus*.—Brabrook, E. B.
- Pitheculus*.—Ameghino, F.
- Pitlochry (Perth).—Coates, H., &c.
- Placentiaceras*.—Hill, R. T., &c.; Williston, S. W., &c.
- Placer-gold.—Levat, E. D.
- Placostegus*.—Rovereto, G.
- Placunopsis*.—Törnquist, A.
- Plasconia*.—Renault, B.
- Plagia*.—Philippi, R. A.
- Plagiacantha* & *Plagoniscus*.—Hinde, G. J.
- Plagianulax*.—Strahan, A.
- Plagioclase.—Spencer, L. J.
- Planera*.—Newberry, J. S.
- Planetary evolution.—Lefort, F.
- Planoferrite.—Darapsky, L.
- Planorbis*.—Brives, A.; Gorjanovič-Kramberger, K.; Newton, R. B.
- Plants, Carboniferous.—Bertrand, C. E.; Butterworth, J.; Dawson, Sir J. W.; Dun, W. S.; Frech, F.; Gresley, W. S.; Kerner, F.; Lomas, J.; Maslen, A. J.; Potonič, H.; Renault, B.; Scott, D. H.; Seward, A. C.; Stirrup, M.; Zeiller, R.
- , casts of.—Staub, M.
- , Cretaceous.—Bonarelli, G.; Felix, J., &c.; Hjorth, A.; Hollick, A.; Krasser, F.; Kurtz, F.; Newberry, J. S., &c.; Richter, —; Seward, A. C.; Ward, L. F.; Wieland, G. R.
- , Devonian.—Reid, J., &c.
- , fossil.—Van Tieghem, P.
- , geology & distribution of.—Macco, A.; Macnair, P.; Pammel, L. H.
- , Glacial deposits.—Reid, C.; Toll, E. von.
- , 'Joanneum,'—Hörnes, R.
- , Jurassic.—Hjorth, A.; Seward, A. C.; Strahan, A.; Wieland, G. R.
- Plants, Old Red Sandstone.—Reid, J., &c.
- , ore-deposits &.—Macco, A.
- , Permian.—Maslen, A. J.; Zeiller, R.
- , Permo-Carboniferous.—Dun, W. S.; Grigorev, N.; Maslen, A. J.
- , Quaternary.—Andersson, G.; Coleman, O. A.; Fliche, P.; Hulth, J. M.; Penhallow, D. P.; Reid, C.; Wood, J. G.
- , recent, in quartzite.—Griffith, W. P.
- , Tertiary.—Engelhardt, H.; Gumbel, C. W., &c.; Kirchner, W. C. G.; Langeron, M.; Laurent, L.; Lindgren, W., &c.; Maslen, A. J.; Newberry, J. S., &c.; Noé, A.; Peola, P.; Raeymaekers, D.; Reid, C.; Rivière, E.
- , text-book on fossil.—Potonič, H.
- , Triassic.—Steinmann, G., &c.
- Plasmopora*.—Kiär, J.; Lindström, G.
- Platanus*.—Krasser, F.; Newberry, J. S.; Noé, A.
- Plateau, French central.—Lapparent, A. de; Mouret, G.; Suess, F. E.
- , implements.—Bird, C.; March, H. C.
- Platecarpus*.—Stewart, A.; Williston, S. W.
- Platinum.—Coghlan, T. A.; Day, D. T.; Meunier, S.; Purington, C. W.
- Platten See (Hungary).—Traxler, L.
- Platyceras*.—Venukov, P. N.
- Platycrinus*.—Whidborne, G. F.
- Platysomus*.—Wellburn, E. D.
- Pleistocene. See Quaternary.
- Plesiaster*.—Schlüter, C.
- Plesictis*.—Cope, E. D.; Gaillard, C.; Redlich, K. A.
- Plesiodimylus*.—Gaillard, C.
- Plesiosaurus*.—Arthaber, G. von.
- Plethodus*.—Woodward, A. S.
- Pleurodictyum*.—Burhenne, H.; Kayser, E.
- Pleurodon*.—Dall, W. H.
- Pleurojulus*.—Fritsch, A.
- Pleuromya*.—Skeat, E. G., &c.
- Pleuromytilus*.—Arthaber, G. von; Toula, F.
- Pleuromectia*.—Böckh, H.
- Pleuroplax*.—Wellburn, E. D.
- Pleurotoma*.—Gregorio, A. de.
- Pleurotomaria*.—Anthula, D. J.; Bittner, A.; Greco, B.; Redlich, K. A.; Strahan, A.; Venukov, P. N.; Whitcaves, J. F.
- Plydellia*.—Buckman, S. S.
- Plicatula*.—Philippi, R. A.; Reis, O. M.; Strahan, A.
- Plinthiotheca*.—Zeiller, R.
- Plinthosella*.—Ravn, J. P. J.
- Pliocene, Egypt.—Newton, R. B.
- , England (E.) & N.W. Europe.—Harmer, F. W.
- , gravels, Moreton-in-the-Marsh.—Buckman, S. S.
- , Rome.—Neviani, A.
- , Sewalik.—Woodward, H.
- , See also Tertiary.
- Pliohydrax*.—Major, C. I. F.
- Plymouth (Devon).—Ussher, W. A. E.

- Poacites*.—Noé, A.
 'Pocket-deposits,' Californian gold.—Hershey, O. H.
- Pododesmus*.—Dall, W. H.
- Podolia* (Russia).—Venukov, P. N.
- Podozamites*.—Hjorth, A.; Krasser, F.
- Pæcilomorphus*.—Greppin, E.
- Pæderlian*.—Harmer, F. W.
- Pohebrotherium*.—Wortman, J. L.
- Point Reyes Peninsula (Cal.).—Anderson, F. M.
- Pollau (L. Austria).—Abel, O.
- Polyacrodon*.—Roth, S.
- Polyacrodus*.—Jäkel, O.
- Polygonites*.—Stefano, G. di.
- Polymorphina*.—Dervieux, E.
- Polymorphis*.—Roth, S.
- Polyrhizodus*.—Jäkel, O.
- Polyzoa. *See* Bryozoa.
- Pomatoceras*.—Rovereto, G.
- POMÉL, A.—Ficheur, E.
- Pomerania (Germany).—Deecke, W.; Keilhack, K.; Müller, G.
- Ponor (Hungary).—Halaváts, J.
- Pont-à-Bucy (Aisne).—Rabelle, —.
- Pontian, Mariupol.—Sokolov, N.
- Pontypridd (Glamorgan).—Strahan, A.
- Popocatepetl (Mexico).—Aguilera, J. G., &c.
- Populites*.—Newberry, J. G.
- Populus*.—Andersson, G.; Hollick, A.; Kirchner, W. C. G.; Lindgren, W., &c.; Newberry, J. S.
- Porcupine, Quaternary.—Harlé, E.
- Porodiscus*.—Hinde, G. J.
- Porphyrite, Quenast.—Vallée Poussin, C. de la, &c.
- Porphyroid, Taunus.—Frank, W.
- Porphyry, Colombia.—Reiss, W., &c.
- , New York.—Cushing, C. H., Jun.
- , Predazzo.—Huber, O. von.
- Porrentruy (Bern).—Bleicher, —; Rollier, L.
- Port-au-Prince (Haiti).—Tippenhauer, L. G.
- Port Kennedy bone-deposit (Penn.).—Cope, E. D.; Mercer, H. C.
- Port Victor (S. Austral.).—David, T. W. E., &c.
- Portage Sandstones.—Luther, D. D.
- Portland cement.—Newberry, S. B.
- stone.—Elford, E. J.
- Portlandian, Dorset.—Strahan, A.
- , France.—Kilian, W.
- outcrops, Straits of Dover.—Hallez, P.
- Portugal.—Anon., 36; Choffat, P.; Gomes, J. P.; Hull, E.; Lepierre, C.; Pompeckj, J. F.; Vogt, J. H. L.
- Posidonomya*.—Beede, J. W.; Nelli, B. Philippi, R. A.
- Possession I. (Antarctic).—Prior, G. T.
- Post-Glacial subsidence, Finland.—Serander, R.
- shore-lines. *See* Shore-lines.
- Post-Tertiary. *See* Quaternary.
- Potamides*.—Johnson, C. W.; Martin, K.; Vincent, E.
- Potamogeton*.—Andersson, G.
- Potash-salts deposits, Prussia.—Kloos, J. H.; Van't Hoff, J. H., &c.
- Potericeras*.—Foord, A. H.
- Poteriocrinus*.—Whidborne, G. F.
- Potholes. *See* Giant's Kettles.
- Potoniae*.—Zeiller, R.
- Potsdam formation.—Catlett, E.
- Powellite.—Palache, C.
- Pragerhof (Styria).—Stache, G., &c.
- Prälongia (Tyrol).—Ogilvie, M. M.
- Prassberg a. d. Sann (Styria).—Stache, G., &c.
- Pre-Cambrian, America (N.).—Leith, C. K.; Matthew, G. F.; Wolff, J. E., &c.
- , Scotland.—Geikie, Sir A.
- Precelley Hills (Pembroke).—Howard, F. T.
- Precious stones.—Erdmann, E.; Kunz, G. F.; Maguire, —.
- Predazzo (Tyrol).—Huber, O. von.
- Prehnite.—Lacroix, A.; Winchell, N. H.
- Prenaster*.—Anthula, D. J.
- Presburg (Hungary).—Schaffer, F.
- PRESTWICH, SIR J.—Prestwich, Lady G. A.; Woodward, H. B.
- Primitia*.—Matthews, G. F.
- Princetown (Trinidad).—Harrison, J. B., &c.
- Prionocyclus*.—Williston, S. W., &c.
- Prionodon*.—Vinassa de Regny, P. E.
- Prionotropis*.—Logan, W. N.; Williston, S. W.
- Prisches (Nord).—Bertrand, C. E.
- Pristodus*.—Jäkel, O.
- Proarcestes*.—Törnquist, A.
- Proavites*.—Arthaber, G., von.
- Procamelus*.—Wortman, J. L.
- Procerites*.—Siemiradzki, J. von.
- Procladiscites*.—Toula, F.
- Productus*.—Diener, C.; Frech, F.; Whidborne, G. F.
- Proetus*.—Burhenne, H.; Tchernyshev, T., &c.; Venukov, P. N.
- Proganochelys*.—Fraas, E.
- Proheliolites* & *Protaræa*.—Kiär, J. Lindström, G.
- Prolecanites*.—Crick, G. C.; Frech, F.; Holzapfel, E.
- Prolimulus* & *Promyale*.—Fritsch, A.
- Promathildia*.—Koken, E.
- Pronorites*.—Frech, F.
- Prophathon*.—Andrews, C. W.
- Propora*.—Lindström, G.
- Proscarpinus*.—Gaillard, C.
- Prosopite.—Hillebrand, W. F.
- Prossitz (Moravia).—Stache, G.
- Protæoides*.—Hollick, A.
- Protagraulos*.—Matthew, G. F.
- Protagriochærus*.—Scott, W. B.
- Protaster*.—Destinez, P.; Whidborne, G. F.
- Proteodelphys*.—Ameghino, A.
- Proto*.—Brives, A.
- Protocardia*.—Skeat, E. G., &c.
- Protocidaris*.—Whidborne, G. F.

- Protoficus & Protophyllum*.—Newberry, J. S.
Protoaulus.—Riggs, E. S.
Protolambda.—Osborn, H. F.
Protolypus.—Wortman, J. L.
Protonerita.—Koken, E.
Protoreodon.—Scott, W. B.
Protoschizodus.—Hind, W.
Protosiphon.—Matthew, G. F.
Protosphyrena.—Stewart, A.
Protula.—Rovereto, G.
Protylopus.—Scott, W. B.; Wortman, J. L.
Provence (France).—Bertrand, M.; Domage, —; Fournier, E.; Zürcher, P.
Provinces, palæontological.—Blake, J. F.
Prunus.—Newberry, J. S.
Prussia, Geological Survey.—Burhenne, H. See also Germany, &c.
Psammobia.—Dall, W. H.
Psammochelys.—Fraas, E.
Psaronius.—Butterworth, J.
Pseudælurus.—Gaillard, C.
Pseudamphicyon.—Schlosser, M.
Pseudamussium.—Böckh, H.
Pseudarctos.—Schlosser, M.
Pseudocerithium.—Greppin, E.
Pseudocorax & Pseudolates.—Priem, F.
Pseudocrania & Pseudometoptoma.—Huene, F. H., von.
Pseudodiadema.—Hill, R. T., &c.
Pseudo-fossils, Silurian.—Geikie, Sir A.
Pseudographoceras.—Buckman, S. S.
Pseudoliva.—Reis, O. M.
Pseudomelania.—Skeat, E. G., &c.; Strahan, A.
Pseudomonotis.—Benecke, E. W.; Bitter, A.; Skeat, E. G., &c.
Pseudomorphs.—Döll, E.; Raymond, R. W.; Tchernyshev, T.; Uroschewich, S.; Warren, C. H.
Pseudonomismoceras.—Frech, F.
Pseudoperna.—Logan, W. N.
Psilophyton.—Reid, J., &c.
Psilotum.—Noé, A.
Pskov Gov. (Russia).—Glinka, W.
Psunjii (Croatia).—Koch, F.
Psychozoic.—Le Conte, J.
Pteraspis.—Woodward, A. S.
Pterinea.—Kayser, E.; Philippi, E.; Venukov, P. N.
Pteris.—Newberry, J. S.
Pterophyllum.—Hjorth, A.
Pteropoda, Devonian.—Whiteaves, J. S.
— See also Gasteropoda.
Pterospermites.—Hollick, A.; Newberry, J. S.
Pterospheusus.—Lucas, F. A.
Pterygotus.—McCoy, Sir F.; Semper, M.
Ptychites.—Arthaber, G. von; Toulou, F.
Ptychocaris.—Jones, T. R., &c.
Ptychoceras.—Anthula, D. J.
Ptychodesma.—Venukov, P. N.
Ptychodus.—Bonarelli, G.
Ptychomya.—Anthula, D. J.
Ptychopyge.—Schmidt, F.
Ptygmatis.—Nelli, B.
Puccinities.—Noé, A.
Puerto Rico (W. I.).—Domenech, M. V.
Puget Sound (Wash. Terr.).—Willis, B.
Pugnax.—Whiteaves, J. F.
Pulborough (Sussex).—Elsden, J. V., &c.
Pumice.—Parker, E. W.
Puncturella.—Steinmann, G., &c.
Purbeck, I. of (Dorset).—Strahan, A.
Purkynia.—Fritsch, A.
Purpura.—Gregorio, A. de; Martin, K.
Pusterthal (Tyrol).—Solomon, W.
Pustularia.—Koken, E.
Pay-de-Dôme (France).—Michel-Lévy, A.; Mouret, G.; Uselade, J.
Pycnodus.—Priem, F.
Pycnolithus.—Lindström, G.
Pygurus.—Loriol, P. de.
Pylle Hill (Gloucester).—Morgan, C. L.
Pyrenees.—Caralp, —; Hutton, J.; Lapparent, A. de; Levat, E. D.; Stuart-Menteth, P. W.
Pyrina.—Hennig, A.
Pyritaranea.—Fritsch, A.
Pyrites.—Miers, H. A.; Parker, E. W.
Pyrophyllite.—Clarke, F. W., &c.
Pyrosis.—Williston, S. W., &c.
Pyroxenes.—Daly, R. A.
Pyrrhotite.—Nicol, W.
Pyrula.—Newton, R. B.; Steinmann, G., &c.
Pyrus.—Newberry, J. S.
Quadersandstein, Brunswick.—Maas, G.
—, Saxony.—Müller, G.
Quarries, Carrara marble.—Winwood, H. H.
—, Chalk.—Anon., 62.
—, Georgia marble.—Anon., 68.
—, granite.—Anon., 61, 64; Elsden, J. V.; Herrmann, O.
—, Great Britain, &c.—Atkinson, J. B., &c.; Foster, C. Le N.
—, limestone, &c.—Anon., 60; Elsden, J. V.; Herrmann, O.
—, slate.—Elsden, J. V.; Herrmann, O.
—, Yorkshire flagstone.—Anon., 63.
Quartz.—Buttgenbach, H.; Gonnard, F.; Kunz, G. F.; Lacroix, A.; Ries, H.; Spezia, G.
—, colour-substance of red.—Königsberger, J.
—-crystals in calcite.—Holroyd, W. F., &c.
— in coal.—Destinez, P.
—-grains in chalk.—Meunier, S.
—-knobs, Anglesey.—Matley, C. A.
—, Simplon Tunnel gelatinous silica &c.—Spezia, G.
— veins, Brazil.—Derby, O. A.
Quartzite, recent fern in.—Griffith, A. P.
—, Shankill.—O'Reilly, J. P.
—, Witteberg.—Corstorphine, G. S., &c.
Quaternary, Algeria.—Pomel, A.
— Alsace.—Hagmann, G.

- Quaternary, Argentina.—Ameghino, F.
 —, Belgium.—Ertborn, O. van; Lohest, M.; Mourlon, M.
 —, Bórssun.—Knopp, —.
 —, California.—Stearns, R. E. C.
 —, Canada.—Coleman, A. P.; Penhallow, D. P.
 —, Chicago.—Leverett, F.
 —, climates.—Harmer, F. W. *See also* Climates.
 —, coal, Prisches.—Bertrand, C. E.
 —, Denmark.—Hartz, N., &c.; Jensen, A.; Madsen, V.; Rördam, K.; Steenstrup, K. J. V.
 —, Egypt.—Blanckenhorn, M.; Newton, R. B.
 —, England.—Bullen, R. A.; Harmer, F. W.; Kennard, A. S.; Mansel-Pleydell, J. C.; Newton, E. T.; Reid, C.; Salter, A. E.; Sheppard, T.; Strahan, A. *See also* Gravels, &c.
 —, Europe (N.W.).—Harmer, F. W.
 —, fauna, &c. *See* Mammalia, &c.
 —, Finland.—Andersson, G.
 —, France.—Boule, M.; Harlé, E.; Marek, J.
 —, Germany (N.).—Deecke, W.; Geinitz, E.; Jentzsch, A.; Michal, P.; Næssig, R.; Reinach, A. von; Wahnschaffe, F.; Weiss, A.; Wüst, E.; Zimmermann, E.
 —, — (S.W.).—Müller, G.; Steinmann, G., &c.
 —, Holland.—Mourlon, M.
 —, Hungary.—Halaváts, J.
 —, Iowa.—Bain, H. F.; Beyer, S. W.; Calvin, S.; Leonard, A. G.; Macbride, T. H.; Norton, W. H.; Udden, J. A.
 —, Italy.—Bosco, C.; Gregorio, A. de; Lorenzo, G. de; Portis, A.; Rovereto, G.; Ugolini, P. R.
 —, Java.—Martin, K.
 —, Kansas.—Lucas, F. A.
 —, Mexico.—Felix, J., &c.
 —, Mongolia.—Suess, E., &c.
 —, Moravia.—Makovski, A.
 —, Perthshire.—Coates, H.; Smith, F.
 —, Port Kennedy (Penn.).—Cope, E. D.; Mercer, H. C.
 —, Portugal.—Nehring, A.
 —, Russia.—Nikitin, S.; Toll, E. von.
 —, Sweden.—Andersson, G.; Geer, G. de; Lindström, A.
 —, Switzerland.—Kissling, E.; Marek, J.
 —, Württemberg.—Kohn, E.; Probst, J.
 Quebec (Canada).—Ells, R. W.; Nicol, W.
 Quedlinburg (Brunswick).—Maas, G.; Richter, —.
 Queensland.—Cameron, W. E.; Coghlan, T. A.; Dunstan, B.; Jack, R. L.; Maitland, A. G.; Moody, T. P.; Rands, W. H.; Sellheim, P. F.; Shirley, J.; Skertchly, S. B. J.; Stokes, H. G. *See also* Gold, &c.
- Quenast (Brabant).—Anon., 5; Vallée Poussin, C. de la, &c.
Quenstedticerias.—Loriol, P. de.
Quercus.—Lindgren, W., &c.; Newberry, J. S.; Wood, J. G.
 Quérigut (Ariège).—Lacroix, A.
- Radiolaria.—Hinde, G. J.; Martin, E. A.; Vinassa de Regny, P. E.
 Radiolarian cherts, &c.—David, T. W. E., &c.; Fox, H.; Hinde, G. J.
 — marls.—Harrison, J. B., &c.
Radiolites.—Alessandri, G. de; Felix, J., &c.; Hill, R. T., &c.; Williston, S. W., &c.
 Radnor (Wales).—Lapworth, H.
 Radoboj (Croatia).—Koch, F.
 Radom (Russia).—Krishtafovitch, N.
Radula.—Greco, B.
 Rafelite.—Smith, G. F. H.
 Raheen Shales.—Reed, F. R. C.
 Raiblian.—Marinelli, O.; Nelli, R.
 Rain, soils, &c.—Van den Broeck, E.
 Rainer, Mt. (Wash. Terr.).—Russell, I. C.
 Raised beaches, Portland.—Strahan, A.
Ranella & Rapana.—Martin, K.
Rangifer.—Hagmann, G.; Jentzsch, A.
Ranunculus.—Andersson, G.
 Rapakivi granite.—Holmquist, P. J.
 Raritan formation (N. J.).—Hamilton, S. H.
 ‘Rascles.’ *See* ‘Karren.’
 Raspite.—Hlawatsch, C.
Rastrites-beds, Skåne.—Törnquist, S. L.
 Reay (Caithness).—Peach, B. N., &c.
 Rebecq-Rognon (Brabant).—Velge, G.
Receptaculites.—Etheridge, R., Jun., &c.
 Recoaro (Vicentino).—Törnquist, A.
 Redcar (Yorks).—Fox-Strangways, C.; Manson, R. T.
 Red-rain dust.—Steel, T.
 Red Sea.—Issel, A.
 Reefs. *See* Coral, &c.
 Reggio Calabria (Italy).—Stefano, G. di.
 Reifling-Limestone fauna.—Arthaber, G. von.
Reiflingites.—Arthaber, G. von.
 Reigate (Surrey).—Bullen, R. A.; Crossfield, M. C.
 Reindeer, *see* *Rangifer*.
 Relizane (Algeria).—Brives, A.
 Remedios (Colombia).—Cragoe, S.
Remopleurides.—Reed, F. R. C.
Renaultia.—Zeiller, R.
 Reptilia, Cretaceous.—Ameghino, F.; Dames, W. B.; Marsh, O. C.; Osborn, H. F.; Sauvage, H. E.; Strahan, A.; Van den Broeck, E., &c.; Williston, S. W., &c.
 —, Jurassic.—Mansel-Pleydell, J. C.; Marsh, O. C.; Richardson, N. M.; Sauvage, H. E.; Spens, W.; Strahan, A.

- Reptilia, Permian.—Seeley, H. G.; Twelvetrees, W. H., &c.
 —, Permo-Carboniferous.—Geinitz, H. B.
 —, Quaternary.—Boule, M., &c.; Cope, E. D.; Hutton, F. W.
 —, restorations of.—Andreae, A.
 —, Rhætic.—Newton, E. T.
 —, Tertiary.—Arthaber, G. von; Cope, E. D.; Delheid, E.; Gaudry, A.; Leriche, M.; Lucas, F. A.; Moreno, F. P.; Porta, V. A.; Woodward, A. S.
 —, Triassic.—Arthaber, G. von; Fraas, E.; Twelvetrees, W. H., &c.
Requienia.—Hill, R. T., &c.
Reticularia.—Bittner, A.; Diener, C.
Retiolites.—Perner, J.
Retzia.—Frech, F.; Venukov, P. N.
 Revinian.—De Windt, J.
 Reyes, Pt. (Cal.).—Anderson, F. M.
Rhabdagonium.—Chapman, F.
Rhabdomeson.—Whidborne, G. F.
Rhabdospongia.—Hall, J., &c.
Rhacopteris.—Frech, F.
Rhadimichthys.—Wellburn, E. D.
Rhæboceras.—Buckman, S. S.
 Rhætian Alps.—Diener, C.; Hammer, W.
 Rhætic, Bridgend.—Newton, E. T.
 —, Chile.—Steinmann, G., &c.
Rhammites.—Newberry, J. S.
Rhamnus.—Andersson, G.; Kirchner, W. C. G.; Newberry, J. S.
 Rhayader (Radnor).—Lapworth, H.
 Rheingau (Hesse).—Lüdecke, C.
 Rhenanian, Stavelot.—Limburg-Stirum, A. de.
 Rhenish Prussia.—Cremer, L.; Heusler, C.; Kloos, J. H.; Lohest, M.; Stockfleth, F.; Sturtz, B.
 Rhine (Baden).—Schalch, F.
Rhineastis.—Cope, E. D.
Rhinoceros.—Makowski, A.; Portis, A.; Reichenbach, E. S. von; Suess, E., &c.
Rhinolophus.—Gaillard, C.
Rhizodopsis.—Wellburn, E. D.
 Rhizomorphs.—Hollick, A.
 Rhode I. (U.S.A.).—Upham, W.; Woodward, J. B.
Rhodea.—Frech, F.
 Rhodes I. (Ægean Sea).—Bukowski, G. von.
 Rhodesia (S. Africa).—Anon., 26; Samuels, L. A.; Schlichter, H.; Southwood, R. T.; Wilkinson, W. F.
Rhodocrinus.—Whidborne, G. F.
 Rhodolite.—Hidden, W. E., &c.
Rhodosphæra.—Hinde, G. J.; Vinassa de Regny, P. E.
 Rhône Glacier.—Forel, F. A.; Martel, E. A.; Schardt, H.
Rhopalastrum.—Vinassa de Regny, P. E.
Rhus.—Kirchner, W. C. G.; Lindgren, W., &c.; Newberry, J. S.
Rhyncholites.—Parona, C. F.
Rhynchonella.—Anthula, D. J.; Burhenne, H.; Frech, F.; Greco, B.; Posselt, H. J.; Reis, O. M.; Rowe, A. W.; Rutot, A.; Skeat, E. G., &c.; Strahan, A.; Tchernyshev, T., &c.; Törnquist, A.; Toula, F.; Venukov, P. N.
Rhynchopora.—Frech, F.
 Rhyolite, Hauraki.—Park, J., &c.
 —, Mexico.—Felix, J., &c.
 —, Somaliland.—Lacroix, A.
Rhyphodon.—Roth, S.
Rhytidolepas.—Frech, F.
 RICHARDSON Collection, Dorset.—Richardson, N. M.
 RICHTER, T.—Raymond, R. W.
 Rickmansworth (Herts).—Hopkinson, J.
 Riddlesdown (Surrey).—Martin, E. J.
 Ridgeway (Dorset).—Strahan, A.
 Riebeckite.—Lacroix, A.; Prior, G. T.
 Rieti (Umbria).—Moderni, P.
 Rila Mts. (Bulgaria).—Cvijič, J.
Rimella.—Johnson, C. W.
Rimula.—Greco, B.
Ringicula.—Brives, A.; Reis, O. M.
 Ringmer (Sussex).—Martin, E. A.
 Rioja (Argent.).—Anon., 17.
 Ripple-marks.—Gilbert, G. K.; Staub, M.
 River-action.—Dingelstedt, V.
 —bars.—Lühmann, H.
 —courses.—Buckman, S. S.; Davis, W. M.; Dingelstedt, V.; Philippon, A.
 —diversion, Yellowstone.—Goode, J. P.
 Rivers, England.—Buckman, S. S.
 —, subterranean. *See* Caverns, &c.
 —, United States.—Davies, A. P.; Schuyler, J. D.
 Road-metal.—Elsden, J. V.; Merrill, F. J. H.
 ROCHELT, F.—Tietze, E.
 Rochester (Kent).—Bird, C.
 Rock-classification.—Bittner, A.; Elsdén, J. V.; Frech, F.; Jannettaz, E.; Lapparent, A. de; Læwinston-Lessing, F.; Moragas, G.; Walther, J.
 —, cobalt-bearing.—Öhmichen, H.
 —coloration.—Katzner, F.; Spring, W.
 —decomposition. *See* Weathering.
 —determination.—Elsden, J. V.; Jannettaz, E.; Lapparent, A. de; Moragas, G.; Rosenbusch, H.
 —, flowage of.—Van Hise, C. R.
 —, hydrometamorphism of.—Merrill, G. P.
 —, kaolinization of.—Sestini, F.
 —magmas. *See* Magmas.
 —metamorphism.—Arnold-Bemrose, H. H.; Hill, J. B.; Merrill, G. P.; Van Hise, C. R. *See also* Contact, &c.
 —sections.—Becke, F.; Luquer, L. McI.
 —, serpentization of.—Holland, T. H.; Merrill, G. P.

- Rock, Swiss 'exotic.'—Haug, E.
 ———trains.—Lomas, J.
 ———, vanadium-bearing.—Vogt, J. H. L.
 ———weathering, use of term.—Merrill, G. P. *See also* Weathering, &c.
 Rockanje (Holland).—Lorié, J.
 Rocks, theoretical values as building-stones.—Rosiwal, A.
 Rocky Hill (N.J.).—Phillips, A. H.
 ———Mts. (Canadian).—Collie, N.; Wilcox, W. D.
 Rocroi massif (Ardennes).—De Windt, J.
 Rodents, Quaternary.—Bosco, C.; Kissling, E.; Newton, E. T.
 ———, Tertiary.—Bosco, C.; Cope, E. D.; Gaillard, C.; Major, C. I. F.; Riggs, E. S. *See also* Mammalia.
 'Rod-plant.'—Gresley, W. S.
Rœmeria.—Whiteaves, J. F.
Rœmerispongia.—Hall, J., &c.
 Rogolja (Croatia).—Koch, F.
 Röhö I. (Sweden).—Holmquist, P. J.
 RÖMER, A.—Parstecher, A.
 Romano (Venetia).—Gregorio, A. de.
 Rome (Italy).—Angelis d'Ossat, G. de; Viola, C.
 Ronchamp (Haute-Saône).—Collot, —; Fliche, P.; Meeg, M.; Peron, A.
 Rongstock (Bohemia).—Hibsch, J. E.
 RÖNTGEN rays & coal, &c.—Couriot, —.
 Roppe (Haut-Rhin).—Bleicher —, &c.; Rollier, L.
 Roscoelite.—Hillebrand, W. F., &c.
 Roskilde (Denmark).—Rördam, K.
 Rossana (Piedmont).—Stella, A.
 Rossano (Calabria).—Greco, B.
Rostellaria.—Martin, K.
Rostellites.—Williston, S. W., &c.
Rotella.—Brives, A.
 Rothes (Elgin).—Grant-Wilson, J. S., &c.
 Rott (Transylvania).—Schlechtendal, D. von.
 Rottingdean (Sussex).—Sherborn, C. D.
 Rougiers (Var).—Repelin, J.
 Roundstone (Connemara).—Knowles, W. J.
 Roveredo (Tyrol).—Vacek, M.
 Royal College of Science & Royal School of Mines.—Lockyer, Sir N.
 Royat (Auvergne).—Duboin, A.
 Rubble-drift, Aldrington.—Chapman, F.
 Rubislaw Quarries (Aberdeen).—Амон, 64.
Rubus.—Andersson, G.
 Ruby.—Judd, J. W., &c.; Kunz, G. F.; Pratt, J. H.
 Rudersdorf (Brandenburg).—Wahnschaffe, F., &c.; Zimmermann, E.
 Rudistæ.—Alessandri, G. de; Stefano, G. di.
 Rudolf, Lake (Africa).—Austin, H. H.
 Rugby (Warwick).—Thompson, B.
 Rügen (Baltic).—Bonney, T. G., &c.
 Rugunda valley (Jemtland).—Högbom, A. G.
 Rumania.—Athanasüi, S.; Hauchecorne, W., &c.; Martonne, E. de; Nicolau, T.; Priem, F.; Redlich, K. A.; Simionescu, J.; Stefanescu, G., &c.; Sutherland, D. A.; Teisseyre, W.
Rumex.—Andersson, G.
 Rupelian.—Delheid, E.; Ertborn, O. van; Moulon, M.; Oppenheim, P.
Ruppia.—Andersson, G.
 Russia.—Andrusov, N.; Bauerman, H.; Bayard, —; Belinfante, L. L.; Beysschag, F.; Birkinbine, J.; Bogoslovski, N. A.; Day, T. D.; Drake, F.; Emons, S. F.; Frazer, P.; Frech, F.; Glinka, K.; Grigorev, N.; Holzapfel, F.; Huene, F. H. von; Inostranzev, A., &c.; Karpinski, A. P.; Kästner, A.; Krishtafovitch, N.; Krotov, P.; Lobanov, D. I.; Löwinson-Lessing, F.; Lugeon, M., &c.; Meli, R., &c.; Meunier, S.; Mikhailovski, V.; Morozovich, I.; Nikitin, S.; Nitze, H. B. C., &c.; Pavlov, A. V.; Philippson, A.; Seeley, H. G.; Sibirtzev, N.; Sokolov, N.; Strejev, E. N.; Stremouchov, D. P.; Tchernyshev, T.; Toll, E. von; Venukov, P. N.; Zeiller, R.
 ———. *See also* Caucasus, Siberia, &c.
Rüstia.—Vinassa de Regny, P. E.
 Ruzsanda Lake (Hungary).—Kalecsinszki, A.
Sabal.—Newberry, J. S.
Sabalites—sandstone, Paris Basin. — Grossouvre, A. de.
Sagenopteris.—Hjorth, A.
 Sahara (Africa).—Lahache, —; Souleyre, A.
 St. Bee's Sandstone.—Anon., 67; Holmes, T. V.
 ———Gaudens (Haute-Garonne).—Harlé, E.
 ———Gobain (Aisne).—Leriche, M.
 ———Gothard massif (Switzerland). — Salomon, W.
 ———John's (N.B.).—Matthew, G. F.
 ———John's Bay (Me.).—Bascom, F.
 ———Mommelin (Pas - de - Calais). — Anon., 3.
 ———Nicolas (E. Flanders). — Ertborn, O. van.
 ———Petersburg (Russia).—Tchernyshev, T.
 ———Sauveur (Puy-de-Dôme).—Uselade, J.
 Sal Mts. (Utah & Colo.).—Lakes, A.
Saliciphylum.—Krasser, F.
 Salina (Lipari Is.).—Bergeat, A.
Salix.—Hollick, A.; Hulth, J. M.; Lindgren, W., &c.; Newberry, J. S.
 Salmian.—De Windt, J.
 Salt-deposits, Calabria.—Viola, C.
 ———, Hungary.—Böckh, J., &c.; Kalecsinszki, A.
 ———, Prussia.—Kloos, J. H.; Nitze, H. B.; Van't Hoff, J. H., &c.
 ———, Siberia & Transcaspia. — Thiesz, F.

- Salt-deposits, United States.—Parker, E. W.; Sherzer, W. H.
 ———, Württemberg.—Branco, W. von; Endriss, K.; Fraas, E.; Lüger, —; Miller, K.; Reis, O. M.
 ——— Lake (Utah).—Anon., 57.
 ——— Range (India).—Mallet, F. R.
 ——— water, deep borings &.—Gosselet, J.
 Saltpetre.—Darapsky, L.
 Saluzzese Mts. (Piedmont).—Stella, A.
 Salvages Is. (N. Atlantic).—Böhm, J.
 Salzböde Valley (Hesse).—Keyser, E.
 Salzburg (Austria).—Böse, E.; Függer, E.; Mojsisovics, E. von; Simionescu, J.
 Sambre & Meuse (Namur).—Bayet, L.
 Samos I. (Ægean Sea).—Major, C. I. F.
 Samson (Namur).—Dewalque, G.
 San Antonio (Tex.).—Hill, R. T., &c.
 ——— Clemente I. (Cal.).—Smith, W. S.
 T.
 ——— Diego (Cal.).—Stearns, R. E. C.
 ——— Domingo (W. I.).—Agamennone, G.; Tippenhauer, L. G.
 ——— Fernando Beds.—Harrison, J. B., &c.
 ——— José de Gracia (Mex.).—Ordóñez, E.
 ——— Salvador (C. Am.).—Sapper, C.
 ——— Venanzo (Umbria).—Sabatini, V.
 Sandbanks. *See* Dumes, &c.
 SANDBERGER, F. VON.—Voit, C. von; Whitaker, W.
Sandophyllum.—Etheridge, R.
 Sand-plain formations.—Fuller, M. L.
 Sands, Ottawa Basin.—Ells, R. W.
 Sandstone.—Day, W. C.; Elsdon, J. V.; Grossouvre, A. de; Herrmann, O.
 ——— dykes in granite.—Ussing, N. V.
 ——— erosion.—Martonne, E. de.
Sandtneria.—Fritsch, A.
 Sandwich Is.—Bonney, T. G.; Day, D. T.
 Sandworn stones.—Bather, F. A.; Wittich, E.
 Sanidine.—Viola, C.
 Sanitary science, geology &.—Whitaker, W.
 Santaeruzian.—Cossmann, M.
 Santander (Spain).—Gill, W.
 Santorin I. (Greece).—Matteucci, R. V.
Sapindus.—Hollick, A.; Krasser, F.; Newberry, J. S.
Sapotacites.—Newberry, J. S.
 Sapphire.—Kunz, G. F.
 Sapprolite.—Purington, C. W.
 Sardinia.—Canavari, M.; Engelhardt, H.; Meli, R.; Millosevich, F.; Riva, C.
Sargodon.—Bittner, A.
 Sarmatian, Mariupol.—Sokolov, N.
Sassafras.—Newberry, J. S.
 Saulera (Piedmont).—Strüver, G.
Saurocephalus.—Hay, O. P.; Priem, F.
 Saurodontidae.—Stewart, A.
Saurolonche, *Saurolonchidium*, & *Saurosphæra*.—Hinde, G. J.
Saurostomus.—Woodward, A. S.
Sawagesia.—Felix, J., &c.
 Sauve R. (Gard).—Martel, E. A.
 Savoy (France).—Anon., 74; Bonney, T. G.; Duparc, L.; Favre, A., &c.; Franchi, S.; Haug, E.; Schardt, H.; Triboulet, M.
 Saxony.—Beck, R.; Becke, F.; Herrmann, O.; Müller, G.
Scagliaster.—Bonarelli, G.
Scalaria.—Bernavs, E.; Brives, A.
Scalaripora.—Whiteaves, J. F.
Scaldia.—Hind, W.
 Scaldisian.—Harmer, F. W.
 Scandinavia, land-upheaval. — Geer, G de.
 ———. *See also* Norway, Sweden, &c.
 Scandinavian boulders, Sjøland.—Milthers, V.
 ——— glaciers.—Westman, J.
 ——— ice-sheet.—Howorth, Sir H. H.
 Scania (Sweden).—Grönwall, K. A.; Hennig, A.; Holmström, L.; Lindström, A.; Törnquist, S. L.
Scapanorhynchus.—Woodward, A. S.
Scapha.—Reis, O. M.
Scaphaspis.—Venukov, P. N.
Scaphiocrinus.—Whidborne, G. F.
Scaphites.—Logan, W. N.; Madsen, V.; Strahan, A.; Williston, S. W., &c.
Scaptonyx.—Gaillard, C.
Scaptorhynchus.—Parona, C. F.
 Scarborough (Yorks).—Fox-Strangways, C.
Scarus.—Wittich, E.
 Schalstein.—Pelikan, A.
 Scheelite.—Berwerth, F.
 Scheldt (Netherlands).—Ertborn, O. van.
 Schio (Vicentino).—Törnquist, A.
 Schistosity.—Jannettaz, E.; Spring, W.
 Schists, Colombia.—Reiss, W., &c.
 ———, Malvern.—Groom, T. T.
 ———, Perthshire.—Coates, H., &c.; Macnair, P.
Schizaster.—Airaghi, C.; Gregorio, A. de.
Schizodus.—Hind, W.
 Schleswig-Holstein.—Oppenheim, P.; Stolley, E.
Schmidtia.—Möberg, J. C.
 Schönbach (Württ.).—Köken, E.
 Schönberg (Baden).—Steinmann, G.
 School of Mines. *See* Royal College of Science, &c.
 ———, Santiago de Chile.—Chiapponi, M.
 Schorl-rock pebbles, Southern Drift.—Salter, A. E.
 SCHHAUF, A.—Wyrouboff, G.
 Schul R. (Transylvania).—Martonne, E. de.
 Schuls-Tarasp (Grisons).—Moesch, C.
Schwagerina.—Frech, F.
 Schwarzraingraben (Bavaria).—Söhle, U.
Scintilla.—Dall, W. H.
Scirpus.—Andersson, G.
Sciuropterus.—Gaillard, C.
Sciurus.—Major, C. I. F.
Scorpæonoides.—Priem, F.

- Scotland.—Anon., 34; Barrow, G., &c.; Bonney, T. G.; Clough, C. T., &c.; Geikie, Sir A.; Grant-Wilson, J. S., &c.; Gunn, W.; Hauchecorne, W., &c.; Hill, J. B.; Hind, W.; Hutton, J.; Laurie, M.; Peach, B. N., &c.; Reid, J., &c.; Wilkinson, S. B., &c.
- See also Perthshire, &c.
- SCOTT, A. DE C.—Anon., 19.
- Scutum*.—Reis, O. M.
- Scyphocrinus*.—Waagen, W., &c.
- Scytalocrinus*.—Whidborne, G. F.
- Sea-barriers.—Newsom, J. F.
- bottom, Start Pt. to Eddystone.—Allen, E. J.; Worth, R. H.
- coast wave-transportation.—Wheeler, W. H.
- erosion.—Péroche, J.
- , morphology of land&.—Lapparent, A. de.
- water salts.—Van't Hoff, J. H., &c.
- Seacombe (Cheshire).—Reade, T. M.
- Seaton (Devon).—Woodward, H. B., &c.
- Sebenico (Dalmatia).—Kerner, F.
- Secondary fauna, Chile.—Philippi, R. A.
- , Madagascar.—Boule, M.
- , See also Cretaceous, &c.
- Sectionizing mineral grains.—Stober, F.
- Sedimentary rocks, Archæan.—Sederholm, J. J.
- , classification, &c. of.—Frech, F.; Hopkins, T. C.; Lapparent, A. de; Lewinson-Lessing, F.; Spring, W.; Walther, J.
- , feldspars as climate-indicators.—Mackie, W.
- , homotaxis of.—Lomas, J.
- , structure of.—Jannettaz, E.
- , See also Deposition, &c.
- Sedwickia*.—Hind, W.
- Seeds, Quaternary.—Reed, C.
- Seismographs, &c.—Anon., 52; Agamennone, G.; Barrata, M.; Cancani, A.; Milne, J.; Omori, F.; Schmidt, A.; Schütt, R.
- Seismology. See Earthquakes.
- Sella massif (Dolomite Alps).—Ogilvie, M. M.
- Selle (Liège).—Destinez, P.
- SELWYN, A. R. C.—Woodward, H.
- Semmering Limestone, Austria.—Toula, F.
- Sensyite.—Spencer, L. J.
- Senonian, Brunswick.—Bode, E.; Kloos, J. H.
- , Harzrande.—Stolley, E.
- , Méhaigne Valley.—Rutot, A.
- Septarian-clay fauna.—Oppenheim, P.
- Sequoia*.—Krasser, F.; Lindgren, W., &c.; Newberry, J. S.; Richter, —.
- Seran I. (Molucca Is.).—Schröder van der Kolk, J. L. C.
- Sericitic gneiss, Taunus.—Schauf, W.
- Serpentine, Anglesey.—Bonney, T. G., &c.
- , Connecticut Valley.—Emerson, B. K.
- Serpentine, Cottian Alps.—Stella, A.
- , Davos.—Jennings, A. V.
- 'Serpentinization.'—Holland, T. H.; Merrill, G. P.
- Serpula*.—Reis, O. M.; Rovereto, G.; Strahan, A.; Williston, S. W., &c.
- Serpulidæ.—Rovereto, G.; Wollemann, A.
- Servia.—Hauchecorne, W., &c.; Heguer, E., &c.
- Sethocapsa*.—Hinde, G. J.; Vinassa de Regny, P. E.
- Sethocyrtilis*.—Vinassa de Regny, P. E.
- Settle (Yorks).—Carter, W. L.
- Sett Sass (Dolomite Alps).—Ogilvie, M. M.
- Søvern R. (England).—Buckman, S. S.
- basin (lower).—King, W. W.
- Saville (Spain).—Barras de Aragon, F. de las.
- Sewalik Hills (India), Pliocene fauna.—Woodward, H.
- Sézanne (Marne).—Langeron, M.
- Shale-manure, Tuscaany.—Ancona, G. d'.
- Shales, brick-making.—Ries, H.
- Shankhill (Co. Dublin).—O'Reilly, J. P.
- Shan-tung (China).—Dieseldorff, A.
- Sharks, Bruxellian.—Delheid, E.
- Shear-planes, Dolomite Alps.—Ogilvie, M. M.
- Sheffield Waterworks.—Watts, W.
- Shell-deposits, how formed.—Harmer, F. W.
- Shingle-grading.—Cornish, V.; Wheeler, W. H.
- Shore-lines.—Gulliver, F. P.; Högbom, A. G.
- , *Litorina*-sea.—Ailio, J.
- Shropshire.—King, W. W.
- Siberia.—Batz, R. de; Derjavine, A.; Dun, R. L.; Kulakov, P. V.; Petz, H. H. von; Suess, E., &c.; Thiesz, F.
- , See also Congress.
- Sicily.—Gemmellaro, G. G.; Gregorio, A. de; Marinelli, O.; Matteucci, R. V.; Nelli, B.; Stefano, G. di.
- Siderolites.—Hartley, W. N., &c.
- Sidmouth (Devon).—Woodward, H. B., &c.
- Siebengebirge (Rh. Pruss.).—Kloos, J. H.; Stürtz, B.
- Siebenbürgen. See Transylvania.
- Siegenfeld (L. Austria).—Schaffer, F.
- Sierra Nevada. See Nevada, Sierra.
- Sigaretus*.—Steinmann, G.
- Sigillaria*.—Frech, F.; Potonié, H.; Zeiller, R.
- Silesia.—Bertrand, M.; Frech, F.; Hauchecorne, W.; Kerner, F.; Pelikan, A.; Stache, G., &c.
- Silica, Simplon Tunnel hydrated.—Spezia, G.
- Siliceous grains in chalk.—Meunier, S.
- Siliqua*.—Reis, O. M.
- Sill, Tideswell Dale dolerite.—Arnold-Bemrose, H. H. See also Dykes.
- Silurian, Anglesey.—Greenly, E.

- Silurian, Baltic.—Ravn, J. P. J.; Schmidt, F.; Stolley, E.
 —, Belgium.—Velge, G.
 —, Bohemia.—Jahn, J. J.; Perner, J.; Semper, M.; Waagen, W.
 —, Brazil.—Katzer, F.
 —, Calais.—Barrois, C.
 —, Canada.—Grant, C. C.; Whiteaves, J. F.
 —, Colorado.—Spurr, J. E.
 —, England (Central).—Anon., 22.
 —, Finistère.—Kerfome, F.
 —, Iowa.—Calvin, S.; Norton, W. H.; Udden, J. A.
 —, Ireland.—Gardiner, C. I.; Geikie, Sir A.; Reed, F. R. C.
 —, Malverns.—Groom, T. T.
 —, Mexico.—Felix, J.
 —, New South Wales.—Etheridge, R., Jun.
 —, New York State.—Prosser, C. S.
 —, Russia.—Huene, F. H. von; Venukov, P. N.
 —, Scotland.—Peach, B. N., &c.
 —, Sweden.—Erdmann, E.; Holm, G.; Kiär, J.; Lindström, G.; Törnquist, S. L.
 —, Tennessee.—Safford, J. M., &c.
 —, Victoria (Austr.).—Hall, T. S.; McCoy, Sir F.
 —, Wales.—Elles, G. T.; Greenly, E.; Lapworth, H.
 Silver, Australasian.—Coghlan, T. A.
 —, California.—Beck, R.
 —, Chile.—Labastie, F.
 —, Colombia.—Granger, H. G., &c.; Nichols, H. W.
 —, Colorado.—Purington, C. W.; Rickard, F.
 —, Hungary.—Böckh, J., &c.
 —, Mexico.—Landers, C. F.; Ordóñez, E.
 —, Montana.—Weed, W. H., &c.
 —, New South Wales.—McLachlan, D. C.; Pittman, E. F., &c.
 —, Norway.—Vogt, J. H. L.
 —, Queensland.—Skertchly, S. B. J.; Stokes, H. G.
Simia.—Pomel, A.
Simoceras.—Canavari, M.
 SIMONY, F.—Böhm, A. von.
 Simplon Tunnel (Lepontine Alps).—Spezia, G.
 Sinai, Mount (Arabia).—Hull, E.
 Simemurian.—Pompeckj, F.
Siphonalia.—Cossmann, M.
 Siphonæ, Silurian.—Stolley, E.
 Sitka I. (Alaska).—Szachno, M.
 Sittendorf (L. Austria).—Bittner, A.
 Sjøland (Denmark).—Milthers, V.; Rørdam, K.
 Skagen (Denmark).—Jessen, A.
 Skern R. (Durham).—Manson, R. T.
 Skipton (Yorks).—Dakyns, J. R.
 Skye, I. of.—Clough, C. T., &c.; Geikie, Sir A.; Harker, A.
 Slates.—Anon., 66; Day, W. C.; Herrmann, O.
 Slates, floating.—Nordenskjöld, E.
 Slaty cleavage.—Spring, W.
 Slavonia (Hungary).—Gorjanovič-Kramberger, K.
 Slickensided pebbles.—Marr, J. E.
Stimonia.—Semper, M.
 Sloth.—Anon., 50; Hauthal, R., &c.; Gallardo, A.; Gaudry, A.; Moreno, F. P., &c.; Woodward, A. S.
Smilax.—Newberry, J. S.; Noé, A.
Smitodon.—Cope, E. D.
 Smithsonite.—Kunz, G. F.; Warren, C. H.
 Snake, Eocene.—Lucas, F. A.
 Snake R. (Ido.).—Maguire,—
 Snowdon (N. Wales).—Dakyns, J. R.
 Soapstone.—Parker, E. W.
 Soda-salt, Ruzanda Lake.—Kalecsinszki, A.
 Soils, Belgium.—Cesàro, G.
 —, Central American.—Sapper, C.
 —, Congo.—Carpiaux, E.
 —, Denmark.—Rørdam, K.
 —, descriptions of.—Elsden, J. V.; Means, T. H.
 —, Dorset.—Luxmoore, C. M.
 —, Hawaiian Is.—Maxwell, W.
 —, Hesse.—Lüdecke, C.
 —, Hungary.—Hornsitzky, H.; Treitz, P.
 —, Iowa.—Bain, H. F.; Beyer, S. W.; Calvin, S.; Macbride, T. H.; Norton, W. H.; Udden, J. A.
 —, Perthshire.—Coates, H.; Smith, F.
 —, rain &c.—Van den Broeck, E.
 —, Russia.—Sibirzev, N.
 —, temperature of.—Mellish, H.
 —, water-penetration.—Rutot, A.
 Sokotra, I.—Forbes, H. O.; Gregory, J. W.; Kossmat, F., &c.
Solanum.—Andersson, G.
Solariella.—Cossmann, M.; Dall, W. H.; Rutot, A.
Solarium.—Brives, A.; Cossmann, M.; Steimann, G.
Solen.—Reis, O. M.; Steinmann, G., &c.
Solenocheilus.—Tzwetæv, M.
Solenocurtus.—Skeat, E. G., &c.
Solenomya.—Beede, J. W., &c.
Solenotellina.—Vincent, E.
 Solfataras, Mexico.—Aguilera, J. G., &c.
 Solway Moss (Cumberland).—Holmes, T. V.
 Somaliland (E. Africa).—Gregory, J. W.; Lacroix, A.
 Somerset.—Andrews, C. W.; Mansel-Pleydel, J. C.; Whidborne, G. F.
 Somme R. (France).—Leriche, M.
Somphospongia.—Beede, J. W.
 Sondershausen (Schwarzburg).—Picard, K.
 Sonnendorf (Weimar).—Wüst, E.
 Sonora (Mexico).—Dumble, E. T.
 SOPWITH, T.—Whitaker, W.
 Soraruaz (Tyrol).—Ogilvie, M. M.

- Sorel Point (Jersey).—Parkinson, J.
Sorex.—Gaillard, C.
 Sorrel, Mount (Leicester).—Watts, W.
 W.
 South Australia. See Australia (S.).
 Southampton (Hants).—Whitaker, W., &c.
 Souv r  (Vis ).—Destinez, P.
 Spa (Li ge).—Damseaux, A. de.
 Spain.—Alzola, P. de; Anon., 36; Gill, W.; Head, J.; Hudleston, W. H.; Hull, E.; Vogt, J. H. L.; Wilson, A. P. See also Manganese, &c.
Spalacotherium.—Strahan, A.
Spanila.—Venukov, P. N.
Sparganium.—Andersson, G.
 Sparnacian.—Leriche, M.
Spatangus.—Schl ter, C.
Spathiocaris.—Holzapfel, E.
 SPENCER, J.—Law, R.
Sph rites.—Arthaber, G. von.
Sph rium.—Leriche, M.
Sph roceras.—Greppin, E.
Sph rodictya.—Hall, J., &c.
Sph ropyle.—Vinassa de Regny, P. E.
 Sph rosiderite.—Kloos, J. H.
Sph rozoum.—Hinde, G. J.
Sph rucarpina.—Felix, J., &c.
Sphenacanthus.—J kel, O.; Wellburn, E. D.
Sphenia.—Dall, W. H.
Sphenophyllum.—Frech, F.; Zeiller, R.
Sphenopteridium.—Frech, F.
Sphenopteris.—Dun, W. S.; Frech, F.; Newberry, J. S.; Potoni , H.; Zeiller, R.
Sphenothallus.—R demann, R.
 Spherulites.—Diller, J. S.; Williams, H. S.
 Spherulitic basalt.—Clough, C. T., &c.
Sphirma.—Vinassa de Regny, P. E.
 Spice Is. (D. E. I.).—Schr der van der Kolk, J. L. C.
 Spinel.—Clough, C. T., &c.
Spirifer.—Burhenne, H.; Diener, C.; Frank, W.; Frech, F.; Kayser, E.; Scupin, H.; Tchernyshev, T., &c.; Venukov, P. N.
Spiriferina.—Diener, C.; Frech, F.; Toula, F.
Spirigerella.—Diener, C.
Spiroplecta.—Chapman, F.
Spirorbis.—Rovereto, G.
Spirula.—Dall, W. H.
Spirulirostra.—Parona, C. F.
 Spitsbergen.—Bruce, W. S.; Fromme, J.; Garwood, E. J.; Nathorst, A. G.
Spondylus.—Dall, W. H.; Gregorio, A. de.
 Sponge-spicules, Lake Balaton mud.—Traxler, L.
 Sponges, Carboniferous.—Beede, J. W.; Hall, J., &c.; Sollas, W. J.; Tchernyshev, T.
 —, Cretaceous.—Martin, E. A.; Ravn, J. P. J.
 —, Devonian.—Whiteaves, J. F.
 —, earth's crust &c.—Cole, G. A. J.
 Sponges, Permo-Carboniferous.—Tchernyshev, T.
 —, Silurian.—Etheridge, R., Jun., &c.; Hall, J., &c.
Spongoc lia & *Spongolonche*.—Hinde, G. J.
Spongodiscus.—Hinde, G. J.; Vinassa de Regny, P. E.
Spongolonchus.—Vinassa de Regny, P. E.
Spongophyllum.—Etheridge, R., Jun.
Spongoplegma, *Spongotropis*, & *Spongurus*.—Hinde, G. J.
Sportella.—Dall, W. H.
 SPRINGER, F.—Bather, F. A.
 Springs, Knaresborough.—Burrell, B. A.
Squama.—Williston, S. W., &c.
Squatina.—Woodward, A. S.
Stacheoceras.—Diener, C.
Stachys.—Andersson, G.
 Staffordshire.—Anon., 29; Geikie, Sir A.; Gibson, W.; King, W. W.; Lapworth, C., &c.; Wedd, C. B.
 Staines (Middlesex).—Allen, H. A.
 Staked Plains (Tex.).—Simpson, C. T.
 Stanthorpe (Queensl.).—Skertchly, S. B. J.
 Stanwell (Queensl.).—Dunstan, B.
 Stanwix Shales.—Holmes, T. V.
 Start Point (Devon) to Eddystone, seabottom.—Allen, E. J., &c.; Worth, R. H.
 Stassfurt (Prussia).—Lang, O.; Nitze, H. B.; Van't Hoff, J. H., &c.
 Staten I. (N.Y.).—Hollick, A.
Staurodon.—Roth, S.
Staurodruppa.—Fox, H.; Hinde, G. J.
Staurolastrum.—Vinassa de Regny, P. E.
Staurolonche & *Staurolonchidium*.—Hinde, G. J.
Stauronema.—Strahan, A.
Staurosphera.—Hinde, G. J.
 Stavelot (Li ge).—Dewalque, G.; De Windt, J.; Limburg-Stirum, A. de.
 Steenstrupinite.—M berg, J. C.
Stegaster.—Anthula, D. J.; Bonarelli, G.
Stegodon.—Woodward, H.
 Stellenbosch district (Cape Colony).—Rogers, A. W., &c.
Stephanoceras.—Greco, B.
Stephanophyllia.—Tomes, R. F.
 Stephenson Co. (Ill.).—Hershey, O. H.
 Steppes.—Rein, J.
Sterculia.—Hollick, A.; Kirchner, W. C. G.
Stereosternum.—Geinitz, H. B.
 Stettin (Pomerania).—Keilhack, K.
 Stevens Klint (Sk ne).—Gr nwall, K. A.
Stiboriopsis.—Vaughan, T. W.
Stichocapsa & *Stigmosph ra*.—Hinde, G. J.; Vinassa de Regny, P. E.
Stichocorys.—Vinassa de Regny, P. E.
Stigmosph rostylus.—Hinde, G. J.
 Stinking Creek (N. Z.).—Skey, W.
 Stockhorn (Bernese Alps).—Schardt, H.

- Stokesite.—Hutchinson, A.
 Stolzite.—Hlawatsch, C.
 Stomatia.—Greco, B.
 Stomatograptus.—Perner, J.
 Stonehaven (Kincardine).—Barrow, G., &c.
 Stone-implements. *See* Implements.
 — industry.—Atkinson, J. B., &c.; Elsdon, J. V.; Foster, C. Le N., &c.
 Stora, Lake (Norrbotten).—Svenonius, F.
 Storr (Skye).—Heddle, M. F.
 Stourton (Cheshire).—Seeley, H. G.
 STRABO on Vesuvius.—Lorenzo, G. de.
 Stramberg (Moravia).—Remeš, M.
 Stramentum.—Williston, S. W., &c.
 Strata, age of.—Marsh, O. C.
 —, plant-formed.—Potonié, H.
 Strathearn (Inverness).—Wallace, T. D.
 Stratification-planes.—Keyes, C. R.
 Stratigraphical classification.—Bittner, A.; Blake, J. F.; Frech, F.; Lapparent, A. de. *See also* Rock-classification.
 — synthesis.—Van den Broeck, E.
 Strebotrypa.—Whidborne, G. F.
 Strepsodus.—Wellburn, E. D.
 Streptorhynchus.—Venukov, P. N.
 Stria, Belgian pseudo-glacial.—Stainier, X. *See also* Glaciation, &c.
 Strombina.—Brives, A.
 Stromboli (Lipari Is.).—Bergeat, A.; Bonney, T. G.; Matteucci, R. V.
 Strombus.—Martin, K.; Steinmann, G., &c.
 Strophocrinus.—Sardeson, F. W.
 Strophodonta & Strophostylus.—Kayser, E.
 Strophomena.—Burhenne, H.; Venukov, P. N.
 Struthiolaria.—Steinmann, G., &c.]
 Stuckenbergia.—Tchernyshev, T.
 Sturia.—Toula, F.
 Stylactus, Styloctya, & Stylosphæra.—Hinde, G. J.
 Styliana.—Gregorio, A. de.
 Stylocenia.—Vaughan, T. W.
 Stylodiscus.—Vinassa de Regny, P. E.
 Styria (Austria).—Dörler, A. F.; Dreger, J.; Gorjanovič-Kramberger, K.; Heerius, C.; Hilber, V.; Hörnes, R.; Ippen, J. A.; Noé, A.; Östreich, K.; Sigmund, A.; Stache, G., &c.; Toula, F.
 Subærial rock-decomposition.—Holland, T. H.; Merrill, G. P. *See also* Weathering, &c.
 Subclymenia.—Frech, F.
 Sublacensi, Monti (Rome).—Viola, C.
 Submarine geography. *See* Oceanography.
 — gullies.—Benest, H.
 — plateau, Europe.—Fisher, O.; Hudleston, W. H.; Hull, E.; Spencer, J. W.
 — rock-decomposition.—Holland, T. H.
 — — — — drill.—Joly, J.
 — — — — shallows.—Hudleston, W. H.
 Submerged forest, Hoylake.—Sopp, E. J. B.
 Subnodus-shales, Vicentino.—Törnquist, A.
 Subsidences, Brüx.—Launay, L. de; Suess, F. E.
 —, Finland.—Sernander, R.
 Succinea.—Wüst, E.
 Sudan (N. Africa).—Anon., 69.
 Sulcoactæon.—Skeat, E. G., &c.
 Sulitelma Glacier (Scandinavia).—Westman, J.
 Sulphur, Belgium.—Buttgenbach, H.
 —, Croatia.—Koch, F.
 — crystals.—Brauns, R.; Salomon, W.
 —, Sardinia.—Millosevich, F.
 —, Silesia.—Hauchecorne, W.
 —, Spain.—Wilson, A. P.
 —, United States.—Parker, E. W.
 Sulzberg (Tyrol).—Hammer, W.
 Sumatra (D. E. I.).—Frech, F.; Milch, L.; Newton, R. B., &c.; Volz, W.
 Summit Hill (Pa.).—Morganroth, W. C.
 Sun-spots, volcanic eruptions &c.—O'Reilly, J. P.
 Superior, Lake (N. Am.).—Birkinbine, J.; Coleman, A. P.; Gilbert, G. K.; Head, J., &c.; Taylor, F. F.; Winchell, A. N. *See also* Lakes.
 Surface-cracks, Ireland.—Fennell, C. W.
 — deposits, S. Africa.—Corstorphine, G. S., &c. *See also* Soils, Drift, &c.
 Surrey.—Coomara-Swamy, A. K.; Elsdon, V., &c.; Stebbing, W. P. D.
 Surveying & geological surveys. *See* Geological.
 — magnetic iron-ore.—Dahlblom, T.
 Sus.—Gaillard, C.; Harlé, E.
 Susa Valley (Piedmont).—Piolti, G.
 Süssenborn (Weimar).—Michal, P.; Weiss, A.; Wüst, E.
 Sussex.—Chapman, F.; Dawson, C.; Elsdon, J. V., &c.; Martin, E. A.; Sherborn, C. D.; Whitaker, W.
 Sussex Co. (N. J.).—Wolf, J. E.
 Swabia. *See* Württemberg.
 SWALLOW, G. C.—Broadhead, G. C.
 Swallow-holes. *See* Caverns.
 Swanage (Dorset).—Strahan, A.
 Swaziland (S. Africa).—Hampton, J. H.; Jones, T. R.; Molengraaff, G. A. F.; Prior, G. T.
 Sweden.—Åkerman, R.; Andersson, G.; Andersson, J. G., &c.; Bauerman, H.; Beck, R.; Benedicks, C.; Erdmann, E.; Geer, G. de; Grönwall, K. A.; Hedburg, N.; Hedström, H.; Hennig, A.; Högbom, A. G.; Hollender, A.; Holm, G.; Holmquist, P. J.; Holmström, L.; Hulth, J. M.; Kiär, J.; Lindström, A.; Louis, D. A.; Lundböhlm, H.; Nordenström, G.; Petersson, W.; Svedmark, E.; Svenonius, F.; Teyssier, —; Törnquist, S. L.; Westman, J.
 Sweetland Creek Beds.—Udden, J. A.

- Swellendam district (Cape Colony).—Rogers, A. W., &c.; Schwarz, E. H. L.
- Switzerland.—Etlin, E.; Favre, A., &c.; Forel, F. A.; Hauchecorne, W., &c.; Hug, O.; Lomas, J.; Loriol, P. de; Mäesch, C.; Mühlberg, F.; Richter, E.; Rollier, L.; Schardt, H.; Studer, T.; Tobler, A.; Tribolet, M. de. *See also* Alps, &c.
- Sycium*.—Cope, E. D.
- Syenite.—Cushing, C. H., Jun.; Herrmann, O. *See also* Igneous Rocks.
- Syn Gill (Cumberland).—Mantle, H. G.
- Synthesis, stratigraphical.—Van den Broeck, E.
- Syria (Asia Minor).—Kinkelin, F.
- Syringodendron*.—Potonié, H.
- Syringopora*.—Etheridge, R., Jun.
- Szovata (Hungary).—Lengyel, B. von.
- Tabarca, (Tunisia).—Prost, A.
- Table Mountain Sandstone Series.—Cortorphine, G. S., &c.
- Tachylite.—Termier, P. *See also* Igneous rocks.
- Tæniopteridæ.—Dun, W. S.
- Tænite.—Fletcher, L.
- Taimyrite.—Læwinson-Lessing, F.
- Talc, New York State.—Smyth, C. H., Jun.
- Taligrada.—Osborn, H. F.
- Talpa*.—Gaillard, C.
- Taman (S. Russia).—Bayard, —.
- Tammerfors (Finland).—Sederholm, J. J.
- Tampa (Florida).—Dall, W. H.
- Tamworth (N.S.W.).—David, T. W. E., &c.; Etheridge, R., Jun.; Hinde, G. J.
- Tancredia*.—Skeat, E. G., &c.
- Tanganyika plateau (Equatorial Africa).—Boileau, F. F. R.; Wallace, L. A.
- Tantalite.—Warren, C. H.
- Tapes*.—Reis, O. M.
- Tapiolite.—Warren, C. H.
- Taracz Valley (Hungary).—Pošewitz, T.
- Tarannon Series.—Peach, B. N., &c.
- Taranto (Apulia).—Verri, A., &c.
- Tasmania.—Coghlan, T. A.; Hall, T. S.; Hogben, G.; Sandeman, J. J.; Twelvetrees, W. H., &c.
- Taunus (Hesse).—Frank, W.; Lüdecke, C.; Schauf, W.
- Taupo (N.Z.).—Friedlander, B.
- Taxites*.—Hjorth, A.
- Taxocrinus*.—Whidborne, G. F.
- Taxodium*.—Newberry, J. S.
- Tay R. (Perth).—Coates, H.; Smith, F.
- 'Tchernozom.'—Sibirtzev, N.
- Teesdale (Durham, &c.).—Manson, R. T.
- Teeth, crustacean gastric.—Jones, T. R.
- , fishes.—Woodward, A. S.
- , mammalian.—Ameghino, F.
- Tegulifera*.—Schellwien, E.
- Teinostoma*.—Dall, W. H.
- Teleoceræ*.—Osborn, H. F.
- Teleopternus*.—Cope, E. D.
- Tellina*.—Dall, W. H.; Ihering, H. von; Mayer-Eymar, C.; Reis, O. M.
- Tellina Valley, Lombardy.—Brugnatelli, L.
- Telluride, Australasia.—Coghlan, T. A.
- , Colorado.—Purinton, C. W.
- , distribution of, &c.—Hintze, G.
- Temnocheilus*.—Toula, F.; Tzwetæv, M.
- Temperature, underground.—Fisher, O.; Haldane, J. S.
- Teneriffe.—De Windt, J.
- Tennantite.—Prior, G. T., &c.
- Tennessee (U.S.A.).—Day, T. D.; Safford, J. M., &c.
- Tentaculites*-shales.—Burhenne, H.
- Teplitz (Bohemia).—Launay, L. de; Suess, F. E.
- Terebellum*.—Martin, K.
- Terebralia*.—Ugolini, P. R.
- Terebratella*.—Redlich, K. A.
- Terebratula*.—Anthula, D. J.; Athanasii, S.; Greco, B.; Gümbel, C. W. von, &c.; Lahille, F.; Posselt, H. J.; Redlich, K. A.; Rutot, A.; Strahan, A.
- Terebratulina*.—Athanasii, S.
- Terebratuloidea*.—Frech, F.
- Ternera (Chile).—Steinmann, G., &c.
- Terraces, Connecticut Valley.—Emerson, B. K.
- Tertiary, Alabama.—Lucas, F.
- , Algeria.—Brives, A.
- , America (N.).—Newberry, J. S.
- , Argentina.—Ameghino, F.; Mercerat, A.
- , Au.—Arthaber, G. von.
- , Australia (S.).—Tate, R.
- , Austria.—Abel, O.; Noé, A.; Östreich, K.; Redlich, K. A.; Schaffer, F.
- , Bavaria.—Gümbel, C. W. von, &c.; Reis, O. M.; Weithofer, K. A.
- , Belgium.—Bayet, L.; Bernay, E.; Delheid, E.; Dewalque, G.; Dollfus, G.; Ertborn, O. van; Gosselet, J.; Mourlon, M.; Raeymaekers, D.; Rutot, A.; Van den Broeck, E.; Velge, G.; Vincent, E.; Vincent, G.
- , Borneo.—Martin, K.
- , Bulgaria & Herzegovina.—Oppenheim, P.
- , Burma.—Grimes, G. E.
- , camels.—Wortman, J. L.
- , Canada (N.W.).—Cope, E. D.
- , climates.—Harmer, F. W.; Semper, M.
- , Denmark.—Grönwall, K. A.; Ravn, J. P. J.
- , dislocations, Scania.—Hennig, A.
- , Dorset.—Reid, C.; Strahan, A.
- , Egypt.—Andrews, C. W.; Blaukenhorn, M.; Fourtau, R.; Mayer-Eymar, C.; Newton, R. B.; Priem, F.
- , England (E.).—Harmer, F. W.; Woodward, A. S.

- Tertiary, Europe.—Harmer, F. W.; Schlosser, M.
 —, France.—Dollfus, G., &c.; Gosselet, J.; Kilian, W.; Leriche, M.; Rivière, E.
 —, Frankfort-on-Main.—Kinkelin, F.
 —, Hanau.—Reinach, A. von.
 —, Hanover.—Kloss, J. H.
 —, Hesse.—Wittich, E.
 —, Hungary.—Böckh, H.; Gorjanovič-Kramberger, K.; Koch, A.; Oppenheim, P.; Schlechtendal, D. von.
 —, India (N.W.).—Earland, A.; Skinner, B. M.; Woodward, H.
 —, Istria.—Oppenheim, P.
 —, Italy.—Bosco, G.; Dervieux, E.; Engelhardt, H.; Fornasini, C.; Gregorio, A. de; Neviani, A.; Oppenheim, P.; Parona, C. F.; Peola, P.; Portis, A.; Rebel, H.; Roccati, A.; Rovereto, G.; Sangiorgi, D.; Schaffer, F.; Stefani, C. de, &c.; Stefano, G. di; Verri, A., &c.
 —, Jamaica.—Hill, R. T., &c.
 —, Mexico.—Felix, J., &c.
 —, Moldavia.—Athanasii, S.
 —, Morocco.—Thomson, J.
 —, (Enining, Major, C. I. F.
 —, oolitic iron, Kressenberg.—Reis, O. M.
 —, Patagonia.—Ameghino, F.; Andrews, C.; Cossmann, M.; Ihering, H. von; Mercerat, M.
 —, Peru.—Steinmann, G., &c.
 —, plants, &c. *See* Plants, &c.
 —, Rhodes I. (Ægean Sea).—Bukowski, G. von.
 —, Rumania.—Priem, F.; Teisseyre, W.
 —, Russia.—Andrusov, N.; Sokolov, N.
 —, Salvages Is.—Böhm, J.
 —, Schleswig-Holstein.—Oppenheim, P.
 —, sea.—Dollfus, G.; Semper, M.
 —, Sheppey.—Andrews, C. W.
 —, Sumatra.—Newton, R. B., &c.
 —, Surrey.—Elsden, V., &c.
 —, Tyrol.—Weithofer, K. A.
 —, United States.—Dall, W. H.; Johnson, C. W.; Scott, W. B.
 —, volcanoes, Apsaroka.—Hague, A.
 —, Wight (I. of).—Newton, E. T.
 Tervueren (Brabant).—Velge, G.
 Tête Puget (Bouches-du-Rhône).—Fournier, E.
Tetragraptus.—Hall, T. S.; Meek, A.
 Teutoburger-Wald (Prussia).—Wollemann, A.
 Texada I. (Br. Columbia).—Raper, A.
 Texas (Queensland).—Stokes, H. G.
 Texas (U.S.A.).—Douvillé, H.; Harper, H. W.; Hill, R. T., &c.; Parker, E. W.; Simonds, F. W.
Textularia.—Chapman, F.; Williston, S. W.
Thalassoceras.—Frech, F.
 Thalenite.—Benedicks, C.
 Thalite.—Winchell, N. H.
 Thame Valley.—Davies, A. M.; Kennard, A. S.
Thamnastræa & *Thecosmilia*.—Strahan, A.
Thamnodictya.—Hall, J., &c.
Thamatopteris.—Hjorth, A.
Thecidium.—Posselt, H. J.
Thecocyathus.—Reis, O. M.
Theocampe.—Vinassa de-Rigny, P. E.
Theodiscus.—Hinde, G. J.; Vinassa de Rigny, P. E.
Theosyringium.—Hinde, G. J.
 Thermal waters, Bohemia.—Knett, J.; Suess, F. E.
 —, Budapest.—Kalecsinszki, A. von.
 —, Casciana.—Maccaferri, R., &c.
 —, Central France.—Suess, F. E.
Thetis.—Anthula, D. J.; Skeat, E. G., &c.
Thinnfeldia.—Hjorth, A.; Hollick, A.; Steinmann, G., &c.
 Thomsonite.—Friedel, C.; Kaiser, E.; Winchell, A. N.
Thracia.—Dall, W. H.; Reis, O. M.; Skeat, E. G., &c.; Strahan, A.
 Thrust-planes, Malverns.—Groom, T. T.
Thuja.—Newberry, J. S.
 Thuringia (Germany).—Wüst, E.; Zimmermann, E.
Thysanodictya.—Hall, J., &c.
 Tian-Shan massif (Asia).—Friederichsen, M.
 Tide-transportation, sea-coast.—Wheeler, W. H.
 Tideswell Dale (Derby).—Arnold-Bemrose, H. H.
 Tierra del Fuego (S. Am.).—Norden-skjöld, O. *See also* Magellan Terr., &c.
Tilia.—Andersson, G.
 Till. *See* Drift, &c.
 Timan Range (Russia).—Tchernyshev, T.
Timanites.—Holzapfel, E.
 Tin, Bolivia.—Pasley, C. S.
 —, Cornwall.—Collins, J. H.; Hampton, J. H.
 —, Dutch East Indies.—Schuurman, J. A.; Verbeek, R. D. M.
 —, New South Wales.—McLachlan, D. C.
 —, Perak.—Hampton, J. H.
 —, Queensland.—Skertchly, S. B. J.
 —, Swaziland.—Hampton, J. H.; Molengraaff, G. A. F.
 —, Tasmania.—Hampton, J. H.
 Tinguaité.—Weed, W. H., &c.
 Tipperary (Ireland).—Geikie, Sir A.
 Tirah (N.W. India).—Hayden, H. H.
 Tirlmont (Brabant).—Raeymaekers, D.
 Titanates.—Prior, G. T.
 Titanite.—Boeris, G.
Titanotherium.—Osborn, H. F.
 Tithonian.—Kilian, W.; Remeš, M.
 Toarcian.—Anthelin, C.
 Toba Lake (Sumatra).—Volz, W.
 Tohogne (Luxemburg).—Destinez, P.

- Tölz (Bavaria).—Gümbel, C. W. von, &c.
 Tomsk (Siberia).—Derjavine, A.; Petz, H. H. von.
 Tonalite.—Lepsius, R.; Salomon, W.
 Tonbridge (Kent).—Seeley, H. G.
 Tongres (Limbourg).—Dewalque, G.
 Topaz.—Eakle, A. S.; Kunz, G. F.; Maguire, —.
 Topeka Mines (Colo.).—Lakes, A.
 Topography, geology, &c.—Kahle, P.
 Torbanite.—Bertrand, C. E.
Torellella.—Holm, G.
Tornatella.—Greppin, E.; Vincent, E.
Tornoceras.—Holzapfel, E.
 Torquay (Devon).—Ussher, W. A. E.
 Torsion-structure, Dolomite Alps. — Ogilvie, M. M.
 Tortoises, Tertiary.—Arthaber, G. von.
 Tortonian.—Sangiorgi, D.
 Tortworth (Gloucester). — Morgan, C. L.
 Toulouse (Haute-Garonne).—Harlé, E.
 Touraine (France).—Dollfus, G., &c.
 Tourmaline.—Clarke, F. W.; Kunz, G. F.; Manasse, E.; Penfield, S. L., &c.; Rheineck, H.; Tschermak, G.
 Tournai (Hainaut).—Velge, G., &c.
Toxaspis.—Cope, E. D.
Toxochelys.—Williston, S. W., &c.
Trachybembix.—Törnquist, A.
Trachyceras.—Nelli, B.; Törnquist, A.
Trachydomia.—Nelli, B.
 Trachyte.—MacLeod, W. A.; Pampaloni, L.; Sabatini, V.; Twelvetrees, W. H., &c.
 Tramore Limestone.—Reed, F. R. C.
Tramoria.—Reed, F. R. C.
 Transcaspien* (Asia).—Rein, J.; Thiesz, F.
 Transvaal (S. Africa).—Alison, M. S.; Bawden, F. W.; Becker, G. F.; Bleloch, W.; Draper, D.; Exton, H.; Fergusson, M.; Frames, M. E.; Frech, F.; Hatch, F. H.; Kuntz, J.; Leith, G.; Molengraaff, G. A. F.; Öhmichen, H.; Sawyer, A. R.; Steuart, D. S. S.; White, F. *See also* Gold, Gravels, &c.
 Transylvania (Hungary).—Halaváts, J.; Koch, A.; Martonne, E. de; Simionescu, J.; Telegd, L. R. von.
Trapa.—Andersson, G.; Lindgren, W., &c.
 Trasimeno Lake (Umbria).—Lotti, B.
 Trau (Dalmatia).—Kerner, F. von.
 Trebizond (Asia Minor).—Lacroix, A.
 Trenton formation.—Whiteaves, J. F.
 Treuchtlingen (Bavaria).—Thürach, H.
Triactiscus.—Hinde, G. J.
 Trias, Algeria.—Blayac, J.; Ficheur, E.; Gentil, L.
 —, Alpine.—Bittner, A.; Böse, E.; Ogilvie, M. M.; Philippi, E.
 —, Asia (Central).—Bittner, A.
 —, Asia Minor.—Toula, F.
 —, Austria.—Arthaber, G. von; Bittner, A.; Böse, E.; Ogilvie, M. M.; Toula, F.
 Trias, Bear I.—Böhm, J.
 —, Brunswick.—Kloos, J. H.
 —, California.—Smith, J. P.
 —, Carolina.—Glenn, L. C.
 —, cephalopoda, &c. *See* Cephalopoda, &c.
 —, Connecticut.—Davis, W. M.
 —, Cumberland.—Anon., 67; Holmes, T. V.
 —, Digby Basin.—Bailey, L. W.
 —, footprints.—Seeley, H. G.
 —, Germany.—Branco, W. von; Endriss, K.; Fraas, E.; Herrmann, F.; Koken, E.; Lügger, —; Miller, K.; Regelmann, K.; Reis, O. M.; Van't Hoff, J. H., &c.; Zimmermann, E.
 —, Himalayas.—Bittner, A.; Diener, C.
 —, Malverns.—Groom, T. T.
 —, Mexico.—Felix, J., &c.
 —, New Jersey, &c.—Kümmel, H. B.
 — nomenclature.—Bittner, A.
 —, Sicily.—Gemmellaro, G. G.; Morinelli, O.; Nelli, B.
 —, Sondershausen.—Picard, K.
 —, Staffordshire.—Wedd, C. B.
 —, Sumatra.—Volz, W.
 —, United States.—Simpson, C. T.
 —, Vicentino.—Törnquist, A.
Tricalycites.—Hollick, A.
Trichiurides.—Wittich, E.
Trichotropis.—Dollfus, G., &c.
Tricolocampe.—Hinde, G. J.; Vinassa de Regny, P. E.
Tricolocapsa. — Vinassa de Regny, P. E.
Triconodon.—Strahan, A.
Triforis.—Martin, K.
Trigonia.—Anthula, D. J.; Benecke, E. W.; Collet, —; Hill, R. T., &c.; Philippi, R. A.; Reis, O. M.; Skeat, E. G., &c.; Strahan, A.
 Trigoniidæ.—Hind, W.
Trigonoarca.—Woods, H.
Trigonocyclus.—Hinde, G. J.
Trigonograptus.—Hall, T. S.
Trigonoosema.—Posselt, H. J.
 Trilobites, Cambrian.—Bolton, H.; Matthew, G. F.; Möberg, J. C.
 —, Carboniferous & Ordovician. — Reed, F. R. C.
 —, Devonian.—Burhenne, H.; Clarke, J. M.; Kayser, A.; Tchernyshev, T., &c.
 —, Permo-Carboniferous.—Diener, C.
 —, Silurian.—Frech, F.; Holm, G.; Ravn, J. P. J.; Reed, F. R. C.; Schmidt, F.; Venukov, P. N.
Trilonche.—Hinde, G. J.
Trimerocephalus.—Burhenne, H.
Trinacria.—Dall, W. H.
 Trinidad (W.I.).—Harrison, J. B., &c.
Trinucleus-shales.—Ravn, J. P. J.
Triumphalia.—Dollfus, G., &c.
Trionyx.—Arthaber, G. von; Cope, E. D.; Delheid, E.
 Triphylia (Greece).—Eginites, D.

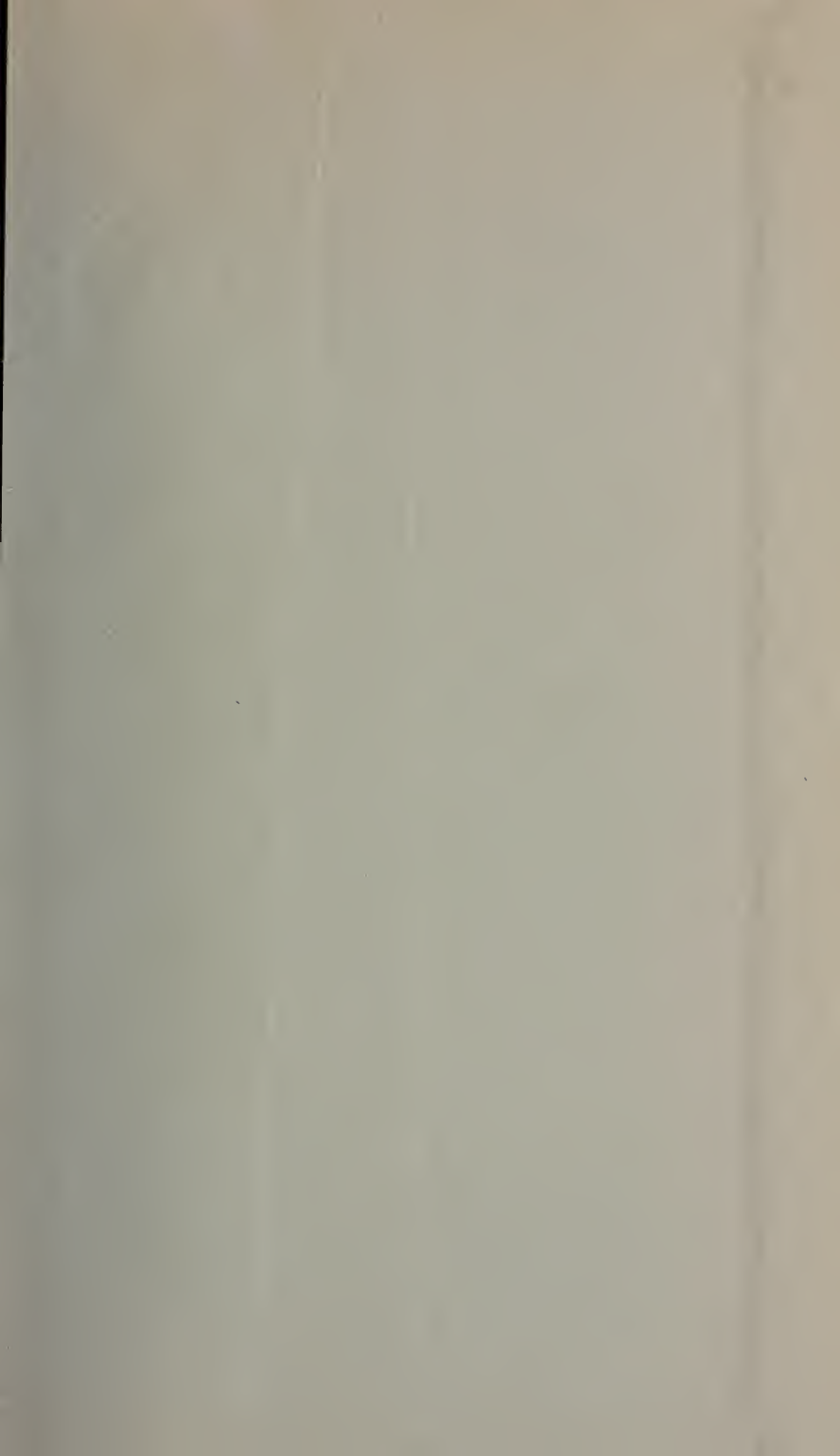
- Tripilidium*.—Hinde, G. J.; Vinassa de Regny, P. E.
- Triploporella*.—Felix, J., &c.
- Tripodictya*.—Vinassa de Regny, P. E.
- Tripoli powder.—Parker, E. W.
- Triton*.—Cossmann, M.; Martin, K.
- Tritonidea*.—Martin, K.
- Tritonium*.—Ihering, H. von.
- Trochoceras*.—Kayser, E.; Venukov, P. N.
- Trochocyathus*.—Oppenheim, P.
- Trochodiscus*.—Hinde, G. J.
- Trochoseris* & *Trochosmia*.—Vaughan, T. W.
- Trochus*.—Bernays, E.; Greco, B.; Greppin, E.; Reis, O. M.; Rutot, A.; Toul, F.
- Trögerite.—Goldschmidt, V.
- Trochite.—Cohen, E.
- Tropidoceras*.—Fucini, A.
- Troughton I. (N.W. Austral.).—Basset-Smith, P. W.
- Tuba*.—Cossmann, M.
- Tübingen (Württ.).—Koken, E.
- Tubipora*.—Delheid, E.
- Tufa, calcareous.—Cornet, J.; Grönwall, K. A.; Hulth, J. M.
- Tuffs, Bourboule.—Bréon, R.
- , Congleton Edge.—Gibson, W., &c.
- , Conway.—Rutley, F.
- , Mexico.—Felix, J., &c.
- Tugoniopsis*.—Dall, W. H.
- Tuli coalfield (Matabeleland).—Southwood, R. T.; Wilkinson, W. F.
- Tulle (Corrèze).—Suess, F. E.
- 'Tun.'—Gosselet, J.; Leriche, M.
- Tunisia (N. Africa).—Prost, A.
- Tupingate Mt. (Chilian Andes).—Bonney, T. G.
- Turbinoseris*.—Vaughan, T. W.
- Turbo*.—Dollfus, G., &c.; Greco, B.; Hawell, J.; Reis, O. M.
- Turbonella*.—Cossmann, M.
- Turin (Piedmont).—Peola, P.; Roccati, A.
- Turkestan (Asia).—Böhm, G.; Rein, J.
- Turkey.—Agamennone, G.; Glenn, W.; Hauchecorne, W., &c.; Kayser, E.
- Turk's Is. (W.I.).—Peake, R. E., &c.
- Turnerite.—Cathrein, A.
- Turonian.—Glangeaud, P.
- Turquoise.—Kunz, G. F.
- Turritiles*.—Hill, R. T., &c.
- Turritella*.—Brives, A.; Cossmann, M.; Gregorio, A. de; Kinkelin, F.; Newton, R. B.; Steinmann, G., &c.
- Turtles, Cretaceous.—Williston, S. W., &c.
- Tuscany (Italy).—Achiardi, G. d'; Ancona, G. d'; Fucini, A.; Kloos, J. H.; Manasse, E.; Rebel, H.; Salle, E.; Ugolini, P. R.
- Tussocky surface, Iceland.—Fennell, C. W.
- Tustoteuthis*.—Williston, S. W., &c.
- Twinning, crystal.—Goldschmidt, V.
- Tylodictya*.—Hall, J., &c.
- Tylosaurus*.—Williston, S. W.
- Tylostoma*.—Hill, R. T., &c.
- Tympanotodus*.—Dollfus, G., &c.
- Ty Newydd caves (Flint).—Pollen, G. C. H.
- Typhalopium*.—Krasser, F.
- Typhis*.—Johnson, C. W.
- Tyrol (Austria).—Ampferer, O., &c.; Böse, E.; Cathrein, A.; Diener, C.; Hammer, W.; Lepsius, R.; Ogilvie, M. M.; Salmon, W.; Sigmund, A. Weithofer, K. A.
- Tyrone (Ireland), granites.—Cole, G. A. J.
- Tysonite.—Hillebrand, W. F.
- Ubaghsia*.—Oppenheim, P.
- Uernös (Transylvania).—Simionescu, J.
- Uganda (Equat. Africa).—Austin, H. H.; Macdonald, J. R. L.
- Uinta formation.—Scott, W. B.
- Uintacrinus*.—Springer, F.; Williston, S. W., &c.; Woodworth, W. McM.
- Ulmaria*.—Andersson, G.
- Ulmus*.—Andersson, G.; Newberry, J. S.; Noé, A.
- Ultenthal (Tyrol).—Hammer, W.; Kunzli, E.
- Umbria (Italy).—Lotti, B.; Moderni, P.; Verri, A., &c.
- Uncia*.—Cope, E. D.
- Underground temperature. *See* Temperature.
- Undularia*.—Koken, E.
- Ungava (Labrador).—Whiteaves, J. F.
- Unicrinulus*.—Diener, C.
- Unio*.—Dall, W. H.; Newton, R. B.; Simpson, C. T.; Strahan, A.
- Unionida.—Hind, W.
- United Kingdom. *See* Great Britain, &c.
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