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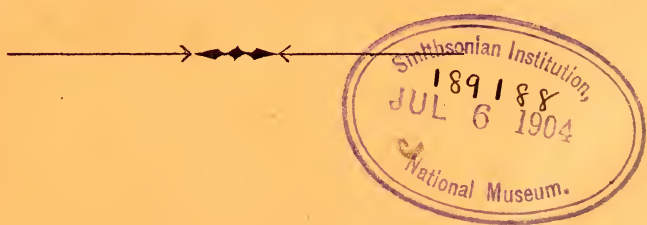
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LIST OF ABBREVIATIONS USED FOR THE NAMES OF PUBLICATIONS, SOCIETIES, AND PUBLIC BODIES.

- Aarsh.* = Aarshefter.
Abh. = Abhandlungen.
Abs. = Abstracts.
Acad. = Academy.
Actes = also Verh.
Afh. = Afhandlingar.
Agr. = Agriculture.
Allgem. = Allgemeine.
An. = Anales.
Ann. = Annals, Annuaire, Annual, etc.
Anthr. = Anthropologie, etc.
Anz. = Anzeiger.
Arch. = Archiv, Archives.
Archæol. = Archæologist, Archæology,
etc.
Årsskr. = Årsskrift.
Assoc. = Association.
Austral. = Australia, etc.
Balk. = Balkanique.
Beitr. = Beiträge.
Ber. = Bericht, Berichte.
Berg. = Bergwesen.
Bibl. = Biblical.
Biol. = Biological.
Biom. = Biometry.
Bol. = Boletim, Boletim.
Böll. = Bollettino.
Bot. = Botanical.
Bull. = Bulletin.
Bur. = Bureau.
Centralbl. = Centralblatt.
Chem. = Chemical.
Coll. = Colliery, College.
Com. = Comitato, etc.
Comm. = Comissão, etc.
Conch. = Conchology, etc.
Congr. = Congress.
C.-R. = Comptes-rendus.
Denkschr. = Denkschriften.
Dir. = Direcção, etc.
Earthq. = Earthquake.
Engin. = Engineering, Engineers.
- Erdk.* = Erdkunde.
Erläut. = Erläuterungen.
F. C. = Field-Club.
Festschr. = Festschrift.
Földt. = Földtani.
Fom. = Fomento.
Foren. = Forening.
Förh. = Förhandlingar.
Geogn. = Geognostische.
Geogr. = Geographical.
Geol. = Geological, Geologist.
Gesch. = Geschichte.
Gesellsch. = Gesellschaft.
Handl. = Handlingar.
Helv. = Helvétique.
Hist. = History.
Hofmus. = Hofmuseum.
Hütt. = Hüttenwesen, etc.
Idrogr. = Idrografico.
Industr. = Industrial.
Inst. = Institute, Institution.
Izv. = Izvestia.
Jaarb. = Jaarboek.
Jahrb. = Jahrbuch.
Jahresb. = Jahresbericht.
Jahresh. = Jahreshefte.
Journ. = Journal.
K. = Königlich, Kaiserlich, etc.
Közl. = Közlöny.
Kryst. = Krystallographie.
Landesanst. = Landesanstalt.
Landesd. = Landesdurchforschung.
Lefnadst. = Lefnadsteckningar.
Lingust. = Lingustica.
Linne. = Linnean, etc.
Lit. = Literary.
Mag. = Magazine.
Malacol. = Malacological, etc.
Mater. = Materialien, Matériaux.
Math. = Mathematisch, etc.
M. E. = Mining Engineers.
Med. = Medical, etc.

Meddel. = Meddelanden, Meddelelser.
Mem. = Memoirs, etc.
Met. = Meteorological.
Metall. = Metallurgy.
Micr. = Microscopical.
Mijnw. = Mijnwezen.
Min. = Mineralogy, Mining, etc.
Minist. = Ministerio, etc.
Monogr. = Monographs.
Mus. = Museum, etc.
N. = Neues, New, etc.
Nac. = Nacional.
Nat. = National, Natural.
Naturf. = Naturforschend.
Naturgesch. = Naturgeschichte.
Naturh. = Naturhistorisch.
Naturw. = Naturwissenschaftlich.
Ned. O.I. = Nederlandsch Oost-Indië.
Notizbl. = Notizblatt.
Nouv. = Nouveau.
N.S. = Nova Scotia.
N.Z. = New Zealand.
Observ. = Observatoire, etc.
Öfvers. = Öfversigt.
Overs. = Oversigt.
Palæont. = Palæontographical, etc.
Petr. = Petrography, etc.
Phil. = Philosophical.
Philom. = Philomathique.
Photogr. = Photographical.
Phys. = Physical, etc.
Proc. = Proceedings.
Proc.-verb. = Procès-verbaux.
Prof. = Professional.
Progr. = Progress.
Publ. = Publications.
Q. = Quarterly.

R. = Royal, Real, Reale, etc.
Rass. = Rassegna.
Rec. = Records.
Reliq. = Reliquary.
Rendic. = Rendiconti.
Rep. = Report, etc.
Rev. = Revue.
Riv. = Rivista.
Rozpr. = Rozprawy.
S. A. = South Africa.
Samml. = Sammlungen.
Sav. = Savant, etc.
Schr. = Schriften.
Schw. = Schweizer, etc.
Sci. = Science, Scientific, etc.
Selsk. = Selskab.
Senckenb. = Senckenbergisch.
Serv. = Service, etc.
Sitz. = Sitzungsberichte.
Smiths. = Smithsonian.
Soc. = Society, etc.
Summ. = Summary.
Surv. = Survey.
Tosc. = Toscana.
Trans. = Transactions, etc.
Umiej. = Umiejetości.
Undersög. = Undersögelse.
Undersökn. = Undersökning.
Univ. = University, etc.
Ver. = Verein.
Verh. = Verhandlungen.
Vidensk. = Videnskab, etc.
Wetterau. = Wetterauisch.
Zap. = Zapiski.
Zeitschr. = Zeitschrift.
Zool. = Zoology, etc.

EXAMPLES OF ABBREVIATIONS OF THE NAMES OF SOCIETIES AND PUBLIC BODIES.

Acad. Cæsarea Leopoldino-Carolina. Academia Cæsarea Leopoldino-Carolina
 Naturæ Curiosorum. Halle.
Acad. Stanislas. Académie de Stanislas. Nancy.
Akad. Umiej. Krakow. Akademii Umiejetości. Cracow.
Allgem. schw. Gesellsch. Naturw. Allgemeine schweizerische Gesellschaft für die
 gesammten Naturwissenschaften. Geneva, Zürich, &c.
Am. Acad. Arts & Sci. American Academy of Arts & Sciences. Boston (Mass.).
Am. Geol. American Geologist. Minneapolis (Minn.).
Am. Inst. M. E. American Institute of Mining Engineers. New York.
Am. Mus. Nat. Hist. N.Y. American Museum of Natural History. New York.
Am. Nat. American Naturalist. Boston (Mass.).
Analyst. Analyst (Society of Public Analysts). London.
Ann. Géogr. Paris. Annales de Géographie. Paris.
Ann. géol. Pépins. balk., Belgrade. Annales géologiques de la Peninsule balkanique.
 Belgrade.
Ann. idrogr. Rome. Annali idrografici. Rome.
Ann. Sci. nat. (Zool. & Palé.). Annales des Sciences naturelles: Zoologie &
 Paléontologie. Paris.
Arch. f. Anthr. & Geol. Schleswig-Holsteins. Archiv für Anthropologie & Geologie
 Schleswig-Holsteins & der benachbarten Gebiete. Kiel.
Arch. néerland. Sci. Archives des Sciences exactes & naturelles, publiées par
 la Société hollandaise des Sciences à Haarlem. La Haye.
Arch. Sci. phys. et nat. Genève. Archives des Sciences physiques & naturelles.
 Geneva.

- Assoc. franç. Av. Sci.* Association française pour l'Avancement des Sciences. Paris.
- Austral. Inst. M. E.* Australasian Institute of Mining Engineers. Melbourne (Vict.).
- Austral. Mus.* Australian Museum. Sydney (N.S.W.).
- Badisch. geol. Landesanst.* Grossherzoglich badische geologische Landesanstalt. Heidelberg.
- Beitr. Geophys. Leipzig.* Beiträge zur Geophysik. Leipzig.
- Beitr. Paläont. Oesterr.-Ung.* Beiträge zur Paläontologie & Geologie (Österreich-Ungarns & des Orients). Vienna.
- Berg-hütt. Jahrb. Wien.* Berg- & hüttenmännisches Jahrbuch der kaiserlich-königlichen Bergakademien zu Leoben & Pöföram & der königlich-ungarischen Bergakademie zu Schemnitz. Vienna.
- Berwicks. Nat. Club.* Berwickshire Naturalists' Club. Alnwick.
- Biol. Soc. Washington.* Biological Society of Washington. Washington (D.C.).
- Bristol Mus.* Bristol Museum. Bristol.
- Brit. Assoc. Waterworks Eng.* British Association of Waterworks Engineers. London.
- Canad. Rec. Sci.* Canadian Record of Science. (Natural History Society of Montreal.) Montreal.
- Carolina (N.) Geol. Surv., Econ. Papers.* North Carolina Geological Survey: Economic Papers. Raleigh (N. Car.).
- Carte géol. Suisse.* Carte géologique de la Suisse. Berne.
- Centralbl. f. Min.* Centralblatt für Mineralogie, Geologie & Paläontologie. Stuttgart.
- Chem. News.* Chemical News. London.
- Coll. Guard.* Colliery Guardian. London.
- Coll. Sci. Tokyo.* College of Science, Imperial University. Tokyo.
- Colo. Coll. Studies.* Colorado College Studies. Colorado Springs (Colo.).
- Com. geol. España.* Comisión del Mapa geológico de España. Madrid.
- Com. géol. Russie.* Comité géologique. St. Petersburg.
- Comm. geogr. e geol. São Paulo.* Comissão geographica & geologica de São Paulo. São Paulo (Brazil).
- Comm. géol. Finlande.* Commission géologique de Finlande. Helsingfors.
- Congrès Soc. sav. Paris.* Congrès des Sociétés savantes. Paris.
- Connect. Acad.* Connecticut Academy of Arts & Sciences. New Haven (Conn.).
- Cotteswold Nat. F. C.* Cotteswold Naturalists' Field-Club. Gloucester.
- Dan. geol. Undersög.* Danmarks geologiske Undersögelse. Copenhagen.
- Dansk geol. Fören.* Dansk geologisk Förening. Copenhagen.
- Dep. Geol. Indiana.* Department of Geology & Natural Resources of Indiana. Indianapolis (Ind.).
- Dep. Lands, W. Austral.* Department of Lands & Surveys. Perth (W. A.).
- Dep. Mines, N.S.* Department of Mines of Nova Scotia. Halifax (N.S.).
- Dep. Mines, N.S.W.* Department of Mines, New South Wales. Sydney (N.S.W.).
- Deutsch. geol. Gesellsch.* Deutsche geologische Gesellschaft. Berlin.
- Deutsch. u. österreich. Alpenver.* Deutscher & österreichischer Alpenverein. Munich.
- Deutsch. wissensch. Ver. Santiago.* Deutscher wissenschaftlicher Verein zu Santiago. Valparaiso.
- Devon. Assoc.* Devonshire Association for the Advancement of Science, Literature, & Art. Plymouth.
- Dir. Serv. geol. Portugal.* Direcção dos Serviços geologicos de Portugal. Lisbon.
- Earthq. Comm. Tokyo.* Earthquake Investigation-Committee. Tokyo.
- Eclogæ Geol. Helv.* Eclogæ Geologicae Helvetiae. Lausanne.
- Essex Nat.* Essex Naturalist. London.
- Földt. Közl.* Földtani Közlöny. [Geological Magazine.] Budapest.
- Geogn. Jahresh., München.* Geognostische Jahreshefte. Munich.
- Geogr. Abh., Wien.* Geographische Abhandlungen, Wien. Vienna.
- Geogr. Anz.* Geographischer Anzeiger. See *Peterm. Mitth.*
- Geol. palæont. Abh. Jena.* Geologische & palæontologische Abhandlungen. Jena.
- Geol. Univ. Cal.* Department of Geology, University of California. Berkeley (Cal.).
- Gesellsch. f. Erdk., Berlin.* Gesellschaft für Erdkunde. Berlin.
- Ind. Acad. Sci.* Indiana Academy of Science. Indianapolis (Ind.).
- Ind. Eng.* Indian Engineering. Calcutta.
- Inst. Mines & Forests Brit. Guiana.* Institute of Mines & Forests. Georgetown (Demerara).

- Jaarb. Mijnw. Ned. O.-Ind.* Jaarboek van het Mijnwezen in Nederlandsch Oost-Indië. Amsterdam.
- Jahrb. f. Berg- u. Hüttenw. Sachsen.* Jahrbuch für das Berg- & Hüttenwesen im Königreiche Sachsen. Freiberg.
- Journ. Biom.* Journal of Biometry. London.
- Lunds Univ. Årssk.* Lunds Universitets Årsskrift. Lund.
- Malacol. Soc.* Malacological Society. London.
- Manch. Lit. Phil. Soc.* Manchester Literary & Philosophical Society. Manchester.
- Meddel. Grönland.* Meddelelser om Grönland, udgivne af Commissionen for Ledelsen af de geologiske & geographiske Undersøgelser i Grönland. Copenhagen.
- Meddel. Indust. Finland.* Meddelanden från Industristyrelsen i Finland. Helsingfors.
- Min. petr. Mitth.* Mineralogische & petrographische Mittheilungen. Vienna.
- Naturw. Landesd. Böhmen.* Naturwissenschaftliche Landesdurchforschung von Böhmen. Prague.
- Oberrhein. geol. Ver.* Oberrheinischer geologischer Verein. Stuttgart.
- Peterm. Mitth.* Petermann's Mittheilungen. Gotha.
- Reliq. & Ill. Archaeol.* The Reliquary & Illustrated Archaeologist. London.
- Rev. Cienc., Lima.* Revista de Ciencias. Lima.
- Rev. crit. Paléozool.* Revue critique de Paléozoologie. Paris.
- Roy. Inst. G. B.* Royal Institution of Great Britain.
- Russ.-k. min. Gesellsch.* Russisch-kaiserliche mineralogische Gesellschaft. St. Petersburg.
- Sec. géol. Cab. S. M. St. Pétersb.* Section géologique du Cabinet de Sa Majesté. St. Petersburg.
- Senckenb. naturf. Gesellsch.* Senckenbergische naturforschende Gesellschaft. Frankfurt-am-Main.
- Soc. cient. 'Ant. Alzate.'* Sociedad científica 'Antonio Alzate.' Mexico.
- Soc. franç. Min.* Société française de Minéralogie. Paris.
- Soc. helv. Sci. nat.* Société helvétique des Sciences naturelles. See *Allgem. schw. Gesellsch.*
- Soc. philom. Verdun.* Société philomathique de Verdun. Verdun.
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 Aral, Sea of (Asia).—Friederichsen, M.,
 1; Samoilov, J., 1.
Aralia.—Knowlton, F. H., 1.
 Aranyos Group (Transylvania).—Gesell,
 A., 1; Pálfy, M. von, 1; Telegd, L.
 R. von, 1.
 Arapahoe Glacier (Colo.).—Fennemaun,
 N. M., 1.
Araucarites.—Seward, A. C., 2.
 Aravis (Savoy).—Sarasin, C., 1.
Arca.—Casey, T. L., 1; Oppenheim, P.,
 6.
 Archæan, Australia (S.).—Greenway, T.
 C., 1.
 —, Canada — Coleman, A. P., 2;
 Osann, A., 1.
 —, Leicestershire. — Fox-Strangways,
 C., 1; Watts, W. W., 1; Woodward,
 H. B., 6.
 —, Moravia.—Kretschmer, F., 1.
 —, origin of.—Callaway, C., 1.
 —, United States.—Hobbs, W. H., 6;
 Weidman, S., 2; Willis, B., 1.
 —, Victoria (Austral.).—Gregory, J.
 W., 3.
Archæophilus.—Ameghino, F., 4.
Archæopteris.—Nathorst, A. G., 1.
Archelon.—Wieland, G. R., 1.
 ARCHIC (D') types.—Thévenin, A., 2.
Architarbus.—Melander, A. L., 1.
 Arcier (Doubs).—Van den Broeck, E.,
 11.
 Arctic.—Andersson, G., 2; Anon., 29;
 Baun, A., 1; Bonney, T. G., 8; Co-
 lombia, L., 1; Kayser, E., 1; Lupša,
 F., 1; Schei, P., 1; Staub, M., 1;
 Sverdrup, O., 1; *see also* Spitsbergen,
 &c.
 — Canada.—Hanbury, D. T., 1.
Arctotherium.—Ameghino, F., 2.
 Ardwick Series, Manchester.—Arber,
 E. A. N., 2.
 Areuse R., Neuchâtel. — Schardt, H.,
 5.
 Argentat (Corrèze).—Grossouvre, A. de,
 5.
 Argenteuil (Quebec).—Ells, R. W., 3.
 Argentina (S. Am.).—Ameghino, F., 2;
 Bodenbender, G., 1; Brinsmade, R.
 B., 1; Burekhardt, C., 1; Clayton,
 E. G., 2; Ducloux, E. H., 1; Norden-
 skjeld, E., 3; Hauthal, R., 1.
 Argentodomeykite.—König, G. A., 1.
Arges.—Weller, S., 2.
 Argilliferous lignite, Calabria.—Stefano,
 G. de, 4.
 Argolis (Greece).—Cayeux, L., 1.
 Argon in gas from mineral-springs. —
 Moissan, H., 1; Moureu, C., 1.
 ARGYLL, Duke of [8th]. *See Obit.*,
 Goodchild, J. G., 6.
 Argyllshire.—Kynaston, H., 1.
 Ariège (France).—Caralp, J., 1; Carez,
 L., 4, 5, 7; Pietté, É., 1.
 Arizona (U.S.A.).—Blake, W. P., 1 & 3;
 Davis, W. M., 3; Dumble, E. T., 1;
 Palmer, C. M., 1; Reagan, A. B.,
 2 & 3.
 Arkanite.—Van't Hoff, J. H., 3.
 Arkansas (U.S.A.). — Bramer, J. C.,
 2; Hedburg, E., 1; Taff, J. A., 1
 & 2.
 Arltunga (N. Terr., S. Austral.). —
 Brown, H. Y. L., 1 & 2.
 Armentières (Nord).—Vaillant, V., 1.
 Armorican.—Barrois, C., 5; Kerforne,
 F., 1.
Arnioceras.—Fucini, A., 1.
 Arno Valley (Tuscany).—Regàlia, E., 1;
 Ristori, G., 1.
 Arona (Piedmont).—Taramelli, T., 5.
 Arosa (Grisons).—Hæk, H., 1.
Arpadites.—Airaghi, C.
 Arran, I. of.—Gunn, W., 1.
 Arsenic (native), Arizona.—Warren, C.
 H., 1.
 — (—), Montreal.—Evans, N. N.,
 1.
 —, occurrence in mineral and sea-
 waters, &c.—Gautier, A.
 — ores, United States.—Struthers,
 J., 5.
 Arsenopyrite.—Pettard, W. F.
Arsinoitherium.—Lankester, E. R., 1
 & 2.
 Art, prehistoric.—Harroy, E., 1.
 Artesian water, America (N.).—Boul-
 tbee, J. W., 1; Kuemmel, H. B., 1;
 Russell, I. C., 4 & 5; Slichter, C.
 S., 1; *see also* Idaho, &c.
 — —, Brussels.—Cuvelier, E., 1.
 — —, Flanders.—Brouwer, M. de,
 1; Van Ertborn, O., 8.
 — —, Hungary.—Pethæ, J., 2.
 — —, Japan. — Norinan, F. J.,
 1.
 — —, New South Wales.—Pittman,
 E. F., 1.
 — —, origin of.—Pantaneli, D.,
 2.

- Arthropoda.—Packard, A. S., 2; Woodward, H., 12.
- Artinite.—Brugnatelli, L., 1-3.
- Arve R. (Savoy).—Haug, É., 4.
- Asaphus*.—Reed, F. R. C., 5.
- Asbestos.—Aguilera, J. G., 1; Brugnatelli, L., 1; Ingall, E. D., 2; Pratt, J. H., 8; Primrose, A., 1.
- Ashbourne & Buxton Ry.—Arnold-Bemrose, H. H., 1.
- Ashes, fall of. Lower California.—Schmidt, C., 2.
- , St. Vincent, volcanic.—Klein, C., 1.
- , *See also* Dust.
- Ashworth Moor (Lancs).—Baldwin, W., 1.
- Asia.—Toula, F., 3; *see also* Siberia, &c.
- (Central).—Friederichsen, M., 2; Hedin, S., 1; Wright, G. F., 1.
- (E.).—Richthofen, Baron F. von, 1.
- Asia Minor.—Achiardi, G. d', 5; Engelhardt, H., 1; Fuchs, T., 2; Penecke, K. A., 1; Schaffer, F. K., 1-3; Simmersbach, B., 1; Toula, F., 1; Yung, —, 1.
- Asphalt, Albania.—Gounot, A. H., 1.
- , Argentina.—Ducloux, E., 1.
- , Palestine.—Blanckenhorn, M., 4.
- , Sicily.—Lotz, H., 2.
- , Trinidad.—Gordon, J. W., 1.
- , United States.—Eldridge, G. H., 1; Lakes, A., 15; Struthers, J., 7.
- , *See also* Petroleum, &c.
- Aspidiscus*.—Kossmat, F., 1.
- Aspidoceras*.—Burckhardt, C., 1.
- Aspidopholas*.—Dollfus, G. F., 6.
- Asquins (Yonne).—Coupey de la Forest, M. le, 1.
- Assam (Asia).—Oldham, R. S., 1.
- Asschian, Belgium.—Forir, H.
- Assilina*.—Prever, P., 1.
- Astarte*.—Bistram, A. von, 1; Dainelli, G., 3; Yakovlev, N., 4.
- Asterostemma*.—Scott, W. B., 1.
- Asthenotoma*.—Cossmann, M., 2.
- Astrakanite.—Jäger, F. M., 1; *see also* Blödite.
- Astraræa*.—Felix, J., 4.
- Astrocenia*.—Felix, J., 2; Osasco, E., 1.
- Astroni crater (Campania).—Lorenzo, G. de, 6.
- Ataprus*.—Chartron, C., 1.
- Atchinsk (Siberia).—Bordeaux, A., 1.
- Athol (Mass.).—Palache, C., 1.
- Atlantic Ocean.—Choffat, P., 1; Lohmann, H., 1.
- Atlantis problem.—Scharff, R. F., 1.
- Atlas Mts. (Algeria, &c.).—Fischer, T., 1; Ritter, É., 1.
- Atlin (B. C.).—Gwillim, J. C., 1.
- Atolls, Pacific.—Agassiz, A., 2.
- Atracites*.—Airaghi, C., 1.
- Aube, R. (France).—Lemoine, P., 1.
- Aubusson (Creuse).—Michel-Lévy, A., 1.
- Aucella*.—Etheridge, R., Fil., 2.
- Augite.—Milch, L., 2; Weinschenk, E., 3; *see also* Pyroxene.
- Augitic porphyry, Venetia.—Keyserling, H. von, 1.
- Augustusberg (Saxony).—Zimmermann, R., 1.
- Auk, Tertiary.—Lucas, F. A., 7.
- Aulacothyris*.—Bittner, A., 1.
- Aulopsammia*.—Felix, J., 2.
- Ault (Somme).—Bardou, —, 1.
- Aus Lake (Styria).—Hørnes, R., 5.
- Austin (Texas).—Shattuck, G. B., 1.
- Australasia.—Toula, F., 3.
- Australia (S.).—Brown, H. Y. L., 3 & 4; Chewings, C., 1; Coghlan, T. A., 1; Cumming, A. C., 1; Etheridge, R., Fil., 1 & 2; Greenway, T. C., 1; Howchin, W., 1.
- (—), N. Terr.—Brown, H. Y. L., 1 & 2.
- (W.).—Coghlan, T. A., 1; King, H. S., 1; Krusch, P., 1; Maitland, A. G., 1; Spencer, L. J., 1.
- Australian Continent.—Thompson, J. P., 1.
- Austria.—Cole, G. A. J., 8; Geyer, G., 1; Meissner, —, 1; Mojsisovics, E. von, 1 & 3.
- (Lower).—Abel, O., 3; Fuchs, T., 1, 5, & 6; Toula, F., 2.
- Auvergne (France).—Brunhes, B., 2; Montlosier, — de, 1.
- Avalanches.—Mougin, P., 1; Schardt, H., 4.
- AVELINE, W. T. *See* *Obit.*, Anon., 2.
- Aveyron (France).—Fournier, E., 1.
- Avicula*.—Drevermann, F., 2; Kayser, E., 1; Maurer, F., 1.
- Aviculopecten*.—Beede, J. W., 1; Bittner, A., 1; Drevermann, F., 2; Gortani, M., 3; Hind, W., 4; Yakovlev, N., 4.
- Avoltri, Forni (Venetia).—Gortani, M., 1-3.
- Axinite.—Ford, W. E., 2.
- Ayrshire (Scotland).—Gunn, W., 1; Reed, F. R. C., 5; Smith, J., 1; Wright, J., 1.
- Azores (Atlantic).—Choffat, P., 1; Howarth, O. A., 1.
- Babingtonite.—Palache, C., 1.
- Bača Valley (Tyrol).—Kossmat, F., 2.
- Bachergebirge (Styria).—Medanich, G., 1.
- Bács Comitat (Hungary).—Koch, A., 3.
- Bactrites*.—Smith, J. P., 1.
- Baden (Germany).—Futterer, K., 1; Keidel, H., 1; Schalch, F., 1-3; Steinmann, G., 2.
- Baëna*.—Osborn, H. F., 4.
- Bagnacavallo (Emilia).—Corti, B., 1.
- Bagnères-de-Luchon (Haute-Garonne).—Garrigou, F., 1.

- Bagnorea (Latium).—Meli, R., 1.
 Bagshot Beds, Berkshire.—Blake, J. H., 1.
 ———, Dorset.—Hudleston, W. H., 1; Woodward, H. B., 10.
 ———, Surrey.—Coomáráswamy, A. K., 3; Monckton, H. W., 3.
Baiëra.—Møeller, H., 1; Seward, A. C., 2.
 Baikal, Lake (Siberia).—Bagashov, I., 1.
 Bajocian Denudation, Gloucestershire.—Richardson, L., 1.
 Bakerite.—Giles, W. B., 1.
Bakewellia.—Yakovlev, N., 4.
Balanophyllia.—Felix, J., 3.
Balantium.—Fuchs, T., 4.
 Balbronn (Alsace-Lorraine). — Steuer, A., 1.
 Balkan, Trans-, Railway.—Vinassa de Regny, P., 2.
 Balkash, Lake (Russian Turkestan).—Levat, E. D., 1.
 Baltic.—Geinitz, E., 2 & 3; Ussing, N. V., 1; Wiman, C., 1.
 Baluchistan (India). — Holland, T. H., 3; Nøtling, F., 1.
 Bamberg (Bavaria).—Barnes, J., 1.
 Banaba I. (Pacific).—Reed, F. R. C., 3.
 Bangalore (Mysore).—Jayaram, B., 1; Primrose, A., 1.
 Baoussé-Roussé (Alpes-Maritimes). — Gaudry, A., 1.
Baptanodon. — Gilmore, C. W., 1; Knight, W. C., 3.
Baptornis.—Lucas, F. A., 8.
 Baraba Steppe (Tomsk Gov.).—Tanfiliev, G. I., 1.
 Barbados (W.I.).—Coppock, J. B., 1; Powell, H., 2; Spencer, J. W., 3.
 Barcelona (Catalonia).—Vidal, L. M., 1.
 'Barisal guns.'—Alippi, T., 1; Botti, U., 1.
 Barnaul (Tomsk Gov.).—Tanfiliev, G. I., 1.
Barnea.—Dollfus, G. F., 6.
 Barremian, Provence.—Pellat, E., 1.
Barroisicerus.—Shattuck, G. B., 1.
 Barrule granite-quarries, I. of Man.—Elsden, J. V., 2.
 Barton, Further (Gloucester).—Hooker, C. P., 1.
 Bartonian, Sardinia.—Dainelli, G., 3.
 Barytes. — Buecking, H., 1; Delkeskamp, R., 1; Everding, H., 1; Feurer, J., 1; Pratt, J. H., 9; Rzehak, A., 1; Strandmark, J. E., 1.
 Basalt, Abyssinia.—Raisin, C. A., 1.
 ———, Alsace.—Buecking, H., 2; Linck, G., 1.
 ———, Antarctic.—Prior, G. T., 4.
 ———, Arctic, Canada. — Hanbury, D. T., 1.
 ———, Caernarvon.—Cope, T. H., 1.
 ———, Derbyshire.—Moore, S., 1.
 ———, Greece.—Hilber, V., 2.
 ———, Hesse.—Klemm, G., 2; Schultz, W., 1.
 ———, Iceland.—Pjetursson, H., 1.
 Basalt, Newfoundland. — Daly, R. A., 1.
 ———, New South Wales.—Andrews, E. C., 2; Card, G. W., 3; Mingaye, J. C. H., 3.
 ———, Oregon.—Diller, J. S., 3.
 ———, Scania.—Kjellén, R., 3.
 ———, Teesdale.—F'Anson, J. C., 1.
 Basel (Switzerland).—Greppin, E., 1.
 Basilicata (Italy).—Lorenzo, G. de, 2 & 3.
Basilisaurus.—Lucas, F. A., 4.
 Basin-Range Structure, Death Valley (Cal.).—Campbell, R., 2.
 Basins, Swiss closed.—Lugeon, M., 6.
 Bass Rock (Firth of Forth).—Goodchild, J. G., 1.
Basterotia.—Dollfus, G. F., 6.
 Bath Furnace (Ky.).—Miller, A. M., 1; Ward, H. A., 4.
 Bathurst Inlet (Arctic Canada).—Hanbury, D. T., 1.
 Batrachia, Cretaceous. — Osborn, H. F., 4.
 ———, Tertiary.—Stefano, G. de, 1.
Batrachosuchus.—Broom, R., 3.
 Baudour (Hainault).—Cornet, J., 3.
 Baumhauerite.—Solly, R. H., 1 & 2.
 Bauxite (Italy).—Achiardi, G. d', 2; Novarese, V., 3.
 ———, occurrence of. — Henatsch, W., 1.
 ———, United States.—Struthers, J., 1.
 Bavaria (Germany).—Barnes, J., 1; Branco, W., 1 & 2; Buecking, H., 4; Duell, E., 1; Henkel, L., 3; Knebel, W. von, 1 & 2; Kohler, E., 1; Launay, L. de, 3; Pfaff, F. W., 2; Regelmann, C., 1; Reindl, J., 1; Ries, A., 1; Schmierer, T., 1; Weinschenk, E., 8.
 Baveno (Piedmont).—Artini, E., 1.
 Bayonne (Basses-Pyrénées).—Bertrand, L., 1.
 Beaches, Yorkshire, infra-Glacial fauna in.—Lamplugh, G. W., 3; *see also* Raised Beaches, Shingle, &c.
 Beaconsfield (Tasmania).—Twelvetrees, W. H., 4.
Beania.—Nathorst, A. G., 2.
 Bear I. (Arctic).—Nathorst, A. G., 1.
 Bear-Lodge Mt. (Wy.).—Loomis, F. B., 1.
 Beaufort West (Cape Colony).—Rogers, A. W., 5.
 Beaumont (Texas).—Lucas, A. F., 1; Stek, H. H., 1.
 Beauval (Aisne).—Briquet, A., 2.
 Beavers, Tertiary.—Matthew, W. D., 4.
 Bedfordshire.—Home, H., 1; Hopkinson, J., 1; Lamplugh, G. W., 7.
 Beer Harbour (Devon). — Rowe, A. W., 2.
 Beinn-Ledi Group. — Cunningham - Craig, E. H., 1.
Belbites.—Pampaloni, L., 1.
 Belemnites. — Etheridge, R., Fil., 2; Lamplugh, G. W., 1; Lorient, P. de, 1; Uhlig, V., 1.

- Belfast (Ireland).—Bennett, F. J., 1; Cole, G. A. J., 10; Præger, R. L., 2.
- Belgian coast water-supply.—Andriemont, R. d', 1.
- 'Belgica,' voyage of the.—Arctowski, H., 1 & 4; Thoulet, J., 1.
- Belgium.—Claes, —, 1; Dobers, —, 1; Forir, H., 1; Harzé, E., 1 & 2; Lambert, J., 3; Leriche, M., 3; Malaise, C., 1 & 2; Moulan, T. C., 2; Mourlon, M., 1; Rutot, A., 1, 2, 4, 5; Seward, A. C., 5; Walkhoff, O., 1; *see also* Antwerp, Campine, Coalfields, &c.
- Belledonne massif (Dauphiné).—Terrier, P., 3.
- Bellerophon*.—Walther, K., 1.
- Bellevue (Idaho).—Lakes, A., 2.
- Bellinurus*.—Baldwin, W., 2.
- Bellongue (Ariège).—Caralp, J., 1.
- Belly River (Canada).—Hatcher, J. B., 1.
- — — Beds.—Hatcher, J. B., 4; Osborn, H. F., 4.
- Belonostomus*.—Leriche, M., 1.
- Ben Cruachan (Argyll).—Kynaston, H., 1.
- Bena-(de)-Padru mines (Sardinia).—Lovisato, D., 2.
- Bendigo (Victoria).—Cundy, W. H., 1.
- Bengal (India).—Adamson, T., 1; Grover, F., 1.
- Beni-Toufout massif (Algeria).—Terrier, P., 4.
- BENNIE, J. *See* *Obit.*, Horne, J., 2.
- Benovac (Dalmatia).—Schubert, R. J., 2.
- Benton Shales, Kansas.—Lindgren, W., 2.
- Berberis*.—Knowlton, F. H., 1.
- Berea Grit Oil-Sand, Ohio.—Griswold, W. T., 1.
- Beresovka R. (Yakutsk).—Tolmashev, I. P., 1.
- Bergamo (Lombardy).—Porro, C., 1; Tacconi, E., 2.
- Bergen (Norway).—Monckton, H. W., 2.
- Bergholt. *See* East Bergholt.
- Berkshire.—Blake, J. H., 1.
- Berkshire Co. (Mass.).—Taylor, F. B., 1.
- Bermondsey (London).—Kennard, A. S., 2; Warren, S. H., 1.
- Bermuda Is. (Atlantic).—Verrill, A. E., 1 & 2.
- Berne (Switzerland).—Gerber, E., 1.
- Bernissart (Hainault).—Bertrand, C. E., 1; Pauw, L. F. de, 1 & 2.
- Beroun (Bohemia).—Slavik, F., 1.
- Berry (France).—Péron, A., 1.
- Berthierite.—Loezka, J., 1.
- Berwickshire (Scotland).—Goodchild, J. G., 2.
- Beryl.—Bertolio, S., 1; Pettard, W. F., 1.
- Bessarabia (Russia).—Michalski, A., 1.
- Betchat (Ariège).—Carez, L., 4.
- Bethanga (Victoria).—Jenkins, H. C., 1.
- Betula*.—Engelhardt, H., 1; Knowlton, F. H., 1.
- Beyrichia*.—Weller, S., 2.
- Biarritz (Basses-Pyrénées).—Bertrand, L., 1; Carez, L., 6; Douvillé, H., 9; Meyer-Eymar, C., 1; Seunes, J., 1; Stuart-Menteath, P. W., 1.
- 'Bibliographia geologica.'—Mourlon, M., 3; Van den Broeck, E., 14.
- Bicia*.—Walcott, C. D., 3.
- Bidart (Basses-Pyrénées).—Bertrand, L., 1; Carez, L., 3.
- Bielaya R. & Bieloretzk (Ufa Gov.).—Kovalev, P., 1.
- Bifarina*.—Liebus, A., 2.
- Bigennerina*.—Gortani, M., 3.
- Biggenden, Mt. (Queensl.).—Ball, L. C., 2.
- Biggleswade (Beds).—Home, H., 1.
- Bighorn Mts. (Wy.).—Salisbury, R. D., 1.
- Bilbao (Vizcaya).—Adams, F. D., 1.
- Binn Valley (Valais).—Baumhauer, H., 2 & 4; Lewis, W. J., 1; Solly, R. H., 1 & 2.
- Biotite-diabase, Saxony.—Beck, R., 1.
- Biradiolites*.—Franchis, F. de, 1.
- Birds, Cretaceous.—Lucas, F. A., 8.
- , evolution of.—Lydekker, R., 2.
- , Quaternary.—Grandidier, G., 2.
- , Tertiary.—Ihering, H. von, 1; Lucas, F. A., 7; Regalia, E., 1.
- Birefringence, mineral.—Miers, H. A., 2.
- Bislich (Rh.-Prussia).—Mueller, G., 1.
- Bismuth.—Ball, L. C., 2; Rimatori, C., 1; Struthers, J., 6.
- Bitter Lakes (Yenisei Gov.).—Ludwig, F., 1; Tolmashev, I. P., 1.
- Bitterfeld (Saxony).—Riedel, O., 1.
- Bitumen, United States.—Eldridge, G. H., 1; *see also* Asphalt, &c.
- Black Hills (S. Dakota).—Irving, J. D., 1.
- , West side (Wy.).—Loomis, F. B., 1.
- Black-Reef Series, Orange-River Colony.—Hatch, F. H., 3.
- Black-Sea Gov. (Russia).—Nikitin, S., 1.
- Blanc, Mont (Savoy).—Forel, F. A., 1.
- Blansko (Moravia).—Bock, H., 1.
- Blanzay (Saône-et-Loire).—Delafond, F., 1.
- Blastoidea, Devonian.—Hambach, G., 1.
- Bleiberg (Carinthia).—Hæfer, H., 2.
- BLEICHER, G. *See* *Obit.*, Fliche, P., 2.
- Block Mts. (N. Mex.).—Johnson, D. W., 1.
- Blocks, exotic, Hundés.—Krafft, A. von, 1.
- Blödite.—Jäger, F. M., 1; Van't Hoff, J. H., 3 & 5.
- Bloomsbury (London).—Bennett, F. J., 1.
- Blue-Black Slates, Cornwall.—Parkinson, J., 1.
- Blue Mts. (Oregon).—Lindgren, W., 1.
- Bochianites*.—Sarasin, C., 2.
- Bodaibo R. (Siberia).—Obrutchev, V., 1.
- Bodenmais (Bavaria).—Weinschenk, E., 8.

- Bogoslov volcanoes, Aleutian Is.—Merriam, C. H., 1.
- Bogs, Sweden.—Sjægren, H., 1; *see also* Peat, &c.
- Bohemia.—Anon., 19; Bauer, F., 1; Becke, F., 1; Dathe, E., 1; Graber, H. V., 1; Hanamann, J., 1; Hinterlechner, K., 1 & 2; Jahn, J. J., 1; Liebus, A., 1; Meissner, —, 1; Mojsisovics, E. von, 3; Pelikan, A., 1; Petrascheck, W., 1; Počta, P., 1; Slavik, F., 1; Tietze, E., 1; Weithofer, K. A., 1; Želízko, J. V., 1.
- Bois-Bernard (Pas-de-Calais).—Barrois, C., 1.
- Bolderian, Belgium.—Forir, H., 1.
- Bole.—Surgunov, N., 1.
- Boletia*.—Loriot, P. de., 2.
- 'BOLITHO' medal.—Foster, C. Le N., 4.
- Bolivia (S. Am.).—Evans, J. W., 1-3; Nordenskjöld, E., 1-3.
- Bologna (Emilia).—Flores, E., 2.
- 'Bolson' Plains (N. Mex.).—Keyes, C. R., 4.
- BOMBICUL, L. *See* *Obit.*, Neviani, A., 1.
- Bone-bed, Conclud.—Woodward, A. S., 4.
- earth, Yverdon.—Stehlin, H. G., 2.
- 'Boniti,' *see* 'Barisal Guns,' 'Mistpoefers,' &c.
- Bonn (Rh.-Prussia).—Walkhoff, O., 1.
- Bonneville (Savoy).—Girardin, P., 1.
- Boom (Antwerp).—Delheid, E., 1.
- Boothite.—Schaller, W. T., 1.
- Borax, California, &c.—Campbell, M. R., 1 & 2; Maguire, —, 1; Struthers, J., 12.
- Bordeu spring (Haute-Garonne).—Moissan, H., 1.
- Boring-mollusca, Ayrshire Hills. — Smith, J., 1.
- Borings, Alsace-Lorraine.—Andréa, A., 4.
- , Australia (W.).—Maitland, A. G., 2.
- , Belgium.—Brouwer, M. de, 1; Fourmarier, P., 2; Lapparent, A. de, 5; Lohest, M., 1; Stainier, X., 1; Van Ertborn, O., 3 & 8.
- , Durham & Northumberland.—Lebour, G. A., 1.
- , Germany.—Mueller, G., 1; Ochsenius, C., 1.
- , Japan.—Norman, F. J., 1.
- , Lancashire.—Dickson, J., 2.
- , Lincolnshire.—Preston, H., 1.
- , Northants.—Thompson, B., 1.
- , Nova Scotia.—Gilpin, E., Jun., 1 & 2; Weatherbe, D'A., 1.
- , Pas-de-Calais.—Léon, —, 1.
- , Russia.—Sinzov, I., 1.
- , Suffolk.—Whitaker, W., 1.
- , United States.—Boulton, J. W., 1; Russell, I. C., 4.
- , Yorkshire.—Simpson, W., 1.
- , *See also* Artesian, &c.
- Borkholm (I. of Gotland).—Wiman, C., 1.
- Bormio (Lombardy).—Hammar, W., 1.
- Borneo (E. I.).—Fliegel, G., 1; Molen-graaff, G. A. F., 1; Newton, R. B., 1; Truscott, S. J., 1.
- Bornholm (Baltic).—Møller, H., 1.
- Bornite.—Harrington, B. J., 3.
- Borrowdale (Cumberland).—Walker, E. E., 1.
- Boryslav (Galicia).—Galloway, W., 1.
- Bos*.—Hepburn, D., 1; Rutot, A., 5; Sheppard, T., 3.
- Boscampo (Tyrol).—Ippen, J. A., 5.
- Boskovitz (Moravia).—Bock, H., 1.
- Bosnia.—Bittner, A., 1.
- Bosquet (Algeria).—Ficheur, E., 1.
- Botesberg (Hungary).—Zimányi, K., 1.
- Bothriodon*.—Rush, L. P., 1.
- Bothrodendron*.—Nathorst, A. G., 1 Seward, A. C., 2.
- Botryogen.—Eakle, A. S., 1.
- Bottendorf (Hesse).—Wuest, E., 2.
- Bottino (Tuscan).—Achiardi, G. d', 4.
- Botzen (Tyrol).—Wolf, F. von, 1.
- Boulder-Clay, Ayrshire.—Wright, J., 1.
- , marine fauna of Irish, &c.—Wright, J., 1-3.
- , Iceland.—Pjetursson, H., 1.
- , Norfolk.—Elsden, J. V., 5.
- , Triassic, Nova Scotia.—Haycock, E., 1.
- Boulders, Hull, striated.—Sheppard, T., 2.
- , Permo-Carboniferous, Victoria (Austral.).—Thiele, E. O., 1.
- , Sylt drift.—Martin, J., 1; Petersen, J., 1.
- , Tennessee erratic.—McCallie, S. W., 1.
- , *See also* Glacial deposits, Erratic, &c.
- Boulge (Suffolk).—Whitaker, W., 1.
- Boulonnais (France).—Barrois, C., 3; Rigaux, E., 1; Zeiller, R., 3; *see also* Calais, Pas-de-, &c.
- Bourges (Cher).—Péron, A., 1.
- Bourmonite.—Lovisato, D., 1; Pettard, W. F., 1.
- Boussens (Haute-Garonne).—Carez, L., 4.
- Bowen district (Queensl.).—Cameron, W. E., 2.
- Brabant.—Elsden, J. V., 4; Lorie, J., 1; Van Ertborn, O., 1; Simoëns, G., 5.
- Bracciano (Romagna).—Verri, A., 5.
- Brachauchenius*.—Williston, S. W., 4.
- Brachiopoda, Cambrian.—Matthew, G. F., 1; Walcott, C. D., 3 & 4; Weller, S., 2.
- , Carboniferous.—Beede, J. W., 2; Nœtling, F., 2; Parkinson, H., 1; Tchernyshev, T., 1.
- , Cretaceous.—Autula, J., 1; Etheridge, R., Fil., 2; Kossmat, F., 1; Lamplugh, G. W., 7.
- , Devonian.—Drevermann, F., 2; Lotz, H., 1; Ehler, D. P., 1; Walther, K., 1; Weller, S., 1.
- , Ordovician.—Nickles, J. M., 1.
- , recent and fossil.—Schuchert, C., 1.

- Brachiopoda, Silurian.—Chapman, F., 1; Cumings, E. R., 1; Weller, S., 2.
 —, Tertiary.—Gortani, M., 3.
 —, Triassic.—Bittner, A., 1.; Frech, F., 1.
Brachiosaurus.—Biggs, E. S., 1.
Brachymetopus.—Drevermann, F., 2; Reed, F. R. C., 2.
Brachyodus.—Depéret, C., 3.
Brachyphyllia.—Felix, J., 2.
Brachyphyllum.—Möller, H., 1.
 Bray Hd. (Co. Dublin).—Lamplugh, G. W., 6.
 Brazeau Glacier, Canad. Rocky Mts.—Coleman, A. P., 3.
 Brazil (S. Am.).—Angelis d'Ossat, G. de, 2; Brauner, J. C., 1; Hussak, E., 2; Scott, H. K., 1; Verrill, A. E., 1; Woodward, A. S., 7.
 Breccias, Bolivia.—Evans, J. W., 3.
 —, St. Helen's I.—Nolan, A. W., 1.
 —, volcanic.—Branco, W., 1 & 2.
 Bredon Hill (Worcester).—Buckman, S. S., 1; Hull, E., 1.
 Breislakite.—Weinschenk, E., 5.
 Bresse (Ain).—Lamothe, R. de, 2.
 Brest (Britanny).—Barrois, C., 2 & 6.
 Brettenham Park (Suffolk).—Whitaker, W., 1.
 Breusch R. (Alsace-Lorraine).—Benecke, E. W., 4; Jäkel, O., 1.
 Briançonnais (France).—Kilian, W., 6 & 7; Termier, P., 3.
 Bridlington Quay (Yorks).—Lamplugh, G. W., 3.
 Bright (S. Austral.).—Brown, H. Y. L., 3.
 Brisbane R. (Queensl.).—Jackson, C. F. V., 1.
Brissopsis.—Gauthier, V., 1.
 Bristol.—Morgan, C. L., 1; Short, A. R., 1.
 Brittany (France).—Barrois, C., 2, 5 & 6; Bézier, T., 1; Bigot, A., 2 & 4; Kerforne, F., 1-5; Lebesconte, P., 1; Lechartier, G., 1; Montessus de Ballore, F. de, 1.
 British Association, Southport.—Monckton, H. W., 2; Seward, A. C., 3; Watts, W. W., 2.
 British Columbia (Canada).—Daly, R. A., 3; Gwillim, J. C., 1; Johnson, P., 1; Prior, E. G., 1 & 2.
 British E. Africa.—Walker, E. E., 2.
 British geology.—Small, E. W., 1.
 British Guiana.—Hargreaves, T. S., 1; Harrison, J. B., 1 & 2.
 British Museum (Natural History).—Prior, G. T., 3.
 Broca R. (Rumania).—Cadere, D., 1.
 Brockrams, Eden Valley.—Kendall, P. F., 1.
Bröggeria.—Walcott, C. D., 4.
 Bröggerite.—Barker, G. F., 1.
 Broken Hill (N.S.W.).—Beaumont, E. K., 1; Warren, J., 1.
Brooksella.—Kinkelin, F., 3.
 Brookville (Queensl.).—Cameron, W. E., 3.
 Brouzet (Gard).—Pellat, E., 1.
 BROWN, J. A. See *Obit.*, Anon., 3; Woodward, B. B., 1.
 Brown coal, Bohemia.—Anon., 19.
 —, Victoria (Austral.).—Kitson, A. E., 1.
Bruguiera.—Prever, P., 1.
 Brunite.—Schalch, F., 1.
 Brünn (Moravia).—Bock, H., 1.
 Brusau (Moravia).—Tietze, E., 1.
 Brushite.—Schulten, A. de, 1.
 Brunstatt (Alsace-Lorraine).—Førster, B., 3.
 Brunswick (Germany).—Wollemann, A., 2.
 Brussels (Belgium).—Cuvelier, E., 1; Leriche, M., 2; Putzeys, E., 1; Rutot, A., 2.
 Brüx (Bohemia).—Anon., 19.
 Bryozoa, Carboniferous.—Barnes, J., 2.
 —, Cretaceous.—Canu, F., 2.
 —, Devonian.—Weller, S., 2.
 —, Silurian.—Chapman, F., 1; Weller, S., 2.
 —, Tertiary.—Canu, F., 1; Maplestone, C. M., 1.
Buchiola.—Walther, K., 1.
 Buckinghamshire.—Howe, J. A., 1.
 Buco del Piombo, Como (Lombardy).—Flores, E., 1.
 Buda Limestone, Texas.—Shattuck, G. B., 1.
 Budakesz.—Tuzson, J., 1.
 Budapest (Hungary).—Schafarzik, F., 4; Treitz, P., 2.
 Budleigh Salterton (Devon).—Bonney, T. G., 7; Hunt, A. R., 5; Shrubsole, O. A., 1.
Budmania.—Andrussov, N., 1; Gorjanović-Kramberger, K., 2.
 Budua (Dalmatia).—Tietze, E., 4.
 Buenos Aires (Argentina).—Ameghino, F., 2.
 Building-stones, Canada.—Ingall, E. D., 2.
 —, exhibition of.—Elsden, J. V., 6 & 7.
 —, Irish.—Anon., 38; Cole, G. A. J., 1; Elsden, J. V., 7.
 —, United States.—Barbour, E. H., 1; Coons, A. T., 1; Shedd, S., 1.
 —, weathering in London.—Anon., 33.
 Bukhara (Turkestan).—Levat, E. D., 1 & 2.
 Bukharest (Rumania).—Uroshev, S., 1.
 Bukovina (Galicia).—Volz, W., 1.
 Bulawayo (Rhodesia).—Mennell, F. P., 1; Molyneux, A. J. C., 1.
Bulimorpha & *Bumastus*.—Weller, S., 2.
Bunælorus.—Matthew, W. D., 2.
 Bungay (Suffolk).—Whitaker, W., 1.
 Bunzlau (Silesia).—Guerich, G., 1.
 Burgundy (France).—Babinet, —, 1; Delafond, F., 1.
 Burma.—Holland, T. H., 3.
 Burnett R. (Queensl.).—Jackson, C. F. V., 1.
 Burrows, Rocky Mt. quartzite with.—Bonney, T. G., 2 & 6.
 Bute (Scotland).—Gunn, W., 1.
Buthotrephis.—White, D., 2.
 Buxton (Derby).—Dawkins, W. B., 1.

- Buxton & Ashbourne Ry.—Arnold-Bemrose, H. H., 1.
Bythocypris.—Weller, S., 2.
- Cadiz (Ohio).—Griswold, W. T., 1.
 Caermarthshire.—Strahan, A., 3.
 Caernarvonshire.—Cope, T. H., 1; Fearn-sides, W. G., 1; Jehu, T. J., 1.
 Calabria (Italy).—Lojacono, M., 1; Stefano, G. de, 4.
 Calais, Pas-de- (France).—Barrois, C., 1; Desailly, —, 1; Deville, Ste.-Cl., 1; Fèvre, —, 1; Gosselet, J., 5; Léon, —, 1; *see also* Boulonnais, &c.
 Calamine.—Samoilov, J., 2.
Calamopitys.—Scott, D. H., 1.
 Calaverite.—Fedorov, E. von, 5; Smith, G. F. H., 3.
 Calcanthite.—Schaller, W. T., 1.
 Calcareous concretions, Creechbarrow.—Hudleston, W. H., 1.
 — nodules, Tasmania. — Hogg, E. G., 1.
 — pan, Arizona.—Blake, W. P., 1.
 — sandstone, Bamberg.—Barnes, J., 1.
Calceola.—Benecke, E. W., 4.
 Calcite.—Bowman, A. L., 2; Delkeskamp, R., 1; Gössl, J., 1; Goldschmidt, V., 3; Hulyák, V., 1; Meigen, W., 1 & 2; Panebianco, G., 1; Rinne, F., 2; Tschermak, G., 1.
 Calcrete, use of term.—Bonney, T. G., 5.
 Calcretes, Gulf of Manaar.—Lomas, J., 3 & 6.
 'Caliche.'—Blake, W. P., 1.
 California (U.S.A.).—Campbell, M. R., 1 & 2; Diller, J. S., 1 & 2; Eldridge, G. H., 1; Hershey, O. H., 1-5; Lakes, A., 10, 12, 13; Lawson, A. C., 1 & 2; Lucas, F. A., 7; Maguire, —, 1; Manson, M., 2; Merriam, J. C., 1; Pratt, J. H., 1; Schaller, W. T., 1; Sinclair, W. J., 1; Smith, G. O., 1; Turner, H. W., 1; Yunge, G., 1.
 Calinani massif (Rumania).—Butureanú, V. C., 1.
Callipteridium.—Seward, A. C., 2.
 Calloneghe (Venetia).—Longhi, P., 1.
Callopora.—Weller, S., 2.
 Callovian, Isère.—Kilian, W., 2.
 Calvados (Normandy).—Bigot, A., 5.
 Cam R. (Cambridge).—Clayton, E. G., 1.
Camarella.—Weller, S., 2.
Camarocrinus.—Schuchert, C., 5.
Camarophoria.—Tchernyshev, T., 1.
 Cambewarra Mt. (N.S.W.).—Card, G. W., 3.
 Camborne (Cornwall).—Hill, J. B., 1.
 Cambrai (Nord).—Dollé, L., 1.
 Cambrian, Bohemia. — Hinterlechner, K., 1.
 —, Caernarvon.—Fearn-sides, W. G., 1.
 —, Canada.—Matthew, G. F., 1.
 —, China.—Monke, H., 1.
 —, Gotland.—Wiman, C., 2; Winkler, C., 1.
 —, Nova Scotia. — Ami, H. M., 4; Poole, H. S., 2.
 Cambrian, Saxony.—Dalmer, K., 2.
 —, United States.—Dale, T. N., 1; Weller, S., 2.
 Cambridgeshire.—Clayton, E. G., 1; Reed, F. R. C., 4.
Camelus.—Stromer, E. von, 5.
 Camerino (Marches, Italy).—Mariani, M., 1.
 Cameroons (Africa).—Macco, A., 1; Oppenheim, P., 1.
 Camiers (Pas-de-Calais).—Gosselet, J., 5.
 Campagna Romana (Italy).—Angelis d'Ossat, G. de, 6; Fantappié, L., 1; Sabatini, V., 2.
 Campania (Italy).—Anon., 25; Flores, E., 2; Guenther, R. T., 1; Lorenzo, G. de, 1 & 3-6; Parona, C. F., 1; Sabatini, V., 1.
Campanile.—Cossmann, M., 1.
Campeloma.—Stanton, T. W., 2.
 Campine (Belgium).—Fourmarier, P., 2; Harzé, E., 1 & 2; Kersten, J., 2; Lapparent, A. de, 4 & 5; Lejeune de Schiervel, C., 1; Lohest, M., 1; Simoëns, G., 4-8; Stainier, X., 2 & 3; Van Ertborn, O., 3 & 8.
Campodus.—Eastman, C. R., 1.
 Camptonite, Rumania.—Cadere, D., 1.
 —, Tyrol.—Ippen, J. A., 1.
 Canada.—Ami, H. M., 1-5 & 8; Bell, R., 1; Coleman, A. P., 2; Dawson, G. M., 1; Harrington, B. J., 2; Hoffmann, G. C., 2; Ingall, E. D., 2; Jones, T. R., 1; Mabery, C. F., 1; Matthew, G. F., 1; Osann, A., 1; Penhallow, D. P., 1 & 2; Pratt, J. H., 6; Struthers, J., 13; Wilson, A. W. G., 1.
 — (Arctic).—Hanbury, D. T., 1.
 — (N.W. Terr.).—Bell, J. M., 1; Lakes, A., 11; Miers, H. A., 4; Osborn, H. F., 4.
 —. *See also* Alberta, &c.
 Canada-balsam in thin rock-sections.—Benedicks, C., 1.
 Canadian Grand Trunk Pacific Ry.—Ami, H. M., 8.
 — Pacific Ry., landslips. — Brewer, W. M., 2; Lakes, A., 11.
 — Rocky Mts.—Bonney, T. G., 2, 6, 11; Collie, J. N., 1; Coleman, A. P., 3.
 Canal No. III., Budapest.—Schafarzik, F., 4.
 Canary Is.—Tacquin, A., 1.
 Canida, Tertiary.—Matthew, W. D., 3; Wortman, J. L., 1.
Canis.—Ameghino, F., 2.
 Cañon, Colorado Grand.—Davis, W. M., 1.
 Canonbie (Dumfries).—Kidston, R., 2.
Cantioscyllium.—Leriche, M., 1.
 Cauty Bay (Haddington).—Goodchild, J. G., 1.
 Cape Colony (S. Africa).—Anon., 36; Corstorphine, G. S., 1; Mennell, F. P., 2; Rogers, A. W., 1-6; Sawyer, A. R., 2; Schwarz, E. H. L., 1 & 2; Sutton, J. R., 1.
 Cape Town (Cape Colony).—Anon., 36.

- Cape York Peninsula (Queensl.).—Jackson, C. F. V., 3.
- Cappuccini (Tuscany).—Zambonini, F., 4.
- Capreolus*.—Venukov, P. I., 1.
- Capri, I. of (Italy).—Bellini, R., 1.
- Carabodites*.—Pampaloni, L., 1.
- Carabus*.—Lapouge, G. de, 1.
- Caracoles (Chili).—Labastie, F., 1.
- Carana*.—Gorjanovič-Kramberger, K., 1.
- Carbonaceous bed, Arona porphyry.—Taramelli, T., 5.
- Carbonates, mineral. — Meigen, W., 1 & 2.
- Carboniferous, Alabama.—Smith, E. A., 1.
- , Alsace.—Tornquist, A., 1.
- , Argentina.—Clayton, E. G., 2.
- , Belgium.—Delépine, G., 2; Destinez, P., 1; Stainier, X., 4; *see also* Campine, &c.
- , Borneo.—Fliegel, G., 1.
- , Boulonnais. — Barrois, C., 3; Deville, Ste.-Cl., 1.
- , Brazil.—Angelis d'Ossat, G. de, 2.
- , Burgundy.—Delafond, F., 1.
- , China.—Schellwien, E., 1.
- , concretions.—Lomas, J., 5.
- , contact with Liévin Silurian.—Desailly, —, 1.
- , Cornwall & Devon.—Ussher, W. A. E., 1.
- , Derbyshire.—Stobbs, J. T., 2.
- , Durham, &c.—Clough, C. T., 1.
- , Edinburgh.—Goodchild, J. G., 10.
- , Indiana.—Ashley G. H., 1 & 2; Hopkins, T. C., 1; Newsom, J. F., 2.
- , Iowa.—Udden, J. A., 2.
- , Ireland.—Cole, G. A. J., 1.
- , Kansas.—Beede, J. W., 1.
- , Maryland.—Clark, W. B., 1 & 2.
- , Nebraska.—Barbour, E. H., 1.
- , Nova Scotia.—Ami, H. M., 2.
- , Ohio.—Prosser, C. S., 2.
- , Oregon.—Washburne, C., 1.
- , Pennsylvania.—Adams, T. K., 1.
- , Rhenish Prussia. — Drevermann, F., 2; Holzapfel, E., 1.
- , Russia. — Tchernyshev, T., 1; Yakovlev, N., 4.
- , salt-water in Belgian. — Cornet, J., 1; Gevers-Orban, E., 1.
- , Sardinia.—Tornquist, A., 4.
- , Silesia (U.).—Michael, R., 1.
- , Staffordshire.—Hind, W., 6 & 7; Turner, E. P., 1.
- , temperature of the period.—Hoffmann J. F., 2.
- , Virginia (W.). — Campbell, M. R., 2; White, I. C., 1.
- , Yorkshire.—Dakyns, J. R., 1; Hind, W., 5; Wellburn, E. D., 1; *see also* Durham.
- , zones.—Arber, E. A. N., 5.
- , *See also* Culm, &c.
- Carboniferous Limestone, Belgium. — Destinez, P., 1; Moulán, T. C., 2; Kersten, J. 2.
- Carboniferous Limestone, Bristol.—Moran, C. L., 1.
- , Derbyshire. — Arnold-Bemrose, H. H., 1.
- , Durham, &c.—Clough, C. T., 1.
- , France.—Delépine, G., 2.
- , Lancashire.—Hind, W., 1.
- Carborundum, crystallography of. — Negri, G. B., 1.
- Carcharias*.—Eastman, C. R., 2.
- Carcharodon*.—Eastman, C. R., 2; Koch, A., 4.
- Cardiff (Glam.).—Strahan, A., 2.
- Cardioceras*.—Loriol, P. de, 1.
- Cardiodon*.—Bush, L. P., 1.
- Cardiola*.—Walther, K., 1.
- Cardita*.—Casey, T. L., 1.
- Cardite.—Meunier, S., 2.
- Cardium*.—Bis tram, A. von, 1; Dainelli, G., 3; Etheridge, R., Fil., 2; Franchis, F. de, 1; Shattuck, G. B., 1.
- *pseudo-edule*-beds, Samara Gov.—Neustruev, S., 1.
- Carical (India). *See* Karikal.
- Carinthia (Austria).—Baumgärtel, B., 1; Häfer, H., 2.
- Carleton Co. (Ontario).—Ells, R. W., 3.
- Carlsbad (Bohemia).—Prinz, W., 3.
- Carlton Hill (Ayr).—Smith, J., 1.
- Carnot (Algeria).—Ficheur, E., 1.
- Carolina, N. (U.S.A.).—Watson, T. L., 1; Woodward, J. B., 1.
- Carpathian Mts. (Hungary).—Beck, H., 1; Liebus, A., 2; Lugeon, M., 2; Martome, E. de, 1; Schafarzik, F., 1 & 2; Sevastos, R., 2; Simionescu, J. T., 1; Uhlig, V., 2, 3, & 4; Vettors, H., 1; Zuber, R., 1.
- Carpentaria, Gulf of (Queensland). — Jackson, C. F. V., 3.
- Carrara (Tuscany). — Clerici, E., 1; Elsdén, J. V., 9.
- Carydium*.—Maurer, F., 1.
- Casas Grandes (Mex.).—Tassin, W., 1.
- Casentino (Tuscany).—Lotti, B., 2.
- Caseville (Basses-Pyrénées).—Carez, L., 3.
- Caspian Sea.—Ochsenius, C., 5.
- Cassel (Hesse). — Beyschlag, F., 1; Denckmann, A., 2; Hornstein, F., 1; Stille, H., 4; Walther, K., 1.
- Cassis*.—Cossmann, M., 2.
- Cassiterite.—Seymour, H. J., 3.
- Castanea*.—Engelhardt, H., 1.
- Castleton (Derby).—Stobbs, J. T., 2.
- Castoridae, Quaternary.—Bosco, C., 1.
- Catalogue of Scientific Literature. — Morley, H. F., 1-4.
- Catalonia (Spain). — Vidal, L. M., 1; Zeiler, R., 2.
- Caterpillars, fossil.—Trotter, A., 1.
- Caturus*.—Savauge, H. E., 2.
- Caucasus.—Anderson, F., 1; Dervis, V., 1; Læwinson-Lessing, F., 1; Michalovski, G. P., 1; Nikitin, S., 1; Reid, H. F., 1; Yermolov, A., 1.
- Caupolicán (Bolivia).—Evans, J. W., 1 & 2.
- 'Causses,' France.—Martel, E. A., 6.

- Caverns & caves, artificial production of.—Meunier, S., 15.
- , Aveyron.—Fourmier, E., 1.
- , Cyprus.—Woodward, H., 6.
- , Derbyshire.—Dawkins, W. B., 1.
- , Devon.—Ussher, R. J., 1.
- , Dordogne.—Martel, E. A., 4;
- , Moissan, H., 2; Rivière, E., 1.
- , Gibraltar.—Acland, H. D., 1.
- , Haute-Garonne.—Boule, M., 1.
- , Ireland.—Præger, R. L., 1;
- , Ussher, R. J., 1.
- , Lebanon.—Nehring, A., 1.
- , Lombardy.—Flores, E., 1.
- , Lot.—Viré, A., 1.
- , Mentone.—Gaudry, A., 1.
- , Missouri.—Gould, C. N., 1.
- , Muotta Valley.—Otter, J., 1.
- , New South Wales.—Pittman, E. F., 1.
- , San Diego (Cal.).—Lakes, A., 10.
- , Santander.—Cartailiac, E., 1.
- , Seine-Inférieure.—Fortin, R., 1.
- , Swiss Jura.—Forel, F. A., 2.
- Caythorpe (Lincoln).—Preston, H., 1.
- Cayuga, Lake (N.Y.).—Cleland, H. F., 1.
- Cecil Co. (Md.).—Bascom, F., 1.
- Celastrus*.—Knowlton, F. H., 1.
- Celebes I. (D.E.I.).—Koperberg, M., 1;
- , Truscott, W. F. A., 1.
- Celastine.—Samoilov, J., 1.
- Celestite.—Millosevich, F., 1; Pratt, J. H., 12; Ternier, P., 2.
- Celle (Hanover).—Ochseniun, C., 1.
- Cellepora*.—Maplestone, C. M., 1.
- Cellular Magnesian Limestone, Durham.—Abbott, G., 1.
- Celsian.—Strandmark, J. E., 1.
- Cement-marls, Cambridgeshire.—Clayton, E. G., 1.
- , Hungary.—Koch, A., 2.
- Cements, Portland.—Kimball, L. L., 6;
- , Russell, I. C., 2; Taff, J. A., 2.
- Cemetery sites, geology &.—Couppey de la Forest, M. le, 1.
- Cenomanian, Devon, &c. — Jukes - Browne, A. J., 4.
- , Provence.—Jacob, C., 1; Repelin, J., 1.
- , *See also* Cretaceous.
- Centronella*.—Maurer, F., 1; Weller, S., 2.
- Cephalomys*.—Ameghino, F., 4.
- Cephalopoda, Carboniferous.—Crick, G. C., 2; Foord, A. H., 1; Smith, J. P., 1.
- , Cretaceous.—Bogoslovski, N. A., 1; Burckhardt, C., 1; Etheridge, R., Fil., 2; Kossmat, F., 1; Sarasin, C., 2; Shattuck, G. B., 1; Solger, F., 1; Weller, S., 1; Whitfield, R. P., 2; Wollemann, A., 1; Uhlig, V., 1; Yabe, H., 1.
- , Devonian.—Drevermann, F., 3; Haug, E., 3.
- , evolution of.—Hørnes, R., 4.
- Cephalopoda, Jurassic.—Buckman, S. S., 2; Burckhardt, C., 1; Fucini, A., 1 & 2; Loriol, P. de, 1.
- , mode of existence.—Ruedemann, R., 2.
- , Ordovician.—Crick, G. C., 1.
- , Silurian.—Weller, S., 2.
- , Triassic.—Airaghi, C., 1; Franz, V., 1; Frech, F., 1; Hørnes, R., 5; Kittl, E., 1; Schellwien, E., 1; Tommasi, A., 1.
- , *See also* Ammonites, &c.
- Cephalotheca*.—Nathorst, A. G., 1.
- Ceram (D.E.I.).—Rudolph, E., 3.
- Ceraterpeton*.—Jäkel, O., 2.
- Ceratites*.—Airaghi, C., 1.
- Ceratotheca*.—Drevermann, F., 2.
- Ceratotrochus*.—Denmant, J., 1; Felix, J., 2.
- Ceriocrinus*.—Beede, J. W., 1.
- Ceriopora*.—Dacqué, E., 1.
- Cerithiella*.—Chartron, C., 1.
- Cerithium*.—Cossmann, M., 1; Franchis, F. de, 1; Hørnes, R., 1; Longhi, P., 1; Shattuck, G. B., 1.
- , *Diaboli*-beds.—Haug, E., 2.
- , limestone, Hesse.—Steuer, A., 2.
- Cerussite.—Pettard, W. F., 1; Warren, C. H., 1.
- Cervus*.—Alessandri, G. de, 1; Ameghino, F., 2; Hepburn, D., 1; Serrander, R., 1; Smallwood, W. M., 1; Venukov, P. I., 1.
- Cestracion*.—Eastman, C. R., 1; Leriche, M., 1.
- Cetacea, Tertiary.—Abel, O., 1; Delheid, E., 2.
- Cetiosaurus*.—Bush, L. P., 1.
- Cetona, Mte (Tuscany).—Fucini, A., 1.
- Ceylon.—Coomáráswamy, A. K., 2 & 5; Launay, L. de, 3; Lomas, J., 6; Prior, G. T., 5.
- Chabalis (Savoy).—Lugeon, M., 5.
- CHADWICK, S. *See* *Obit.*, Anon., 4.
- Chæthomites*.—Pampaloni, L., 1.
- Chalcopyrite.—Lespineux, G., 1; Schaller, W. T., 1.
- Chaleux (Namur).—Van den Broeck, E., 15.
- Chalk, Arkansas.—Taff, J. A., 2.
- , Berkshire.—Blake, J. H., 1.
- , boulders, Scania.—Holst, N. O., 1.
- , Carpathian.—Liebus, A., 2.
- , Denmark.—Ravn, J. P. J., 2.
- , dephosphatisation of phosphatic.—Gosselet, J., 3.
- , Devon.—Jukes-Browne, A. J., 4 & 6; Rowe, A. W., 2.
- , Hanover, &c.—Lamplugh, G. W., 2; Wollemann, A., 1 & 3.
- , Herts.—Jukes-Browne, A. J., 6; Woodward, H. B., 2 & 9.
- , Kent, Sussex, &c.—Jukes-Browne, A. J., 6; Woodward, A. S., 8.
- , Nord.—Dollé, L., 1; Lagaisse, —, 1; Lebrun, —, 1.
- , Norfolk.—Elsden, J. V., 5; Jukes-Browne, A. J., 6.

- Chalk, Paris Basin.—Cauu, F., 2.
 —, phosphatic.—Briquet, A., 1 & 2;
 Lasne, H., 1; Rabelle, —, 1.
 —, Provence.—Douvillé, H., 4; Toucas, A., 1.
 —, sedimentation of.—Gosselet, J., 4.
 —, Suffolk.—Jukes-Browne, A. J., 3 & 6.
 —, Wiltshire.—Jukes-Browne, A. J., 6; Reid, C., 7; Rowe, A. W., 1.
 —, zones.—Jukes-Browne, A. J., 3 & 6; Rowe, A. W., 1 & 2; Schrammen, A., 1; Woodward, H. B., 7.
 Chalk-rubble, Sewerby.—Lamplugh, G. W., 3.
 Chalybite.—Hutchinson, A., 1.
 Chamblon (Vaud).—Stehlin, H. G., 2.
 Champlain, Lake (U.S.A.).—Upham, W., 5.
 Charleston (W. Va.).—Campbell, M. R., 3.
 Charmouth (Dorset).—Lang, W. D., 1.
 Charnwood Forest (Leicester).—Bennett, F. W., 1; Watts, W. W., 1; Woodward, H. B., 6.
 Chartres (Eure-et-Loir).—Dollfus, G. F., 5.
Chartronia.—Buckman, S. S., 2; Chartron, C., 1.
 Châtel-Saint Denis (Switzerland).—Sarasin, C., 2.
 Cheadle (N. Staffs.).—Barrow, G., 1.
 Cheesewring, the (Cornwall).—Hull, E., 2.
Cheirodus.—Eastman, C. R., 1.
Cheirolepis.—Møller, H., 1.
Cheirotherium.—Beasley, H. C., 1.
Cheliphlebia.—Melander, A. I., 1.
 Chelonia, Cretaceous. — Andrews, C. W., 1 & 5; Dollo, L., 2; Hay, O. P., 1; Osborn, H. F., 4; Wieland, G. R., 1.
 —, Jurassic.—Fraas, E., 2.
 —, Tertiary.—Dollo, L., 1 & 2; Færster, B., 7; Lœrenthey, E., 2; Lydekker, R., 1; Stefano, G. de, 3.
 Cheltenham (Gloucester).—Wethered, E. B., 1.
 Chemical classification, eruptive rocks.
 —Ans, J. d', 1.
 — laboratory, Canad. Geol. Survey.—Hoffmann, G. C., 1; Hungarian Geol. Survey.—Kalecsinsky, A. von, 1.
 Chemistry, geology &.—Gans, R., 1; *see also* Soils, &c.
 Cher (France).—Lamothe, R. de, 1; Péron, A., 1.
 Cherbourg (Normandy).—Bigot, A., 6.
 Chert, origin of.—Raisin, C. A., 1.
 Cherty limestone, Nile Valley.—Beadnell, H. J. L., 1.
 Cheshire.—Edwards, W., 1 & 2; Pickstone, W., 1.
 Chesterfield Inlet (Keewatin).—Hanbury, D. T., 1.
 Cheviot Hills (Northumberland).—Kendall, P. F., 3.
 Chiapas (Mexico).—Collins, H. F., 1.
 Chichester (Sussex).—Reid, C., 5 & 6.
 Chihuahua (Mex.).—Lakes, A., 7 & 8; Weed, W. H., 2 & 3.
 Chiknayakanhalli (Mysore).—Sambasiva Iyer, V. S., 1.
 Chile (S. Am.).—Burckhardt, C., 1; Hauthal, R., 1; Labastie, F., 1; Paulcke, W., 1; Salcedo, J. V., 1; Sundt, L., 1.
 Chi Li (China).—Drake, N. F., 1; Hoover, H. C., 1; Moller, W. A., 1.
 China. —Crick, G. C., 1; Drake, N. F., 1; Frech, F., 1; Hoover, H. C., 1; Moller, W. A., 1; Monke, H., 1; Schellwien, E., 1; Wright, G. F., 1.
 Ching Chow Fu (Shantung).—Crick, G. C., 1.
 Chipping Sodbury. *See* Sodbury.
Chiropteris.—Seward, A. C., 2.
 Chitaldrug (Mysore).—Sambasiva Iyer, V. S., 1 & 2.
 Chiuppano Hills (Venetia).—Patrini, P., 1.
Chlamys.—Ugolini, R., 4.
 Chlorite.—Fromme, J., 1; Pettard, W. F., 1.
 Chloromelanite. —Colomba, L., 2; Franchi, S., 3.
 Chobham Ridges (Surrey).—Monckton, H. W., 3.
Chœrina.—Pavlov, P. S., 2.
Chomatodus.—Eastman, C. R., 1.
Chondrodonta.—Douvillé, H., 5; Hœernes, R., 2; Schubert, R. J., 3; Stanton, T. W., 1.
Chonetes.—Chapman, F., 1; Weller, S., 2.
 Christchurch (N.Z.).—Farr, C. C., 2.
 Christmas I.—Skeats, E. W., 1.
 Chromite, Baluchistan.—Holland, T. H., 3.
 —, United States.—Pratt, J. H., 10.
 Chrysocolla.—Lovisato, D., 2; Palmer, C. M., 1.
Chrysodomus.—Nelli, B., 1.
Chrysophrys.—Gorjanović-Kramberger, K., 1.
Chrysostoma. —Bistram, A. von, 1; Gortani, M., 3.
 Church Stretton (Salop).—Cobbold, E. S., 1.
Chytra.—Moore, J. E. S., 1.
Cidaris.—Gauthier, V., 1; Longhi, P., 1; Liori, P. de, 2.
 Cilician Taurus (Anatolia).—Schaffer, F. X., 1-3; Toula, F., 1.
 Cimini, Monti (Campania).—Fantappié, L., 1; Sabatini, V., 2.
 — tuff, formation of, & Ciminite.—Fantappié, L., 1.
Cimolichthys.—Branner, J. C., 1; Leriche, M., 1.
Cimoliosaurus.—Williston, S. W., 4.
 Cincinnati anticline.—Første, A. F., 1.
 — formation, Tennessee.—Første, A. F., 2.

- Cinglais, Pays de (Calvados).—Bigot, A., 5.
- Cingoli (Marches, Italy).—Moderni, P., 1.
- Cinnabar.—Achiardi, G. d', 5; Lotti, B., 3.
- Cinnamomum*.—Engelhardt, H., 1; Knowlton, F. H., 1.
- Cinulia*.—Etheridge, R., Fil., 2.
- Cionobrissus*.—Gauthier, V., 1.
- Cirripede, Tertiary.—Benham, W. B., 1.
- Cladiscothallus*.—Renault, B., 4.
- Cladocora*.—Felix, J., 3.
- Cladodus*.—Eastman, C. R., 1.
- Cladopora*.—Weller, S., 2.
- Claosaurus*.—Beecher, C. E., 2.
- Clapsavon, Monte (Carnic Alps).—Tommasi, A., 1.
- Clarendon (Otago).—Park, J., 1.
- CLARKE Collection, Woodwardian Museum.—Kurtz, F., 1.
- Clathurella*.—Cossmann, M., 2.
- Clausilia*.—Pilsbry, H. A., 1.
- Clava*.—Hærnes, R., 1.
- Clavagella*.—Dollfus, G. F., 6.
- Clay, Alsace-Lorraine.—Van Werveke, L., 16.
- , Brittany.—Bézier, T., 1.
- , Camerino.—Mariani, M., 1.
- , Emilia.—Sangiorgi, D., 1.
- industries, United States.—Middleton, J., 1.
- , Ireland.—Elsden, J. V., 8.
- , magnetism of Royat burnt.—Brunhes, B., 1.
- , Maryland.—Clark, W. B., 3 & 4.
- , nitrogen in.—Miller, N. H. J., 1.
- , pockets, Chalk, Nord.—Dollé, L., 1.
- CLAYPOLE, E. W. *See Obit.*, Comstock, T. B., 1.
- Clee Hill (Shropshire).—Moore, H. C., 1.
- Clermont (Queensl.).—Dunstan, B., 2.
- Cles (Tyrol).—Tietze, E., 5.
- Cleveite.—Barker, G. F., 1.
- Cleveland (Yorkshire).—Clark, J. E., 1; Hawell, J., 1; P'Anson, J. C., 1.
- Clidastes*, Williston, S. W., 2.
- Cliffs, Picardy.—Bardou, —, 1.
- , San Diego (Cal.).—Lakes, A., 10.
- Clifton Hampden (Oxon).—Pears, T., 1.
- Cligga Head (Cornwall).—Scrivenor, J. B., 1.
- Climates, evolution of.—Manson, M., 2; Wieland, G. B., 2.
- , geological.—Knipovich, N., 1.
- Clinochlore.—Pettard, W. F., 1.
- Clinton (N. Terr., S. Austr.).—Brown, H. Y. L., 4; Chewings, C., 1.
- Clinton Limestone, Ohio.—Claypole, E., 1.
- Clintonia*.—Penhallow, D. P., 1.
- CLOSE, M. H. *See Obit.*, Anon., 5; Cole, G. A. J., 5.
- Cnoc-na-Sroine (Sutherland).—Goodchild, J. G., 11.
- Coahuila (Mexico).—Ludlow, E., 1.
- Coal, analyses of British.—Anon., 18.
- , — of Pittsburg.—Haas, F., 1.
- , Australia.—Cameron, W. E., 2; Jackson, C. F. V., 3; Krusch, P., 1; Thompson, J. P., 1.
- balls.—Lomas, J., 5.
- , Belgium. *See* Campine, &c.
- , Bengal.—Adamson, T., 1.
- , British Columbia.—Prior, E. G., 1 & 2.
- , British, duration of supply.—Anon., 22; Davies, T. J., 1; Watts, W. W., 2.
- , Canada.—Ingall, E. D., 2.
- , China.—Hoover, H. C., 1; Moller, W. A., 1.
- , Colorado.—Hill, R. T., 2; Lakes, A., 15.
- fall Commission, Prussian.—Dobbers, —, 1; Meissner, —, 1.
- from fossil fish.—Sollas, W. J., 3.
- , gases in.—Bedson, P. P., 1; Brockmann, —, 1.
- , German E. Africa.—Macco, A., 1.
- , Gotland Cambrian.—Winkler, C., 1.
- , Great Britain, &c.—Foster, C. Le N., 2.
- , Heraklea.—Simmersbach, B., 1.
- , Hungary.—Kalecsinszky, A. von, 2.
- , Japan.—Anon., 26.
- , Lorraine.—Villain, F., 1.
- , Maryland.—Clark, W. B., 2.
- Measures. *See* Carboniferous.
- , Mendoza.—Bodenbender, G., 1.
- , Mexico.—Agnilera, J. G., 1; Ludlow, E., 1; White, W., Jun., 1.
- , Natal.—Gray, C. W., 1.
- , Newcastle (N.S.W.), undersea.—Atkinson, A. A., 1.
- , Nord & Pas-de-Calais.—Févre, —, 1; *see also* Boulonnais, &c.
- , Northumberland, undersea.—Forster, T. E., 1.
- , Nova Scotia.—Gilpin, E., Jun., 1 & 2.
- , Nyassa.—Henderson, J., 2.
- , Pennsylvania.—Adams, T. K., 1.
- , Rhenish Bavaria.—Ammon, L. von, 1.
- , Royal Commission.—Anon., 22.
- , Saghalin I.—Hawes, C. H., 1.
- , salt-water in.—Cornet, J., 1; Gevers-Orban, E., 1.
- , Tasmania.—Twelvetrees, W. H., 2 & 5.
- , Tomsk.—Pectz, H. von, 1.
- , Trinidad.—Anon., 20; Guppy, R. J. L., 1.
- , United States, occurrence.—Parker, E. W., 1.
- , Washington (U.S.A.).—Landes, H., 1.
- , White Horse, Yukon.—Brewer, W. M., 1.
- , Wyoming.—Knight, W. C., 1.

- Coalfields, Africa (S.).—Molyneux, A. J. C., 1; Sawyer, A. R., 2 & 3.
- , Alabama.—Hayes, C. W., 2.
- , Alaska.—Brooks, A. H., 1; Kir-sopp, J., Jun., 1.
- , Appalachian (N.).—White, D., 3.
- , Austria & Saxony.—Meissner, —, 1.
- , Belgium.—Dobers, —, 1; Harz, É., 1 & 2; Kersten, J., 1 & 2; Le-jeune de Schiervel, C., 1; Lohest, M., 1; Simoëns, G., 4-8; Stainier, X., 1-4.
- , Bohemia.—Bathe, E., 1; Meissner, —, 1; Weithofer, K. A., 1.
- , China.—Drake, N. F., 1.
- , Cumberland.—Arber, E. A. N., 3.
- , Dumfries.—Kidston, R., 2.
- , France.—Delafond, F., 1; Deville, Ste.-Cl., 1; Dobers, —, 1; Grossouvre, A. de, 5; Léon, —, 1.
- , Illinois & Indiana.—Ashley, G. H., 1 & 2.
- , India.—Grover, F., 1; Grundy, J., 1; Holland, T. H., 3; Stonier, G. A., 1 & 2.
- , Kansas.—Crane, W. R., 2.
- , Michigan.—Lane, A. C., 1 & 2.
- , Missouri.—Bain, H. F., 1.
- , Montana.—Rowe, J. P., 1.
- , New South Wales.—Pittman, E. F., 1; *see also* Australia.
- , Pacific Coast (U.S.A.).—Smith, G. O., 1.
- , Pennsylvania.—Heurteau, C. E., 1; Simmersbach, B., 1; Stök, H. H., 1.
- , Rocky Mts. (U.S.A.).—Stobbs, L. S., 1.
- , Saarbrück.—Meyer, G., 1.
- , Sabero.—Mallada, L., 1.
- , Staffordshire (N.).—Barrow, G., 1; Cadman, J., 1; Hind, W., 7; Stobbs, J. T., 3; Turner, E. P., 1.
- , United States, occurrence in.—Day, D. T., 1; Hayes, C. W., 1.
- , —, Eastern States.—Woodworth, J. B., 1.
- , —, Southwestern States.—Taff, J. A., 1; *see also* Illinois, &c.
- , Virginia (W.).—Heurteau, C. E., 1; Simmersbach, B., 1; Woodworth, J. B., 2.
- , Wales (S.).—Jordan, H. K., 1; Strahan, A., 2-5.
- , Westphalia.—Middelschulte, A., 1.
- , Yubari.—Anon., 26.
- Coast, Chile.—Sundt, L., 1.
- Coast-erosion.—Cole, G. A. J., 1; Lakes, A., 12.; O'Reilly, J. P., 1.
- Coast-Ranges, California.—Lawson, A. C., 1.
- Cobalt.—Caballero, G. de J., 1; Johnsen, A., 1; Pratt, J. H., 2.
- Coblentz (Rh.-Prussia).—Delkeskamp, R., 2.
- Coccosteus*.—Sollas, W. J., 3.
- Cochise Co. (Ar.).—Dumble, E. T., 1.
- Cochlespirella*.—Casey, T. L., 1.
- Cochlops*.—Scott, W. B.
- Cockroaches, Carboniferous.—Sellards, E. H., 1.
- Codiopsis*.—Lambert, J., 2.
- Codonotheca*.—Sellards, E. H., 2.
- Cælacanthus*.—Eastman, C. R., 1.
- Cæloenterata, geological zones &.—Goodchild, J. G., 4.
- Cælocystis*.—Schuchert, C., 5.
- Cælodus*.—Gorjanovič-Kramberger, K., 1; Leriche, M., 1; Longhi, P., 1.
- Cælostylina*.—Chartron, C., 1.
- Cænotherium*.—Depéret, C., 3.
- Cogne (Graian Alps).—Bonney, T. G., 3.
- Collie (W. Austral.).—Krusch, P., 1.
- Collingwood (N.Z.).—Park, J., 2.
- COLLINS, A. L. *See* *Obit.*, Lapworth, C., 1.
- Colombia (S. Am.).—White, R. B., 1.
- Colorado (U.S.A.).—Crosby, W. O., 2; Davis, W. M., 2; Eldridge, G. H., 1; Fellows, A. L., 1; Fenneman, N. M., 1; Hatcher, J. B., 2; Hill, R. T., 2; Lakes, A., 1, 4, 5, 9, 15; Lay, H. C., 1; Matthew, W. D., 3; Ransome, F. L., 1; Read, T. T., 1; Richard, T. A., 1; Stearns, R. E. C., 1; Stobbs, L. S., 1; Welles, A. M., 1; Yunge, G., 1.
- Columbus (Ga.).—McCallie, S. W., 2.
- Colymbus*.—Regalia, E., 1.
- Combe-Payne Hill (Dorset).—Woodward, H. B., 10.
- Comets.—Shaw, F. G.
- Como, Lake (N. Italy).—Artini, E., 2; Flores, E., 3.
- Comoseris*.—Osasco, E., 1.
- Compsognathus*.—Nopcsa, F. von, Jun., 8.
- Comstock (Tasm.).—Waller, G. A., 2.
- Concannon Farm, Lausing (Kan.).—Winchell, N. H., 3.
- Conchidium*.—Lotz, H., 1.
- Concretionary limestone, Mysore.—Wetherell, E. W., 4.
- Concretions, calcareous.—Hogg, E. G., 1.
- , Coal-Measure.—Lomas, J., 5.
- , Crechbarrow.—Hudleston, W. H., 1.
- , oolitic.—Erdmann, E., 1; Raisin, C. A., 1.
- , shore.—Du Bois, G. C., 1.
- Concud (Spain).—Woodward, A. S., 4.
- Condicote (Gloucester).—Richardson, L., 4.
- Condroz massif (Namur).—Simoëns, G., 1.
- Conducia (Portuguese E. Africa).—Choffat, P., 2 & 3.
- Cone-in-cone structure.—Reis, O. M., 1.
- Confusastræa*.—Osasco, E., 1.

- Conger*.—Pavlov, P. S., 1.
 Conglomerates, Bleiberg.—Høfer, H., 2.
 —, Bukhara gold.—Levat, E. D., 1.
 —, Malmely.—Van Werveke, L., 1.
 —, Permian.—Kendall, P. F., 1.
 —, quartz-etching in.—Fuller, M. L., 2.
 —, Rhein-Hesse Quaternary.—Schopp, H., 1; Swiss Quaternary.—Rollier, L., 1.
 —, Sydenham (Vict.).—Hart, T. S., 1.
 —, Ural Mts.—Duparc, L., 7.
 Congo Free State (Equatorial Africa).—Cornet, J., 5; Katanga, A., 1.
 Congress, Geological, Vienna, 1903.—Anon., 30.
 —, Seismological. — Montessus de Ballore, F. de, 4.
 Connecticut (U.S.A.).—Hobbs, W. H., 1, 3, 4 & 6.
Conoclypeus.—Checchia-Rispoli, G., 1; Gauthier, V., 1.
Conocyathus.—Dennant, J., 1.
 CONRAD Collection.—Casey, T. L., 1.
 Contact-deposits, Alaska.—Thomæ, W. F. A., 1.
 —, origin of.—Lindgren, W., 2; Weed, W. H., 5.
 —, metamorphism. — Achiardi, G. d', 1; Dalmer, K., 1; Weinschenk, E., 4; see also Metamorphism, Ores, &c.
 —, minerals.—Fromme, J., 1.
 Continents, origin of.—Mackie, W., 2.
 Contraction-cylinder, igneous rock. — Kueppers, E., 1.
Conularia.—Walther, K., 1.
Conus.—Casey, T. L., 1.
 Cook Inlet (Alaska).—Kirsopp, J., Jun., 1.
 Coolgardite.—Spencer, L. J., 1.
 Coorongite.—Cumming, A. C., 1.
 Copenhagen (Denmark).—Zachariæ, —, 1.
 Copiapite.—Schaller, W. T., 1.
 Copper, Alsace-Lorraine. — Schweitzer, J., 1.
 —, Arizona.—Palmer, C. M., 1.
 —, Bathurst Inlet. — Hanbury, D. T., 1.
 —, British Columbia.—Johnson, P., 1.
 —, Canada.—Dickson, C. W., 1; Ingall, E. D., 2.
 —, Colorado.—Ransome, F. L., 1.
 —, Congo Free State.—Cornet, J., 5; Katanga, A., 1.
 —, crystallized.—Ites, P., 1.
 —, Harz.—Hornung, F., 1.
 —, Lake Superior.—Grant, U. A., 1; Vattier, C., 1.
 —, Mexico.—Aguilera, J. G., 1.
 —, Michigan.—Jackson, J. F., 1.
 —, New Jersey.—Kuemmel, H. B., 1; Weed, W. H., 6.
 —, New South Wales.—Pittman, E. F., 1.
 —, Nova Scotia.—Gilpin, E., Jun., 1.
 —, Old Red Sandstone, Scotland.—Mackie, W., .
 Copper, Peru.—Stevanovič, S., 1.
 —, Prussian Saxony.—Naumann, E., 1.
 —, Queensland.—Ball, L. C., 3; Cameron, W. E., 2.
 —, Sardinia.—Rimatori, C., 2.
 —, Styria.—Redlich, K. A., 1.
 —, Tasmania.—Waller, G. A., 3.
 —, Tennessee.—Kemp, J. F., 3.
 —, Turkestan.—Levat, E. D., 1.
 —, United States production.—Day, D. T., 1; Kirchoff, C., 1.
 —, Virginia & N. Carolina.—Watson, T. L., 1.
 Coprolites, *Iguanodon*.—Bertrand, C. E., 1.
 Coral, disintegration of.—Duerden, J. E., 1.
 —, islands, Pacific.—Reed, F. R. C., 3.
 —, limestone, composition. — Skeats, E. W., 1.
 —, reefs, Bermuda, &c.—Verrill, A. E., 1 & 2.
 —, destruction by algæ, &c.—Gardiner, J. S., 2.
 —, formation of.—Agassiz, A., 2; Gardiner, J. S., 1; Strijov, I. N., 1.
 —, Pacific. — Agassiz, A., 1
 —, Sherlock, R. L., 1.
 —, Pemba.—Crossland, C., 1.
 Corals, Carboniferous.—Angelis d'Ossat, G. de, 2.
 —, Cretaceous.—Felix, J., 1-3; Longhi, P., 1; Shattuck, G. B., 1; Volz, W., 1.
 —, Devonian. — Beecher, C. E., 1; Benecke, E. W., 4; Penecke, K. A., 1; Schuchert, C., 4; Weller, S., 2.
 —, Jurassic.—Bistram, A. von, 1; Steinmann, G., 4.
 —, in N. German Drift.—Oppenheim, P., 4.
 —, reef-building.—Verrill, A. E., 2.
 —, Rhætic.—Tomes, R. F., 1.
 —, Silurian.—Etheridge, R., Fil., 3; Goodchild, J. G., 4; Weller, S., 2.
 —, Tertiary.—Angelis d'Ossat, G. de, 4; Dennant, J., 1; Felix, J., 3; Oppenheim, P., 2 & 6; Osasco, E., 1; Savornin, J., 1; Steinmann, G., 3.
 —, Triassic.—Angelis d'Ossat, G. de, 5; Papp, C., 1; Tomes, R. F., 1.
Corax.—Leriche, M., 1.
Corbicula.—Etheridge, R., Fil., 2.
Corbis.—Bistram, A. von, 1; Daqué, E., 1.
Corbula.—Casey, T. L., 1; Dollfus, G. F., 6; Franchis, F. de, 1.
Corbulomya.—Dollfus, G. F., 6.
Cordaicladus.—Zeiller, R., 2.
 Cordierite.—Fromme, J., 1; Lacroix, A., 8.
 CORFIELD, W. H. See *Obit.*, Woodward, H., 10.
 Cork, Co. (Ireland).—Muff, H. B., 1.

- Corniferous Limestone, Ohio.—Claypole, E. W., 1.
 Cornou (Tyrol).—Ippen, J. A., 2.
Cornuspira.—Schick, T., 1.
 Cornwall.—Collins, J. H., 1; Flett, J. S., 1; Fox, H., 1 & 2; Hill, J. B., 1; Hull, E., 2; Hutchinson, A., 1; Johnson, J. P., 1; Kennard, A., 1; Parkinson, J., 1; Reid, C., 2; Scrivenor, J. B., 1; Ussher, W. A. E., 1; Woodward, H., 1.
 Corsica, I. of.—Castelnaud, P., 1; Rikli, M., 1; Tornquist, A., 4.
 Corundum, Ceylon.—Coomaraswamy, A. K., 2.
 —, Mysore.—Primrose, A., 1.
 —, United States.—Kunz, G. F., 3; Lawton, A. C., 2; Pratt, J. H., 5.
Corvus.—Regalia, E., 1.
 Corydon (Ind.).—Ashley, G. H., 1.
 Cossa, A. *See* *Obit.*, Mattiolo, E., 1 & 2.
 COSTA, O. G. *See* Fornasini, C., 2.
 Cotteswold Hills (Gloucester, &c.). — Buckman, S. S., 4; Richardson, L., 4.
 Cottian Alps. *See* Alps.
 Cottonwood Limestone, Kansas.—Beede, J. W., 3.
 Couasine, Buttes de (Ille-et-Vilaine).—Kerforme, F., 2.
 Coux, Col de (Savoy). — Preiswerk, H., 1.
 Cowley (Gloucester). — Richardson, L., 1.
 Crag, East Anglian.—Monckton, H. W., 1 & 6.
 Crane-Low Farm (Derby). — Arnold-Bemrose, H. H., 1.
Crania.—Weller, S., 2.
Craniella.—Chapman, F., 1.
Crassatellina.—Yakovlev, N., 1.
Crassatellopsis.—Maurer, F., 1.
Cratægus.—Knowlton, F. H., 1.
Cratiularia. — Ungern-Sternberg, E. von, 1.
 Crater Lake (Or.).—Bonney, T. G., 9; Diller, J. S., 3.
 —, Soufrière, St. Vincent.—Sapper, K., 12.
 Crayford (Kent).—Salter, A. E., 1.
 Crechbarrow (Dorset).—Hudleston, W. H., 1.
 Creede (Colo.).—Lakes, A., 6.
Creniceras.—Loriol, P. de, 1.
 Cretaceous, Algeria.—Fourtau, R., 2; Ritter, E., 1; Riaz, A. de, 1.
 —, Andes. — Burckhardt, C., 1; Paulcke, W., 1.
 —, Antarctic.—Weller, S., 1.
 —, Apulia.—Franchis, F. de, 1.
 —, Argentina. — Ameghino, F., 2; Burckhardt, C., 1.
 —, Ariège.—Carez, L., 5 & 7.
 —, Arkansas.—Taff, J. A., 2.
 —, Australia.—Thompson, J. P., 1.
 —, Austria (U.).—Felix, J., 2.
 —, Baluchistan.—Nœtling, F., 1.
 —, Bedfordshire.—Home, H., 1.
 Cretaceous, Belgium.—Lambert, J., 3.
 —, Berks.—Lamplugh, G. W., 1.
 —, Bohemia & Saxony.—Petrascheck, W., 1.
 —, Boulogne.—Rigaux, E., 1.
 —, Canada.—Hatcher, J. B., 1; Osborn, H. F., 4.
 —, Cape Colony.—Rogers, A. W., 3.
 —, Chile.—Paulcke, W., 1.
 —, classification of.—Dollfus, G. F., 3.
 —, Crete, I. of.—Cayeux, L., 2.
 —, Dakota (S.).—Lucas, F. A., 6.
 —, Denmark.—Ravn, J. P. J., 1 & 2.
 —, Dorset.—Lang, W. D., 1.
 —, Egypt.—Beadnell, H. J. L., 1; Dacqué, E., 1; Fourtau, R., 3.
 —, England.—Jukes-Browne, A. J., 6; Lamplugh, G. W., 1; Rowe, A. W., 2; Woodward, A. S., 8; *see also* Berks, &c.
 —, Fribourg (Switzerland).—Sarasin, C., 2.
 —, Goritz.—Hærnes, R., 2.
 —, Greece.—Cayeux, L., 1.
 —, Hanover.—Lamplugh, G. W., 2; Wollemann, A., 1 & 3.
 —, Haute-Garonne, &c.—Carez, L., 4.
 —, Hungary.—Liebus, A., 2; Pálffy, M. von, 2; Pethœ, J., 3.
 —, Japan.—Yabe, H., 1.
 —, Kansas.—Eaton, G. F., 2; Lindgren, W., 2.
 — land-mollusca, Oppeln.—Michael R., 2.
 — limestone, Calloneghe. — Longhi, P., 1.
 —, Lippe-Schaumburg.—Harbort, E., 1.
 —, Maryland. — Clark, W. B., 1 & 4.
 —, Montana.—Rowe, J. P., 1; Stanton, T. W., 2; Willis, B. I., 1.
 —, Montenegro.—Antula, J., 1.
 —, Mozambique. — Choffat, P., 2 & 3.
 —, Nebraska.—Barbour, E. H., 1.
 —, New Jersey.—Parsons, A. L., 1.
 —, Nord.—Leriche, M., 1.
 —, Oregon.—Washburne, C., 1.
 —, Paris Basin.—Canu, F., 2.
 —, Patagonia.—Ameghino, F., 6.
 —, Persia.—Cotteau, G., 1.
 —, Provence.—Jacob, C., 1; Pellat, E., 1.
 —, Queensland.—Gregory, J. W., 6.
 —, Rumania.—Sevastos, R., 2.
 —, Russia.—Bogoslovski, N. A., 1; Borisiak, A., 1.
 —, Salt Range.—Koken, E., 2; Seeley, H. G., 1.
 —, Servia.—Eletz, V. M., 1.
 —, Silesia.—Scupin, H., 1; Uhlig, V., 1.
 —, Sokotra.—Kossmat, F., 1.
 —, Texas, &c.—Shattuck, G. B., 1.
 —, Tunis.—Pervinquièrre, L., 1.
 —, Umbria.—Lottì, B., 1.

- Cretaceous, Venetia.—Airaghi, C., 2; Oppenheim, P., 5.
 —, Wiltshire.—Reid, C., 7; Rowe, A. W., 2.
 —, Wyoming.—Hatcher, J. B., 1.
 —. *See also* Danian, &c.
 Crete, I. of.—Cayeux, L., 2-6.
 Creuse (France).—Michel-Lévy, A., 1.
 Creusot, (Saône-et-Loire).—Delafond, F., 1.
 Crewe (Cheshire).—Edwards, W., 1.
Criobroblastus.—Hambach, G., 1.
 Crinoidea, Carboniferous.—Beede, J. W., 1.
 —, Cretaceous.—Loriol, P. de, 2; Wollemann, A., 1.
 —, Devonian.—Drevermann, F., 2; Hambach, G., 1.
 —, Silurian.—Grabau, A. W., 1; Schuchert, C., 5.
Crioceras.—Sarasin, C., 2.
Cristellaria.—Schick, T., 1.
 Croatia.—Gorjanović-Kramberger, K., 2; Lapouge, G. de, 2.
 Crocoisite.—Pettard, W. F., 1.
 Cross Hands (Caermarthen).—Strahan, A., 3.
 Crowle (Worcester).—Richardson, L., 3.
 Crow's Nest (N.W. Canada).—Lakes, A., 11.
 Crozon (Britanny).—Barrois, C., 5.
 Cruzlin (Antrim).—Gurney, H. P., 1.
 Crustacea, Carboniferous.—Baldwin, W., 2; Rogers, A. F., 1.
 —, classification of.—Packard, A. S., 2.
 —, evolution of.—Woodward, H., 12.
 —, Tertiary.—Færster, B., 5; Woodward, H., 5.
 —. *See also* Trilobites, &c.
 Cryolite.—Baud, E., 1; Pratt, J. H., 7.
Cryphaeus.—Walther, K., 1.
 Cryptogams, Palæozoic.—Renault, B., 1; Scott, D. H., 1; *see also* Plants.
Cryptospira.—Cossman, M., 2.
 Crystalline boulders, Sylt, &c.—Petersen, J., 1.
 — rocks, Maryland.—Bascom, F., 1.
 — schists, granite &c.—Greenly, E., 1; *see also* Metamorphic, &c.
 Crystallization, mineral interic.—Delkeskamp, R., 1; Muegge, O., 1.
 —, order of mineral.—Dälter, C., 1; Fedorov, E. S., 4.
 Crystallography.—Fedorov, E. S., 2-6; Geinitz, E., 1; Miers, H. A., 2; Rogers, A. F., 3; Sprockhoff, M., 1; Tschermak, G., 1; Viola, C., 1, 3 & 4; Williams, G. H., 1; Wright, F. E., 1.
 —, 1901-1902.—Morley, H. F., 1.
 Crystals, classification of.—Wallerant, F., 1.
 —, etched figures.—Goldschmidt, V., 1 & 3.
 —, formation of.—Gaubert, P., 1.
 —, gnomonic projection.—Smith, G. F. H., 2.
 —, primitive form of.—Wallerant, F., 2.
 Crystals, rock-section.—Steber, F., 2.
 —, structure of.—Baumbauer, H., 1; Viola, C., 1, 3 & 4.
 —, symmetry of.—Melzer, G., 2; Sommerfeldt, E., 1.
 —, twinning of.—Viola, C., 5; Johnsen, A., 2.
Ctenacanthus.—Eastman, C. R., 1.
Ctenodonta.—Drevermann, F., 2; Maurer, F., 1; Walther, K., 1; Weller, S., 2.
Ctenodus.—Leriche, M., 1.
Ctenomys.—Ameghino, F., 2.
Ctenopteris.—Penhallow, P. D., 1.
 Cuba (W. I.).—Birkinbine, J., 1; Eigenmann, C. H., 1.
Cucullæa.—Burckhardt, C., 1; Daqué, E., 1; Shattuck, G. B., 1.
Cucullella.—Maurer, F., 1; Walther, K., 1.
 Cucuron (Vaucluse).—Savornin, J., 2.
 Cue (W. Austral.).—Campbell, W. D., 1.
 Cuesmes (Hainault).—Kersten, J., 1.
 Cuillin Hills (Skye, I. of).—Harker, A., 1.
 Culm, Hesse.—Parkinson, H., 1.
 —, Rhenish Prussia.—Drevermann, F., 2.
 Cumberland.—Anon., 18; Arber, E., A. N., 3; Burns, D., 1; Kendall, P. F., 1; Nall, W., 1; Postlethwaite, J., 1; Walker, E. E., 1; Walker, W. E., 1.
 Cumbræ Is. (Scotland).—Gunn, W., 1.
 Cupro-uranite.—Buchholz, Y., 1.
 Cushendall (Antrim).—Knowles, W. J., 2.
 Cutch (India).—Kitchin, F. L., 1.
 Cuyuni River (Brit. Guiana).—Harrison, J. B., 1.
Cyathomorpha & *Cyathophora*.—Osasco, E., 1.
Cyathophyllum.—Penecke, K. A., 1.
Cyathosmia.—Dennant, J., 1.
 Cycad-fruits.—Compter, G., 1.
Cycadocarpidium, *Cycadocephalus*, & *Cycadospadir*.—Nathorst, A. G., 2.
Cyclamina.—Herrmann, A., 1; Liebus, A., 2.
Cyclolites.—Felix, J., 2 & 4; Longhi, P., 1.
Cyclolobus.—Gortani, M., 3.
Cyclus.—Rogers, A. F., 1.
Cylindrobullina.—Bistram, A. von, 1; Chartron, C., 1.
Cyllene.—Cossman, M., 2.
Cyonasua.—Ameghino, F., 4.
Cyperacetes.—Knowlton, F. H., 1.
Cyphaspis.—Weller, S., 2.
Cyphastrea.—Felix, J., 3.
Cyphosoma.—Paulcke, W., 1.
Cypræa.—Shattuck, G. B., 1.
Cypricardella.—Maurer, F., 1.
Cyprina & *Cytherea*.—Etheridge, R., Fil., 2.
 Cyprus.—Agamemnone, G., 1; Bate, D. M. A., 1; Woodward, H., 6.
Cyrtina.—Bittner, A., 1; Ehlert, D. P., 1; Weller, S., 2.

- Cyrtodontarca*.—Yakovlev, N., 4.
 Czarkowy (Russian Poland).—Shkljarevski, A., 1.
Czekanowskia.—Møller, H., 1.
- Dacite, Caucasus.—Lœwinson-Lessing, F., 1.
 —, Oregon.—Diller, J. S., 3.
Dadoxylon.—Scott, D. H., 1.
 Daghestan Gov. (Caucasus).—Golubyatnikov, D. V., 1; Vernadski, V., 1.
 Dahlonaga (Ga.).—Eckel, E. C., 1.
 Dakota (U.S.A.).—Irving, J. D., 1; Lucas, F. A., 3 & 6; Richardson, G. B., 1; Stobbs, L. S., 1; Todd, J. E., 1.
 Dalecarlia (Sweden).—Lœfstrand, G., 1.
Dalmanella.—Weller, S., 2.
 Dalmatia.—Bittner, A., 1; Bukowski, G. von, 1; Hørnes, R., 2; Kerner, F. von, 1-6; Kittl, E., 1; Schubert, R. J., 1-3; Tietze, E., 4.
 DAMOUR, A. A. *See Obit.*, Voit, C., 1.
 Danburite.—Weber, M., 2.
 Danian.—Grossouvre, A. de, 3; Ravn, J. P. J., 1.
 Danmemora (Upsala).—Launay, L. de, 4.
 Danube R. (Lower).—Schafarzki, F., 5; Treitz, P., 2.
 — (Upper).—Haag, F., 1.
Daonella.—Tornquist, A., 3.
Dapedius.—Deecke, W., 2.
 Darjiling (Himalayas).—Freshfield, D. W., 1.
 Darmstadt (Hesse).—Chelius, C., 1; Klemm, G., 1; Kueppers, E., 1.
 Dartmoor (Devon).—Worth, R. H., 1.
 Darwin, Mt. (Tasmania).—Waller, G. A., 3.
Darwinia.—Penecke, K. A., 1.
 Darwinism.—Anon., 37.
Dasyypus.—Ameghino, F., 2.
 Dates of publication of certain vertebrate fossil-names.—Bush, L. P., 1.
 Datolite.—Papov, S. P., 1; Slavik, F., 1.
 Dauphiné (France).—Belloc, E., 1; Fliche, P., 1; Kilian, W., 1, 2, 6; Frech, F., 1; Loriol, P. de, 2; Martin, D., 1; Termier, P., 3.
 Davidstow (Cornwall).—Parkinson, J., 1.
 DAWSON, G. M. *See Obit.*, Adams, F. D., 2; Ami, H. M., 6; Harrington, B. J., 1.
 Day Dawn (W. Austral.).—Campbell, W. D., 1.
 De Aar (Cape Colony).—Barker, T. V., 1.
 Dead Sea (Palestine).—Blaukenhorn, M., 4.
 Dean, Forest of (Gloucester).—Moore, H. C., 1.
 Death Valley (Cal.).—Campbell, M. R., 1 & 2.
 Deccan (India).—Strachey, R., 1.
 DEFRA NCE collection, Caen.—Bigot, A., 2.
 Deister Mts. (Hanover).—Stille, H., 1; Wunstorf, W., 1.
 Delaware Valley (N.J.).—Weller, S., 2.
 Delme (Lorraine).—Van Werveke, L., 17.
Delphinula.—Etheridge, R., Fil., 2.
Delphinus.—Koch, A., 4.
 Delta-plain, Massachusetts.—Mills, F. S., 1.
Deltodus.—Eastman, C. R., 1.
 Den Hill (Tasmania).—Twelvetrees, H. W., 1.
Denckmannia.—Buckman, S. S., 2.
Dendracis.—Osasco, E., 1.
Dendrogyra.—Felix, J., 2.
Dendrophyllia & *Dendrosimilia*.—Felix, J., 3.
 Denham (Bucks).—Howe, J. A., 1.
 Denmark.—Ravn, J. P. J., 1 & 2; Ussing, N. V., 1; Wesenberg-Lund, C., 1; Zachariæ, —, 1.
 Density, sea-water.—Arctowski, H., 4; Thoulet, J., 1.
Dentalium.—Casey, T. L., 1; Etheridge, R., Fil., 2.
 Denudation, experiments with fresh & salt water.—Joly, J., 2.
 Denver (Colo.).—Fairchild, H. Le R., 1; Henderson, J., 1; Lakes, A., 15.
 Deposition, mechanism of.—Blake, J. F., 2.
 Derbent (Daghestan).—Golubyatnikov, D. V., 1.
 Derbyshire.—Arnold-Bemrose, H. H., 1; Dawkins, W. B., 1; Moore, S., 1; Stobbs, J. T., 2.
Dercetis.—Woodward, A. S., 8.
Deroceras.—Buckman, S. S., 2.
 Desert sandstone, Australia.—Thompson, J. P., 1.
 Deserts, Asia (Central).—Hedin, S., 1. —, Colorado.—Stearns, R. E. C., 1. —, origin of.—Stromer, E. von, 1.
 Desmine.—*See* Stilbite.
Desmoceras.—Etheridge, R., Fil., 2.
Desmophyllum.—Dennant, J., 1.
Deuterotherium.—Ameghino, F., 4.
 Deutschbrod (Bohemia).—Hinterlechner, K., 2.
 Devitritification, igneous rock.—Bonney, T. G., 12.
 Dévoluy (France).—Fliche, P., 1.
 Devonian, Alsace-Lorraine.—Jækel, O., 1.
 —, Arctic.—Kayser, E., 1.
 —, Argentina.—Bodenbender, G., 1.
 —, Asia Minor.—Penecke, K. A., 1.
 —, Bohemia.—Jahn, J. J., 1.
 —, classification of the Upper.—Kayser, E., 2.
 —, Cornwall.—Woodward, H., 1.
 —, Hesse.—Denckmann, A., 1.
 — iron-ores, Germany (N.W.).—HARBORT, E., 2.
 —, Maryland.—Clark, W. B., 3; Schüchert, C., 6.
 —, Missouri.—Keyes, C. R., 1.
 —, Moravia.—Bock, H., 1; Kretschmer, F., 1.

- Devonian, Nassau.—Drevermann, F., 1; Lotz, H., 2; Maurer, F., 1.
 —, New Jersey.—Weller, S., 2.
 —, New York.—Cleland, H. F., 1; Talbot, M., 1.
 —, Nova Scotia.—Ami, H. M., 3.
 —, Ohio Basin.—Claypole, E. W., 1; Prosser, C. S., 2.
 —, Ontario.—Shimer, H. W., 1.
 —, Pas-de-Calais.—Gosselet, J., 6.
 —, Rhenish Prussia.—Drevermann, F., 2.
 —, Russia.—Duparc, L., 5 & 7; Schuchert, C., 4.
 —, St. Helen's I.—Nolan, A. W., 1.
 —, Sudan.—Haug, E., 3.
 —, Tennessee.—Første, A. F., 3.
 —, United States.—Schuchert, C., 4.
 Devonshire.—Collins, J. H., 1; Hamling, J. G., 1; Huut, A. R., 1, 5, 7, & 8; Jukes-Browne, A. J., 4; Lowe, H. J., 1; Reid, C., 2; Rowe, A. W., 2; Shrubsole, O. A., 1; Small, E. W., 1; Somervail, A., 1-3; Ussher, W. A. E., 1; Worth, R. H., 1.
 Dhuis R. (Aisne).—Babinet, —, 1.
 Diabase, Bohemia.—Hinterlechner, K., 1.
 —, Hesse.—Harbort, E., 2; Heineck, F., 2.
 —, Maryland.—Clark, W. B., 4.
 —, Saxony.—Beck, R., 1.
 —, Sudan.—Lacoin, —, 1.
 —, Tasmania.—Stephens, T., 1.
 Diamonds, Africa (S.).—Merrill, G. P., 3.
 —, Brit. Guiana.—Hargreaves, T. S., 1.
 —, Indiana.—Blatchley, W. S., 3.
 —, United States.—Hobbs, W. H., 2; Kunz, G. F., 3.
 —, Ural.—Mamontov, V. N., 1.
 Diana.—Pavlov, P. S., 2.
 Diaphorite.—Hulyák, V., 1.
 Diaspites.—Pampaloni, L., 1.
 Diatomaceous earth, Arizona.—Blake, W. P., 3.
 —, Australia (W.).—Maitland, A. G., 1.
 —, Gotland.—Post, L. von, 1.
 Diatryma.—Lucas, F. A., 8.
 Dicerias.—Franchis, F. de, 1.
 Diceratosaurus.—Jäkel, O., 2.
 Dictyonema (?).—Hind, W., 2.
 —, slates, Nova Scotia.—Ami, H. M., 4; Poole, H. S., 2.
 Dictyonera & Dieconeura.—Melander, A. L., 1.
 Dictyozamites.—Møller, H., 1; Seward, A. C., 1.
 Dikelocephalus.—Weller, S., 2.
 Dillenburg (Nassau).—Harbort, E., 2; Loecke, —, 1; Lotz, H., 2.
 Dimorphastræa.—Felix, J., 7; Osasco, E., 1.
 Dimorphina.—Liebus, A., 2.
 Dimorphocella.—Maplestone, C. M., 1.
 Dimorphoceras.—Smith, J. P., 1.
 Dimyopsis.—Bistram, A. von, 1.
 Dinlleyn, Porth- (Caernarvon).—Cope, T. H., 1.
 Dinocyon.—Matthew, W. D., 1.
 Dinosauria, Belgian.—Dollo, L., 3.
 —, Cretaceous.—Beecher, C. E., 2; Lucas, F. A., 1 & 6; Nopčsa, F. von, Jun., 2.
 —, extinction of.—Andrews, C. W., 2.
 —, Jurassic.—Hatcher, J. B., 2; Riggs, E. S., 1.
 —, nomenclature of.—Nopčsa, F. von, Jun., 4.
 —, Triassic.—Nopčsa, F. von, Jun., 1; Woodward, A. S., 7.
 Dinotherium.—Venukov, P. I., 1.
 Dionide.—Reed, F. R. C., 5.
 Dioonites.—Nathorst, A. G., 2.
 Diopside.—Weinschenk, E., 3.
 Diorite, Alpes-Maritimes.—Roccati, A., 1.
 —, Austria (Lr.).—Morozevich, I., 1.
 —, Bohemia.—Hinterlechner, K., 1.
 —, definition of.—Osann, A., 5.
 —, Ireland.—Joly, J., 6.
 —, Montenegro.—Manasse, E., 1.
 —, Mysore.—Slater, H. K., 1.
 —, Tyrol.—Ippen, J. A., 3; Hammer, W., 2.
 Diospyros.—Knowlton, F. H., 1.
 Dipeltis.—Melander, A. L., 1.
 Diphyodus.—Osborn, H. F., 4.
 Diploculus.—Jäkel, O., 2.
 Diploctenium.—Felix, J., 4; Longhi, P., 1.
 Diplodocus.—Nopčsa, F. von, Jun., 2.
 Diplopora.—Benecke, E. W., 2.
 Diploria.—Felix, J., 2; Osasco, E., 1.
 Diprotodon.—Ameghino, F., 1 & 5.
 Discoides.—Gauthier, V., 1; Lambert, J., 1.
 Disodile.—Pampaloni, L., 1.
 Dissacus.—Boule, M., 2.
 Ditrema.—Gauthier, V., 1.
 Ditrema.—Etheridge, R., Fil., 2.
 Djebel Amour (Algeria).—Ritter, E., 1.
 Dobrudscha (Rumania).—Butureanu, V. C., 3.
 Docca (Tuscany).—Trabucco, G., 1.
 Dolerite, Glyn Ceiriog.—Moore, E. C., 1.
 —, Ireland.—Joly, J., 6.
 —, Mysore.—Wetherell, E. W., 2.
 —, Transvaal.—Sawyer, A. R., 3.
 Dolichorhynchops.—Williston, S. W., 1 & 4.
 Dolioceras.—Depéret, C., 3.
 Doliolina-limestone, China.—Schellwien, E., 1.
 Doller R. (Alsace-Lorraine).—Deecke, W., 3; Van Werke, L., 14.
 Dolomite, Alsace-Lorraine.—Schuller, J., 1.
 —, Crete.—Cayeux, L., 6.
 —, Hanover.—Kœnen, A. von, 2.
 —, Lugano Alps.—Bistram, F. von, 2.
 —, origin of.—Pfaff, F. W., 1.
 —, Simplon Tunnel.—Spezia, G., 1.
 —, Tasmania.—Pettard, W. F., 1.

- Dolomite, Tyrol.—Geyer, L., 1.
 —, Vosges.—Delépine, G., 1.
 Dolomitization, de.—Teall, J. J. H., 2.
 Dombes (Ain, &c.).—Boistel, A.
 Domes, Indiana Silurian.—Kindle, E. M., 1.
 Domeykite.—König, G. A., 1; Stevanović, S., 1.
 Dominica (W.I.).—Morris, Sir D., 1; Sapper, K., 8.
 Donard (Co. Wicklow).—Seymour, H. J., 2.
 Donetz Basin (Russia).—Borisiak, A., 1; Yakovlev, N., 4; Zaleski, M., 1.
 Donnybrook (Queensl.).—Cameron, W. E., 3.
 Donon (Alsace-Lorraine).—Brunzel, K., 1.
 Doppelrite.—Moss, R. J., 1.
 Dordogne (France).—Martel, E. A., 4; Moissan, H., 2; Rivière, E., 1.
 Dorset.—Andrews, W. R., 1; Darwin, H., 1; Hudleston, W. H., 1; Lang, W. D., 1; Woodward, H. B., 10.
Dosinia.—Oppenheim, P., 6.
 Doubs (France).—Lamothe, R. de, 2; Van den Broeck, E., 11.
 Down, Co. (Ireland).—Andrews, M. K., 1; Cole, G. A. J., 10; Seymour, H. J., 3.
 Doveholes (Derby).—Dawkins, W. B., 1.
 Drakenberg Mts. (S. Africa).—Schwarz, E. H. L., 2.
Dreissensia.—Pavlov, P. S., 2.
 —beds, Rumania.—Sevastos, R., 1.
Drepauura.—Monke, H., 1.
 Drift, Crewe.—Edwards, W., 1.
 —ice, transport by.—Prest, W. H., 1.
 —, Iowa.—Macbride, T. H., 1.
 —, Jurassic corals in N. German.—Oppenheim, P., 4.
 —, Long Island (N.Y.).—Fuller, M. L., 3.
 —, Prussia (E. & W.).—Ungern-Sternberg, E. von, 1.
 —, Sylt, Amrum, & Heligoland.—Martin, J., 1.
 —, Thames Valley.—Pocock, T. I., 1.
 —. See also Læss, Quaternary, &c.
Drillia.—Casey, T. L., 1.
 Drumhair (Leitrim).—Cole, G. A. J., 6 & 7.
 Druse-mineral, mica as a.—Sachs, A., 1.
Dryopithecus.—Abel, O., 2.
Dryptosaurus.—Lambe, L. M., 1.
 Dublin, (Ireland).—Cole, G. A. J., 3 & 4; Egan, F. W., 1; Lamplugh, G. W., 6; Wright, J., 1 & 2; Wright, W. B., 1.
 Ducktown (Tenn.).—Kemp, J. F., 3.
 Dufrenoyite.—Pettard, W. F., 1; Solly, R. H., 2.
 Dunfriesshire (Scotland).—Wright, J., 1.
 Dumortierite.—Ford, W. E., 3.
 Dundasite.—Pettard, W. F., 1.
 Dundee (Forfar).—Durham, J., 1.
 Dunderland (Norway).—Vogt, J. H. L., 2.
 Dunes, Belgium.—Van Ertborn, O., 11.
 —, Bermuda Is.—Verrill, A. E., 2 & 3.
 —, Gascony.—Durègne, E., 1.
 —, Karachi.—Oldham, R. D., 2.
 —, Pas-de-Calais.—Gosselet, J., 5.
 —, Sahara.—Hochreutiner, B. P. G., 1.
 —, Schleswig.—Reinke, J., 1.
 Dunstable Downs (Beds).—Hopkinson, J., 1.
 Duppau (Bohemia).—Bauer, F., 1.
 Durango (Mexico).—Rangel, M. F., 1; Witherbee, T. F., 1.
 Durham.—Abbott, G., 1; Clough, C. T., 1; P'Anson, J. C., 1; Lebour, G. A., 1.
 Dust, African origin of 'red rain.'—Thorpe, T. E., 1.
 —, deposition of.—Russell, W. J., 1 & 2.
 —, desert.—Flores, E., 1.
 —, fall, Canary Is.—Tacquin, A., 1; Portugal.—Choffat, P., 4; Victoria (Austral.).—Chapman, F., 2; falls recorded.—Chauveau, A. B., 1; Forel, F. A., 3.
 —, New-South-Wales meteoric.—Liversidge, A., 1.
 —, storms.—Marshall, P., 1.
 —, volcanic.—Griffith, A. B., 1; see also Red rain, Volcanic, &c.
 Düsseldorf (Rh.-Prussia).—Habets, A., 1; Hærhanger, J., 1.
 Dutch East Indies. See Celebes, &c.
 Dutch Guiana (S. Am.).—Du Bois, G. C., 1.
 Dwyka Conglomerates, Transvaal.—Sawyer, A. R., 3.
Dyctyaæa.—Osasco, E., 1.
 Dykes, I. of Man.—Lomas, J., 1.
 —, Mysore ultrabasic.—Wetherell, E. W., 3.
 —, St. Miuver coast.—Fox, H., 2.
Dyrosaurus.—Stefano, G. de, 2.
 Ealing (Middlesex).—Brown, J. A., 1.
 Earth, advent of life on.—Meunier, S., 17; Woodward, H., 12.
 —, age of.—Joly, J., 4; Mackie, W., 5.
 —, axis of.—Folie, F., 1 & 2; Lagrange, C., 1; Very, F. W., 1.
 —, crust of.—Court, G., 1; Fleischer, A., 1; Geikie, Sir A., 2; Milch, L., 1; Prinz, W., 2 & 4; Rothpletz, A., 1; Van den Broeck, E., 4.
 —, evolution of.—Anon. 37.
 —, figure of the.—Jeans, J. H., 1; Sollas, W. J., 1.
 —, internal heat.—Romanes, G., 1.
 —, interior, thermal waters &.—Hoffmann, J. F., 1.
 —, movements. See Land, changes of level.
 —, physics.—Milne, J., 1; Tacquin, A., 2.
 —, planetary system &.—Borredon, G., 1-5.

- Earth, structure of.—Reade, T. M., 2.
 —, surface of.—Curtis, G. C., 2;
 Dryer, C. R., 1.
 —, —, temperature.—Hoffmann, J.
 F., 2.
 —, volcanoes & figure of.—Lallemand,
 C., 1.
 —. *See also* Gravity, &c.
 Earthquake Conference, Strasburg.—
 Gerland, G., 3; Lancaster, A., 1.
 — Observatories, German.—Credner,
 H., 1; Gerland, G., 1 & 2; Weigand,
 B., 1.
 — records.—Lippmann, G., 1; Milne,
 J., 3.
 —, Smyrna.—Yung, —, 1.
 — waves.—Harbe, H. G., 1.
 — zones.—Miron, F., 1.
 Earthquakes, America (Central).—Bæse,
 E., 1; Hay, Sir J. D., 1; Rockstroh,
 E., 1.
 —, Assam.—Oldham, R. S., 1.
 —, Austria.—Hørnes, R., 7; Láska,
 W., 1; Mazelle, E., 1; Mojsisovics,
 E. von, 1 & 3; Schwab, P. F., 1.
 —, Bavaria.—Reindl, J., 1.
 —, Bermuda Is.—Verrill, A. E., 1 & 2.
 —, Bohemia.—Mojsisovics, E. von, 3.
 —, Caucasus, &c.—Andersson, F., 1;
 Mushketov, J., 1.
 —, Ceram.—Rudolph, E., 1.
 —, Colorado.—Lay, H. C., 1.
 —, Cyprus.—Agamennone, G., 1.
 —, distribution of.—Lallemand, C., 1;
 Milne, J., 1-6; Montessus de Ballore,
 F. de, 3; Tanakadate, A., 1.
 —, Europe.—Sturm, F., 1.
 —, Galicia.—Milne, J., 2.
 —, Hungary.—Lajos, F., 1.
 —, Italy.—Meli, R., 1; Sabatini, V., 1.
 —, Japan.—Imamura, A., 1; Omori,
 F., 1-4; Rudolph, E., 2.
 —, Kashmir.—Eckenstein, O., 1.
 —, Kimberley (Cape Colony).—Sut-
 ton, J. R., 1.
 —, Midlands.—Anon., 28.
 —, New Zealand.—Farr, C. C., 2;
 Hogben, G., 1.
 —, origin of.—Montessus de Ballore,
 F. de, 2-4.
 —, rock-rigidity &.—Kusakabe, S., 1
 & 2.
 —, Sweden.—Kjellén, R., 1.
 —, Turkey.—Hørnes, R., 3.
 —, volcanic eruptions & [W.I., &c.].—
 Anon., 2 & 3.
 —, Württemberg.—Schmidt, A., 2.
 —. *See also* Seismology.
 Earths, rare.—Barker, G. F., 1; Pratt,
 J. H., 3.
 East Bergholt (Suffolk).—Whitaker,
 W., 1.
 Eastonia.—Dollfus, G. F., 6.
 Ecce Beds.—Seward, A. C., 2.
 Ecciomyphalus.—Weller, S., 2.
 Echinanthus.—Martelli, A., 1.
 Echinocorys.—Airaghi, C., 2; Arnaud,
 H., 1; Lambert, J., 3.
 Echinogale.—Depéret, C., 3.
 Echinoidea, Cretaceous.—Airaghi, C., 2;
 Arnaud, H., 1; Cotteau, G., 1; Four-
 tau, R., 1; Gauthier, V., 1 & 3; Lam-
 bert, J., 1-3; Loriol, P. de, 2; Pellat,
 E., 2; Savin, L., 1; Wollemann, A., 1.
 —, Jurassic.—Gauthier, V., 2; Loriol,
 P. de, 2.
 —, Tertiary.—Checchia-Rispoli, G., 1;
 Gauthier, V., 1; Kossmat, F., 1;
 Loriol, P. de, 2; Martelli, A., 1;
 Nelli, B., 1; Oppenheim, P., 6; Savin,
 L., 1.
 Echinolampas.—Checchia-Rispoli, G., 1;
 Gauthier, V., 1; Martelli, A., 1.
 Echinopodina.—Loriol, P. de, 2.
 Eclogite.—Duell, E., 1; Hezner, L., 1.
 Eden Valley (Cumberland, &c.).—Burns,
 D., 1; Kendall, P. F., 1.
 Edentata, fossil & recent.—Grevé, C., 1.
 —, Tertiary.—Scott, W. B., 1.
 Edestus.—Karpinski, A., 1; Newton, E.
 T., 1.
 Edinburgh (Scotland).—Goodchild, J.
 G., 10; Hepburn, D., 1; Traquair, R.
 H., 2.
 Edmondia.—Weller, S., 2; Yakovlev,
 N., 4.
 Education, geology &.—Ellis, J. E., 1;
 Lapworth, C., 2; Verri, A., 2; Watts,
 W. W., 2.
 Eel, Scandinavian Chalk.—Woodward,
 A. S., 2.
 Eggegebirge (Westphalia).—Stille, H.,
 2 & 3.
 Eggenburg (Lr. Austria).—Fuchs, T., 1;
 Toula, F., 4.
 EGGLESTON, T. *See* *Obit.*, Kunz, G. F., 1.
 Egglestonite.—Moses, A. J., 2.
 Egypt.—Alford, C. J., 1; Andrews, C.
 W., 1-3 & 5; Ball, J., 1 & 2; Barron,
 T., 1; Beadnell, H. J. L., 1 & 2;
 Blanckenhorn, M., 2, 3, & 4; Cadell,
 H. M., 3; Daqué, E., 1; Felix, J., 3;
 Fourtau, R., 3 & 4; Lankester, E. R.,
 1 & 2; Linck, G., 6; Lucas, A., 1;
 Neilson, J., 1; Oppenheim, P., 1;
 Pachundaki, D. E., 1; Stromer, E.
 von, 2, 4, & 5.
 Eichenberg (Hesse).—Beyschlag, F., 1.
 Eisach Valley (Tyrol).—Guenther, S., 1.
 Eisenbach (Rh.-Bavaria).—Schalch, F.,
 1.
 Ekaterinoslav Gov. (Russia).—Domherr,
 W., 1.
 Ekbainacanthus.—Yakovlev, N., 2.
 Elasmocenia.—Felix, J., 2.
 Elaterite.—Cumming, A. C., 1.
 Elba, I. of.—Achiardi, G. d', 1 & 3.
 Electricity, mineral vein-finding by.—
 Dickinson, J., 1.
 Elephants, ancestry of.—Lydekker, R., 1.
 —, pigmy, Cyprus.—Bate, D. M. A.,
 1.
 Elephas.—Dawkins, W. B., 1; Flores,
 E., 2; Knight, W. C., 3; Portis, A., 1;
 Rutot, A., 5; Stingelin, T., 1.
 Elgin (Scotland).—Boulenger, G. A., 1.

- Elgin Sandstones.—Mackie, W., 3.
 Elk, Quaternary.—Newton, E. T., 2.
 Elkhorn (Mont.)—Weed, W. H., 7.
Ellipsoglandulina.—Silvestri, A., 1.
Elonichthys.—Eastman, C. R., 1.
Elothorium.—Bush, L. P., 1.
 Emarese (Piedmont).—Brugnatelli, L., 3.
Embolophorus.—Case, F. C., 1 & 2.
 Emerald.—Prinz, W., 1.
 Emilia (Italy).—Corti, B., 1; Flores, E., 2; Nelli, B., 1; Sangiorgi, D., 1.
 Ems (Nassau).—Fresenius, H., 1.
 Enargite.—Stevanović, S., 1.
Enchelurus.—Woodward, A. S., 8.
Enchodus.—Gorjanović-Kramberger, K., 1; Leriche, M., 1; Woodward, A. S., 8.
Endiannaulax & *Endiatenia*.—Chartron, C., 1.
 Engadine (Switzerland).—Delebecque, A., 1.
 Engineering, geology &.—Hawkshaw, J. C., 1.
 England, Midlands.—Frech, F., 1.
 — (S.).—Bullen, R. A., 1.
 — (S.E.).—Jukes-Browne, A. J., 6; Monckton, H. W., 5; Rutot, A., 4.
 —. See also Great Britain, Kent, &c.
 Enköping (Svealand).—Sernander, R., 3.
 Ennsthal (U. Styria).—Redlich, K. A., 1.
Ensis.—Dollfus, G. F., 6.
Entelodon.—Bush, L. P., 1.
 Eocene, Belgium.—Van Ertborn, O., 1, 2, & 6.
 —, Berne.—Gerber, E., 1.
 —, Camerouns.—Oppenheim, P., 1.
 —, Crete.—Cayeux, L., 3.
 —, Sokotra.—Kossmat, F., 1.
 —. See also Tertiary, &c.
Eochelone.—Dollo, L., 1.
 Eoliths, Hampshire, &c.—Bullen, R. A., 1; Ireland.—Bennett, F. J., 1; Knowles, W. J., 1; London.—Bennett, F. J., 1.
Epiaster.—Gauthier, V., 1; Kossmat, F., 1; Lambert, J., 1.
 Epidote.—Neuwirth, V., 1; Zambonini, F., 3.
 Epprechtstein (Bavaria).—Weber, M., 1.
 Epsomite.—Schaller, W. T., 1.
 Equi Valley (Tuscany).—Elsden, J. V., 9.
Equisetum.—Knowlton, F. H., 1.
Equus.—Dawkins, W. B., 1; Munro, R., 1; Sernander, R., 1.
 Erba (Lombardy).—Flores, E., 3.
Erinaceus.—Wortman, J. L., 1.
Eriophyla.—Burekhardt, C., 1.
Eriptycha.—Cossmann, M., 1.
Erisiphites.—Pampaloni, L., 1.
Erismacanthus.—Eastman, C. R., 1.
 Erith (Kent).—Salter, A. E., 1.
 Erosion, Austrian Tertiary.—Fuchs, T., 3.
 —, coast.—Lakes, A., 12.
 —, drift-ice.—Prest, W. H., 1.
 —, river.—Ball, J., 1.
 Erratic boulders.—Châtelet, C., 1.
 Erratic deposits, Geneva.—Duparc, L., 3.
 Erratics, Great Britain & Ireland.—Kendall, P. F., 2.
 Eruptions. See Volcanic eruptions.
Eryops.—Case, E. C., 2.
 Erzberg (Carinthia).—Baumgärtel, B., 1; Taffanel, J., 1.
 Erzgebirge (Saxony).—Gæbert, C., 1.
 Erzgebirge (Transylvania).—Gesell, A., 1; Pálffy, M. von, 1; Telegd, L. R. von, 1.
 Escarpelle (Pas-de-Calais).—Deville, Ste.-Cl., —, 1.
Escharopora.—Weller, S., 2.
 Esino (Lombardy).—Airaghi, C., 1.
 Eskers, New York State.—Comstock, F. M., 3.
 —, origin of.—Crosby, W. O., 1.
 —, Svealand.—Sernander, R., 3.
 Essequibo R. (Brit. Guiana).—Harrison, J. B., 1.
 Essex.—Holmes, T. V., 1-3; Howe, J. A., 2; Salter, A. E., 1; Woodward, H. B., 13.
 Essexite, Quebec.—Adams, F. D., 3.
 Estuaries, S. Russian.—Sokolov, N., 1.
 Étampes (Seine-et-Oise).—Grossouvre, A. de, 1; Meunier, S., 2.
 Etaples (Pas-de-Calais).—Gosselet, J., 5.
 Etaves (Aisne).—Rabelle, —, 1.
 ETHERIDGE, R. See *Obit.* Anon., 6; Woodward, H. B., 8.
 Etna (Sicily).—Kewitsch, G., 1.
Etoblattina.—Sellards, E. H., 1.
 Étoile Massif (Provence).—Frech, F., 1.
 Etræungt-limestone (Rh.-Prussia).—Drevermann, F., 2.
 Eubœa I. (Greece).—Deprat, J., 1-2.
Eucænus.—Melander, A. L., 1.
Euchondria.—Drevermann, F., 2.
Eucinepeltus.—Scott, W. B., 1.
Euclestes.—Lœrenthey, E., 2.
Eucyclus.—Chartron, C., 1.
Eudictyon.—Bistran, A. von, 1.
 Euganean Hills (Venetia).—Squinabol, S., 2.
Euplectella.—Nelli, B., 1.
 Euphotide erratics, Geneva.—Duparc, L., 3.
 Eure-et-Loir (France).—Dollfus, G. F.
 Europe.—Frech, F., 2; Stolley, E., 1; Toula, F., 3.
 —, glaciation & plants.—Anon., 35.
 European & Persian fossil-faunas.—Douvillé, H., 2.
Eurychilina.—Weller, S., 2.
Eurydesma.—Bœhm, G., 1.
Euspatangus.—Gauthier, V., 1.
Euthriofusus.—Cossmann, M., 2.
 Evansite.—Pettard, W. F., 1; Vernadski, V. S., 3.
 Evergem (Flanders).—Brouwer, M. de, 1.
 Evolution, Brachiopoda.—Cumings, E. R., 1.
 —, climatic.—Manson, M., 2; Wieland, G. B., 2.

- Evolution, earth &.—Anon., 37.
 —, extinction &.—Andrews, C. W., 2.
 —, geology &.—Hutton, F. W., 1; Meunier, S., 10.
 —, palæontology &.—Lydekker, R., 2 & 3; Meunier, S., 17; Woodward, H., 12.
Exelissa.—Chartron, C., 1.
 Exhibition, Düsseldorf, 1902. — Hæringhanger, J., 1; Paris, 1900.—Schafarzik, F., 7; Szontagh, T. von, 1; *see also* Building-stones.
Exogyra.—Antula, J., 1; Burckhardt, C., 1; Paulcke, W., 1; Shattuck, G. B., 1.
 'Exotic blocks,' Hundés.—Krafft, A. von, 1.
 Extinction, evolution &.—Andrews, C. W., 2.
 EXTON, HUGH. *See* *Obit.*, Anon., 7.
 Eyre, Lake (S. Austral.).—Etheridge, R., Fil., 2.
 Faceted pebbles. *See* Pebbles, Wind-worn, &c.
 Fairmont (W. Va.).—Haas, F., 1.
Falconida.—Regalia, E., 1.
Fallotia.—Douvillé, H., 3.
 Falmouth (Cornwall).—Hill, J. B., 1.
 Faringdon (Berks).—Lamplugh, G. W., 1.
Fascinella.—Færster, B., 5.
 Fassa Valley, (Tyrol).—Fabian, K., 1; Gordon, M. M. O., 1.
 Fatrakriván Mts. (Hungary).—Uhlig, V., 2.
Favosina.—Millett, F. W., 1.
 Faults, Harz.—Hecker, O., 3.
 —, Liège.—Fourmarier, P., 3.
 —, origin of.—Montessus de Ballore, F. de, 2.
 —, Poitiers.—Welsch, J., 1.
 —, Ridgeway.—Darwin, H., 1.
 —, Tainton Downs.—Walford, E. A., 1.
Favosites.—Weller, S., 2.
 Fayûm (Egypt).—Andrews, C. W., 1-3 & 5; Lankester, E. R., 1 & 2; Neilson, J., 1; Stromer, E. von, 2, 4 & 5.
Feildenia.—Möller, H., 1.
Felis.—Ameghino, F., 2.
 Felsite, Dartmoor.—Worth, R. H., 1.
 Felspars.—Baumhauer, H., 4; Fedorov, E., 2; Fels, G., 1; Ries, H., 1; Spurr, J. H., 2; Tertsch, H., 1; Winchell, N. H., 1.
Fenestella.—Chapman, F., 1.
 Ferdinandeia I. (Mediterranean). — Meunier, S., 5.
 Fernando de Noronha (S. Atlantic).—Branner, J. C., 4.
 Ferru, Mte. (Sardinia). — Dannenberg, A., 1.
 Fichtelgebirge (Bavaria).—Weber, M., 1.
 Fiji Is. (Pacific).—Bonney, T. G., 10; Sherlock, R. L., 1; Skeats, E. W., 1.
 FILHOL, H. *See* Pettit, A., 1.
 Finland.—Borgström, L. H., 1; Rosberg, J. E., 1.
 Finne Mts. (Thuringia).—Henkel, L., 2; Schuetze, E., 1.
 Fireclay, erratic stones in Horbury.—Sutcliffe, R., 1.
 Fishes, Carboniferous.—Eastman, C. R., 1; Newton, E. T., 1; Traquair, R. H., 2; Wellburn, E. D., 1; Woodward, A. S., 5, 6, & 11.
 —, coal of fossil.—Sollas, W. J., 3.
 —, Cretaceous.—Branner, J. C., 1; Leriche, M., 1; Woodward, A. S., 2 & 8.
 —, Devonian.—Claypole, E. W., 1; Dollo, L., 4; Fox, H., 1; Gosselet, J., 6; Sollas, W. J., 3; Traquair, R. H., 1 & 3.
 —, Jurassic.—Sauvage, H. E., 1 & 2.
 —, Permo-Carboniferous.—Karpinski, A., 1; Simoëns, G., 2; Van den Broeck, E., 2; Van de Wiele, C., 1; Woodward, A. S., 3 & 10.
 —, Silurian. — Gorjanovič - Kramberger, K., 1.
 —, subfossil.—Eastman, C. R., 2.
 —, Tertiary.—Coomáráswány, A. K., 3; Gorjanovič-Kramberger, K., 1; Kæch, M., 1; Koch, A., 4; Lucas, F. A., 5; Nelli, B., 1; Sangiorgi, D., 1.
 —, Triassic.—Deecke, W., 2; Eaton, G. F., 1; Frech, F., 1; Yakovlev, N., 2.
Fissodus.—Eastman, C. R., 1.
 Fjords, Norway.—Monckton, H. W., 2 & 4.
Flabellina.—Schick, T., 1.
Flabellinella.—Liebus, A., 2.
Flabellum.—Oppenheim, P., 6.
 Fläming (Brandenburg).—Lunston, O. von, 1.
 Flanders (Belgium).—Andrimont, R. d'; 1; Brouwer, M. de, 1; Stainier, X., 4; Van Ertborn, O., 1, 4, 6, 8, & 11.
 Flathead Lake (Mont.).—Elrod, M. J., 1.
 Fleims Valley (Tyrol).—Fabian, K., 1; Ippen, J. A., 4.
 Flint, Kanawha black.—White, I. C., 1.
 —, Norfolk.—Elsden, J. V., 5.
 —, United States.—Ries, H., 1.
 Florence (Tuscany).—Trabucco, G., 1.
 Florida (U.S.A.). — Dall, W. H., 3; Vaughan, T. W., 1.
 Fluid-inclusions.—Hunt, A. R., 6.
 Fluorspar.—Hulyák, V., 1; Lenher, V., 1; Pratt, J. H., 7; Weber, M., 1; Zimmermann, R., 1.
 Flysch, Biarritz.—Mayer-Eymar, C., 1.
 —, Carpathian.—Zuber, R., 1.
 —, Dalmatia.—Kerner, F., 4.
 —, Montenegro.—Martelli, A., 2.
 —, Salzburg.—Lorenz, J. von, 2.
 —, Switzerland.—Kæch, M., 1.
 Foggia Valley (Liguria).—Ristori, G., 2.
 Foix (Ariège).—Carez, L., 7.

- Font-de-Gaume (Dordogne).—Martel, E. A., 4.
- Footprints, Triassic.—Beasley, H. C., 1 & 2; Hornstein, F., 1.
- Foraminifera, Cambrian & Silurian.—Weller, S., 2.
- , Carboniferous.—Barrois, C., 3.
- , classification of.—Kemna, A., 1.
- , Cretaceous.—Douvillé, H., 3, 4, & 9; Holmes, W. M., 1; Liebus, A., 2.
- , Jurassic.—Deecke, W., 1; Munier-Chalmas, —, 1 & 2; Schick, T., 1.
- , Quaternary.—Reade, T. M., 1; Sherlock, R. L., 1; Wright, J., 1-3.
- , Tertiary.—Andréa, A., 3; Douvillé, H., 1 & 3; Fornasini, C., 1 & 2; Gortani, M., 3; Haug, É., 2; Herrmann, A., 1; Mariani, M., 1; Martelli, A., 1; Millett, F. W., 1; Oppenheim, P., 6; Prever, P., 1; Schlumberger, C., 1 & 2; Silvestri, A., 1.
- Foraminiferal ooze, Iowa Coal-Measures.—Udden, J. A., 1.
- Forests, submerged.—Reade, T. M., 2.
- Formations, classification of Tennessee.—Safford, J. M., 1.
- Forno Avoltri. *See* Avoltri.
- Fossarus*.—Pavlov, P. S., 2.
- Fossiliferous Silurian, Ireland (N. E.).—Clark, R., 1.
- Fossils, photography of.—Ingen, G. van, 1.
- , sectionizing.—Sollas, W. J., 2.
- FOSTER, Sir C. LE N.—Anon., 14.
- Foxdale (I. of Man).—Bonney, T. G., 1; Lomas, J., 1.
- Fox Hills (Surrey).—Monckton, H. W., 3.
- Fram' Arctic Expedition.—Anon., 29; Schei, P., 1; Sverdrup, O., 1.
- Framont (Alsace-Lorraine).—Schweitzer, J., 1.
- France.—Barré, O., 1; Depéret, C., 2; Dobers, —, 1; Frech, F., 1.
- , Central massif.—Grossouvre, A. de, 5.
- , *See also* Haute-Garonne, Mineral Waters, &c.
- Frache Comté (France).—Piroutet, M., 2.
- Franceville (Colo).—Preston, H. L., 1.
- Franconia (Bavaria).—Henkel, L., 3.
- Frank (Alberta Terr.).—Brewer, W. M., 2; Lakes, A., 11.
- Frankenberg (Cassel).—Denckmann, A., 2; Stelle, H., 4.
- Frankenstein (Silesia).—Illner, —, 1.
- Frankfort-on-Main (Germany), Senckenberg Natural History Museum.—Kinkelin, F., 2.
- Frayssinet-le-Gélat (Lot).—Douvillé, H., 8; Gauthier, V., 3; Mouret, G., 2.
- Fredericton (New Brunswick).—Chalmers, R., 1.
- Freiberg (Moravia).—Remeš, M., 2.
- Freiburg (Baden).—Keidel, H., 1.
- Fresnoy (Aisne).—Rabelle, —, 1.
- Fribourg (Switzerland).—Sarasin, C., 2.
- Frisian Is. (Schleswig - Holstein). — Martin, J., 1.
- Friuli district (Umbria).—Bortolotti, C., 1.
- Fronicularia*.—Liebus, A., 1; Schick, T., 1.
- Frost, soils &c.—Roberts, M., 1.
- Fruits, seeds, &c. *See* Plants.
- Fruskagora Mts. (Hungary).—Koch, A., 5.
- Fuchsité.—Miers, H. A., 3.
- Fucoids, Tertiary.—Lorenz, J. von, 2.
- Fulgur*.—Smith, B., 1.
- Fulgurites, Nürnberg.—Spiess, E., 1.
- Fullers' Earth, Mysore.—Primrose, A., 1.
- , United States.—Vaughan, T. W., 1.
- Fumaroles, West Indies.—Sapper, K., 10.
- Fungi, Carboniferous.—Renault, B., 2.
- Furesö, Lake (Denmark).—Wesenberg-Lund, C., 1.
- Furfooz (Namur).—Van den Broeck, E., 2.
- Furtwangen (Baden).—Schalch, F., 3.
- Furva Valley (Lombardy).—Hammer, W., 1.
- Fusulina*-limestone.—Fliedgel, G., 1; Gortani, M., 1-3.
- Fusus*.—Shattuck, G. B., 1.
- Gabbro, Caucasus.—Lœwinson-Lessing, F., 1.
- , definition of.—Osann, A., 5.
- , Geneva erratics.—Duparc, L., 3.
- , Sudan.—Linck, G., 6.
- , Tasmania.—Twelvetrees, W. H., 12.
- , Tellina Valley.—Hecker, O., 2.
- , White Sea.—Fedorov, E., 1.
- Gadolinite.—Davis, B. F., 1.
- Gaines (Pa.).—Fuller, M. L., 1.
- Galago*.—Wortman, J. L., 1.
- Galena, Sardinia.—Rimatori, C., 1.
- Galgenberg (Württ.).—Engel, —, 1.
- Galicia (Austria).—Friedberg, G., 1; Galloway, W., 1; Milne, J., 2; Rzehak, A., 1; Schreter, A., 1; Szajnocha, W., 1; Volz, W., 1; Zuber, R., 1.
- Galloway's Soufrière, Montserrat.—Sapper, K., 6.
- Galls, fossil plant.—Trotter, A., 1.
- Gambirretia*.—Gauthier, V., 2.
- Gard (France).—Pellat, E., 1.
- Gargano, Mte. (Venetia).—Cecchia-Rispoli, G., 1.
- Garhwal (N.W. India).—Stephens, F. J., 1 & 2.
- Garnet.—Fromme, J., 1; Kunz, G. F., 3; Zambonini, F., 2.
- Garnetiferous sand, Olchon I.—Bagashov, I., 1.
- , volcanic rocks, Borrowdale. — Walker, E. E., 1.
- Gas (natural), Indiana.—Leach, J. C., 1; Newsom, J. F., 1; Kansas.—Crane, W. R., 1; Yates, J. A., 1; Ohio, &c.—

- Bownocker, J., 1 & 2; Oliphant, F. H., 2; Sussex.—Dixon, H. B., 1; Woodward, H. B., 11.
- Gascony (France).—Arnaud, H., 1; Durègne, E., 1.
- Gases in coal.—Bedson, P. P., 1; Broockmann, —, 1.
- , mineral waters with.—Moissan, H., 1; Moureu, C., 1.
- , Mt. Pelé fumaroles.—Gautier, A., 1.
- Gaspereau Valley (N.S.).—Haycock, E., 1.
- Gasteropoda, Cambrian (& phylogenetic stage of).—Sardeson, F. W., 1.
- , Cretaceous.—Cossmann, M., 1; Dacqué, E., 1; Etheridge, R., Fil., 2; Franchis, F. de, 1; Longhi, P., 1; Moore, J. E. S., 1; Shattuck, G. B., 1; Stanton, T. W., 2; Weller, S., 1; Wollemann, A., 1.
- , Devonian.—Kayser, E., 1; Walther, K., 1; Weller, S., 2.
- , Jurassic.—Allen, H. A., 1; Bistram, A. von, 1; Chartron, C., 1; Moore, J. E. S., 1.
- , Quaternary.—Dennant, J., 3; Johnson, J. P., 1; Pilsbry, H. A., 1; Springer, A., 1; Stearns, R. E. C., 1; Wuest, E., 3.
- , Silurian.—Weller, S., 2.
- , Tertiary.—Casey, T. L., 1; Cossmann, M., 2; Dall, W. H., 3; Dennant, J., 3; Færster, B., 5; Fuchs, T., 5; Hørnes, R., 1; Hudleston, W. H., 1; Nelli, B., 1; Pavlov, P. S., 2; Pritchard, G. B., 2; Smith, B., 1; Vincent, E., 1.
- , Triassic.—Frech, F., 1.
- Gastrioceras*.—Smith, J. P., 1.
- Gastrochaena*.—Dollfus, G. F., 6.
- Gattico (Piedmont).—Patriani, P., 1.
- GAUDRY, J. A.—Woodward, H., 3.
- Gaudryceras*.—Yabe, H., 1.
- Gaudryina*.—Liebus, A., 2.
- Gault, Merstham.—Holmes, W. M., 1.
- , Norfolk.—Elsden, J. V., 5.
- , Rumania.—Sevastos, R., 2.
- Gavarnie (Hautes-Pyrénées).—Stuart-Menteath, P. W., 2.
- Gavialis*.—Koch, A., 4.
- Gayton (Northants).—Thompson, B., 1.
- Gbellan (Hungary).—Liebus, A., 2.
- Gefell (Thuringia).—Zimmermann, E., 1.
- Geierswalde (E. Prussia).—Michael, R., 3.
- Geite.—Milne, J., 4.
- Gellivara (Norrbotten).—Launay, L. de, 4.
- Gems. *See* Precious stones.
- Gemünden (Rh.-Pruss.).—Traquair, R. H., 1 & 3.
- Geneva (Svitzerl.).—Eberhardt, B., 1; Duparc, L., 3.
- Genoa (Liguria).—Figari, L., 1.
- Geodes, vein with quartz.—Squinabol, S., 2.
- Geographical names of physical features.—Issel, A., 1.
- Geography, geology &.—Holdich, Sir T. H., 1.
- , physical, &c., 1901, &c.—Morley, H. F., &c., 3; *see also* Physical.
- ‘Geologica, bibliographia.’—Mourlon, M., 3; Van den Broeck, E., 14.
- Geological chronometer.—Bulman, G. W., 1.
- Congress. *See* Congress.
- literature, 1900–1902.—Toula, F., 3; 1901, &c.—Morley, H. F., 2.
- , Alsace-Lorraine, 1580–87.—Schumacher, E., 1; 1888–89.—Van Werveke, L., 6.
- , Canada, 1901.—Ami, H. M., 5.
- , England (N.), 1900.—Sheppard, T., 4.
- , Italy, 1901.—Bonarelli, G., 1.
- , Switzerland, 1901.—Schardt, H., 6.
- , Württemberg & Hohenzollern.—Schuetze, E., 2.
- map before 1850, Sweden.—Lœnberg, S., 1.
- models, Apuan Alps.—Sacco, F., 3.
- nomenclature, Nova Scotian.—Fletcher, H., 1; N. American.—Weeks, F. B., 1.
- papers, Devonshire Association, 1862–1902.—Hamling, J. G., 1.
- photographs.—Watts, W. W., 3; *see also* Photography.
- Society, medals, &c.—Lapworth, C., 1 & 2; Museum.—Blake, J. F., 1.
- , America.—Fairchild, H. Le R., 1; France.—Carez, L., 2; Vidal, L. M., 1; German.—Beyschlag, F., 1; Denckmann, A., 2; Stille, H., 3 & 4; Hungary.—Koch, A., 1; Schafarzik, F., 2; Italy.—Capellini, G., 1; Clerici, E., 1; Pellati, N., 1.
- Survey, Algeria.—Ficheur, E., 1.
- , Alsace-Lorraine.—Benecke, E. W., 3 & 6.
- , Australia (W.).—Maitland, A. G., 2.
- , Austria.—Tietze, E., 1–4; Stache, G., 1.
- , Belgium.—Mourlon, M., 1; Van den Broeck, E., 5.
- , Bohemia.—Počta, P., 1.
- , Canada.—Bell, R., 1; Dawson, G. M., 1; laboratory.—Hoffmann, G. C., 2.
- , Cape Colony.—Corstorphine, G. S., 1; Rogers, A. W., 1; Schwarz, E. H. L., 1 & 2.
- , Egypt.—Barron, T., 1.
- , England & Wales.—Allen, H. A., 1; Dakyns, J. R., 3; Fox-Strangways, C., 1; Jentsch, A., 1; Jukes-Browne, A. J., 6; Teall, J. J. H., 3 & 4; Reid, C., 2–7; Strahan, A., 1–6.
- , France.—Michel-Lévy, A., 1.

- Geological Survey, Hesse.—Lepsius, R., 1.
- , Hungary.—Bœckh, J., 1; laboratory report, 1900.—Kalecsinsky, A. von, 1.
- , India.—Anon., 16; Holland, T. H., 3.
- , Indiana.—Blatchley, W. S., 1, 2, 3; Iowa.—Calven, S., 1.
- , Ireland.—Egan, F. W., 1; Jentzsch, A., 3; Lamplugh, G. W., 6; Teall, J. J. H., 3 & 4.
- , Japan.—Inouye, K., 1; Kanehara, N., 1; Kochibe, T., 1; Ogawa, T., 1; Senkino, S., 1.
- , Minnesota.—Winchell, N. H., 2.
- , Mysore.—Smeeth, W. F., 1.
- , Nebraska.—Barbour, E. H., 1.
- , Prussia & Thuringia.—Bey-schlag, F., 2.
- , Queensland.—Dixon, R., 1.
- , Russia.—Derjavin, A., 1.
- , Saxony.—Wagner, P., 1.
- , Scotland.—Jentzsch, A., 3; Teall, J. J. H., 3 & 4.
- , United States of America.—Anon., 27; Walcott, C. D., 1, 2, & 6.
- surveying.—Hobbs, W. H., 5.
- terms.—Bonney, T. G., 5.
- text-books.—Barré, O., 1; Charpentier, H., 1; Frech, F., 1 & 2; Geikie, Sir A., 2; Lapparent, A. de, 10; Mercalli, G., 1; Weinschenk, E., 1.
- time, life-distribution in.—Woodward, H., 12.
- topography, influence of gypsum & salt on.—Ochsenius, C., 4.
- ‘Geologisches Centralblatt.’—Coomáraswámy, A. K., 1.
- Geologists’ Association, N. Staffordshire excursion.—Elsden, J. V., 8.
- Geology, agricultural.—Marr, J. E., 1; Woodward, H. B., 1; *see also* Soils, &c.
- , Alpine.—Zuercher, P., 1.
- , American (N.).—Walcott, C. D., 5; Weeks, F. B., 2.
- , applied.—Angelis d’Ossat, G. de, 6; Charpentier, H., 1; Issel, A., 5; Meli, R., 2; Watts, W. W., 2.
- , British Association, 1903.—Monckton, H. W., 1.
- , chemistry &.—Gans, R., 1.
- , education &.—Ellis, J. E., 1; Lapworth, C., 2; Verri, A., 2; Watts, W. W., 2.
- , engineering &.—Hawkshaw, J. C., 1.
- , evolution &.—Hutton, F. W., 1; Wiik, F. J., 1.
- , experimental.—Avebury, Lord, 1; Guébbard, A., 1; Reade, T. M., 2.
- , geography &.—Holdich, Sir T. H., 1.
- , Germany.—Lepsius, R., 2.
- Geology, gravity &.—Lapparent, A. de, 9.
- , International bibliography of.—Simoëns, G., 3; Van den Broeck, E., 3.
- , New Zealand.—Hamilton, A., 1.
- , Nova Scotia.—Ells, R. W., 1.
- , photography &.—Ingen, G. van, 1; Watts, W. W., 3; Woodward, H., 8.
- , plants &.—Smith, W. G., 1.
- , Rhenish Schiefergebirge, 1581–1900.—Kaiser, E., 1.
- , B. School of Engineers, Rome.—Meli, R., 2.
- , Saxony, 1494.—Wagner, P., 1.
- , Wellington College.—Blundell, G. E., 1.
- Geophysical phenomena.—Milne, J., 1; Tacquin, A., 2.
- station, Quenast.—Lagrange, E., 1.
- Georgetown (Colo.).—Crosby, W. O., 2.
- Georgia (U.S.A.).—Eckel, E. C., 1; McCallie, S. W., 2; Vaughan, T. W., 1.
- Geothermal gradient, Michigan.—Lane, A. C., 2.
- Gephyrostegus*.—Jækel, O., 3.
- Geraphrynus*.—Melander, A. L., 1.
- Gerihorn (Berne).—Douvillé, H., 10.
- German African Colonies.—Macco, A., 1.
- Germany.—Frech, F., 1 & 2; Gerland, G., 2.
- (E.).—Lepsius, R., 2.
- (N.).—Jentzsch, A., 1 & 2; Kænen, A. von, 1; Lamplugh, G. W., 2; Lepsius, R., 2; Ochsenius, C., 1.
- *See also* Hesse, &c.
- Gerrard’s Cross (Bucks).—Howe, J. A., 1.
- Gervillia*.—Bistram, A. von, 1.
- Gervillopsis*.—Shattuck, G. B., 1.
- Gesso Valley (Piedmont).—Roccati, A., 1.
- Gewitsch (Moravia).—Tietze, E., 1.
- Gibbsite.—Pettard, W. F., 1.
- Gibraltar.—Acland, H. D., 1.
- Gien (Loiret).—Grossouvre, A. de, 4.
- Giessen (Hesse).—Parkinson, H., 1.
- Gilgenberg (E. Prussia).—Michael, R., 3.
- Ginkgo*.—Knowlton, F. H., 1; Møller, H., 1.
- Gippsland (Victoria).—Dennant, J., 2.
- Girvan (Ayrshire).—Reed, F. R. C., 5.
- Gismondite.—Thugutt, St. I., 1.
- Giza, Pyramids of (Egypt).—Beadnell, H. J. L., 1.
- Glacial action, Mission Valley (Mont.).—Elrod, M. J., 1.
- conglomerates, Victoria.—Hart, T. S., 1.
- deposits, Alsace-Lorraine.—Van Werveke, L., 13 & 14.
- , Brandenburg.—Linstow, O. von, 1.
- , California.—Hershey, O. H., 5.

- Glacial deposits, Cheshire.—Edwards, W., 1.
 —, classification of N. European.—Stolley, E., 1.
 —, Jura.—Bourgeat, —, 1-3.
 —, Lancashire.—Reade, T. M., 1.
 —, Nova Scotia.—Haycock, E., 1.
 —, Permo-Carboniferous, Victoria (Austral.).—Kitson, A. E., 2.
 — Drift, Co. Dublin.—Lamplugh, G. W., 6.
 — periods.—Böttcher, —, 1; Chamberlin, T. C., 2; Longe, F. D., 1; plants &.—Anon., 35.
 — striaæ.—Hanover.—Menzel, H., 2; simulated.—Van den Broeck, E., 1.
 Glaciated boulders, Permo-Carboniferous, Victoria.—Thiele, E. O., 1.
 — pebbles, Pas-de-Calais.—Gosselet, J., 5; *see also* Pebbles.
 Glaciation, Alsace - Lorraine.—Deecke, W., 3.
 —, Baden.—Steinmann, G., 2.
 —, Carpathians.—Martonne, E. de, 1.
 —, Cheviot Hills.—Kendall, P. F., 3.
 —, Colorado.—Lay, H. C., 1.
 —, Condroz massif.—Simoëns, G., 1.
 —, Corsica.—Castelnau, P., 1.
 —, Dauphiné.—Martin, D., 1.
 —, Dublin Co.—Wright, W. B., 1.
 —, Europe.—Frech, F., 2.
 —, Hebrides.—Knight, G. A. F., 1.
 —, Himalayas.—Freshfield, D. W., 1.
 —, Jordan Valley.—Libbey, W., 1.
 —, Klamath Mts.—Hershey, O. H., 1-5.
 —, Magdeburg.—Wahnschaffe, F., 1.
 —, Massachusetts.—Taylor, F. B., 1.
 —, North Haven I. (Me.).—Willis, B., 2.
 —, Norway.—Monckton, H. W., 3; *see also* Scandinavia.
 —, Orange-River Colony.—Barrett-Hamilton, G. E. H., 1.
 —, Salt-Range Permian.—Koken, E., 4.
 —, Saxony.—Riedel, O., 1.
 —, Scandinavia.—Ussing, N. V., 1; *see also* Norway, &c.
 —, Skye, I. of.—Harker, A., 1.
 —, Styria.—Dreger, J., 1.
 —, Tasmania.—Gregory, J. W., 1.
 —, Tyrol.—Guenther, S., 1; Hess, H., 2.
 —, Valais.—Tornquist, A., 2.
 —, Vosge Mts.—Van Werveke, L., 13.
 —, Wyoming.—Salisbury, R. D., 1.
 Glacier-lakes, America (N.).—Upham, W., 3 & 4.
 —, —, Yorkshire.—Clark, J. E., 1.
 — movement.—Crammer, H., 2.
 Glaciers, Antarctic.—Arctowski, H., 2.
 —, Colorado.—Fenneman, N. M., 2.
 —, Dauphiné & Savoy.—Belloc, E., 1; Girardin, P., 1.
 —, International Commission.—Finsterwalder, S., 1; Forel, F. A., 4; Kilian, W., 1; Rabot, C., 1 & 2.
 Glaciers, Mont-Blanc (1780).—Forel, F. A., 1.
 —, Monte Rosa.—Dainelli, G., 2.
 —, Norway.—Rekstad, J., 1.
 —, Simplon massif.—Schardt, H., 4.
 —, Spitsbergen.—Baun, A., 1.
 —, United States.—Elrod, M. J., 1; Reid, H. F., 1.
 —, variation of.—Engell, M. C., 1; Finsterwalder, S., 1; Forel, F. A., 1 & 4; Girardin, P., 1; Kilian, W., 1; Rabot, C., 1 & 2; Reid, H. F., 1.
 —, Vosges.—Meunier, S., 9.
 Glaciology, 1901-1902.—Rabot, C., 1 & 2.
 Glamorganshire.—Jordan, H. K., 1; Small, E. W., 1; Strahan, A., 2 & 5.
Glandina.—Førster, B., 5.
Glandulina.—Silvestri, A., 1.
 Glarus (Switzerland).—Frech, F., 1; Penck, A., 1.
 Glaserite.—Van't Hoff, J. H., 3.
 Glaslyn (N. Wales).—Dakyns, J. R., 1.
 Glassy igneous rocks, devitrification in.—Bonney, T. G., 12.
 Glauber's salt deposits, Caspian Sea.—Ochsenius, C., 5.
 —, Liguria.—Franchi, S., 1.
 Glaucophanic rocks, Alps (W.).—Rosati, A., 1.
 Glencoe (Argyle).—Kynaston, H., 1.
 Glenrowan (Victoria).—Kitson, A. E., 2.
Globablastus.—Hambach, G., 1.
 Gloggnitz (Lr. Austria).—Keyserling, H. von, 2.
Glossopteris.—Seward, A. C., 2.
 Gloucestershire.—Anon., 18; Buckman, S. S., 4; Moore, H. C., 1; Reade, T. M., 3; Richardson, L., 1, 4, & 5; Strahan, A., 1; Tomes, R. F., 1; Wethered, E. B., 1.
Glycimeris.—Dollfus, G. F., 6; Etheridge, R., Fil., 2.
 Glyn Ceiriog (Denbighshire).—Moore, C. C., 1.
Glyphæa.—Weller, S., 1.
Glyphioceras.—Foord, A. H., 1; Smith, J. P., 1.
Glyptias.—Walcott, C. D., 3.
 Gngangara, Lake (W. Austral.).—Maitland, A. G., 1.
 Gneiss, Alpes-Maritimes.—Roccati, A., 1.
 —, Alsace.—Bruhns, W., 2.
 —, Austria (Lr.).—Keyserling, H. von, 2.
 —, Bavaria.—Duell, E., 1.
 —, Bohemia.—Hinterlechner, K., 2.
 —, British East Africa.—Prior, G. T., 2.
 —, Canada.—Osann, A., 1.
 —, intrusive.—Cole, G. A. J., 7.
 —, Maryland.—Clark, W. B., 4.
 —, Mysore.—Jayaram, B., 1; Sambasiva-Iyer, V. S., 1; Slater, H. K., 1; Smeeth, W. F., 1; Wetherell, E. W., 1.

- Gneiss, pebbles in Erzgebirge.—Gæbert, C., 1.
 —, plant-remains in.—Dal Piaz, G., 1 & 2.
 —, Rum, I. of.—Harker, A., 2.
 —, Sudan.—Lacoin, —, 1.
 —, Victoria (Austral.).—Jenkins, H. C., 1.
 Goat, Quaternary.—Koch, A., 3.
 Gæthite.—Cesàro, G., 1.
 Gold, Alaska.—Brooks, A. H., 3; Collier, A. J., 1.
 —, Arizona.—Reagan, A. B., 3.
 —, Australia (S.).—Brown, H. Y. L., 1 & 2; (W.).—Campbell, W. D., 1; King, H. S., 1; Krusch, P., 1; Maitland, A. G., 2.
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 —, British Guiana.—Hargreaves, T. S., 1.
 —, Bukhara.—Levat, E. D., 1 & 2.
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 —, Canada.—Ingall, E. D., 2.
 —, Colorado.—Day, D. T., 1; Lakes, A., 1; Ransome, F. L., 1; Rickard, T. A., 1; Roberts, G. E., 1; Welles, A. M., 1.
 —, Egypt.—Alford, C. J., 1.
 —, fluorspar &.—Lenher, V., 1.
 —, Georgia.—Eckel, E. C., 1.
 —, German E. Africa.—Macco, A., 1.
 —, Gold Coast.—Bowler, L. P., 1; Sawyer, A. R., 6.
 —, India.—Grundy, J., 1; Holland, T. H., 3; Stonier, G. A., 1 & 2.
 —, Indiana.—Blatchley, W. S., 3.
 —, Ivory Coast.—Armas, M., 1.
 —, in Kansas 'shales'.—Lovewell, J. T., 1.
 —, Klondyke.—Dawson, G. M., 1; Miers, H. A., 4.
 —, Matabeleland.—Carey, G. R., 1.
 —, Mexico.—Aguilera, J. G., 1; Blake, W. P., 2; Lakes, A., 7.
 —, Montana.—Weed, W. H., 7.
 —, Natal.—Gray, C. W., 1.
 —, Newfoundland.—Howley, J. P., 1.
 —, New South Wales.—Pittman, E. F., 1.
 —, New Zealand.—McKay, A., 1; Morgan, P. C., 1.
 —, Nova Scotia.—Faribault, E. R., 1; Gilpin, E., Jun., 1 & 2.
 —, Oregon.—Lindgren, W., 1.
 —, Philippine Is.—Nichols, J. C., 1.
 —, Queensland.—Boll, L. C., 1, 2, & 3; Cameron, W. E., 2 & 3; Dunstan, B., 2; Jackson, C. F. V., 3.
 —, Siberia.—Bordeaux, A., 1; Gerasimov, A. P., 1; Ijitzki, N., 1 & 2; Jaczewski, L., 1; Meister, A., 1 & 2; Obruchev, V., 1.
 —, Styria.—Redlich, K. A., 1.
 —, Sumatra, &c.—Truscott, S. J., 1.
 —, Tasmania.—Twelvetrees, W. H., 3, 4, & 7-10.
 Gold, Transvaal.—Black, W. G., 1; Hammond, J. H., 1; Hatch, F. H., 1; Sawyer, A. R., 1.
 —, Transylvania.—Vernadski, V. S., 3.
 —, Trinidad.—Guppy, R. J. L., 1.
 —, United States production.—Day, D. T., 1; Roberts, G. E., 1.
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 —, Washington.—Spurr, J. E., 1.
 —, Woodlark I.—Pinder, C. R., 1.
 Gold Coast (W. Africa).—Bowler, L. P., 1; Sawyer, A. R., 6.
 Goldberg (Silesia).—Scupin, H., 1.
 Gommern (Magdeburg).—Wahnschaffe, F., 1.
 Gondwana land - fauna, Brazilian.—Woodward, A. S., 7.
 —, Series, India, &c.—Seward, A. C., 4.
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Goniocidaris.—Loriol, P. de, 2.
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Goniophora.—Maurer, F., 1; Walther, K., 1.
 Gorbalka R. (Siberia).—Ijitzki, N., 1.
 Goritz (Austria).—Hörnes, R., 2.
 Gosan (U. Austria).—Felix, J., 2.
 —, sandstone, Grätz.—Hilber, V., 1.
 Goshen Hole (Wy.).—Adams, G. I., 1.
Gosseletia.—Maurer, F., 1.
 Gotland (Sweden).—Kjellén, R., 2; Moberg, J. C., 2; Munthe, H., 1 & 2; Post, L. von, 1; Winkler, C., 1.
 Gotland, I. of (Baltic).—Wiman, C., 2.
 GRAEFF, F. F. *See Obol.*, Osann, A., 2.
 Graham Shoal. *See Ferdinandea* I.
Grammysia.—Maurer, F., 1; Walther, K., 1.
Granatocrinus.—Hambach, G., 1.
 Grand-Gulf Formation, Mississippi, &c.—Dall, W. H., 2; Hilgard, E. W., 1; Smith, E. A., 2.
 Grand-Manil (Belgian Luxemburg).—Malaise, C., 2.
 Grandes-Rousses (Savoy).—Girardin, P., 1.
 Grandidierite.—Lacroix, A., 10.
 Grängesberg (Dalecarlia)—Launay, L. de, 4.
 Granite, Aar massif intrusive.—Baltzer, A., 2.
 —, Aberdeen, &c.—Joly, J., 6.
 —, Africa (S.).—Mennell, F. P., 2.
 —, Algeria.—Termier, P., 4.
 —, Alpes-Maritimes.—Roccati, A., 1.
 —, Alsace-Lorraine.—Bruhns, W., 1.
 —, Antarctic.—Prior, G. T., 4.
 —, Arctic Canada.—Hanbury, D. T., 1.
 —, Baden.—Futterer, K., 1.
 —, Bavaria.—Ries, A., 1; Schalch, F., 1.
 —, Baveno.—Artini, E., 1.
 —, Bohemia.—Hinterlechner, K., 2.
 —, Caucasus.—Læwinson-Lessing, F., 1.

- Granite, Cornwall.—Hull, E., 2; Scriver, J. B., 1.
 —, Crete.—Cayeux, L., 4.
 —, crystallization of.—Hunt, A. R., 4; McMahon, C. A., 2.
 —, diffusion into crystalline schists.—Greenly, E., 1.
 —, Elba.—Achiardi, G. d', 1.
 —, Himalayas.—McMahon, C. A., 1 & 3.
 —, Ireland.—Elsden, J. V., 6; Seymour, H. J., 3.
 —, Kirkcudbright.—Elsden, J. V., 3.
 —, Kyffhäuser Mts.—Luedecke, O., 1.
 —, Lausitz.—Nessing, R., 1.
 —, Leicestershire.—Louis, D. A., 1.
 —, Man, I. of.—Elsden, J. V., 2.
 —, Maryland.—Clark, W. B., 4.
 —, Montorfano.—Tacconi, E., 1.
 —, Moravia.—Bock, H., 1.
 —, Mysore.—Jayaram, B., 1; Primrose, A., 1; Sambasiva Iyer, V. S., 1 & 2; Slater, H. K., 1; Smeeth, W. F., 1; Wetherell, E. W., 1.
 —, New Hampshire.—Perry, J. H., 1.
 —, Ontario.—Graton, L. C., 1.
 —, 'petit.'—Destinez, P., 1.
 —, Pyrenees.—Stuart-Menteth, P. V., 3.
 —, Rumania.—Butureanu, V. C., 3.
 —, Savoy.—Haug, E., 4.
 —, Styria.—Medanich, G., 1.
 —, Sudan.—Linck, G., 6.
 —, Tasmania.—Twelvetrees, W. H., 12.
 —, Transvaal.—Sawyer, A. R., 3 & 5.
 —, Utah.—Emmons, S. F., 2.
 —, veins.—Harker, A., 3.
 —, Vosges.—Van Werveke, L., 19.
 —, Washington (U.S.A.).—Shedd, S., 1.
 Granitic gravels, Nivernais.—Lamothe, R. de, 1.
 Granitoid rocks, Rumania.—Uroshev, S., 1.
 Graphite, Bavaria, Ceylon, & Siberia.—Launay, L. de, 3.
 —, Canada.—Ingall, E. D., 2; Osann, A., 1; Struthers, J., 13.
 —, India.—Grundy, J., 1.
 —, Lausitz.—Nessing, R., 1.
 —, Mexico.—Aguilera, J. G., 1.
 —, Moravia.—Kretschmer, F., 1.
 —, origin of.—Weinschenk, E., 6.
 Graptolites.—Elles, G. L., 1; Hall, T. S., 1; Kerfome, F., 1; Perkins, G. H., 1.
 Grassington Moor (Yorks).—Dakyns, J. R., 2.
 Grätz (Styria).—Hilber, V., 1.
 Gravels, Alsace-Lorraine.—Førster, B., 4.
 —, Baltic-coast, transported.—Geinitz, E., 2.
 —, Berkshire.—Blake, J. H., 1.
 —, England (S.E.).—Monckton, H. W., 5.
 —, Germany (N.), Jurassic in.—Oppenheim, P., 4.
 Gravels, Gloucestershire, &c.—Callaway, C., 3; Reade, T. M., 3.
 —, Long I. (N.Y.).—Fuller, M. L., 3.
 —, Moravia.—Felix, J., 1.
 —, Paris Basin.—Grossouvre, A. de, 2.
 —, Rhein-Hesse terrace.—Schopp H., 1.
 —, Rhône.—Boistel, A., 1.
 —, Suffolk.—Layard, N. F., 1.
 —, Sylt, &c.—Martin, J., 1; Petersen, J., 1.
 —, Thames Valley.—Haige, A. H., 1; Pocock, T. I., 1.
 —, water-filtration & valley.—Andrimont, R. d', 2.
 —, Wiltshire.—Reid, C., 1 & 3.
 Gravity, geology &.—Lapparent, A. de, 9.
 —, measurement of.—Issel, A., 6.
 —, mineral specific.—Behr, J., 1; Mackie, W., 1.
 —, Munich.—Pfaff, F. W., 2.
 —, Piedmont.—Aimonetti, C., 1.
 —, planets &.—Borredon, G., 1-5.
 —, variations of.—Helmert, F. R., 1; Montessus de Ballore, F. de, 2; Zachariae, —, 1.
 —, Württemberg.—Koch, K. R., 1.
 Grays (Essex).—Salter, A. E., 1.
 Great-Basin Region (Nevada, &c.).—Davis, W. M., 4.
 Great Bear & Great Slave Lakes (N.W. Canada).—Bell, J. M., 1.
 Great Britain.—Anon., 22; Atkinson, J. B., 1; Davies, T. J., 1; Foster, C. Le N., 1 & 2; Jentzsch, A., 3; Kendall, P. F., 2.
 Great Western Railway, Denham cutting.—Howe, J. A., 1.
 Greece.—Bock, J., 1; Cayeux, L., 1; Hilber, V., 2; *see also* Eubœa, &c.
 Green Mts. (N.Y. & Vt.).—Dale, T. N., 1.
 Green-Pond Mt. (N.J.).—Weller, S., 2.
 Greenbushes (W. Austral.).—Krusch, P., 1.
 Greenland.—Engell, M. C., 1; Pratt, J. H., 7; Winkler, C., 1.
 Greensand (Lr.), Bedfordshire.—Home, H., 1; Lamplugh, G. W., 7; Norfolk.—Elsden, J. V., 5.
 —, marl, New Jersey.—Parsons, A. L., 1.
 Greenstone, Cornwall.—Hill, J. B., 1; Parkinson, J., 1.
 Greenwood (British Columbia).—Johnson, P., 1.
 Greisen, Cornwall.—Scrivenor, J. B., 1.
 Grenada I. (W.I.).—Sapper, K., 3.
 Grenoble (Dauphiné).—Loriol, P. de, 2.
 Grenville (Quebec).—Ells, R. W., 3.
 Grès de May, Normandy.—Shrubsole, O. A., 1.
 Greta (Victoria).—Kitson, A. E., 2.
Grevillea.—Deane, H., 1.
 Grey Hook (Spitsbergen).—Kayser, E., 1.
 GRIESBACH, C. L. *See* Anon., 15.
Griffithides.—Illes, V., 1.
Griphopithecus.—Abel, O., 2.

- Griqualand East (Cape Colony).—Schwarz, E. H. L., 1 & 2.
- Grisons (Switzerland).—Hess, H., 1; Høek, H., 1; Schmidt, C., 1.
- Grive-Saint-Alban (Isère).—Major, C. I. F., 1.
- Gryphæa*.—Dacqué, E., 1; Shattuck, G. B., 1.
- Guadeloupe (W.I.).—Lacroix, A., 5; Sapper, K., 10.
- Guaranian.—Ameghino, F., 6.
- Guatemala (Cent. Am.).—Anon., 22; Bergeat, A., 1-3; Brauns, R., 1; Rockstroh, E., 1; Sapper, K., 1; Schottler, W., 2.
- Guembelia*.—Prever, P., 1.
- Guienne (France).—Stefano, G. de, 1.
- GUNN, W. See *Obit.*, Horne, J., 1.
- Gunstett (Alsace).—Hermann, A., 1.
- Gypidula*.—Weller, S., 2.
- Gypsum, Canada.—Ingall, E. D., 2.
- , Eden Valley.—Burns, D., 1.
- , influence in nature.—Walther, J., 2.
- , origin of.—Delkeskamp, R., 1; Meunier, S., 13; Ochsenius, C., 4; Sherwin, R. S., 1.
- , United States.—Struthers, J., 10; Wilder, F. A., 1.
- Gyracanthides*.—Woodward, A. S., 5.
- Haddington (Scotland).—Goodchild, J. G., 1.
- Hadjin (Asia Minor).—Fuchs, T., 2; Penecke, K. A., 1.
- Hadleigh (Suffolk).—Whitaker, W., 1.
- Hadrachne*.—Melander, A. L., 1.
- Hadropithecus*.—Lorenz, L. von, 1.
- Hæmatite.—Launay, L. de, 2; Melczar, G., 2; Schaller, W. T., 1; Walker, W. E., 1.
- Haidingerite.—Schulten, A. de, 2.
- Hailes Quarry (Edinburgh).—Hepburn, D., 1.
- Hainault (Belgium).—Cornet, J., 2-4; Delépine, G., 2.
- Haine R. (Belgium).—Cornet, J., 4.
- Halifax (Yorks.).—Simpson, W., 1.
- Halimeda*.—Lorenz, J. von, 2.
- Halitherium*.—Van Oort, E. D., 1.
- HALL, C. M. See *Obit.*, Upham, W., 2.
- Hallstatt (U. Austria).—Jäger, F. M., 1.
- Hallwell - Cottage Beds, Cornwall.—Parkinson, J., 1.
- Halmariphus*.—Ameghino, F., 4.
- Hamilton Formation, New York.—Cleland, H. F., 1; Ontario.—Shimer, H. W., 1.
- Hamites*.—Etheridge, R., Fil., 2; Weller, S., 1; Wollemann, A., 1.
- Hampshire.—Bullen, R. A., 1; Monckton, H. W., 3; Ormerod, H. A., 1.
- Hamulina*.—Sarasin, C., 2.
- Hanging valleys, California.—Branner, J. C., 5; Colorado.—Crosby, W. O., 2.
- Hanover (Germany).—Kenen, A. von, 2; Menzel, H., 1 & 2; Ochsenius, C., 1; Schucht, F., 1; Stille, H., 1; Wollemann, A., 1 & 3; Wunstorff, W., 1.
- Hantkenia*.—Prever, P., 1.
- Hapalops*.—Scott, W. B., 1.
- Haplarea* & *Haplohelia*.—Felix, J., 2.
- Haplocanthus*.—Hatcher, J. B., 2.
- Haploceras*.—Weller, S., 1.
- Hardanger Fjord (Norway).—Monckton, H. W., 4.
- Härens (Tyrol).—Dreger, J., 2.
- Hares, Tertiary.—Matthew, W. D., 5.
- Harlyn Bay (Cornwall).—Bullen, R. A., 2.
- Harpagodes*.—Shattuck, G. B., 1.
- Harpes*.—Reed, F. R. C., 5.
- Harpoceras*.—Burckhardt, C., 1; Loriol, P. de, 1.
- HARRIS (I. H.) Collection, U.S. National Museum.—Schuchert, C., 2.
- Harrogate (Yorks.).—Smith, W. G., 1.
- Hartenrod (Cassel).—Heineck, F., 2.
- Härtsfeld Mts. (Württ.).—Endriss, K., 1.
- Harz Mts. (Germany).—Everding, H., 1; Harbort, E., 2; Hecker, O., 3; Hornung, F., 1; Van Werveke, L., 11; Wuest, E., 3 & 4.
- Haubourdin (Nord).—Gosset, J., 5; Lagaisse, —, 1.
- Haute-Garonne (France).—Boule, M., 1; Carez, L., 4; Michel-Lévy, A., 1; Moissan, H., 1.
- Hauterivian, Provence.—Pellat, E., 1.
- Hautrages (Hainault).—Cornet, J., 3.
- Havana (Cuba).—Eigenmann, C. H., 1.
- Hawaiian Is. (Pacific).—Branner, J. C., 3; Lindgren, W., 4.
- Hawkesbury Sandstone.—Card, G. W., 2.
- Hay Springs (Neb.).—Matthew, W. D., 6.
- Haye, La, plateau (Brabant).—Imbeaux, —, 1.
- Hazel, fossil, Sweden.—Andersson, G., 1.
- Heathcotian, Victoria (Austral.).—Gregory, J. W., 3.
- Heathfield (Sussex).—Dixon, H. B., 1; Woodward, H. B., 11.
- Heaton Park (Lancs).—Dickson, J., 2.
- Hebrides (Scotland).—Knight, G. A. F., 1.
- Hedenstræmia*.—Smith, J. P., 1.
- Heemskirk, Mt. (Tasm.).—Waller, G. A., 4.
- Heid (Württ.).—Endriss, K., 1.
- Heidelberg (Baden).—Cohen, E., 3; Schütensack, O., 1.
- Helderberg Limestone, Ohio.—Claypole E. W., 1.
- Helenia*.—Woodward, H., 7.
- Heliastrea*.—Osasco, E., 1.
- Helicoprion*.—Karspinski, A., 1; Simoëns, G., 2; Van den Broeck, E., 2; Van de Wiele, C., 1; Woodward, A. S., 3.
- Heligoland, I. (North Sea).—Martin, J., 1; Petersen, J., 1.

- Heliopora*.—Felix, J., 2.
Helix (Tachea) sylvana - limestone.—Miller, K., 1; Rollier, L., 2.
Helodus.—Eastman, C. R., 1.
 Helvetian, Randengrobkalk &.—Rollier, L., 3.
 Hemera.—Buckman, S. S., 3; Jukes-Browne, A. J., 1.
Hemiasper.—Fourtau, R., 1; Gauthier, V., 1; Kossmat, F., 1; Lambert, J., 1.
Hemicidaris.—Gauthier, V., 2.
Hemipedina.—Loriol, P. de, 2.
Hemipristis.—Eastman, C. R., 2.
 HENDERSON, J. See *Obit.*, Goodchild, J. G., 5.
 Hendre Quarry, Glyn Ceiriog.—Moore, C. C., 1.
 Henry Co. (Iowa).—Savage, T. E., 1.
 Heraklea (Asia Minor).—Simmersbach, B., 1.
 Hérault (Languedoc).—Angelis d'Ossat, G., 4.
 Herborn (Cassel).—Heineck, F., 2; Walther, K., 1.
 Herefordshire.—Callaway, C., 4; Moore, H. C., 1.
 Hertfordshire.—Hopkinson, J., 2; Saunders, J., 1; Woodward, H. B., 2 & 9.
 Herzegovina.—Lucas, R., 2.
Hesperornis.—Lucas, F. A., 8.
 Hesse (Germany).—Buecking, H., 4; Chelius, C., 1; Delkeskamp, R., 2; Denckmann, A., 1; Harbort, E., 2; Klemm, G., 2; Lepsius, R., 1; Schopp, H., 1; Schultz, W., 1; Schuster, W., 1; Wuest, E., 2.
Heterangium.—Nathorst, A. G., 1.
Heterastræa.—Tomes, R. F., 1.
Heteroceras.—Whitfield, R. P., 2.
Heteroclitotriton.—Stefano, G. de, 1.
Heterocenia.—Felix, J., 2.
Heterodera.—Pampaloni, L., 1.
 Hexactinellidae, Chalk.—Ungern-Sternberg, E. von, 1; see also Sponges.
Heynaldella.—Blake, W. P., 3.
Hicoria.—Knowlton, F. H., 1.
 Highlands, N.W. (Scotland).—Lake, P., 1.
 Hillend (Pentlands).—Strachan, J., 1.
 Himalayas (Asia).—Freshfield, D. W., 1; Krafft, A. von, 1; Lake, P., 1; McMahon, C. A., 1 & 3; Montessus de Ballore, F. de, 2; Stephens, F. J., 1 & 2.
Hindia.—Weller, S., 2.
 Hindu Khoosh (Himalayas).—McMahon, C. A., 1.
Hinnites.—Woods, H., 1.
Hipparion.—Venukov, P. I., 1.
Hippurites.—Franchis, F. de, 1; Hilber, V., 1; Longhi, P., 1; Pethæ, J., 3; Toucas, A., 2.
 Hirschberg (Thuringia).—Zimmermann, E., 1.
Histricoceras.—Etheridge, R., Filk, 2.
 Histrixite.—Pettard, W. F., 1.
 Hitcham Street (Suffolk).—Whitaker, W., 1.
 Hodder Place (Lancs).—Hind, W., 1.
 Hogneau R. (Hainault).—Cornet, J., 2.
 Hohenberg (Bavaria).—Regelmann, C., 1.
 Hohen Tauern (Styria).—Weinschenk, E., 2.
 Hohenzollern (Germany).—Schuetze, E., 2.
 Hoigne R. (Liège).—Fourmarier, P., 1 & 3.
 Hokkaidō (Japan).—Anon., 26; Yabe, H., 1.
Holaster.—Gauthier, V., 1; Wollemann, A., 1.
Holcotrochus.—Dennant, J., 1.
 Höll-Loch (Muotta Valley).—Otter, J., 1.
 Holland.—Lorié, J., 1.
 HOLLAND, T. H. See Anon., 16.
 Holocene. See Quaternary.
Homacanthus.—Eastman, C. R., 1.
Homalonotus.—Maurer, F., 1; Woodward, H., 1.
 Homberg a. Efze (Hesse).—Schultz, W., 1.
Homæaster.—Lambert, J., 1.
 Homœomorphy, plant.—Arber, E. A. N., 1.
Homomya.—Shattuck, G. B., 1.
Homunculus.—Ameghino, F., 4.
 Honisgründe (Baden).—Fnterer, K., 1.
 Hooken Cliffs (Devon).—Rowe, A. W., 2.
Hoplites.—Burckhardt, C., 1; Uhlig, V., 1.
 Horbury (Yorks).—Sutcliffe, R., 1.
 Horn I. (Gulf of Carpentaria).—Jackson, C. F. V., 3.
 Hornblende, Cappuccini.—Zambonini, F., 4; see also Amphibole.
Hornera.—Maplestone, C. M., 1.
 Hořowitz (Bohemia).—Liebus, A., 1.
 Horses, Palæolithic.—Munro, R., 1.
 Hot Springs, Dominica.—Sapper, K., 8.
 Howlite.—Giles, W. B., 1.
 Huascolite.—Pettard, W. F., 1.
 Hudsonite.—Weidman, S., 1.
 Hull (Yorks).—Sheppard, T., 2, 3, & 5.
 Humus.—Hardy, M., 1.
 Hundés (Himalayas).—Krafft, A. von, 1.
 Hungary.—Beck, H., 1; Bœckh, J., 1; Gorjanovič-Kramberger, K., 1; Halaváts, J., 1; Horusitzky, H., 2; Kalecsinszky, A. von, 2; Koch, A., 1-5; Lajos, F., 1; Liebus, A., 2; Lœrentzhey, E., 1; Lugeon, M., 2; Pálffy, M. von, 2; Pethæ, J., 1-3; Posewitz, T., 1; Schafarzik, F., 1 & 2, 4-6; Timko, E., 1; Treitz, P., 1-3; Uhlig, V., 2; Vettors, H., 1; see also Carpathians Transylvania, &c.
Hunsruckia.—Traquair, R. H., 3.
 Hunter R. (N.S.W.).—Atkinson, A. A., 1.
 Huntsham (Hereford).—Wood, J. G., 1.
 Hunyad (Hungary).—Halaváts, J., 1.
 Hurrigan Fault, Utah.—Huntington, E., 1.

- Hüttenberg (Carinthia).—Baumgärtel, B., 1.
Hyæna.—Boule, M., 2.
 Hyalophane.—Baumhauer, H., 4.
 ΗΥΑΤΤ, A. See *Obit.*, Minot, C. S., 1; Packard, A. S., 1.
Hydnophora.—Felix, J., 2.
Hydrangea.—Knowlton, F. H., 1.
Hydrobia.—Færster, B., 5.
Hydrochaeris.—Ameghino, F., 2.
 Hydrology, S. Dakota.—Todd, J. E., 1.
 Hydro-magnesianite.—Brugnatelli, L., 2 & 3.
Hydrophora.—Osasco, E., 1.
 Hydrothermal metamorphism, Devon schist.—Hunt, A. R., 7.
Hyopotamus.—Bush, L. P., 1.
Hyperodapedon.—Boulenger, G. A., 1.
 Hypertragulidæ & *Hyppisodus*.—Matthew, W. D., 5.
Hypsaster.—Gauthier, V., 1.
Hypsospatangus.—Loriol, P. de, 2.
- Iano (Tuscany).—Barsanti, L., 1.
 Ice-Age, Milky Way & the.—Very, F. W., 1.
 —, origin of.—Longe, F. D., 1.
 —, Wutach district. — Steinmann, G., 2.
 Ice, Antarctic.—Arctowski, H., 3; Bellingshausen, F. von, 1.
 —, blocks transported by.—Prest, W. H., 1.
 —-erosion, Skye.—Harker, A., 1.
 —-field, Brazeau.—Coleman, A. P., 3.
 —-movement.—Crammer, H., 2.
 Iceland.—Meunier, S., 12; Pjetursson, H., 1.
 Ichthyosarcoliths.—Jacob, C., 1.
Ichthyosaurus. — Knight, W. C., 3; Merriam, J. C., 1; Sheppard, T., 1; Yakovlev, N., 3.
 Idaho (U.S.A.).—Lakes, A., 2; L'Hame, W. E., 1; Russell, I. C., 3-5.
 Idocrase.—Bœris, G., 1.
Idonearca.—Etheridge, R., Fil., 2.
 Ifö, Lake (Gotland).—Moberg, J. C., 2.
 Igneous intrusion, mechanics of.—Daly, R. A., 2 & 3.
 — rock-classification, chemical. — Osann, A., 5; macroscopic.—Ans, J. d', 1; Osann, A., 4; quantitative.—Cross, W., 6.
 —, contraction-cylinder in. — Kueppers, E., 1.
 — rocks, Abyssinia.—Raisini, C. A., 1.
 —, Algeria.—Ritter, E., 1.
 —, Alsace.—Linck, G., 1 & 2.
 —, analysis.—Fouqué, F., 1.
 —, Andes.—Becke, F., 1.
 —, Angola, &c.—Berg, G., 2.
 —, Antarctic.—Prior, G. T., 4.
 —, Aranyos Valley.—Pálffy, M. von, 1; Telegd, L. R. von, 1.
 —, Arizona.—Reagan, A. B., 3.
 —, Arran.—Gunn, W., 1.
 —, Bavaria.—Knebel, W. von, 1.
 Igneous rocks, Bohemia. — Bauer, F., 1; Becke, F., 1; Graber, H. V., 1.
 — —, Bristol district.—Morgan, C. L., 1.
 — —, British Columbia.—Daly, R. A., 3.
 — —, British East Africa.—Prior, G. T., 2.
 — —, Caucasus.—Dervis, V., 1.
 — —, Charnwood Forest.—Bennett, F. W., 1; Watts, W. W., 1.
 — —, Cornwall.—Fox, H., 2; Hill, J. B., 1; Parkinson, J., 1.
 — —, Crete.—Cayeux, L., 4.
 — —, Cumberland. — Walker, E. E., 1.
 — —, Dartmoor.—Worth, R. H., 1.
 — —, devitrification in. — Bonney T. G., 12.
 — —, earth's crust &.—Milch, L., 1.
 — —, Eubœa.—Deprat, J., 2.
 — —, Himalayas. — McMahon, C. A., 1.
 — —, Ireland.—Andrews, M. K., 1; Cole, G. A. J., 1; Lamplugh, G. W., 6.
 — —, Lombardy.—Salomon, W., 1.
 — —, magnetism &.—Brunhes, B., &c., 1.
 — —, Martinique.—Giraud, J., 1.
 — —, Maryland.—Bascom, F., 1; Clark, W. B., 4.
 — —, Mexico.—Felix, J., 5.
 — —, Montenegro.—Zujović, J. M., 1.
 — —, New South Wales.—Card, G. W., 3.
 — —, ore-deposits &. — Weed, W. H., 5.
 — —, Quebec.—Adams, F. D., 3.
 — —, Rajputana.—La Touche, T. D., 1.
 — —, Rumania.—Buțureanu, V. C., 1 & 3; Cadere, D., 1.
 — —, Sardinia.—Dammenberg, A., 1.
 — —, Servia.—Petkov, V. K., 1.
 — —, Sokotra, &c.—Kossmat, F., 1.
 — —, Somaliland.—Arsandaux, H., 1.
 — —, Tasmania.—Twelvetrees, W. H., 12.
 — —, Thuringia.—Luedecke, O.
 — —, Tyrol.—Dälter, C., 3; Ippen, J. A., 1-7; Romberg, J., 2; Weinschenk, E., 2.
 — —, vein-formation &. — Kemp, J. F., 2.
 — —, Venetia. — Keyserling, H. von, 1.
 — —, volume-composition of. — Moore, C. C., 1.
 — —, Wisconsin.—Grant, U. A., 1.
 — —, Württemberg. — Endriss, K., 1.
 — —. See also Contact-metamorphism, Magmas, Basalt, &c.
Iguanodon.—Pauw, L. F. de, 1 & 2.
 — coprolites.—Bertrand, C. E., 1.
Itheringina & Ilarionia.—Loriol, P. de, 2.

- Ilex*.—Engelhardt, H., 1.
 Ilford (Essex).—Howe, J. A., 2.
 — & Woodford Railway.—Holmes, T. V., 1.
Illæunurus.—Weller, S., 2.
 Ille-et-Vilaine (France).—Bigot, A., 2 & 4; Kerforne, F., 1-5; Lebesconte, P., 1; Lechartier, G., 1.
 Illiez Valley (Savoy).—Preiswerk, H., 1.
 Illinois (U.S.A.).—Ashley, G. H., 1; Melander, A. L., 1.
 Ilmenite.—Day, D. T., 1.
 Implements, flint & stone.—Beadnell, H. J. L., 2; Bennett, F. J., 1; Bullen, R. A., 1 & 2; Cunningham, W., 1; Kaschen, N., 1; Knowles, W. J., 1 & 2; Kœnen, C., 1; Layard, N. F., 1; Neilson, J., 1; Reid, C., 1; Schœtensack, O., 1; Wolff, F. von, 2.
 Impruneta (Tuscany).—Trabucco, G., 1.
 Inclusions, fluid.—Hunt, A. R., 6.
 —, volcanic.—Lacroix, A., 9.
 India.—Adamson, T., 1; Grundy, J., 1; Holland, T. H., 1 & 3; Stephens, F. J., 1 & 2; Stonier, G. A., 1 & 2; Walker, T. L., 1; Warth, H., 1; *see also* Cutch, &c.
 Indian Ocean.—Lomas, J., 3 & 6; Verrill, A. E., 1.
 Indian Territory (U.S.A.).—Eldridge, G. H., 1; Taff, J. A., 1.
 Indiana (U.S.A.).—Ashley, G. H., 1 & 2; Blatchley, W. S., 1, 2 & 3; Epperson, J., 1; Fœrste, A. F., 1; Hessler, R., 1; Hopkins, T. C., 1; Kindle, E. M., 1; Leach, J. C., 1; Newsom, J. F., 1 & 2; Nickles, J. M., 1; White, D., 2; Zaring, W. C., 1.
 Infusorial earth, United States.—Pratt, J. H., 5.
 Inn R. (Grisons).—Hess, H., 1.
 Inn Valley (Tyrol).—Ampferer, O., 1.
Inoceramus.—Etheridge, R., Fil., 2; Petrascheck, W., 1; Shattuck, G. B., 1.
 — chalk.—Liebus, A., 2
 Insects, Carboniferous.—Melander, A. L., 1; Pocock, R. I., 1 & 2; Sellards, E. H., 1; Stobbs, J. T., 1.
 —, Permian.—Sellards, E. H., 3.
 —, Quaternary.—Lapouge, G. de, 1.
 —, Tertiary.—Fœrster, B., 3 & 5; Pampaloui, L., 1; Trotter, A., 1.
 Interlaken (Switzerland).—Douvillé, H., 10.
 Iola (Kan.).—Grimsley, G. P., 1.
 Iona I. (Scotland).—Coomáráswámy, A. K., 4.
 Iowa (U.S.A.).—Bain, H. F., 1; Beyer, S. W., 1; Calven, S., 1; Leonard, A. G., 1; Macbride, T. H., 1; Savage, T. E., 1; Udden, J. A., 1 & 2; Wilder, F. A., 1.
 Ipswich (Suffolk).—Bassett, H., Jun., 1; Layard, N. F., 1; Whitaker, W., 1.
Iraniaster.—Gauthier, V., 1.
 Ireland.—Anon., 38; Clark, R., 1; Cole, G. A. J., 1, 2, & 11; Elsdén, J. V., 6; Foord, A. H., 1; Foster, C. Le N., 2; Johnson, T., 1; Joly, J., 6; Kendall, P. F., 2; Knowles, W. J., 2; O'Reilly, J. P., 1; Præger, R. L., 1; Seymour, H. J., 1-3; Ussher, R. J., 1; Wright, J., 1-3; *see also* Donegal, &c.
 Irkutsk (Siberia).—Herz, O., 1.
 Iron, Alsace-Lorraine.—Benecke, E. W., 1; Schweitzer, J., 1; Van Werveke, L., 15.
 —, Bilbao.—Adams, F. D., 1.
 —, Canada.—Coleman, A. P., 1 & 4; Ingall, E. D., 1 & 2; Pratt, J. H., 10.
 —, Carinthia.—Baunngaertel, B., 1.
 —, Congo Free State.—Cornet, J., 5.
 —, Cuba.—Birkinbine, J., 1.
 —, German E. Africa.—Macco, A., 1.
 —, Germany (N.W.).—Harbort, E., 2.
 —, Great Britain.—Foster, C. Le N., 2.
 —, Greenland.—Winkler, C., 1.
 —, India.—Grundy, J., 1.
 —, meteoric.—Berwerth, F., 1; Campbell, H. D., 2; Cohen, E., 1 & 2; Klein, C., 2; Preston, H. L., 2.
 —, Mexico.—Aguilera, J. G., 1; Rangel, M. F., 1; Villarello, J. de D., 1; White, W., Jun., 1; Witherbee, T. F., 1.
 —, Michigan.—Jackson, J. F., 1.
 —, Minnesota.—Leith, C. K., 1.
 —, Moravia.—Kretschmer, F., 1.
 —, Mysore.—Primrose, A., 1; Sambasiva Iyer, V. S., 2; Smeeth, W. F., 1.
 —, Nassau.—Bellinger, J., 1; Lotz, H., 2.
 —, Newfoundland.—Howley, J. P., 1.
 —, New Jersey.—Kuemmel, W. H., 1.
 —, New South Wales.—Pittman, E. F., 1.
 —, New York State.—Reis, H., 1.
 —, Norway.—Vogt, J. H. L., 2.
 —, Nova Scotia.—Gilpin, E., Jun., 1 & 2; Weatherbe, D. A., 1.
 —, Scotland.—Goodchild, J. G., 8.
 —, Servia.—Bajetz, M. J., 1; Djlagoi, M. T., 1.
 —, Silesia.—Berg, G., 1.
 —, Staffordshire.—Cadman, J., 1; Hind, W., 7.
 —, Styria.—Taffanel, J., 1.
 —, Sussex.—Dawson, C., 1.
 —, Sweden.—Launay, L. de, 4; Osborn, C. S., 1.
 —, Tasmania.—Twelvetrees, W. H., 3 & 4; Waller, G. A., 2.
 —, Taunus Mts.—Delkeskamp, R., 2.
 —, United States, production.—Birkinbine, J., 1; Day, D. T., 1; Pratt, J. H., 10; *see also* Michigan, &c.
 —, Urals.—Duparc, L., 4.
 —, Westphalia.—Bruecher, M., 1; Wiese, T., 1.
 Iron Gates (Danube).—Schafarzik, F., 5.
Isastræa.—Felix, J., 2.
Ischyodus.—Leriche, M., 1.
 Iseo, Lake (Lombardy).—Baltzer, A., 1.
 Isère (Dauphiné).—Kilian, W., 2.

- Iserlohn (Westphalia).—Habets, A., 1.
Isocardia.—Dainelli, G., 3; Etheridge, R., Fil., 2; Shattuck, G. B., 1.
Isochilina.—Jones, T. R., 1.
 Isoletta (Campania).—Flores, E., 2.
Isopeustes.—Airaghi, C., 2.
 Istebner Beds, Silesia. — Wisniewski, T., 1.
 Istria (Austria). — Hørnes, R., 2; Nopésa, F. von, Jun., 3.
 Italy, bauxite-localities.—Achiardi, G. d', 2; Novarese, V., 3.
 —, central railway.—Segré, C., 1.
 —, geological literature.—Bonarelli, G., 1.
 —. See also Piedmont, Tertiary, &c.
 Ivigtok (Greenland).—Pratt, J. H., 7.
 Ivory Coast (W. Africa).—Armas, M., 1.
 Ivrea (Piedmont).—Novarese, V., 1.
 Izalco Volcano (Guatemala).—Bergeat, A., 2; Sapper, K., 2.
- Jacob's Cavern (Mo.).—Gould, C. N., 1.
 Jade.—Colomba, L., 2; Franchi, S., 2; Issel, A., 2; Novarese, V., 2; Stella, A., 1; Wolff, F. von, 2.
Jakelocystis.—Schuchert, C., 5.
 Jakobshavn (Greenland). — Engell, M. C., 1.
 Jamiesonite.—Pettard, W. F., 1.
Janassa.—Eastman, C. R., 1.
 Japan.—Anon., 26; Imamura, A., 1; Inouye, K., 1; Kanehara, N., 1; Kochibe, T., 1; Kusakabe, S., 1; Kutschera, M., 1; Loriol, P. de, 2; Norman, F. J., 1; Omori, F., 1-4; Ogawa, T., 1; Richthofen, F. von, 1; Rudolph, E., 2; Senkino, S., 1; Weber, M., 2; Yabe, H., 1.
 Jasztrabj (Hungary).—Knett, J., 3.
 Jemez (New Mexico). — Reagan, A. B., 1.
 JENNINGS, A. V. See *Obit.*, Anon., 8; Cole, G. A. J., 9.
 John-Day River Beds, Oregon.—Knowlton, F. H., 1.
 Johnson, Mt. (Quebec). — Adams, F. D., 3.
 Johnstonite.—Pettard, W. F., 1.
 Jolla, La (Cal.).—Lakes, A., 10.
 Jolomita Valley (Rumania).—Bergeron, J., 1.
 Jonquerettes (Vaucluse). — Châtelet, C., 1.
 Jordan Valley (Palestine). — Libbey, W., 1.
 Josefthal (Moravia).—Bock, H., 1.
 Joux Lakes (Swiss Jura). — Forel, F. A., 2; Golliez, H., 1.
 Judith-River Beds. — Hatcher, J. B., 1 & 4.
Juglans.—Knowlton, F. H., 1.
 Jujuy (Argentina).—Ducloux, E. H., 1.
 Julia I. See *Ferdinanda* I.
 Junction-beds, disturbance of.—Lampugh, G. W., 4.
- Jura, French. — Bourgeat, —, 1-3; Piroutet, M., 2; Swiss.—Forel, A., 2; Golliez, F. H., 1; Muehlberg, F., 3; Schardt, H., 1.
 Jurassic, Algeria.—Ritter, E., 1.
 —, Alsace-Lorraine.—Deecke, W., 1; Haug, E., 1; Van Werveke, L., 12.
 —, Andes.—Burckhardt, C., 1.
 —, Ariège.—Carez, L., 5 & 7.
 —, Aube Valley.—Lemoine, P., 1.
 —, Bavaria. — Kohler, E., 1; Schmierer, T., 1.
 —, Biarritz.—Carez, L., 6.
 —, Borneo.—Newton, R. B., 1.
 —, Calvados.—Bigot, A., 5.
 —, Cher.—Péron, A., 1.
 —, concretions.—Raisin, C. A., 1.
 —, Crete.—Cayeux, L., 2.
 —, Cutch.—Kitchin, F. L., 1.
 —, facies, Tanganyika.—Moore, J. E. S., 1.
 —, Freiburg Alps.—Keidel, H., 1.
 —, Gloucestershire.—Richardson, L., 1 & 4; Wethered, E. B., 1.
 —, Grisons.—Hæk, H., 1.
 —, Hanover.—Wunstorff, W., 1.
 —, Kharkov Gov.—Borisiak, A., 1.
 —, Leicester.—Fox-Strangways, C., 1.
 —, limestone-water, Britain.—Woodward, H. B., 12.
 —, Lombardy.—Bistram, A. von, 1.
 —, Monmouthshire. — Richardson, L., 2; Vaughan, A., 1.
 —, Northants.—Thompson, B., 1 & 3.
 —, Salt Range.—Koken, E., 2.
 —, Servia.—Eletz, V. M., 1.
 —, Spain.—Sauvage, H. E., 1 & 2; Zeiller, R., 2.
 —, Tunis.—Pervinquier, L., 1.
 —, types, Geological Survey.—Allen, H. A., 1.
 —, Umbria.—Lotti, B., 1.
 —, Vendée.—Chartron, C., 1.
 —, Venetia.—Campana, D. del, 1.
 —, Wiltshire.—Jukes-Browne, A. J., 2; Reid, C., 7.
 —, Worcestershire.—Hull, E., 1.
 —, Württemberg. — Engel, —, 1; Freudenberg, W., 1.
 —, Wyoming.—Loomis, F. B., 1.
 —. See also *Lias*, &c.
 Jusleville (Liège).—Fourmarier, P., 1.
 JUSTEN, F. W. See *Obit.*, Anon., 9.
 Jutland (Denmark).—Ussing, N. V., 1.
- Kahlen Mts. (Lr. Austria).—Toula, F., 2.
 Kainach (Styria).—Hilber, V., 1.
 Kainite.—Van't Hoff, J. H., 5.
 Kai-Ping (Chi-Li).—Drake, N. F., 1; Hoover, H. C., 1.
 Kaiser-Wilhelm-Canal (Schleswig-Holstein).—Zeise, O., 1.
 Kaitago-Tabasaran (Daghestan).—Golubiatnikov, D. V., 1.
 Kalahandi State (U. P., India). — Walker, T. L., 1.
 Kalesi, New (Servia).—Vinassa de Regny, P., 2.

- Kalgoorlie (W. Austral.).—Krusch, P., 1.
- Kalgoorlite.—Spencer, L. J., 1.
- Kalisz (Poland).—Levinski, J., 1.
- Kambove (Congo F. S.).—Katanga, A., 1.
- Kamyshin (Saratov).—Palibin, J. von, 1.
- Kanawha black-flint beds.—White, I. C., 1.
- R. (U.S.A.).—Campbell, M. R., 2.
- Kandy (Ceylon).—Coomáráswamy, A. K., 2.
- Kangaroo Hills (Queensl.).—Cameron, W. E., 3.
- Kangaroo I. (S. Austral.).—Howchin, W., 1.
- Kangchenjunga (Himalayas).—Freshfield, D. W., 1.
- Kansas (U.S.A.).—Adams, G. I., 2; Beede, J. W., 1 & 3; Crane, W. R., 1 & 2; Crevecœur, F. F., 1; Grimsley, G. P., 1; Johnson, W. D., 1; Jones, A. W., 1; Keyes, C. R., 3; Lindgren, W., 2; Lovewell, J. T., 1; Merrill, G. P., 2; Sellards, E. H., 3; Sherwin, R. S., 1; Shimek, B., 1; Smith, A. J., 1; Upham, W., 1 & 4; Yates, J. A., 1.
- Kaolin, Gotland.—Meberg, J. C., 2.
- , Kherson Gov.—Samoilov, J., 3.
- , Normandy.—Bigot, A., 3.
- , occurrence of.—Dammer, —, 1.
- Kara-Barun (Asia Minor).—Achiardi, G. d', 5.
- Karachi (India).—Oldham, R. D., 2.
- Karikal (India).—Crossmann, M., 2.
- Karlsbad (Bohemia).—Knett, J., 1.
- Karooys*.—Broom, R., 2.
- KARRER, F. *See Obit.*, Van den Broeck, E., 9.
- Karoo Beds, Cape Colony.—Broom, R., 3; Transvaal.—Sawyer, A. R., 3.
- Karwendel Mts. (Tyrol).—Ampferer, O., 2.
- Kasan Gov. (Russia).—Vernadski, V. S., 1.
- Kasbek (Caucasus).—Læwinson-Lessing, F., 1.
- Kashmir (India).—Eckenstein, O., 1.
- Katanga (Congo F. S.).—Cornet, J., 5.
- Katzenbückel (Württ.).—Freudenberg, W., 1.
- Kearsarge, Mt. (N. Ha.).—Perry, J. H., 1.
- Keewatin District (Canada).—Hanbury, D. T., 1.
- Keewatin Formation, Minnesota.—Hall, C. W., 1.
- Keisley Limestone-pebbles.—Gill, E. L., 1.
- Kellerwald (Hesse).—Denckmann, A., 1 & 2.
- Kelvedon (Essex).—Holmes, T. V., 3.
- Kent.—Jukes-Browne, A. J., 6; Salter, A. E., 3; Woodward, A. S., 8.
- Kent Peninsula (Arctic Canada).—Hanbury, D. T., 1.
- Kentani (Cape Colony).—Rogers, A. W., 4.
- Kentucky (U.S.A.).—Eldridge, G. H., 1; Færste, A. F., 1.
- Kenya Mt. (Equatorial Africa).—Prior, G. T., 2.
- Kerosene-shale, N. S. W.—Carne, J. E., 1; Pittman, E. F., 1.
- , Tasmania.—Twelvetrees, W. H., 2.
- Kersantovite.—Barrois, C., 6; Ippen, J. A., 4.
- Kesh Caves, Sligo.—Præger, R. L., 1.
- Kessingland (Suffolk).—Whitaker, W., 1.
- Ketchikan (Alaska).—Brooks, A. H., 3.
- Keuper, Devon.—Somervail, A., 3.
- , Franche Comté.—Piroutet, M., 2.
- , Monmouthshire.—Richardson, L., 2.
- , *See also* Trias, &c.
- Kew Gardens.—Clarke, C. B., 1.
- Keweenawan (Minnesota).—Hall, C. W., 1.
- , trap-rocks.—Grant, U. A., 1.
- Keynsham (Somerset).—Vaughan, A., 2.
- Kharkov Gov. (Russia).—Borisiak, A., 1.
- Kherson Gov. (Russia).—Samoilov, J., 3.
- Kibbannahalli (Mysore).—Wetherell, E. W., 1.
- Kien Valley (Berne).—Gerber, E., 1.
- Kiev Gov. (Russia).—Tutkovski, P., 1.
- Kimberley (Cape Colony).—Sutton, J. R., 1.
- Kimeridge Clay, Yorkshire.—Sheppard, T., 1.
- Kimeridgian, Bavaria.—Schmierer, T., 1.
- , Catalonia.—Zeiller, R., 2.
- , Loire.—Lemoine, P., 1.
- Kinbrace (Sutherland).—Greenly, E., 1.
- KING, C. *See Obit.*, Emmons, S. F., 1.
- Kingena*.—Dacqué, E., 1.
- Kingsthorpe (Northants).—Thompson, B., 1.
- Kingston (N.Z.).—Marshall, P., 1.
- Kinta (Malay Pen.).—Penrose, R. A. F., Jun., 1.
- Kintyre (Scotland).—Gunn, W., 1.
- Kippford (Kirkcudbright).—Elsden, J. V., 3.
- Kirchblich (Tyrol).—Dreger, J., 2.
- KIRKBY, J. W. *See Obit.*, Horne, J., 3.
- Kirunavaara (Norrbotten).—Launay, L. de, 4.
- Kitid (Hungary).—Halaváts, J., 1.
- Kittatinny Valley (N.J.).—Weller, S., 3.
- Kladno (Bohemia).—Weithofer, K. A., 1.
- Klamath Mts. (Oreg. & Cal.).—Diller, J. S., 1 & 2; Hershey, O. H., 1, 2, 3, & 4.
- Klausen (Tyrol).—Weinschenk, E., 7.
- Klippen, Carpathians.—Lugeon, M., 2; Schafarzik, F., 2.
- Klondyke (N.W. Canada).—Dawson, G. M., 1; Miers, H. A., 4.
- Klosterneuberg (Lr. Austria).—Toula, F., 2.
- KNIGHT, W. C. *See Obit.*, Nelson, A., 1.
- Knobstone Group, Indiana.—Newson, J. F., 2.

- Knowle (Wilts).—Cunnington, W., 1.
 Knoxvillite.—Pettard, W. F., 1.
 Knoydart Formation, Nova Scotia.—
 Ami, H. M., 3.
Kochia.—Maurer, F., 1.
 Kolar (Mysore).—Jayaram, B., 1; Prin-
 rose, A., 1; Slater, H. K., 1.
 Kolberg (Pomerania).—Berendt, G., 1.
 Kolozsvár (Hungary).—Lœrenthey, E.,
 2.
 Königsberg (Hesse).—Parkinson, H., 1.
 Kopparberg (Svealand).—Launay, L. de,
 4.
 Kordofan (Sudan).—Linck, G., 6.
 Korea (N.E. Asia).—Kotô, B., 1.
 Kosva (Urals).—Duparc, L., 5.
 Kovel (Volhynia).—Tutkovski, P., 1.
 Krakatau (D. E. I.).—Kewitsch, G., 1.
 Krapina (Croatia).—Lapouge, G. de, 2.
 Krasnovodsk (Transcaspian).—Vernad-
 ski, V. S., 1.
 Kremsmünster (U. Austria).—Schwab,
 P. F., 1.
 Kremmerite.—Smith, G. F. H., 1 & 2.
 Kristinehamn (Värmland).—Blomberg,
 A., 2.
 Kritzensdorf (Lr. Austria).—Toula, F., 2.
 Krivan Mts. (Hungary).—Uhlig, V., 2.
 Kron R. (Alsace-Lorraine).—Valentin,
 J., 1.
 Kulundinske Steppe (Tomsk Gov.).—
 Tanfiliev, G. I., 1.
 Kumaon (N.W. India).—Stephens, F. J.,
 1 & 2.
 Kunigal (Mysore).—Wetherell, E. W., 2.
 Kunzite.—Baskerville, C., 1.
 Kurrajong Heights fault (N.S.W.).—
 David, T. W. E., 1.
 Kuss (Dalecarlia).—Løfstrand, G., 1.
Kustarachne.—Melandner, A. L., 1.
 Kyffhäuser Mts. (Thuringia).—Luedecke,
 O., 1; Naumann, E., 1.
 Kyrsklätt (Finland).—Rosberg, J. E., 1.
- Labradorite, Kherson.—Samoïlov, J., 3.
 Laccolites, Caucasus.—Dervis, V., 1.
 LACHAT, H. *See Obit.*, Termier, P., 1.
 Lochs. *See Lakes*.
 LACOE, R. D. *See Obit.*, White, D., 1.
 Ladrones Is. (Pacific).—Skeats, E. W., 1.
 Laekemian, Belgium.—Forir, H., 1.
Lagena.—Schick, T., 1; Weller, S., 1.
Lagenostoma.—Oliver, F. W., 1.
 Lägern Mt. (Aargau).—Muehlberg, F.,
 2.
 Lagoons, Russia (S.).—Sokolov, N., 1.
Laharpeia.—Prever, P., 1.
 Lähn (Silesia).—Scupin, H., 1.
 Lahn R. (Nassau).—Bellringer, J., 2.
 Lahr (Baden).—Salomon, W., 2.
 Lake-deposits, Como.—Artini, E., 2.
 ———, Germany (N.).—Jentzsch, A.,
 1.
 Lake District, English.—Postlethwaite,
 J., 1.
 Lake-water, chemical composition of
 Swiss.—Burcart, E., 1; colour of,
 Snowdon.—Dakyns, J. R., 1.
- Lakes, American glacial.—Upham, W.,
 5.
 ———, Balkan Peninsula.—Peucker, K.,
 1.
 ———, Canada.—Bell, J. M., 1.
 ———, Cheviot glacier.—Kendall, P. F.,
 3.
 ———, Engadine (Upper).—Delebecque,
 A., 1.
 ———, Gotland (W.).—Kjellén, R., 2.
 ———, Italian (S.) Quaternary.—Lorenzo,
 G. de, 2.
 ———, Mexico (New & Old).—Keyes, C.
 R., 5.
 ———, Montana.—Elrod, M. J., 1.
 ———, Scotland.—Johnston, T. N., 1;
 Murray, Sir J., 1.
 ———, Sundgau.—Klöhn, G., 1.
 ———, Swiss.—Burcart, E., 1; Preller,
 C. S. Du R., 1; Forel, F. A., 2.
 ———, underground, Swiss Jura.—Forel,
 F. A., 2.
 ———, Vosges.—Van Werweke, L., 7.
 ———, Wales (N.).—Jehu, T. J., 1.
 ———, Wisconsin.—Fenneman, N. M.,
 1.
 Lamberhurst (Sussex).—Thorpe, T. E.,
 1.
 Lamellibranchiata, Carboniferous.—
 Beede, J. W., 1; Hind, W., 1, 4, & 7;
 Yakovlev, N., 4; Parkinson, H., 1;
 Whitfield, R. P., 1.
 ———, Cretaceous.—Antula, J., 1; Burck-
 hardt, C., 1; Dacqué, E., 1; Douvillé,
 H., 5 & 6; Etheridge, R., Fil., 2;
 Franchis, F. de, 1; Hœrnes, R., 2;
 Paulcke, W., 1; Pethœ, J., 3; Petras-
 scheck, W., 1; Schubert, R. J., 3;
 Shattuck, G. B., 1; Stanton, T. W.,
 1 & 2; Toucas, A., 2; Weller, S., 1;
 Whitfield, R. P., 3; Wollemann, A.,
 1; Woods, H., 1.
 ———, DEFRANCE Collection.—Bigot, A.,
 2.
 ———, Devonian.—Drevermann, F., 2;
 Kayser, E., 1; Maurer, F., 1; Walther,
 K., 1; Weller, S., 2.
 ———, Jurassic.—Bistram, A. von, 1;
 Kitchin, F. L., 1; Newton, R. B., 1;
 Sokolov, N., 2.
 ———, morphology of.—Ruedemann, R.,
 1.
 ———, Permian.—Hind, W., 3; Yakovlev,
 N., 1.
 ———, Quaternary.—Dall, W. H., 1;
 Dennant, J., 3; Johnson, J. P., 1.
 ———, Silurian.—Weller, S., 2.
 ———, Tertiary.—Blanckenhorn, M., 2;
 Casey, T. L., 1; Crema, C., 1; Dainelli,
 G., 3; Dall, W. H., 1 & 3; Dennant,
 J., 3; Depéret, C., 4; Dollfus, G. F.,
 4 & 6; Dreger, J., 2; Fœrster, B., 5;
 Gorjanovič-Kramberger, K., 2; Mar-
 telli, A., 1; Nelli, B., 1; Oppenheim,
 P., 6; Pavlov, P. S., 2; Ugolini, R.,
 4; Vincent, E., 2.
 ———, Triassic.—Bittner, A., 1; Frech,
 F., 1; Tornquist, A., 3.

- Lamna*.—Eastman, C. R., 2; Koch, A., 4; Leriche, M., 1.
- Lampadocorys*.—Airaghi, C., 2.
- Lamprophyre, Geneva erratics.—Duparc, L., 3.
- , New South Wales.—Card, G. W., 3.
- Lancashire.—Anon., 18; Arber, E. A. N., 2; Baldwin, W., 1; Dickson, J., 2; Hind, W., 1 & 2; Lomas, J., 2; Pickstone, W., 2; Reade, T. M., 1.
- Lance Creek (Wy.).—Hatcher, J. B., 1.
- Land, changes of level, Brittany.—Montessus de Ballole, F. de, 1.
- , —, England (S.E.).—Monckton, H. W., 5; Massachusetts.—Tarr, R. S., 1; Naples (Bay of).—Guenther, R. T., 1; Scandinavia.—Sernander, R., 2.
- LANDON, J. *See Obit.*, Lapworth, C., 1.
- Landskron (Bohemia).—Tietze, E., 1.
- Landslips, Alberta Terr.—Brewer, W. M., 2; Lakes, A., 11.
- , Colorado.—Lay, H. C., 1.
- , Germany (N.).—Jentsch, A., 2.
- , Sweden.—Sjögren, H., 1.
- Languedoc (France).—Angelis d'Ossat, G., 4; Carez, L., 1; Depéret, C., 2; Michel-Lévy, A., 1.
- Lansing (Kan.).—Holmes, W. H., 1; Pearson, K., 1; Shimek, B., 1; Upham, W., 1 & 4; Winchell, N. H., 3.
- Lantern, mineralogical projection.—Brauns, R., 2.
- Lanterna Valley (Lombardy).—Brugnattelli, L.
- Laramie Formation.—Hay, O. P., 2; Whitfield, R. P., 3.
- Lasmogya*.—Felix, J., 2.
- Laterite.—Du Bois, G. C., 1; Elsdon, J. V., 1; Holland, T. H., 2; Warth, H., 1.
- Lates*.—Gorjanovič-Kramberger, K., 1.
- Laticæandraræa*.—Felix, J., 2.
- Latrunculus*.—Cossmann, M., 2.
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- Laufbach Valley (Baden).—Futterer, K., 1.
- Laurentian, Ontario.—Graton, L. C., 1.
- , peneplain, Canada.—Wilson, A. W. G., 1.
- Lauriano (Campania).—Parona, C. F., 1.
- Laurus*.—Knowlton, F. H., 1.
- Lausanne (Vaud).—Lugeon, M., 5; Renevier, E., 1 & 2.
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- Lava-plugs. *See* Volcanic plugs.
- Lavas, Arizona.—Reagan, A. B., 2 & 3.
- , Vesuvius.—Matteucci, R. V., 1; Medanich, G., 1.
- , West Indies.—Sapper, K., 8.
- Laziale volcano (Romagna).—Verri, A., 5.
- Lea R. (Herts).—Fitzmaurice, M., 1; Saunders, J., 1.
- , Valley reservoirs (Essex).—Holmes, T. V., 2.
- Lead, Alston Moor.—Nall, W., 1.
- , Arkansas.—Branner, J. C., 2.
- Lead, Bavaria.—Kohler, E., 1; Weinschenk, E., 8.
- , Brittany.—Kerforne, F., 4.
- , Cornwall & Devon.—Collins, J. H., 1.
- , determination of, in ore.—Bull, I. C., 1.
- , glance.—Zimanyi, K., 1.
- , Mexico.—Malcolmsen, J. W., 1.
- , Mississippi Valley.—Keyes, C. R., 2.
- , Missouri.—Bain, H. F., 2.
- , Montana.—Weed, W. H., 7.
- , Moravia.—Kretschmer, F., 1.
- , New South Wales.—Beaumont, E. K., 1; Warren, J., 1.
- , Old Red Sandstone, Scotland.—Mackie, W., 6.
- , Parapara.—Park, J., 2.
- , Sardinia.—Rimatori, C., 1.
- , Servia.—Djlagoi, M. T., 1.
- , Silesia.—Guerich, G., 2.
- , Tasmania.—Waller, G. A., 2.
- , Taunus Mts.—Delkeskamp, R., 2.
- , Tyrol.—Weinschenk, E., 7 & 8.
- , United States.—Day, D. T., 1; Kirchoff, C., 2.
- Lebanon (Palestine).—Nehring, A., 1.
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- Leffe (Lombardy).—Tacconi, E., 2.
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- Leonite.—Van't Hoff, J. H., 5.
- Lepeditella*.—Weller, S., 2.
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- Lepidolite.—Baumbauer, H., 3; Pratt, J. H., 1.

- Lepidotus*.—Sauvage, H. E., 2.
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By W. C. Alden.

82. Masontown-Uniontown (Pa.).
1902. By M. R. Campbell.

83. New York City (N. Y. & N.
J.). 1902. By R. E. Dodge
& B. Willis.

84. Ditney (Ind.). 1902. By M.
L. Fuller & G. H. Ashley.

85. Oelrichs (S. Dak. & Neb.).
1902. By N. H. Darton.

86. Ellensburg (Wash.). 1903.
By G. O. Smith.

87. Camp Clarke (Neb.). 1903.
By N. H. Darton.

88. Scotts Bluff (Neb.). 1903.
By N. H. Darton.

89. Port Orford (Oreg.). 1903.
By J. S. Diller.

90. Cranberry (N. Car. & Tenn.).
1903. By A. Keith.

—Asphalt & bituminous occur-
rences. 1 inch = 400 miles. 1901.

—Eldridge, G. H., 1.

—Coalfields. 1 inch=110 miles.
1902.—Hayes, C. W., 1.

—(Eastern). Palæographic maps
of Onondaga & Hamilton periods
(*various*). 1903.—Cleland, H. F.
1.

ALABAMA. Birmingham District.
1 inch = 10 miles. 1902.—Hayes,
C. W., 2.

ARIZONA. Fort - Apache Region.
1 inch=about 8 miles. 1903.—
Reagan, A. B., 3.

ARKANSAS coalfield. 1 inch=13 miles.
1902.—Taff, J. A., 1.

—(N.). Zinc & lead-deposits (*va-
rious*). 1902.—Branner, J. C., 2.

—(S.W.). Chalk-Region. 1 inch
=11 miles. 1902.—Taff, J. A., 1.

CALIFORNIA. Asphalt, &c. 1 inch
=45 miles; also San Luis Obispo
district. 1 inch=1 mile. 1901.—
Eldridge, G. H., 1.

AMERICA (NORTH).

UNITED STATES.

- CALIFORNIA. Death Valley & Mohave Desert. 1 inch=30 miles. 1902.—Campbell, M. R., 1.
- CAROLINA (North) coalfields. 1 inch=200 miles. 1902.—Woodworth, J. B., 1.
- COLORADO. El Moro coalfield. (*No scale.*) 1903.—Hill, R. T., 2.
— Rico Mts. 2 inches= $\frac{3}{4}$ mile. 1901.—Ransome, F. L., 1.
- CONNECTICUT. Long Hill. 1 inch=300 feet & 1 inch= $\frac{1}{2}$ mile. 1901.—Hobbs, W. H., 1.
- DAKOTA (S.). Lead City. 1 inch=3600 feet. 1902.—Irving, J. D., 1.
— & Wyoming. Black Hills. 1 inch=20 miles. 1903.—Richardson, G. B., 1.
- IDAHO. Snake-River lava. 1 inch=34 miles. 1902.—Russell, I. C., 4.
- ILLINOIS & Indiana coalfield. 1 inch=34 miles. 1902.—Ashley, G. H., 1.
- INDIAN TERRITORY coalfield. 1 inch=10 miles. 1902.—Taff, J. A., 1.
— Buckhorn district. 1 inch= $\frac{1}{2}$ mile. 1901.—Eldridge, G. V., 1.
- INDIANA. Hanover to Vincennes. 1 inch=2 miles. 1903.—Newsom, J. F., 2.
— Knobstone Area. 1 inch=3 miles. 1903.—Newsom, J. F., 2.
— Salem and Corydon sheets, Lower Carboniferous. 1 inch=2 miles. 1903.—Ashley, G. H., 2.
— See also Illinois.
- IOWA. Buena-Vista Co. 1 inch=2 miles. 1902.—Macbride, T. H., 1.
— Cherokee Co. 1 inch=2 miles. 1902.—Macbride, T. H., 1.
— Henry Co. 1 inch=2 miles. 1902.—Savage, T. E., 1.
— Jefferson Co. 1 inch=2 miles. 1902.—Udden, J. A., 1.
— Missouri coalfield &. 1 inch=40 miles. 1902.—Bain, H. F., 1.
— Wapello Co. 1 inch=2 miles. 1902.—Leonard, A. G., 1.
— Webster Co., Fort Dodge. 1 inch=2 miles, & 1 inch=1 mile. 1902.—Wilder, A. H., 1.
- KENTUCKY. 1 inch=70 miles. 1901.—Eldridge, G. H., 1.
- MARYLAND. Cecil Co. 1 inch=1 mile. 1902.—Clark, W. B., 4.
— Coal-Measures. 1 inch=6 miles. 1902.—Clark, W. B., 2.
— Garrett Co. 1 inch=1 mile. 1902.—Clark, W. B., 3.
— Potomac Group in. 1 inch=8 miles. 1903.—Clark, W. B., 1.
- MASSACHUSETTS. Gloucester. $\frac{1}{62,500}$. 1903.—Tarr, R. S., 1.
- MICHIGAN coalfield. 1 inch=20 miles. 1902.—Lane, A. C., 1.

AMERICA (NORTH).

UNITED STATES.

- MICHIGAN (Lower Peninsula). 1 inch=35 miles. 1902.—Russell, I. C., 2.
- MINNESOTA. Mesabi iron-district. 1 inch=1 mile. 1903.—Leith, C. K., 1.
- MISSOURI. Ozark Region (*various*). 1901.—Bain, H. F., 2.
— See also Iowa.
- MONTANA coalfields (*various*). 1903.—Rowe, J. P., 1.
— Elkhorn District. 2 inches=1 mile. 1901.—Weed, W. H., 7.
- NEBRASKA (*various*). 1903.—Barbour, E. H., 1.
— See also Wyoming.
- NEW MEXICO. Jemez-Albuquerque region. $\frac{3}{8}$ inch=3 miles. 1903.—Reagan, A. B., 1.
- NEW YORK. Cayuga-Lake district. 1 inch=about 6 miles. 1903.—Cleland, H. F., 1.
- OHIO. Cadiz district. Contour-map of the Berea-Grit Oil-Sand. 1 inch=1 mile. 1902.—Griswold, W. T., 1.
— West Virginia, Maryland, & Pennsylvania N. Appalachian coalfield. 1 inch=40 miles. 1902.—White, D., 3.
- OREGON. Blue Mts. 1 inch=6 miles. 1901.—Lindgren, W., 1.
— Coos-Bay coalfield. 1 inch=5 miles. 1902.—Smith, G. O., 1.
— Crater Lake, National Park. 1 inch=2 $\frac{1}{4}$ miles. 1902.—Diller, J. S., 3.
- PENNSYLVANIA Anthracite coalfield. 1 inch=15 miles. 1902.—Støek, H. H., 1.
— & West Virginia coalfields. 1 inch=about 69 miles. 1903.—Heurteau, C. E., 1.
- ROCKY-MOUNTAIN coalfields. 1 inch=40 miles. 1902.—Stobbs, L. S., 1.
- TENNESSEE & KENTUCKY. S. Appalachian coalfield. 1 inch=14 miles. 1902.—Hayes, C. W., 2.
- TEXAS. Austin district. 1 inch=2 miles. 1903.—Shattuck, G. B., 1.
- UTAH & COLORADO. Uinta Basin. 1 inch=26 miles. 1901.—Eldridge, G. H., 1.
- VERMONT (*various*). 1902.—Perkins, G. H., 1.
- VIRGINIA. Richmond coalfield. 1 inch=2 miles, & 1 inch=5 $\frac{1}{2}$ miles. 1902.—Woodworth, J. B., 2.
- WASHINGTON. 2 inches=95 miles. 1903.—Landes, H., 1.
— coalfield. 1 inch=10 miles. 1902.—Smith, G. O., 1.
— Monte Cristo. 1 inch=2500 feet. 1901.—Spurr, J. E., 1.
- WISCONSIN. 1 inch=about 120 miles. 1902.—Fenneman, N. M., 1.

AMERICA (NORTH).

UNITED STATES.

- WYOMING. Black Hills, Bear-Lodge Mt. 1 inch=about 6 miles. 1902. Loomis, F. B., 1.
 —. North Platte River. 1 inch=10 miles. 1902.—Adams, G. I., 1.
 — (E.) & Nebraska (W.). 1 inch=3½ miles. 1902.—Adams, G. I., 1.

AMERICA (CENTRAL).

- MEXICO. Guanajuato District. 1 inch=8000 feet. 1902.—Halse, E., 2.

AMERICA (SOUTH).

- BRAZIL. Parahyba do Norte (E.). 1 inch=14 miles. 1902.—Branner, J. C., 1; Pernambuco District. 1 inch=15 miles. 1902.—Branner, J. C., 1; Rio Grande do Norte. 1 inch=8 miles. 1902.—Branner, J. C., 1.
 CHILE & ARGENTINA. Volcanoes & volcanic rocks. $\frac{1}{10,000,000}$. 1903.—Hauthal, R., 1.

- PATAGONIA (*various*). 1903.—Scrivenor, J. B., 2.

ARCTIC REGIONS.

- Ellesmere Island. 1 inch=135 miles. 1903.—Bonney, T. G., 8; 1 inch=90 miles. 1903.—Sverdrup, O., 1.

ASIA.

- CHINA. Coalfields (*various*). 1902.—Drake, N. F., 1.

- INDIA. Coalfields & mineral areas. 1 inch=256 miles. 1903.—Stonier, G. A., 2.

- . Bengal. Chief coalfields. 1 inch=12 miles. 1903.—Stonier, G. A., 2.

- . —. Chota Nagpur auriferous belt. 1 inch=32 miles. 1903.—Holland, T. H., 3.

- . —. Central Provinces. Dhar Forest. 1 inch=16 miles. 1903.—Holland, T. H., 3.

- . —. Kalahandi State. 1 inch=15 miles. 1902.—Walker, T. L., 1.

- . —. Himalayas. Hundés. Malla Johar. 1 inch=1 mile. 1902.—Krafft, A. von, 1.

- . —. Sikkim. 1 inch=4 miles. 1903.—Freshfield, D. W., 1.

- . —. Mica-localities, 1 inch=156 miles; & Bengal mica-belt, 1 inch=4 miles. 1902.—Holland, T. H., 1.

- . —. Mysore. Chiknayakanhal schist-belt. 1 inch=1 mile. 1903.—Sambasiva-Iyer, V. S., 1.

- . —. Kibbanhalli to Serinapatam. 1 inch=4 miles. 1903.—Wetherell, E. W., 1.

- . —. United Provinces. Kumaon & Garhwal. 1 inch=24 miles. 1903.—Stephens, F. J., 2.

- JAPAN. Imperial Geological Survey. $\frac{1}{200,000}$ geological map. Sheets:

- Zone 2, Col. II. Koshikijina. 1902.—Sekino, S., 1.

- Zone 5, Col. V. Uwajima. 1902.—Inouye, K., 1.

- Zone 6, Col. VI. Kōchi. 1902.—Ogawa, T., 1.

ASIA.

- JAPAN. Imperial Geological Survey. $\frac{1}{200,000}$ geological map. Sheets:

- Zone 7, Col. III. Tsunoshima. 1902.—Sekino, S., (*uncoloured*), 1.

- Zone 7, Col. VIII. Wakayama. 1902.—Kanehara, N., 1.

- . Geological map of the Japanese Empire, $\frac{1}{1,000,000}$ (*with inset* General Map, showing the Distribution of Volcanoes, $\frac{1}{5,000,000}$). In 15 sheets.

- 1902.—Kochibe, T. (Director), 1.

- SIBERIA. Alibert graphite (*no scale*). 1903.—Launay, L. de, 3.

- . Altai District. Barnaul (Gov. Tomsk). 1 inch=50 verst. 1902.—Tanfiliev, G. I., 1.

- . Minussinsk & Achinsk, $\frac{1}{5,000,000}$; & Nerchinsk, $\frac{1}{5,000,000}$. 1903.—Bordeaux, A., 1.

- . Yenisei Govt. Lake Shira. $\frac{1}{100,000}$. 1903.—Tolmashev, J. P., 1;

- Pit, Gorbelka & Oderea Rivers. 1 inch=12 verst. 1902.—Ijitzki, N., 1 & 2.

- TURKESTAN. $\frac{1}{12,000,000}$. 1903.—Levat, E. D., 1; Lake Balkash, $\frac{1}{4,200,000}$.

- Levat, E. D., 1; Bukhara, $\frac{1}{5,000,000}$; & 1 inch=80 kilom. 1903.—Levat, E. D., 2; Province-of-Darvaz placers. $\frac{1}{500,000}$. 1903.—Levat, E. D., 2.

- ASIA MINOR. Anatolia. Cilicia. $\frac{1}{1,000,000}$. 1903.—Schaffer, F. X., 3.

- . Heraclea coalfield. 1 inch=8 miles. 1903.—Simmersbach, B., 1.

- AUSTRALASIA.

- AUSTRALIA (S.). Clinton rock-phosphates. 1 inch=8 chains. 1903.—Chewings, C., 1.

- . Northern Territory. Arltunga Goldfield. White Range gold-mines. 1 inch=20 chains. 1902.—Brown, H. Y. L., 1.

- (W.). Department of Mines. Map showing the goldfields & the distribution of useful minerals. 1 inch=75 miles. 1903.—King, H. S., 1.

- (—). Murchison goldfield. Cue, &c., auriferous reefs. 1 inch=¼ mile. 1903.—Campbell, W. D., 1.

- BORNEO, Central & part of South, $\frac{1}{750,000}$; Kapoewas R. basin, $\frac{1}{400,000}$.

- Molengraaff, G. A. F., 1.

- NEW SOUTH WALES. Department of Mines, 1902 (*various*). 1903.—Pittman, E. F., 1.

- . Cambewarra Mt., 1 inch=1 mile; & Good Dog Mt., $\frac{3}{4}$ inch=¼ mile. 1903.—Card, G. W., 3.

- . Kerosene-Shale Deposits (*various*). 1903.—Carne, J. E., 1.

- NEW ZEALAND. Waihi goldfield (*no scale*). 1902.—Morgan, P. C., 1.

- QUEENSLAND. Geological Survey. Geological sketch-map. 1 inch=40 miles. 1902.—Dunstan, B., 3.

AUSTRALASIA.

- QUEENSLAND. Anakie sapphire-field. 1 inch=2 miles & $\frac{7}{8}$ inch= $\frac{1}{2}$ mile. 1901.—Dunstan, B., 1.
- Bentinck Is. 1 inch = about 10 miles. 1902.—Jackson, C. F. V., 3.
- Biggenden District (*various*). 1902.—Ball, L. C., 2.
- Brisbane & Burnett Rivers (*various*). 1901.—Jackson, C. F. V., 1.; Kangaroo Hills. 1 inch=2 miles. 1901.—Jackson, C. F. V., 1.
- Brookville goldfield, showing Donnybrook & Erin's Hope Reefs. 1 inch=88 yards. 1903.—Cameron, W. E., 3.
- Clermont goldfields. 1 inch=119 chains. 1902.—Dunstan, B., 2.
- Horn I. 1 inch=6 chains. 1902.—Jackson, C. F. V., 3.
- Pioneer R. (*north of*). Mackay & Bowen districts. 1 inch=2 miles. 1903.—Cameron, W. E., 2.
- Stanton Harcourt, &c. 1 inch=20 chains (*3' others*). 1901.—Ball, L. C., 1.
- Yorkey's goldfield. 1 inch=20 chains, & Yorkey's & Marodian goldfields. 1 inch=1 mile. 1902.—Ball, L. C., 3.
- (*Western portion*). 1 inch=24 miles.—Jackson, C. F. V., 3.
- TASMANIA. Anderson's Creek iron-ore deposits. 1 inch=20 chains. 1903.—Twelvetrees, W. H., 4.
- Preolenna coalfield. 1 inch=20 chains. 1903.—Twelvetrees, W. H., 2.
- Zeehan, western silver-mine. 1 inch=130 feet. 1902.—Waller, G. A., 1.
- (N.W.). 1 inch = about 25 miles. 1903.—Gregory, J. W., 4.
- VICTORIA. Gippsland. Anderson's Inlet. 1 inch=about 12 miles. 1903.—Kitson, A. E., 3.
- Heathcote Valley & Colbinablin Range. 1 inch=40 miles, & 1 inch= $\frac{1}{2}$ mile. 1903.—Gregory, J. W., 3; Yackandandah Creek & Nine Mile Creek. 1 inch=8 $\frac{1}{2}$ miles. 1903.—Gregory, J. W., 3.
- (South Central, including Melbourne). 1 inch=8 miles. 1902.—Kitson, A. E., 1.

DUTCH EAST INDIES.

- Sunatra (Central). $\frac{1}{100,000}$. 1902.—Neeb, E. A., 1.

EUROPE.

- AUSTRIA-HUNGARY. K.-k. geologische Reichsanstalt. Geologische Karte, $\frac{1}{75,000}$. S.W. Gruppe, nos. 9, 79, 88, 96, & Beilage, 137 a, $\frac{1}{25,000}$. 1903.—Tietze, E., 4.
- — — — — S.W. Gruppe, no. 70. $\frac{1}{75,000}$. 1902.—Geyer, G., 1.
- — — — — S.W. Gruppe, no. 123. $\frac{1}{75,000}$. 1902.—Kerner, F. von, 6.

EUROPE.

- AUSTRIA-HUNGARY. K.-k. geologische Reichsanstalt. Dalmatia. Spalato (*no scale*). 1903.—Kerner, F. von, 4.
- Bohemia. Komitee für Landesdurchforschung. Section V. Prag. $\frac{1}{200,000}$. 1903.—Počta, P., 1.
- Carinthia. Erzberg, near Hüttenberg. $\frac{1}{75,000}$. 1903.—Baumgärtel, B., 1.
- Hungary. Alvincz. $\frac{1}{75,000}$. 1902.—Pálffy, M. von, 2.
- — — — — Budapest & Szeged. $\frac{1}{500,000}$. 1903.—Treitz, P., 2.
- — — — — Carpathians. $\frac{1}{1,500,000}$. 1903.—Uhlig, V., 4.
- — — — — Coal-deposits. 2 $\frac{1}{2}$ inches=69 miles. 1903.—Kalecsinsky, A. von, 2.
- — — — — Danube (Lower). $\frac{1}{115,000}$. 1903.—Schafarzik, F., 5.
- — — — — Kriván Mts. (Little). $\frac{1}{75,000}$. 1902.—Uhlig, V., 2.
- — — — — Mehádia & the Baths of Hercules. $\frac{1}{75,000}$. 1903.—Schafarzik, F., 5.
- — — — — Neutra district (S.). 1 inch=4 miles. 1903.—Horusitzky, H., 2.
- — — — — Palics Lake district. $\frac{1}{750,000}$. 1903.—Treitz, P., 3.
- — — — — Moravia. Müglitz. $\frac{1}{75,000}$. 1903.—Kretschmer, F., 1.
- — — — — Styria (U.). Walchen mines, near Eblarn. $\frac{1}{40,000}$. 1903.—Redlich, K. A., 1.
- — — — — Tyrol. Monzoni & Upper Fassa Valley. $\frac{1}{25,000}$. 1903.—Gordon, M. M. O., 1.
- BELGIUM. Campine coalfield. 1 inch=15 \cdot 6 miles & 1 inch=47 miles. 1903.—Harzé, E., 2; $\frac{1}{330,000}$. 1903. Kersten, J., 2; $\frac{1}{400,000}$. 1903.—Van Ertborn, O., 10; & Westphalia, $\frac{1}{100,000}$ & $\frac{1}{500,000}$. 1903.—Lohest, M., 1.
- DENMARK. Jutland moraines. 1 inch=9 kilom. 1903.—Ussing, N. V., 1.
- FRANCE. Geological map. 1 inch=190 kilom. 1903.—Lapparent, A. de, 10.
- — — — — Ain. Ambérieu, &c. $\frac{1}{80,000}$. 1902.—Boistel, A., 1.
- — — — — Ariège. Saint-Girons. $\frac{1}{80,000}$. 1903.—Carez, L., 5; Ariège & Haute-Garonne. BousSENS, St. Matry &c. $\frac{1}{200,000}$. 1903.—Carez, L., 4.
- — — — — Basses-Pyrénées. Biarritz. $\frac{1}{10,000}$. 1903.—Carez, L., 6; Biarritz & Bidart. $\frac{1}{20,000}$. 1902.—Bertrand, L., 1.
- — — — — Brittany. Crozon Penin. $\frac{1}{180,000}$. 1902.—Barrois, C., 5.
- — — — — Burgundy. Blanzay & Le Creusot. $\frac{1}{30,000}$. 1902.—Delafond, F., 1.

EUROPE.

- FRANCE. Pas-de-Calais coalfield. $\frac{1}{80,000}$.
1902.—Dobers, —, 1.
— Service de la Carte géologique.
Carte géologique détaillée de la
France. $\frac{1}{80,000}$. Michel-Lévy, A.
(Directeur), 1.
128 & 129. Ile d'Yeu & Palluau.
1902. Par F. Wallerant.
142. Niort. 1903. Par J. Welsch.
156. Aubusson. 1902. Par L. de
Launay.
230. Toulouse. 1902. Par G.
Vasseur, — Blayac, J. Sa-
vornin, & J. Répélin.
— Vaucluse. Cucuron. $\frac{1}{20,000}$.
1903.—Savornin, J., 2.
— See also England.

GERMANY.

- ALSACE-LORRAINE. Altkirch. $\frac{1}{100,000}$.
1892.—Førster, B., 5.
— Balbronn. $\frac{1}{25,000}$. 1896. —
Steuer, A., 1.
— Donon, The. $\frac{1}{50,000}$. 1896.—An-
dreae, A., 3.
— Geologische Spezialkarte. $\frac{1}{25,000}$.
Sheets 5, 6, 10, 11, 15-18, 22-29, 33,
34, 38-43, 52, 53, 75, 130, 132, 134.
1889-1902.—Benecke, E. W., 6.
— Kron Valley. $\frac{1}{25,000}$. 1890.—
Valentin, J., 1.
— Rappoltsweiler. $\frac{1}{250,000}$. 1888.
— Van Werveke, L., 5.
— Saarbrücken coalfield. $\frac{1}{200,000}$.
1886.—Meyer, G., 1.
BADEN. Geologische Spezialkarte,
 $\frac{1}{25,000}$.
109. Furtwangen, 1903.—Schalch,
F., 3.
119. Neustadt, 1903.—Schalch, F.,
2.
— Black Forest. $\frac{1}{100,000}$. 1902.—
Steinmann, G., 2; Zweisimmer
district. $\frac{1}{50,000}$. 1903.—Keidel, H., 1.
BAVARIA. Donauwörth. 1 inch =
4 kilom. 1903.—Kuebel, W. von, 2.
— Obernzell. $\frac{1}{100,000}$. 1903.—
Launay, L. de, 3; Pfaffenreuth.
 $\frac{1}{146,000}$. 1903.—Launay, L. de, 3.
HANOVER. Deistergebirge & Bad
Neudorf. $\frac{1}{50,000}$. 1902.—Stille, H., 1.
— Weser & Jade River-mouths.
 $\frac{1}{300,000}$. 1903.—Schucht, F., 1.
HESSE. Homberg on the Efze. $\frac{1}{50,000}$.
1903.—Schultz, W., 1.
— Rhein-Hessen. Nahe & Wies
River - junction. $\frac{1}{25,000}$. 1903.—
Schopp, H., 1.
NASSAU. Marburg a. Lahn & Her-
born. $\frac{1}{200,000}$. 1903.—Walther, K., 1.
PRUSSIA. Brandenburg. Fläming.
 $\frac{1}{100,000}$. 1903.—Linstow, O. von, 1.
— Schleswig-Holstein. Kaiser-
Wilhelm-Kanal. $\frac{1}{600,000}$. 1903.—Zeise,
O., 1.

EUROPE.

- PRUSSIA. Schleswig-Holstein, Meck-
lenburg, &c. $\frac{1}{500,000}$. 1903.—Frech,
F., 2.
SAXONY. Sohland on the Spree. $\frac{1}{25,000}$.
1903.—Beck, R., 1.
SILESIA. Riesengebirge. Schmiede-
berg. $\frac{1}{25,000}$. 1903.—Berg, G., 1.
WESTPHALIA. Eggegebirge. $\frac{1}{50,000}$.
1903.—Stille, H., 2.
— See also Belgium.
WÜRTEMBERG. Heid. $\frac{1}{2,500}$. 1903.
—Endriss, K., 1.
GREAT BRITAIN AND IRELAND.
BRITISH ISLES. 1 inch=120 miles.
1903.—Mart, J. E., 1.
ENGLAND AND FRANCE. Chalk-occu-
rence in. 1 inch=24 miles. 1903.
—Jukes-Browne, A. J., 6.
— Triassic pebbles. 1903. —
Shrubsole, O. A., 1.
ENGLAND AND WALES. Bedfordshire.
Leighton Buzzard. 1 inch=2 miles.
1903.—Lamplugh, G. W., 7.
— Cornwall. Cligga Head. $1\frac{1}{2}$
inches=1 mile. 1903.—Scriveour,
J. B., 1.
— Tintagel & Davidstow
District. 1 inch = 1 mile. 1903.
—Parkinson, J., 1.
— (W.). 1 inch = 4 miles.
1903.—Hill, J. B., 1.
— & Devon. 1 inch =
12 miles. 1903.—Collins, J. H., 1.
— Derbyshire. Buxton. District
round Victoria Quarry. 6 inches=
1 mile. 1903.—Dawkins, W. B., 1.
— Devon. Cenomanian Sea. 1903.
—Jukes-Browne, A. J., 4; Teign
Valley. 1 inch = 2 miles. 1903.
—Lowe, H. J., 1.
— Dorset. Creechbarrow. 4 inches
= 1 mile. 1902.—Hudleston, W.
H., 1.
— Geological Survey. 1-inch
geological map, n. s. Sheet 156.
Leicester. 1903.—Fox-Strangways,
C., 2.
— N. s. 232. Aber-
gavenny (Solid). 1902.—Dakyns,
J. R., 3.
— N. s. 248. Ponty-
pridd (Solid). 1902.—Strahan, A.,
5.
— N. s. 249. New-
port (Solid). 1902.—Strahan, A.,
4.
— N. s. 298. Salis-
bury (Drift). 1902.—Reid, C., 4.
— N. s. 317. Chi-
chester. 1903.—Reid, C., 5.
— Staffordshire. Cheadle
coalfield. 1 inch = 1 mile. 1903.
—Barrow, G., 1.
— Man, I. of. 1 inch =
4 miles. 1903.—Lamplugh, G. W.,
5.

EUROPE.

GREAT BRITAIN AND IRELAND.

ENGLAND AND WALES. Glamorgan-shire. South Trough of Coalfield. 1 inch=1 mile. 1903.—Jordan, H. K., 1.

— Gloucestershire. Cowley District. 1 inch=4 miles. 1903.—Richardson, L., 1.

— Hertfordshire. 1 inch=4 miles. 1903.—Hopkinson, J., 2; Royston. 1 inch=2 miles. 1903.—Woodward, H. B., 2.

— Leicestershire. Charnwood Forest. 1 inch=1.183 miles. 1903.—Watts, W. W., 1.

— Norfolk. 1 inch=9 miles. 1903.—Elsden, J. V., 5.

— Staffordshire. Congleton Edge. 4 inches=1 mile. 1903.—Hind, W., 6.

— Suffolk. Ipswich, &c. 1 inch=4 miles. 1903.—Jukes-Browne, A. J., 3.

— Wiltshire. Vale of Wardour. $\frac{2}{3}$ inch=1 mile. 1903.—Andrews, W. R., 1.

— Yorkshire. Cleveland glaciers and glacier-lakes. 1 inch=8 miles. 1903.—Clark, J. E., 1; (East Riding). 1 inch=8 miles. 1903.—Robinson, J. F., 1; 1903. 1 inch=8 miles.—Sheppard, T., 6; Harrogate, Skipton, &c. 1 inch=2 miles. 1903.—Smith, W. G., 1; Yorkshire & Durham. Teesdale. The Great Whin Sill. 1903.—l'Anson, J. C., 1.

IRELAND. Geological Survey. 1-inch map, no. 112. Dublin (Drift). 1902.—Egan, F. W., 1.

— Dublin Co. Montpelier Hill. 4 inches=1 mile. 1903.—Wright, W. B., 1.

— Wicklow. Donard. 1 inch=1 mile. 1903.—Seymour, H. J., 2.

SCOTLAND. Lothian coal and oil-shalefields. 1 inch=2 miles. 1902.—Cadell, H. M., 1.

— Rum. 1 inch=1 mile. 1903.—Harker, A., 2.

— Tiree. 6 inches=1 mile & 12 inches=1 mile. 1903.—Coomáraswámy, A. K., 4.

GREECE. Eubœa. $\frac{1}{600,000}$. 1903.—Deprat, J., 1.

ITALY. Basilicata. Agri, Mercure & Noce River-basins. $\frac{1}{100,000}$. 1898.—Lorenzo, G. de, 2; Monte Volture. $\frac{1}{100,000}$. 1900.—Lorenzo, G. de, 3.

— Campania. Mignano. $\frac{1}{100,000}$. 1902.—Sabitini, V., 1; Phlegreæan Fields, Astroni Crater. $\frac{1}{25,000}$. 1902.—Lorenzo, G. de, 6.

— Lombardy. Lake Lugano District. $\frac{1}{50,000}$. 1903.—Bistram, A. von, 2.

EUROPE.

ITALY. Tuscany. Mte. Amiata. $\frac{1}{100,000}$.

1903.—Verri, A., 4; Carrara. 1 inch=2 miles. 1903.—Elsden, J. V., 9; Siena district. $\frac{1}{100,000}$. 1903.—Verri, A., 3.

— Venetia. Agorda district. 1 inch=2 miles. 1903.—Keyserling, H. von, 1.

NORWAY. Dunderland Iron-ore Deposits, 1 inch=5 km.; Ofotenfjord ditto, 1 inch=13 km. 1903.—Vogt, J. H. L., 2.

RUSSIA. Kharkov. Donetz R. (Upper). 1 inch=14 miles. 1903.—Borisiak, A., 1.

— Perm. Tagil, Bissersk, Goroblagodat, Kosvinsky (*various scales*). 1903.—Duparc, L., 2.

— Poland. Warsaw & Kalisz Railway. 1 inch=20 versts. 1902. Levinski, J., 1.

— Ural Mts. & northern and southern sea-deposits. $\frac{1}{25,000,000}$. 1903. Bertrand, M., 1.

— Volhynia. Kovel District terminal moraines. 9 inches=80 miles. 1902.—Tutkovski, I., 1.

SPAIN. $\frac{1}{2,000,000}$. 1864.—Maestre, A., 1.

— León. Sabero coalfield. $\frac{1}{20,000}$. 1903.—Mallada, L., 1.

SWEDEN. Geologiska Undersökning. Ser. Aa. 116. Skara. $\frac{1}{50,000}$. 1903.—Munthe, H., 1.

— — — — 118. Loka. $\frac{1}{50,000}$. 1903.—Blomberg, A., 1.

— — — — 122. Kristinehamn. $\frac{1}{50,000}$. 1903.—Blomberg, A., 2.

— — — — Ser. Ac. 7. Celand l., Ottenby. $\frac{1}{100,000}$ & $\frac{1}{500,000}$. 1902.—Munthe, H., 2.

— — — — Ser. C. Distribution of fossil hazels. $\frac{1}{1,000,000}$. 1902.—Andersson, G., 1.

— Norrbotten. Iron-fields (*various*). 1903. Launay, L. de, 4.

— — — — Tornea L. $\frac{1}{250,000}$. 1903.—Holmquist, P. J., 1.

— — — — & Sjangeli. 1 inch=10 kilom. 1903.—Holmquist, P. J., 2.

— Norrland. Angerman Valley. $5\frac{1}{2}$ inches=125 miles. 1902.—Ahlenius, K., 1.

— Scania. Sösdala. $\frac{1}{50,000}$. 1903.—Kjellen, R., 3.

SWITZERLAND. Berne. Interlaken district. $\frac{1}{250,000}$. 1903.—Douville, H., 10.

— Grisons. Arosa district. $\frac{1}{60,000}$. 1903.—Hæk, H., 1.

— Linth & Reuss Glaciers. $\frac{1}{500,000}$. 1903.—Penck, A., 1.

— Neuchâtel. Areusegorge. $\frac{1}{15,000}$. 1903.—Schardt, H., 5.

TURKEY & SERVIA. Noce Valley (Albania) to New Orsova (Servia). $\frac{1}{100,000}$. 1903.—Vinassa de Regny, P., 2.

- Marble, Carrara.—Elsden, J. V., 9.
 —, flow of, & pressure.—Rinne, F., 2.
 —, Greece, &c.—Bock, J., 1.
 —, Ireland.—Elsden, J. V., 6.
 —, Tiree, &c.—Coomáránámy, A. K., 4.
 —, Vermont.—Dale, T. N., 1.
 —, Washington (U.S.A.).—Shedd, S., 1.
 Marburg -a.-d.-Lahn (Nassau).—Walther, K., 1.
 Marburg (Styria).—Dreger, J., 2
 Marcasite.—Meunier, S., 4.
 Marcellus Shale, New York.—Clarke, J. M., 1; Talbot, M., 1; Ohio.—Claypole, E. W., 1.
 Marches (Italy).—Mariani, M., 1; Moderni, P., 1.
 Marginella.—Cossmann, M., 2.
 Marginulina.—Schick, T., 1.
 Marine fauna, Boulder-Clay.—Wright, J., 1-3.
 Markirch (Alsace-Lorraine).—Bruhns, W., 1.
 Marl, Brittany.—Lechartier, G., 1.
 —, Hungarian cement.—Koch, A., 2.
 —, -løss, Wabash Valley.—Fuller, M. L., 4.
 —, Michigan.—Russell, I. C., 2.
 —, nitrogen, &c. in.—Miller, N. H. J., 1.
 —, Slate, Northumberland & Durham.—Lebour, G. A., 1.
 —, U. S. Cretaceous.—Parsons, A. L., 1.
 Marne (France).—Cooreman, T., 1.
 Marodian goldfield (Queensl.).—Ball, L. C., 3.
 MARSH Collection, PEABODY Museum.—Wortman, J. L., 1.
 Marske-by-the-Sea (Yorks.).—Seward, A. C., 1.
 Martinique (W.I.).—Anderson, T., 1-5; Colonna, E., 1; Curtis, G. C., 1 & 3; Gautier, A., 1; Gentil, L., 1; Gillot, H., 1; Giraud, C., 1; Giraud, J., 1; Griffiths, A. B., 1; Hærnes, R., 6; Hovey, C. O., 1, 2, 4, & 5; Kewitsch, G., 1; Lacroix, A., 1-4, 7-9, 12; Lobleby, J. L., 1; Meunier, S., 14; Sapper, K., 11; Spencer, J. W., 2 & 4; Stuebel, A., 2; Supan, A., 1; Verrill, A. E., 3; *see also* Pelé, Mt., &c.
 Maruéjols (Gard).—Pellat, E., 1.
 Mary R. (Queensl.).—Jackson, C. F. V., 1.
 Maryland (U.S.A.).—Clark, W. B., 1-4; Schuchert, C., 4 & 6; White, D., 3.
 Maryport (Cumberland).—Arber, E. A. N., 3
 Mas-d'Azil, Le (Ariège).—Pietié, É., 1.
 Maspino (Tuscany).—Bosco, C., 1.
 Massachusetts (U.S.A.).—Hobbs, W. H., 6; Mills, F. S., 1; Tarr, R. S., 1; Taylor, F. B., 1.
 Mastodon.—Andrews, C. W., 4; Blanckenhorn, M., 1; Dawkins, W. B., 1; Lydekker, R., 4; Schottler, W., 1; Venukov, P. I., 1.
 Matabeleland (S. Africa).—Carey, G. R., 1.
 Matatiele (Cape Colony).—Schwarz, E. H. L., 1.
 Matheria.—Whiteaves, J. E., 1.
 Matru, Mersa (Egypt).—Ball, J., 2; Pachundaki, D. E., 1.
 Matyoscor.—Ameghino, F., 2.
 Maurienne, Hte. (Savoy).—Girardin, P., 1.
 May-sur-Orne (Calvados).—Shrubsole, O. A., 1.
 Mazama, Mt. (Or.).—Diller, J. S., 3.
 Mediterranean, French shore-lines.—Depéret, C., 2.
 Medicottia.—Smith, J. P., 1.
 Mëdobori massif (Bessarabia).—Michalski, A., 1.
 Medusæ, Devonian.—Kinkëlin, F., 3.
 Meekoceras.—Airaghi, C., 1.
 Megablattina.—Sellards, E. H., 1.
 Megaladapis.—Lorenz, L. von, 1.
 Megalohyrax.—Andrews, C. W., 3.
 Megalosaurus.—Nopësa, F. von, Jun., 2.
 Megalotriton.—Stefano, G. de, 1.
 Megalurus.—Sauvage, H. E., 2.
 Megambonia.—Weller, S., 2.
 Meina (Piedmont).—Taramelli, T.
 Meiningen (Germany).—Wuest, E., 5.
 Melania.—Pavlov, P. S., 2.
 —, limestone, Alsace-Lorraine.—Andrea, A., 1.
 Melanite.—Colomba, L., 2; Franchi, S., 3; Moldenhauer, F., 1.
 Melanopsis.—Forster, B., 5; Hudleston, W. H., 1; Pavlov, P. S., 2.
 Melanosporites.—Pampaloni, L., 1.
 Melanterite.—Schaller, W. T., 1.
 Melaphyre, Bohemia.—Hinterlechner, K., 1.
 —, 'contraction-cylinder.'—Klemm, G., 1.
 —, Cornon.—Ippen, J. A., 2.
 —, Hesse.—Chelius, C., 1; Kueppers, E., 1.
 —, Styria.—Fabian, K., 1.
 —, Venetia.—Keyserling, H. von, 1.
 Melbourne (Vict.).—Chapman, F., 1 & 2.
 Melongena.—Cossmann, M., 2.
 Memleben-a.-d.-Unstrut (Thuringia).—Wuest, E., 1.
 Mendelgebirge (Tyrol).—Blaas, J., 1.
 Mendoza (Argentina).—Bodenbender, G., 1, 2.
 Menin (Flanders).—Stainier, X., 4.
 Mentone (Alpes-Maritimes).—Gaudry A., 1; Richardson, R., 1.
 Mentor Beds, Kansas.—Jones, A. W., 1.
 Mercure R. (Basilicata).—Lorenzo, G. de, 2.
 Mercury. *See* Quicksilver.
 Meris Valley (Piedmont).—Roccati, A., 1.
 Merseburg (Germany).—Schuetze, F., 1.

- Mersey R.—Nares, Sir G. S., 1.
 Merstham (Surrey).—Holmes, W. M., 1.
 Mesabi (Minn.).—Leith, C. K., 1.
 Mesalia.—Bistram, A. von, 1.
 Mesorhytis.—Cossmann, M., 1.
 Mesosaurus.—Vaillant, L., 1.
 Messina (Sicily).—Seguenza, L., 1-3.
 Metacheiromys.—Wortman, J. L., 1.
 Metalliferous deposits, origin of.—Lau-
 nay, L. de, 1.
 Metamorphic rocks, Ireland.—Cole, G.
 A. J., 1; Liguria.—Franchi, S., 1;
 Thuringia.—Zimmermann, E., 1;
 Victoria (Austral).—Gregory, J. W., 2.
 Metamorphism, Alpine graphite-deposits
 &.—Weinschenk, E., 7.
 —, contact.—Kemp, J. F., 2; Lind-
 gren, W., 2.
 —, Dunderland iron-deposits.—Vogt,
 J. H. L., 2.
 —, dynamic.—Seymour, H. J., 2.
 —, hydrothermal.—Hunt, A. R., 7.
 —, Loch-Lomond District.—Cunning-
 ham-Craig, E. H., 1.
 —, regional.—Hornung, F., 1.
 —, rock.—McMahon, C. A., 1 & 3.
 —. See also Contact.
 Metaplasia.—Weller, S., 2.
 Meteoric dust, New South Wales.—
 Liversidge, A., 1.
 — iron.—Cohen, E., 1.
 Meteorites, Alabama.—Merrill, G. P., 1.
 —, Antrim.—Gurney, H. P., 1.
 —, Berlin Univ. Mus.—Klein, C., 2.
 —, Colorado.—Preston, H. L., 1.
 —, Finland.—Borgström, L. H., 1.
 —, free phosphorus in.—Farrington,
 O. C., 1.
 —, Kansas.—Merrill, G. P., 2.
 —, Kentucky.—Merrill, G. P., 4;
 Miller, A. M., 1; Ward, H. A., 4.
 —, Maine.—Ward, H. A., 5.
 —, Mexico.—Tassin, W., 1; Ward,
 H. A., 2.
 —, Michigan.—Preston, H. L., 2.
 —, Minnesota & Pennsylvania.—
 Ward, H. A., 3.
 —, Missouri.—Ward, H. A., 1.
 —, Nebraska.—Barbour, E. H., 1.
 —, New South Wales.—Card, G. W.,
 1; Liversidge, A., 2.
 —, occurrence of.—Cohen, E., 3 & 4.
 —, Sudan.—Cohen, E., 2.
 —, Upsala Min. Inst.—Høegbom, A.
 G., 1.
 —, Vienna Nat. Hist. Mus.—Ber-
 werth, F., 2.
 —, Virginia.—Campbell, H. D., 1.
 —. See also Iron, meteoric.
 Metopotoxus.—Scott, W. B., 1.
 Metoptoma.—Matthew, G. F., 1.
 Metula.—Casey, T. L., 1.
 Meudon (Seine-et-Oise).—Ramond, G., 1.
 Meuse R. (France).—Bois, P., 1.
 Mexico.—Aguilera, J. G., 1; Böse, E.,
 1; Caballero, G. de J., 1; Collins, H.
 F., 1; Felix, J., 5; Halse, E., 1 & 2;
 Hill, R. T., 1; Keyes, C. R., 5;
 Kunz, G. F., 2; Lakes, A., 7 & 8;
 Ludlow, E., 1; Malcomson, J. W., 1;
 Manzano, J. P., 1; Ordóñez, E., 1-3;
 Rangel, M. F., 1; Richards, E. H., 1;
 Villarello, J. de D., 1; Weed, W. H.,
 2 & 3; White, W., Jun., 1; With-
 erbee, T. F., 1.
 Miadomia.—Benson, M., 1.
 Mica, ancient use of.—Miers, H. A., 3.
 —, Brazil.—Scott, H. K., 1.
 —, Canada.—Osann, A., 1; Pratt, J.
 H., 6.
 —, India.—Holland, T. H., 1; Prim-
 rose, A., 1; Wetherell, E. W., 1.
 —, Striegau.—Sachs, A., 1.
 —, United States.—Pratt, J. H., 6.
 —. See also Muscovite, &c.
 Mica-schists, plant-remains in.—Dal
 Piaz, G., 1 & 2.
 Michigan (U.S.A.).—Jackson, J. F., 1;
 Lane, A. C., 2; Russell, I. C., 2.
 Michipicoten Bay (Ont.).—Coleman, A.
 P., 1 & 4.
 Micraster.—Airaghi, C., 2; Rowe, A.
 W., 1.
 Microclines, green, pleochroism of.—
 Rinne, F., 1.
 Microdiscus.—Etheridge, R., Fil., 1;
 Weller, S., 2.
 Microdon.—Sauvage, H. E., 2.
 Microdrilla.—Casey, T. L., 1.
 Micromellania.—Pavlov, P. S., 2.
 Microscope-sections, scratched minerals.
 —Jevons, H. S., 1.
 Microsyops.—Wortman, J. L., 1.
 Microthyrites.—Pampaloni, L., 1.
 Middlesex.—Brown, J. A., 1.
 Midlands (England).—Shrubsole, O. A.,
 1.
 Midlothian (Scotland).—Cadell, H.
 M., 2; see also Edinburgh, &c.
 Mignano (Campania).—Sabatini, V., 1.
 Milleporidium.—Steinmann, G., 4.
 Milleroceros.—Smith, J. P., 1.
 Millstone Grit, Grassington Moor.—
 Dakyns, J. R., 2.
 Mimetite.—Bowman, H. L., 1.
 Minden (Westphalia).—Wiese, T., 1.
 Mine-flooding, Cuesmes.—Kersten, J.,
 1.
 Mineral crystallization, granite.—Hunt,
 A. R., 4.
 — industry, progress of, Tasmania.—
 Twelvetrees, W. H., 1.
 —, subject-list of works on.—
 Dalton, C. N., 1.
 — intercrystallization.—Delkeskamp,
 R., 1; Muegge, O., 1.
 — resources, England, United States,
 &c.; see Antimony, Iron, &c.
 — veins, finding by electricity.—
 Dickinson, J., 1.
 — water, arsenic in.—Gautier, A., 2.
 — waters, Ems.—Fresenius, H., 1;
 France.—Garrigou, F., 1; Moissan,
 H., 1; Moureu, C., 1; Indiana.—
 Blatchley, W. S., 1; Hessler, R., 1;

- Madagascar.—Arnaud, A., 1; Rumania.—Nicolau, T., 1; United States.—Day, D. T., 1; Yenisei Gov.—Ludwig, F., 1.
- Mineralogical Institute, Upsala.—Høegbom, A. G., 1; *see also* Museums, &c.
- projection, lantern.—Brauns, R., 2.
- textbooks.—Mercalli, G., 1; Miers, H. A., 1.
- Mineralogy, 1901.—Morley, H. F., 1.
- , American (N.).—Weeks, F. B., 2.
- , applied.—Charpentier, A., 1.
- , Scottish.—Heddle, M. F., 1.
- Minerals, artificial production of.—König, G. A., 1; Thugutt, St. I., 1; Wright, F. E., 1.
- , Binn Valley.—Baumhauer, H., 2; Lewis, W. J., 1; Solly, R. H., 1 & 2.
- , Canada.—Hoffmann, G. C., 1.
- , contact.—Fromme, J., 1.
- , etching of.—Fuller, M. L., 2.
- , Ireland.—Seymour, H. J., 1 & 3.
- , Madagascar.—Lacroix, A., 11.
- , melting-point of.—Dælder, C., 2; Lenarčić, J., 1 & 2.
- , molecular volume and chemical composition of crystallographically similar.—Prior, G. T., 1.
- , Newfoundland.—Howley, J. P., 1.
- , new names of.—Spencer, L. J., 2.
- , New South Wales.—Card, G. W., 1.
- , on old buried coins.—Rogers, A. F., 2.
- , orientation of.—Souza-Brandão, V. de, 1.
- , place-names &.—Foster, Sir C. Le N., 3.
- , rock-forming.—Joly, J., 5.
- , Scotland.—Heddle, M. F., 1.
- , specific gravity of.—Behr, J., 1.
- , Tasmania.—Pettard, W. F., 1.
- Mines, Great Britain.—Atkinson, J. B., 1; &c.—Foster, Sir C. Le N., 1 & 2.
- , India.—Stonier, G. A., 1 & 2.
- , Indiana.—Epperson, J., 1.
- , Nova Scotia.—Gilpin, E., Jun., 2.
- , Peru.—Balta, J., 1; Larrabure, E., 1.
- , Transvaal.—Weldon, H., 1 & 2.
- Minette.—Linck, G., 1.
- Mineville (N.Y.).—Reiss, H., 1.
- Mining engineering.—Charlton, A. G., 1.
- , geology and.—Lapworth, C., 2.
- , progress of civilization &.—Blake, W. P., 4.
- terms, Spanish-American.—Dwight, A. S., 1.
- Minnesota (U.S.A.).—Hall, C. W., 1; Leith, C. K., 1; Winchell, N. H., 2.
- Mino-Owari (Japan).—Omori, F., 1.
- Minsterworth (Gloucester).—Richardson, L., 5.
- Minussinsk (Siberia).—Bordeaux, A., 1.
- Miocene, Galicia.—Friedberg, G., 1.
- , Loire Basin.—Dollfus, G. F., 6.
- , Seine-et-Oise.—Grossouvre, A. de, 1.
- Miocene, Switzerland.—Rollier, L., 3; Stehlin, H. G., 1.
- , *See also* Tertiary.
- Miquelon I. (Newfoundland).—Breton, — Le, 1.
- Misburg (Hanover).—Wolleman, A., 3.
- Mispickel.—Buecking, H., 1; Kerforne, F., 2.
- Mission Range (Mont.).—Elrod, M. J., 1.
- Mississippi (U.S.A.).—Dall, W. H., 2; Eastman, C. R., 1; Hilgard, E. W., 1; Keyes, C. R., 2; Smith, E. A., 2.
- Missouri (U.S.A.).—Bain, H. F., 1 & 2; Eldridge, G. H., 1; Hedburg, E., 1; Keyes, C. R., 1.
- 'Mistpoeffers.'—Alippi, T., 1; Botti, U., 1.
- Mitchell River (Gippsland).—Dennant, J., 2.
- Mitta Mitta (Victoria).—Jenkins, H. C., 1.
- Mittelgebirge (Bohemia).—Becke, F., 1; Cornu, F., 1.
- Mins R. (S. Russia).—Sokolov, N., 1.
- Mixodectidæ.—Osborn, H. F., 3.
- Mochlodon*.—Nopčsa, F. von, Jun., 1.
- Modiola*.—Etheridge, R., Fil., 2; Maurer, F., 1; Shattuck, G. B., 1.
- Modiolopsis*.—Weller, S., 2.
- Modiomorphica*.—Maurer, F., 1.
- Mæritherium*.—Lydekker, R., 4.
- Moffat Ry. (Colo.).—Lakes, A., 15.
- Mohave Desert (Cal.).—Campbell, M. R., 1.
- Mojada, Sierra (Mexico).—Malcolmson, J. W., 1.
- Molasse, Swiss Tertiary.—Renevier, E., 2; Stehlin, H. G., 1.
- Moldavia (Rumania).—Butureană, V. C., 1; Simionescu, J. T., 1-3.
- Mollusca, Colorado - Desert fossil.—Stearns, R. E. C., 1.
- , erosion by.—Lakes, A., 12.
- Molokai I. (Hawaii).—Lindgren, W., 4.
- Molybdenum.—Pratt, J. H., 3.
- Monachus*.—Ugolini, R., 1-3.
- Monazite.—Day, D. T., 1; Hussak, E., 2; Mingay, J. C. H., 2; Pettard, W. F., 1; Pratt, J. H., 11.
- sand.—Barker, G. F., 1.
- Mondovi (Piedmont).—Sacco, F., 1.
- Monetite.—Schulten, A. de, 1.
- Mongolia (Asia).—Lyman, B. S., 2.
- Monilites*.—Pampaloni, L., 1.
- Monkeys, Quaternary.—Abel, O., 2; Lorenz, L. von, 1.
- , Tertiary.—Osborn, H. F., 3; Schlosser, M., 1; Wortman, J. L., 1.
- Monmouthshire.—Dakyns, J. R., 3; Moore, H. C., 1; Richardson, L., 2; Strahan, A., 4; Vaughan, A., 1.
- Monoclonius*.—Osborn, H. F., 4.
- Monograptus*.—Hall, T. S., 2.
- Monophyllites*.—Schellwien, E., 1.
- Monopleura*.—Franchis, F. de, 1.
- Monotrypa*.—Papp, C., 1; Weller, S., 2.
- Mous (Gard).—Pellat, E., 1.
- (Hainault).—Leriche, M., 2.

- Montana (U.S.A.).—Elrod, M. J., 1; Hatcher, J. B., 1; Rowe, J. P., 1 & 2; Stanton, T. W., 2; Stobbs, L. S., 1; Weed, W. H., 1 & 7; Willis, B., 1.
 Montanite.—Mingaye, J. C. H., 1.
 Monte Cristo, Mt. (Wash.).—Spurr, J. E., 1.
 Montenegro.—Antula, J., ; Manasse, E., 1; Martelli, A., 2; Vinassa de Regny, P., 1; Zujović, J. M., 1.
 Monteregeian Hills (Quebec).—Adams, F. D., 3.
 Monterey (Mex.).—White, W., Jun., 1.
 Montian.—Cornet, J., 4; Grossouvre, A. de, 3; Rutot, A., 2; *see also* Cretaceous.
Montivallia.—Felix, J., 2; Osasco, E., 1.
 Montmaurin (Haute-Garonne).—Boule, M., 1; Chartron, C., 1.
 Montorfano (Piedmont).—Tacconi, E., 1.
 Montpellier Hill (Co. Dublin).—Wright, W. B., 1.
 Montreal (Ottawa).—Adams, F. D., 3; Evans, N. N.
 Montroydite.—Moses, A. J., 1.
 Montserrat (W. I.).—Sapper, K., 6.
 Monzie (Perth).—Kerr, —, 1.
 Monzoni (Tyrol).—Gordon, M. M. O., 1; Ippen, J. A., 3, 4, 7; Melczer, G., 1; Romberg, J., 2.
 Monzonite, Tyrol.—Ippen, J. A., 1; Romberg, J.
 Moon, earth &.—Borredon, G., 2 & 5.
 Moraines, Alsace-Lorraine.—Van Werveke, L., 14.
 —, Bavaria.—Regelmann, C., 1.
 —, Denmark.—Ussing, N. V., 1.
 —, Inn Valley.—Hess, H., 1.
 —, Kingston (N.Z.).—Marshall, P., 1.
 —, New York State.—Comstock, F. M., 2.
 —, origin of.—Crosby, W. O., 1.
 —, Scania.—Holst, N. O., .
 —, Volhynia.—Tutkovski, I., 1.
 —. *See also* Eskers, &c.
 Moravia.—Bock, H., 1; Felix, J., 1; Fuchs, T., 4; Kretschmer, F., 1; Kríz, M., 1; Tietze, E., 1; Vetter, H., 1.
 Moravicza (Hungary).—Weinschenk, E., 3.
 Moray Firth (Scotland).—Mackie, W., 3 & 6.
 Moreton-in-the Marsh (Gloucester).—Reade, T. M., 3.
 Moro, El (Colo.).—Hill, R. T., 1.
 Morocco (Africa).—Fischer, T., 1.
Morphippus.—Ameghino, F., 4.
 MORSE, E. S. *See* Schuchert, C., 1.
 Morter I. (Dalmatia).—Schubert, R. J., 1.
 Mosasaurs, origin of.—Nopčsa, F. von, Jun., 8.
 Moselle R. (Alsace-Lorraine).—Van Werveke, L., 2.
 Mosor (Dalmatia).—Kerner, F. von, 5.
 Mossel Bay (Cape Colony).—Rogers, A. W., 2.
 Moulineaux (Seine-Infre).—Fortin, R., 1.
 Mountain-chains, circular form of.—Lake, P., 1.
 Mountains, direction of.—Issel, A., 4.
 —, Great-Basin Region (Nevada, &c.).—Davis, W. M., 4.
 —, Norrbotten.—Holmquist, P. J., 1.
 —, Norway.—Reusch, H., 1 & 2.
 —, origin of.—Avebury, Lord, 1; Fleischer, A., 1; Reade, T. M., 2.
 —. *See also* Orography.
Mouretia.—Douvillé, H., 7.
 Mourne Mts. (Co. Down).—Seymour, H. J., 3.
 Mouthé, La, Cave (Dordogne).—Moissan, H., 2; Rivière, E., 1.
 Mozambique (E. Africa).—Choffat, P., 2.
 Mücke (Hesse).—Klemm, G., 2.
 Muckross Head (Donegal).—Woodward, H., 8.
 Mud-volcanoes, California, India, &c.—Lakes, A., 13.
 Mudstones, Eo Devonian.—Ami, H. M., 3.
Muensteroceras.—Smith, J. P., 1.
 Müglitz (Moravia).—Kretschmer, F., 1.
 Mugnoe R. (Tuscany).—Dainelli, G., 1.
 Mühlhausen (Alsace-Lorraine).—Fenster, B., 1 & 5.
 Münchenberg (Bavaria).—Duell, E., 1.
 Munich (Bavaria).—Pfaff, F. W., 2.
 MUNIER-CHALMAS, —. *See* *Obit.*, Gaudry, A., 3.
 Muotta Valley (Schwytz).—Otter, J.
 Murchison Goldfield (W. Austral.).—Campbell, W. D., 1.
Murchisonia.—Walther, K., 1.
Murex.—Cossmann, M., 2.
 Muschelkalk. *See* Trias.
 Muscovite.—Ivanov, L. L., 1.
 Müsen (Westphalia).—Bruecher, M., 1.
 Museum, American, of Natural History, New York.—Hovey, E. O., 2.
 —, Basel, Nat. Hist.—Greppin, E., 1.
 —, Berlin University.—Klein, C., 2.
 —, Bohemian Nat. Hist.—Fritsch, A., 1.
 —, British (Nat. Hist.).—Prior, G. T., 3.
 —, Caen Nat. Hist.—Bigot, A., 7.
 —, CARNEGIE.—Hatcher, J. B., 3.
 —, Frankfort-on-Main Nat. Hist. Soc.—Kinkelin, F., 2.
 —, Geol. Soc. type-specimens.—Blake, J. F., 1.
 —, GOSSELET, Inst. des Sci. nat. Lille.—Gosselet, J., 7.
 —, HORNIMAN.—Salter, A. E., 2.
 —, Hull.—Sheppard, T., 3.
 —, Hungarian Geol. Inst.—Pethő, J., 1.
 —, Lausanne Nat. Hist.—Renevier, E., 1.
 —, Leicester.—Biggs, J. T., 1.
 —, Olten.—Stingelin, T., 1.
 —, Oxford University.—Healey, M., 1.
 —, Paris Nat. Hist.—Meunier, S., 5.
 —, PEABODY, Yale.—Eaton, G. F., 1 & 2; MARSH Collection.—Wortman, J. L., 1.

- Museum of Practical Geology.—Teall, J. J. H., 3 & 4.
 —, St. Petersburg Zool.—Woodward, A. S., 9.
 —, SEDGWICK, Cambridge.—Reed, F. R. C., 4; *see also* WOODWARDIAN.
 —, U. S. National.—Schuchert, C., 2.
 —, Upsala University.—Hægboom, A. G., 1.
 —, Victorian National, Melbourne.—Chapman, F., 1.
 —, Vienna Nat. Hist.—Berwerth, F., 2.
 —, WOODWARDIAN.—Kurtz, F., 1; Reed, F. R. C., 1, 2, 4; *see also* SEDGWICK.
Myalina.—Kayser, E., 1; Maurer, F., 1; Whitfield, R. P., 1.
Mycethoseris.—Osasco, E., 1.
Mylagauli, Tertiary.—Matthew, W. D., 4.
Mylagaulodon.—Sinclair, W. J., 1.
Myglodon.—Cordovez, M., 1.
Myocncha.—Burekhardt, C., 1.
Myophoria.—Maurer, F., 1; Walther, K., 1.
Myrica.—Engelhardt, H., 1; Knowlton, F. H., 1.
Mysidioptera.—Bittner, A., 1.
 Mysore (India).—Jayaram, B., 1; Primrose, A., 1; Sambasiva Iyer, V. S., 1 & 2; Slater, H. K., 1; Smeeth, W. F., 1; Wetherell, E. W., 1-4.
Mytilarca.—Weller, S., 2.
Mytilus.—Etheridge, R., Fil., 2.
 Nagelfluh, Salzburg.—Crammer, H., 1.
 Nagy-Károly (Hungary).—Pethő, J., 2.
 Nagy-Surány (Hungary).—Horusitzky, H., 1.
 Names of places, minerals &.—Foster, Sir C. Le N., 3.
 Namur (Belgium).—Destinez, P., 1; Sinoëns, G., 1; Van den Broeck, E., 15.
Nannites.—Airaghi, C., 1.
 Naples, Bay of (Italy).—Guenther, R. T., 1; Lorenzo, G. de, 1.
 Narni (Umbria).—Lotti, B., 1.
Nassa.—Cossmann, M., 2.
 Nassau (Germany).—Bellinger, J., 1; Hintz, E., 1; Kaiser, E., 1; Maurer, F., 1; *see also* Cassel & Hesse.
 Natal (S. Africa).—Gray, C. W., 1.
Nathorstella.—Kayser, E., 1.
Natica.—Daqué, E., 1.
 Natrolite.—Pettard, W. F., 1.
 Natron, Wadi (Lr. Egypt).—Stromer, E. von, 5.
 Naumburg (Cassel).—Henkel, L., 1.
Nautilus.—Airaghi, C., 1; Franz, V., 1; Hørnes, R., 5; Shattuck, G. B., 1.
 —, evolution of.—Hørnes, R., 4.
Navicula.—Renault, B., 4.
 Neamtz (Rumania).—Nicolau, T., 1.
 Nebraska (U.S.A.).—Adams, G. I., 1; Barbour, E. H., 1; Matthew, W. D., 6.
 Necklace, prehistoric.—Rahir, E., 2.
Neithea.—Woods, H., 1.
Nemagraptus.—Elles, G. L., 1.
Nemertites.—Walther, J., 1.
 Neocomian, Fribourg (Switzerland).—Sarasin, C., 2.
 —, Galicia.—Volz, W., 1.
 —, Germany.—Kenen, A. von, 1.
 —, Montenegro.—Antula, J., 1.
 —, Provence.—Pellat, E., 1.
 —, Rumania.—Sevastos, R., 2.
 —, Westphalia.—Stille, H., 2.
 —. *See also* Cretaceous.
Neococeras.—Smith, J. P., 1.
Neopithecus.—Schlosser, M., 1.
 Nepheline - ægirine - pegmatite, Sutherland.—Goodechild, J. G., 11.
 —basalts, N.S.W.—Card, G. W., 2.
 —rocks, Galicia.—Thugutt, St. I., 1.
 —, Greece, &c.—Hilber, V., 2.
 —, Italy.—Franchi, S., 2; Novaresse, V., 2; Stella, A., 1.
 —, Ontario.—Miller, W. G., 1.
 —, Quebec.—Adams, F. D., 3.
 —, Tasmania.—Twelvetrees, W. H., 12.
 —, Tyrol.—Ippen, J. A., 1-7.
 Nephrite stone-implements.—Wolff, F. von, 2.
 Nerchinsk (Siberia).—Bordeaux, A., 1.
Neridomus.—Moore, J. E. S., 1.
Nerinea.—Daqué, E., 1.
Nerinella.—Chartron, C., 1.
Neritina.—Chartron, C., 1; Færster, B., 5.
Neritodonta.—Pavlov, P. S., 2.
Neritopsis.—Bistram, A. von, 1; Chartron, C., 1.
 Nerone, Mte. (Marches, Italy).—Alippi, T., 1.
 Nettlebank (Staffs.).—Newton, E. T., 1.
 Neuchâtel (Switzerland).—Schardt, H., 1 & 5.
 Neuenahr (Nassau).—Hintz, E., 1.
 Neuenheerse (Westphalia).—Stille, H., 2.
 Neundorf (Hanover).—Stille, H., 1.
Neumayria.—Burekhardt, C., 1.
Neurankylus.—Osborn, H. F., 4.
Neuropteris.—Zeiller, R., 1.
 Neustadt (Baden).—Schalch, F., 2.
Neustosaurus.—Nopčsa, F. von, Jun., 6.
 Neutra (Hungary).—Horusitzky, H., 2.
 Neuweilnau (Nassau).—Maurer, F., 1.
 Nevada (U.S.A.).—Davis, W. M., 4; Maguire, —, 1.
 Nevada, Sierra (Cal.).—Turner, H. W., 1.
 Nevado de Toluca (Mexico).—Ordóñez, E., 1.
 Nevis I. (W.I.).—Sapper, K., 7.
 Newark Formation, Atlantic border.—Hobbs, W. H., 4 & 6.
 Newberyite.—Schulten, A. de, 3.
 New Caledonia.—Piroutet, M., 1.
 Newcastle (N.S.W.).—Atkinson, A. A., 1.

- New England Plateau (N.S.W.).—Andrews, E. C., 1.
- New England (U.S.A.).—Hobbs, W. H., 6.
- Newfoundland.—Daly, R. A., 1; Howley, J. P., 1.
- New Guinea.—Pinder, C. R., 1.
- New Hampshire (U.S.A.).—Perry, J. H., 1.
- New Jersey (U.S.A.).—Hobbs, W. H., 4 & 6; Kuemmel, W. H., 1 & 2; Parsons, A. L., 1; Weed, W. H., 6; Weller, S., 2.
- New Mexico (U.S.A.).—Johnson, D. W., 1; Keyes, C. R., 4 & 5; Lerchen, F. H., 1; Reagan, A. B., 1 & 2; Springer, A., 1; Stobbs, L. S., 1.
- Newport (Mon.).—Strahan, A., 4.
- Newquay (Cornwall).—Kenard, A. S., 1.
- New South Wales.—Andrews, E. C., 1 & 2; Atkinson, A. A., 1; Card, G. W., 1-3; Carne, J. E., 1; Coghlan, T. A., 1; David, T. W. E., 1; Deane, H., 1; Etheridge, R., Fil., 3 & 4; Hall, T. S., 2; Kurtz, F., 1; Mingaye, J. C. H., 3; Pittman, E. F., 1.
- New York State (U.S.A.).—Clarke, J. M., 1; Cleland, H. F., 1; Comstock, F. M., 2; Dale, T. N., 1; Hobbs, W. H., 4 & 6; Prosser, C. S., 1; Schuchert, C., 3; Smallwood, W. M., 1; Talbot, M., 1; Whitfield, R. P., 4.
- New Zealand.—Benham, W. B., 1; Coghlan, T. A., 1; Hamilton, A., 1; Hogben, G., 1; McKay, A., 1; Marshall, P., 1; Morgan, P. C., 1; Park, J., 1; *see also* Earthquakes, &c.
- Niagara Formation, Indiana.—Kindle, E. M., 1.
- Limestone, Ohio.—Claypole, E. W., 1.
- shale, N. Y.—Whitfield, R. P., 4.
- Nice (Alpes-Maritimes).—Riaz, A. de, 2.
- NICHOLSON, H. A., memorial. *See* Woodward, H., 9.
- Nickel-ore, Saxony.—Beck, R., 1.
- , Silesia.—Illner, —, 1.
- , Sudbury.—Dickson, C. W., 1.
- , Sweden.—Løfstrand, G., 1.
- , United States.—Day, D. T., 1; Pratt, J. H., 2.
- Nicolaus I. (Sea of Aral).—Samoïlov, J., 1.
- Nicolet, Glacial Lake (Wisc.).—Upham, W., 3.
- Nictaux (N. S.).—Weatherbe, D'A., 1.
- Niedenkirchen (Lr. Bavaria).—Stromer, E. von, 3.
- Niedertiefenbach (Nassau).—Bellinger, J., 1.
- Nieuwenhoven Château (Liège).—Stainier, X., 1.
- Nieuwenkerken (Liège).—Stainier, X., 1.
- Nile Valley (Egypt).—Ball, J., 1; Beadnell, H. J. L., 1; Cadell, H. M., 3.
- Nilssonia.—Möeller, H., 1; Seward, A. C., 2.
- Niort (Poitiers).—Michel-Lévy, A., 1; Welsch, J., 1.
- Nipa & Nipadites.—Seward, A. C., 5.
- Nitrates, Algeria.—Flamand, G. B. M., 1.
- Nitrogen, soils &.—Miller, N. H. J., 1.
- Nittur (Mysore).—Wetherell, E. W., 2.
- Niue I. (Pacific).—Skeats, E. W., 1.
- Nivernais (France).—Lamothe, R. de, 1.
- Noce R. (Basilicata).—Lorenzo, G. de, 2.
- Noce Valley (Albania).—Vinassa de Regny, P., 2.
- Nodosaria.—Liebus, A., 2; Schick, T., 1.
- Nodule-bearing schists, Colorado.—Read, T. T., 1.
- Nograd (Hungary).—Koch, A., 4.
- Nord (France).—Dollé, L., 1; Févre, —, 1; Gosselet, J., 1-6; Lagaisse, —, 1; Lebrun, —, 1; Leriche, M., 1; Vaillant, V., 1.
- Nordeck (Hesse).—Schottler, W., 1.
- NORDENSKÖLD, A. E. *See* *Obit.*, Hamberg, A., 1.
- Nördlingen (Bavaria).—Branco, W., 1 & 2; Knebel, W. von, 1 & 2.
- Norfolk.—Eldsen, J. V., 5; Monckton, H. W., 5.
- Normandy (France).—Bigot, A., 1-7; Shrubsole, O. A., 1.
- Norrberg (Westmanland).—Launay, L. de, 4.
- Norrbotten (Sweden).—Holmquist, P. J., 1 & 2; Osborn, C. S., 1; Tørnebohm, A. E., 1.
- Norrland (Sweden).—Ahlenius, K., 1.
- North Sea.—Harbe, E., 1.
- Northamptonshire.—Freckelton, T. W., 1; Thompson, B., 1-3.
- Northumberland.—Forster, T. E., 1; Goodchild, J. G., 2; P'Anson, J. C., 1; Lebour, G. A., 1.
- Norway.—Monckton, H. W., 3 & 5; Rekstad, J., 1; Reusch, H., 1 & 2; Sernander, R., 2; Tørnebohm, A. E., 2; Vogt, J. H. L., 2; *see also* Scandinavia.
- Norwegian Polar Expedition, 'Fram.'—Anon., 29; Bonney, T. G., 8; Schei, P., 1; Sverdrup, O., 1.
- Notidanus.—Koch, A., 4; Leriche, M., 1.
- Notohippus & Notopithecus.—Ameghino, F., 4.
- Nova Scotia (Canada).—Ami, H. M., 2-4; Ells, R. W., 1; Faribault, E. R., 1; Fletcher, H., 1; Gilpin, E., Jun., 1 & 2; Haycock, E., 1 & 2; Mackinlay, A., 1; Poole, H. S., 2; Weatherbe, D'A., 1.
- Novigrad (Dahmatia).—Schubert, R. J., 2.
- Novorossiisk (S. Russia).—Nikitin, S., 1.
- Noyarey (Dauphiné).—Kilian, W., 2.
- Noyes Mt. (Canada).—Woodward, H., 7.
- Nubecularia.—Steinmann, G., 3.
- Nucula.—Etheridge, R., Fil., 2; Walther, K., 1.

- Nuculana*.—Maurer, F., 1.
Nuculina.—Bistram, A. von, 1.⁷
Nummulites.—Douvillé, H., 1 & 9; Martelli, A., 1; Prever, P., 1.
 — *contortus*-beds.—Haug, E., 2.
 Nürnberg (Bavaria).—Spiess, E., 1.
 Nürschau (Bohemia).—Jækel, O., 3.
 Nyasa (Equatorial Africa).—Henderson, J., 2.
Nyctipithecus.—Wortman, J. L., 1.
- Obernzeil (Bavaria).—Launay, L. de, 3.
Obliquipecten.—Hind, W., 4.
Obolella.—Walcott, C. D., 3.
Obolus.—Matthew, G. F., 1; Walcott, C. D., 3 & 4; *Obolus*-sandstone, Gotland.—Wiman, C., 2.
 Ocean I. (Pacific).—Reed, F. R. C., 3.
 — basins, origin of.—Chamberlin, T. C., 1; Mackie, W., 2; Reade, T. M., 2.
 Oceanic deposits.—Blake, J. F., 2; Lohmann, H., 1; Lomas, J., 4; Verrill, A. E., 2 & 3; Wethered, E. B., 1.
 — salts.—Van't Hoff, J. H., 1-5.
 — water, density of.—Arctowski, H., 4; Thoulet, J., 1.
Ochetoceras.—Loriol, P. de, 1.
 Ocoee Slates, Alabama.—Smith, E. A., 1.
Oculina.—Felix, J., 2.
 Odensjön (W. Gotland).—Kjellén, R., 2.
Odontaspis.—Leriche, M., 1.
 Odontoceti.—Abel, O., 1.
Odontomysops.—Ameghino, F., 5.
 (Eblarn (U. Styria).—Redlich, K. A., 1.
 (Eland I. (Sweden).—Munthe, H., 2.
 (Etz Valley (Tyrol).—Hezner, L., 1.
 Offenbánya (Transylvania).—Gesell, A., 1; Pálffy, M. von, 1.
 Ofotenfjord (Norway).—Vogt, J. H. L., 2.
 Ohio (U.S.A.).—Bownocker, J. A., 1 & 2; Claypole, E. W., 1; Griswold, W. T., 1; Nickles, J. M., 1; Prosser, C. S., 2; White, D., 3.
 Oisans (Savoy).—Girardin, P., 1.
 Olchon I. (Lake Baikal).—Bagashov, I., 1.
Olcostephanus.—Bogoslovski, N. A., 1; Weller, S., 1.
 Oldhaven Beds, Ipswich.—Bassett, H., Jun., 1.
 Old Red Sandstone, Aberdeen.—Milne, Dr. J., 1.
 — —, Edinburgh. — Goodchild, J. G., 10.
 — —, erratic, Huntsham. — Wood, J. G., 1.
 — —, Forfar & Perth. — Thomson, A. G. M., 1.
 — —, Moray Firth. — Mackie, W., 6.
 — —, Shropshire, &c.—Moore, H. C., 1.
Olenellus.—Weller, S., 2.
Olenoides.—Woodward, H., 7.
 Oligocene, Switzerland.—Stehlin, H. G., 1.
 Oligoclase.—Lawson, A. C., 2; Tertsch, H., 1.
Oliva.—Cossmann, M., 2.
Olivella.—Casey, T. L., 1.
 Olivine-basalt, New South Wales. — Mingaye, J. C. H., 3.
 Olten (Solothurn).—Stingelin, T., 1.
Omphaloptycha.—Bistram, A. von, 1.
 Onaga (Kan.).—Crevecoeur, F. F., 1.
 Onondaga L. (N.Y.).—Smallwood, W. M., 1.
 Ontario (Canada).—Ami, H. M., 1 & 8; Coleman, A. P., 1 & 4; Ells, R. W., 2 & 3; Graton, L. C., 1; Ingall, E. D., 1; Miller, W. G., 1; Shimer, H. W., 1.
 Onyx-marble.—Bodenbender, G., 2.
 Oolite, Bavaria.—Schmierer, T., 1.
 —, Cotteswold Hills.—Richardson, L., 4.
 —, formation of.—Linck, G., 5; Rainsin, C. A., 1; Wethered, E. B., 1.
 —, Northants.—Thompson, B., 1-3.
 Oolitic concretions.—Erdmann, E., 1.
 — iron-ore, Lorraine.—Van Werke, L., 15; Westphalia.—Wiese, T., 1.
 — limestone, Ashbourne & Buxton Ry.—Arnold-Bemrose, H. H., 1.
 Ooze, Brittany shore.—Lechartier, G., 1.
 —, Iowa Carboniferous.—Udden, J. A., 2.
 Opal, Dillenburg.—Lœcke, —, 1.
 —, origin of.—Meunier, S., 7.
 —, Queensland.—Jackson, C. F. V., 2.
Ophiceras.—Schellwien, E., 1.
Ophisaurus.—Gerhardt, K., 1.
Ophthalmidium.—Schick, T., 1.
Opissaster.—Gauthier, V., 1.
Oppelia.—Sarasin, C., 2.
 Oppeln (Silesia).—Michael, R., 2.
Oppites.—Pampaloni, L., 1.
 Oran (Algeria).—Ficheur, E., 1; Haug, E., 2.
 Orange-River Colony (S. A.).—Barrett-Hamilton, G. E. H., 1; Hatch, F. H., 2 & 3.
Orbicella.—Felix, J., 3; Shattuck, G. B., 1.
Orbiculoidea.—Chapman, F., 1; Weller, S., 2.
Orbignya.—Toucas, A., 2.
Orbitoides.—Douvillé, H., 4, 9; Martelli, A., 1; Oppenheim, P., 6; Schlumberger, C., 1 & 2.
Orbitolina.—Kossmat, F., 1.
Orbitolites.—Douvillé, H., 3 & 4; Munier-Chalmas, —, 1 & 2.
 Orciano (Tuscany).—Ugolini, R., 1 & 3.
 Ordovician, Brittany.—Barrois, C., 5; Kerforné, F., 1.
 —, Caernarvon.—Fearnshides, W. G., 1.
 —, Canada.—Ami, H. M., 1; Nolan, A. W., 1.
 —, Minnesota.—Hall, C. W., 1.
 —, New Jersey.—Weller, S., 2.
 —, Ohio.—Nickles, J. M., 1.

- Ordovician pebbles, Peel Red Sandstone.
— Gill, E. L., 1.
— See also Cambrian, &c.
Ore-deposits, Algeria.—Meunier, S., 16.
—, Argentina.—Brinsmade, R. B., 1.
—, Bavaria & Tyrol.—Weinschenk, E., 8.
—, country-rock &.—Weed, W. H., 1.
—, depth of.—Gregory, J. W., 5.
—, estimation of extent of.—Kendall, J. D., 1.
—, German African Colonies.—Macco, A., 1.
—, Idaho.—Lakes, A., 2.
—, India (N.W.).—Stephens, F. J., 1 & 2.
—, Iowa.—Beyer, S. W., 1.
—, Lake District.—Postlethwaite, J., 1.
—, Man (I. of).—Lamplugh, G. W., 5.
—, Mexico.—Aguilera, J. G., 1; Blake, W. P., 2; Halse, E., 1; Hill, R. T., 1.
—, Newfoundland.—Howley, J. P., 1.
—, origin of.—Kohler, E., 2; Krahnmann, M., 1; Launay, L. de, 1; Lindgren, W., 2; Pošepuy, F., 1; Van Hise, C. R., 1.
—, secondary enrichment.—Lakes, A., 3; Rickard, T. A., 1; Weed, W. H., 14; Vogt, J. H. L., 1.
—, Tasmania.—Stewart, H., 1; Twelvetrees, W. H., 1-10; Waller, G. A., 1-3.
—, Transylvania.—Gesell, A., 1.
—, volcanoes &.—Lakes, A., 13.
— See also Veins, Gold, &c.
Ores, percentage of metal in economic.—Hovey, E. O., 3.
—, pockets of.—Lakes, A., 14.
Örebro (Sweden).—Blomberg, A., 1.
Oregon (U.S.A.).—Bonney, T. G., 9; Diller, J. S., 1 & 3; Hay, O. P., 3; Knowlton, F. H., 1; Lindgren, W., 1; Russell, I. C., 5; Smith, G. O., 1; Washburne, C., 1.
Orel Gov. (Russia).—Derjavin, A., 1; Samoïlov, J., 4.
Organ Mts. (N. Mex.).—Lerchen, F. H., 1.
Oriskany Sandstone, Ohio.—Claypole, E., 1.
Orléanais (France).—Grossouvre, A. de, 4.
Ornithomimus.—Osborn, H. F., 4.
Ornithosuchus.—Boulenger, G. A., 1.
Orodus.—Eastman, C. R., 1.
Orography, Algeria.—Ritter, É., 1; Asia.—Richthofen, F. von, 1; Korea.—Kotô, B., 1; Lombardy.—Taramelli, T., 1.
Orosaris.—Osasco, E., 1.
Orsova, New (Servia).—Vinassa de Regny, P., 5.
Orthechinus.—Gauthier, V., 1.
Orthis.—Walther, K., 1; Weller, S., 2.
Orthoceras.—Airaghi, C., 1; Crick, G. C., 1; Hørnes, R., 4; Ruedemann, R., 2.
Orthophragmina.—Schlumberger, C., 2.
Ortho-riebeckite-gneiss.—Keyserling, H. von, 2.
Orthothetes.—Weller, S., 2.
Orville (Aisne).—Briquet, A., 1.
Osborne Beds, I. of Wight.—Colenutt, G. W., 1; Woodward, H., 5.
Oschiri (Sardinia).—Pampaloni, L., 2.
Osmunda.—Penhallow, D. P., 1.
Osmundaceæ, Mesozoic.—Seward, A. C., 6.
Osmundites.—Penhallow, D. P., 1 & 2.
Ossiferous cavern, Buxton Pliocene.—Dawkins, W. B., 1.
Ostheim (Bavaria).—Blanckenhorn, M., 1.
Ostracoda, Ordovician.—Weller, S., 2.
—, Pleistocene.—Wuest, E., 1.
—, Silurian.—Jones T. R., 1; Weller, S., 2; Whiteaves, J. F., 1.
Ostrea.—Dacqué, E., 1; Hørnes, R., 2; Oppenheim, P., 6; Shattuck, G. B., 1; Wollemaun, A., 1.
Otago (N.Z.).—Park, J., 1.
Otodus.—Leriche, M., 1; Sangiorgi, D., 1.
Otozamites.—Møller, H., 1.
Ottawa (Canada).—Ells, R. W., 2 & 3
— (Kan.).—Yates, J. A., 1.
Ottenby (Denland).—Munthe, H., 2.
Oubangui (Sudan).—Lacoin, —, 1.
Oulad-Nayl Mts. (Algeria).—Ritter, E., 1.
Ovactæonina.—Chartron, C., 1.
Overthrusts, Denver.—Henderson, J., 1.
—, Vermont.—Dale, T., 1.
Ovifak (Greenland).—Winkler, C., 1.
Ovis.—Koch, A., 3; Toula, F., 4.
Oxfordshire.—Pears, T., 1; Walford, E. A., 1.
Oxyrhina.—Eastman, C. R., 2; Koch, A., 4; Leriche, M., 1.
Ozark (Mo.).—Bain, H. F., 2.
Ozieri (Sardinia).—Lovisato, D., 2.
Ozokerite, Galicia.—Galloway, W., 1.
Pachuca (Mexico).—Ordoñez, E., 3.
Pachyæna.—Boule, M., 2.
Pachygyra.—Felix, J., 2; Longhi, P., 1.
Pachymya.—Shattuck, G. B., 1.
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 Planets, gravity &.—Borredon, G., 1-5.

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Porocidaris.—Checchia-Bispoli, G., 1.
 Porosity, rock.—Moore, C. C., 1.
 Porphyrite, Quenast.—Elsden, J. V., 4.
 —, Styria.—Fabian, K., 1.
 Porphyritic andesite, Wicklow.—Seymour, H. J., 2.
 Porphyry, Augustusburg-i.-Sa. — Zimmermann, R., 1.
 —, Black Forest.—Schalch, F., 1.
 —, Greece.—Hilber, V., 2.
 —, Hungary.—Schafarzik, F., 1.
 —, Montenegro.—Manasse, E., 1.
 —, Piedmont.—Taramelli, T., 5.
 —, Silesia.—Dathe, E., 1.
 —, Taunus.—Buecking, H., 5.
 —, Tyrol.—Hammer, W., 2; Ippen, J. A., 1, 3, & 5; Romberg, J., 1 & 2; Wolff, F. von, 1.
 —, Uri.—Bœckh, J., 3.
 —, Venetia.—Keyserling, H. von, 1.
 Porretta (Emilia).—Nelli, B., 1.
 Port-Philip Head (Vict.).—Grant, F. E., 1.
 Portland cement.—Kimball, L. L., 6; Russell, I. C., 2; Taff, J. A., 2.
 Portlandian, Bavaria, &c.—Schmierer, T., 1; Boulonnais.—Zeiller, R., 3.
 Portoferraio (Liguria).—Cortese, P., 1.
 Portotorres (Sardinia).—Lovisato, D., 1.
 Portovenere (Liguria).—Capellini, G., 2.
 Portugal.—Chofat, P., 4; Felix, J., 4.
 Possession Is. (Gulf of Carpentaria).—Jackson, C. F. V., 3.
 Post, H. von. *See Obit.*, Svenonius, F., 1.
 Post-Glacial Beds, Dundee.—Durham, J., 1.
 Pot-holes, Bitterfeld.—Riedel, O., 1.
 —, Magdeburg.—Wahnschaffe, F., 1.
 Potash-salt deposits. — Lang, O., 1; Lœwe, L., 1; Ochsenius, C., 1; Van't Hoff, J. H., 1-5.
 Potchefstroom (Transvaal).—Hatch, F. H., 2.
 Potomac Group.—Clark, W. B., 1.
 POWELL, J. W. *See Obit.*, Anon., 11; Gilbert, G. K., 1; Merrill, G. P., 5; Walcott, C. D., 7.
Præradolites.—Douvillé, H., 6.
Præsorites.—Douvillé, H., 3.
 Prägratten (Tyrol).—Pohl, O., 1.
 Prague (Bohemia). — Fritsch, A., 1; Počta, P., 1.
 Precious stones, Mexico.—Kunz, G. F., 2; United States. — Day, D. T., 1; Kunz, G. F., 3.
 Predazzo (Tyrol).—Dœlter, C., 3; Ippen, J. A., 1-7; Romberg, J., 1 & 2.
 Prehnite.—Fromme, J., 1.
Prenaster.—Loriol, P. de, 2.
 Preolenna (Tasmania). — Twelvetrees, W. H., 2.
 Prescott Co. (Ontario).—Ells, R. W., 3.
 Primates, origin of.—Wortman, J. L., 1.
 —, Quaternary. — Lorenz, L. von, 1; *see also* Man, &c.
 Prince Albert Div. (Cape Colony).—Rogers, A. W., 5.
 Prince of - Wales Island (Alaska). — Thomæ, W. F. A., 1.
 Prince-Rudolph I. *See* Rudolph.
Prionastræa.—Osasco, E., 1.
Prionoceras.—Smith, J. P., 1.
 Prizac (Morbihan).—Gaubert, P., 1.
Proarcestes.—Airaghi, C., 1.
Proboscidella.—Tchernyshev, T., 1.
Procerithium.—Chartron, C., 1.
Prodromites.—Smith, J. P., 1.
Productus.—Nœtling, F., 2; Tchernyshev, T., 1.
 — limestone, Salt Range.—Lapparent, A. de, 3.
Proëtus.—Weller, S., 2.
Proëtatus.—Scott, W. B., 1.
Progenetta.—Major, C. I. F., 1.
Prolecanites.—Smith, J. P., 1.
Promathildia. — Bistram, A. von, 1; Chartron, C., 1.
Promysops.—Ameghino, F., 5.
Pronorites.—Smith, J. P., 1.
Propalæmon.—Woodward, H., 5.
Propalæohoplophorus.—Scott, W. B., 1.
Propolymastodon.—Ameghino, F., 5.
Propteris.—Sauvage, H. E., 2.
Protoporus.—Liebus, A., 2.
Prosocelus.—Maurer, F., 1; Walther, K., 1.
Protamunium.—Etheridge, R., Fil., 2.
Proteodidelphys.—Ameghino, F., 4.
Prothyris.—Drevermann, F., 2.
Protocardia & Procerithium. — Bistram, A. von, 1.
Protodictyon.—Melandar, A. L., 1.
Protoseris.—Felix, J., 2.
Protosphyæna.—Leriche, M., 1.
 Proustite.—Lamplough, F. E. E., 1.
 Provence (France).—Depéret, C., 2; Douvillé, H., 4; Frech, F., 1; Jacob, C., 1; Pellat, E., 1; Répelin, J., 1; Toucas, A., 1.
Prozædius.—Scott, W. B., 1.
Prunus.—Knowlton, F. H., 1.
 Prussia (Germany). — Geinitz, E., 3; Jentsch, A., 4; Michael, R., 3; Ungern-Sternberg, E. von, 1.
Psammecinus.—Loriol, P. de, 2.
Pseudamunium.—Hind, W., 4.
Pseudavicula.—Etheridge, R., Fil., 2.
Pseudoammicola.—Pavlov, P. S., 2.
Pseudoasterophyllites.—Zeiller, R., 2.
Pseudocidaris.—Loriol, P. de, 2.
Pseudocorax.—Leriche, M., 1.
Pseudocrinites.—Schuchert, C., 5.
Pseudolestodon.—Ameghino, F., 2.
Pseudomelania.—Chartron, C., 1.

- Pseudomonotis*.—Bistram, A. von, 1; Burckhardt, C., 1; Diener, C., 1; Newton, R. B., 1; Yakovlev, N., 4.
- Pseudomorphs*.—Cohen, E., 3; Gæssl, J., 1; Goodchild, J. G., 9; Van Werveke, L., 3; Vernadski, V. S., 3.
- Pseudosalenia*.—Loriol, P. de, 2.
- Pseudotissotia*.—Solger, F., 1.
- Pseudotsuga*.—Penhallow, D. P., 1.
- Psygmyphyllum*.—Seward, A. C., 2.
- Pteranodon*.—Eaton, G. F., 2.
- Pteraspis*.—Dollo, L., 4; Fox, H., 1.
- Pteria*.—Etheridge, R., Fil., 2.
- Pteridorachis*.—Nathorst, A. G., 1.
- Pterinopecten*.—Hind, W., 4.
- Pteris*.—Dean, H., 1.
- Pterocarya*.—Engelhardt, H., 1.
- Pterodactyls*.—Eaton, G. F., 2; Langley, S. P., 1; Lucas, F. A., 2.
- Pterodon*.—Andrews, C. W., 3.
- Pteroperna*.—Dainelli, G., 3.
- Pterophyllum*.—Möller, H., 1.
- Pteropoda*, Tertiary.—Fuchs, T., 4; *see also* Gasteropoda.
- Ptilodictya*.—Weller, S., 2.
- Ptilolite*.—Colomba, L., 1.
- Ptilozamites*.—Möller, H., 1.
- Ptychides & Ptychites*.—Airaghi, C., 1.
- Ptychoceras*.—Sarasin, C., 2; Uhlig, V., 1.
- Ptychodus*.—Leriche, M., 1.
- Ptychoparia, Ptychopteria, & Ptychopyge*.—Weller, S., 2.
- Puchov Marls, Hungary.—Liebus, A., 1.
- Puget Sound (Alaska).—Brooks, A. H., 1.
- Pugnax*.—Tchernyshev, T., 1.
- Punjab (India).—Simpson, R. R., 1.
- Puracé volcano, Colombia.—White, R. B., 1 & 2.
- Purbeck, I. of (Dorset).—Hudleston, W. H., 1.
- Purbeck Beds, Wiltshire.—Jukes-Browne, A. J., 2.
- Purpurina*.—Moore, J. E. S., 1.
- Puy-de-Dôme (Auvergne).—Brunhes, B., 2.
- Pycnochlorite.—Fromme, J., 1.
- Pyrenes (French, &c.)—Bertrand, L., 1; Caralp, J., 2 & 3; Carez, L., 3; Frech, F., 1; Garrigou, F., 1; Ruvell, J., 1 & 2; Stuart-Menteth, P. V., 1-3.
- Pyrgulifera*.—Moore, J. E. S., 1.
- Pyrimont-Challonges (Savoy).—Depéret, C., 3.
- Pyrites.—Achiardi, G. d', 4; Eckel, E. C., 1; Knett, J., 2; Melczer, G., 1; Schaller, W. T., 1; Struthers, J., 9.
- Pyromorphite.—Bowman, H. L., 1.
- Pyrophyllite.—Morozevich, I., 2.
- Pyrotherium*.—Ameghino, F., 1 & 2.
- Pyroxene.—Weidman, S., 1.
- melanite.—Colomba, L., 2; Franchi, S., 3.
- , titaniferous.—Winchell, A. N., 4.
- Pyrrhotine.—Zambonini, F., 3.
- Pythites*.—Pampaloni, L., 1.
- Quarries, Great Britain, &c.—Atkinson, J. B., 1; Foster, Sir C. Le N., 1 & 2.
- , Paris, ancient subterranean.—Wickersheimer, —, 1.
- Quartz.—Achiardi, G. d', 3; Barker, T. V., 1; Gæssl, J., 1; Knett, J., 1; Lincio, G., 1; Zimmermann, R., 1.
- dykes, Man (I. of).—Bonney, T. G., 4; Lomas, J., 1.
- , etching in conglomerates.—Fuller, M. L., 2.
- porphyry, Augustusberg.—Zimmermann, R., 1; Botzen.—Wolff, F. von, 1; Hungary.—Schafarzik, F., 1; Uri.—Böckh, J., 3.
- reefs, Waihi goldfield.—Morgan, P. C., 1.
- veins.—Harker, A., 3; Hunt, A. R., 2; Joly, J., 3.
- Quartzite, markings in Rocky Mts.—Bonney, T. G., 2 & 6.
- , Neuweilnau.—Maurer, F., 1.
- , Ural Mts.—Duparc, L., 7.
- Quaternary, Alpes Maritimes.—Riaz, A. de, 2.
- , Alsace-Lorraine.—Dæderlein, L., 1 & 2; Forster, B., 4 & 6; Schumacher, E., 3; Van Werveke, L., 18.
- , Aniene Valley.—Viola, C., 1.
- , Basilicata Lakes.—Lorenzo, G. de, 2.
- , Belfast.—Præger, R. L., 2.
- , Belgium.—Delvaux, E., 1; Fourmarier, P., 1; Rutot, A., 1 & 4; Van den Broeck, E., 5; Van Ertborn, O., 7.
- , Berkshire.—Blake, J. H., 1.
- , Bottendorf.—Wuest, E., 2.
- , Californian elevation.—Turner, H. W., 1.
- , classification of.—Dollfus, G. F., 3.
- , Cornwall.—Bullen, R. A., 2; Johnson, J. P., 1; Kennard, A. S., 1.
- , Denmark.—Wesenberg-Lund, C., 1.
- , England (S.E.).—Monckton, H. W., 1 & 6; *see also* Berkshire, &c.
- , Hanover.—Menzel, H., 1.
- , Holland.—Lorié, J., 1; Rutot, E., 4.
- , Lansing (Kan).—Winchell, N. H., 3.
- , Leicester.—Fox-Strangways, C., 1.
- , Long Island (N.Y.).—Fuller, M. L., 3.
- , Meuse R. variations.—Bois, P., 1.
- , Moravia.—Křiz, M., 1.
- , Nord.—Gosselet, J., 2 & 5.
- , Norway.—Monckton, H. W., 3.
- , Oxfordshire.—Pears, T., 1.
- , Paris Basin.—Meunier, S., 6; Raymond, G., 1.
- , Patagonia.—Ameghino, F., 6.
- , Prussia.—Berendt, G., &c., 1; Frech, F., 2; Geinitz, E., 3; Michael, R., 3.
- , —, with Jurassic corals.—Oppenheim, P., 4.

- Quaternary, Rhein-Hesse.—Schopp, H., 1.
 —, Rumania.—Sevastos, R., 4.
 —, Samara Gov.—Neustruev, S., 1.
 —, Salt Range.—Koken, E., 1.
 —, Schleswig-Holstein, &c.—Stolley, E., 1.
 —, shore-lines, France (S.).—Depéret, C., 2.
 —, Thames Valley.—Kennard, A. S., 2; Newton, E. T., 2.
 —, Thuringia.—Wuest, E., 3 & 4.
 —, Vaud.—Meunier, S., 8.
 —, Victoria (Austral.).—Dennant, J., 3.
 —. See also Drift, Læss, &c.
- Quiberon (Britanny).—Montessus de Ballore, F. de, 1.
- Quicksilver, Dalmatia.—Bukowski, G. von, 1; Bohemia.—Liebus, A., 1; Texas.—Hill, B. F., 1; Moses, A. J., 1; Tuscany.—Lotti, B., 3.
 —, United States production.—Day, T., 1; Struthers, J., 3.
- Quebec (Canada).—Ells, R. W., 2 & 3.
 —, Prov. (Canada).—Adams, F. D., 3; Ami, H. M., 8.
- 'Queen Stone,' Huntsham.—Wood, J. G., 1.
- Queensland.—Ball, L. C., 1, 2 & 3; Cameron, W. E., 1-3; Coghlan, T. A., 1; Dixon, R., 1; Dunstan, B., 1-3; Gregory, J. W., 6; Jackson, C. F. V., 1-3.
- Quenast (Brabant).—Elsden, J. V., 4; Lagrange, E., 1; Simoëns, G., 5.
- Quercus*.—Engelhardt, H., 1; Knowlton, F. H., 1; Palibin, J. von, 1.
- Quercy (Guienne).—Stefano, G. de, 1.
- Quillan (Languedoc).—Carez, L., 1.
- Radiolaria, Borneo.—Molengraaff, G. A. F., 1.
- Radiolites*.—Dacqué, E., 1; Douvillé, H., 6.
- Radium, age of the earth &c.—Joly, J., 4.
- Radula*.—Etheridge, R., Fil., 2.
- Rain-fall, underground water-level &c.—Hooker, C. P., 1.
- Rain-spots, fossil.—Schmitz, G., 1.
- Raised beaches, Cornwall.—Johnson, 1; Kennard, A. S., 1; Co. Cork glacial.—Muff, H. B., 1; Massachusetts.—Tarr, R. S., 1; origin of.—Reade, T. M., 2; Scandinavia.—Køveslighethi, R. von, 1; Tor Bay.—Hunt, A., R., 8.
- Rajputana (India).—La Touche, T. D., 1.
- Rakonitz (Bohemia).—Weithofer, K. A., 1.
- Ralligstöcke (Berne).—Douvillé, H., 10.
- Rana*.—Fraas, E., 3.
- Randengrobkalk, Helvetian &c.—Rollier, L., 3.
- Ranella*.—Cossmann, M., 2.
- Rangifer*.—Alessandri, G. de, 1; Kriz, M., 1.
- Rapakivi-diabase, S. Russia.—Popov, S. P., 1.
- Raphistoma*.—Cossmann, M., 2; Weller, S., 2.
- Rappoltswiler (Alsace).—Van Werveke, L., 5.
- Rare earths.—Magee, W. H., 1.
- RASHLEIGH collection of minerals.—Enys, J. D., 1.
- Rasina R. (Servia).—Eletz, V. M., 1.
- Raspite.—Hussak, E., 1.
- Ratitæ, Tertiary.—Ihering, H. von, 1.
- Ravenswood (Queensland).—Cameron, W. E., 3.
- Reading (Berks.).—Blake, J. H., 1.
- Recco (Liguria).—Ristori, G., 2.
- Receptaculites*.—Weller, S., 2.
- Recoaro (Venetia).—Oppenheim, P., 6.
- Red Chalk, Norfolk.—Elsden, J. V., 5.
- 'Red-rain' dust, analyses of.—Thorpe, T. E., 1.
 —, Canary Is.—Tacquin, A., 1.
 —, Italy.—Flores, E., 1.
 —, Portugal.—Choffat, P., 4.
 —, Victoria.—Chapman, F., 2.
- Red rock, Campine.—Lapparent, A. de, 5; Simoëns, G., 7 & 8; Stainier, X., 3.
- Redonian.—Kerforne, F., 3; Lebesconte, P., 1.
- Redruth (Cornwall).—Hill, J. B., 1.
- Reed City (Mich.).—Preston, H. L., 2.
- Reefs, Bendigo goldfield.—Cundy, W. H., 1.
- Reifnigg (Styria).—Medanich, G., 1.
- Reinschia*.—Renault, B., 4.
- Reitsburg (Orange R. Colony).—Hatch, F. H., 3.
- Remopleurides*.—Reed, F. R. C., 5.
- Remouchamps (Liège).—Rahir, E., &c., 2.
- RENARD, A. F. See *Obit.*, Geikie, Sir A., 1.
- Rencheux (Belgium).—Delvaux, E., 1.
- Rennes (Ille-et-Vilaine).—Bézier, T., 1.
- Rensselaeria*.—Weller, S., 2.
- Reptilia, Carboniferous.—Jækel, O., 2 & 3.
 —, Cretaceous.—Beecher, C. E., 2; Clark, W. B., 1; Eaton, G. F., 2; Lambe, L. M., 1 & 2; Lucas, F. A., 1 & 2; Nopĉsa, F. von, Jun., 2-4 & 6-7; Osborn, H. F., 4; Williston, S. W., 1-4.
 —, evolution of.—Lydekker, R., 2.
 —, flying.—Langley, S. P., 1.
 —, Jurassic.—Andrews, C. W., 2; Fraas, E., 2; Gilmore, C. W., 1; Hatcher, J. B., 2; Knight, W. C., 3; Nopĉsa, F. von, Jun., 5 & 8; Pauw, L. F. de, 1 & 2; Riggs, E. S., 1; Shepard, T., 1; Thévenin, A., 1; Williston, S. W., 4.
 —, life-habits of fossil.—Williston, S. W., 3.
 —, Permian.—Case, E. C., 1 & 2.
 —, Permo-Carboniferous.—Vaillant, L., 1.
 —, Tertiary.—Andrews, C. W., 5; Færster, B., 5; Fraas, E., 3; Gerhardt, K., 1; Hay, O. P., 3; Lydekker,

- R., 1; Sinclair, W. J., 1; Stefano, G. de, 3; Stehlin, H. G., 2; Stromer, E. von, 5.
- Reptilia, Triassic.—Boulenger, G. A., 1; Broom, R., 1, 3, & 4; Frech, F., 1; Merriam, J. C., 1; Nopčsa, F. von, Jun., 1; Woodward, A. S., 7; Yakovlev, N., 3.
- , Wealden.—Andrews, C. W., 2; Dollo, L., 3.
- , *See also* Chelonia, &c.
- Requienia.—Franchis, F. de, 1.
- Retepora.—Maplestone, C. M., 1.
- Reticularia.—(Ehlerl, D. P., 1.
- Retzia.—Bittner, A., 1; Walther, K., 1.
- Reuss glacier (Uri).—Penck, A., 1.
- Rhabdocidaris.—Gauthier, V., 1 & 2; Loriol, P. de, 2.
- Rhætic, Bornholm.—Möller, H., 1.
- , Gloucestershire.—Richardson, L., 2 & 5; Tomes, R. F., 1.
- , Mendoza.—Bodenbender, G., 1.
- , occurrence of.—Frech, F., 1.
- , Rhenish Prussia.—Mueller, G., 1.
- , Savoy.—Preiswerk, H., 1.
- , Somerset.—Short, A. R., 1.
- , Worcestershire.—Richardson, L., 3.
- Rhein-Hesse (Germany).—Schopp, H., 1.
- Rhenish Bavaria.—Ammon, L. von, 1; Schalch, F., 1.
- Devonian.—Maurer, F., 1.
- Prussia.—Drevermann, F., 2; Walkhoff, O., 1.
- Schiefergebirge (Westphalia & Nassau).—Kaiser, E., 1.
- Rhine River.—Andreae, A., 5; Monckton, H. W., 5; Schumacher, E., 6.
- , Pliocene.—Lamothe, R. de, 2.
- Valley, Lower.—Köenen, C., 1.
- Rhinidictya.—Weller, S., 2.
- Rhinoceros.—Bartolotti, C., 2; Depéret, C., 3; Lucas, F. A., 3; Venukov, P. I., 1.
- Rhipidogrya.—Felix, J., 2; Longhi, P., 1.
- Rhipidomella.—Tchernyshev, T., 1; Weller, S., 2.
- Rhizomopteris.—Nathorst, A. G., 1.
- Rhizophyllum.—Etheridge, R., Fil., 3.
- Rhizopoterion.—Ungern-Sternberg, E. von, 1.
- Rhodanomys.—Depéret, O., 3.
- Rhodesia (S. Afr.).—Arber, E. A. N., 4; Hind, W., 3; Meunier, F. P., 1, 2 & 3; Molyneux, A. J. C., 1; Woodward, A. S., 10.
- Rhodochrosite.—Johnsen, A., 1.
- Rhodope Mts. (Turkey).—Hørnes, R., 3.
- Rhombopora.—Condra, G. E., 1.
- Rhomboptera.—Weller, S., 2.
- Rhön Mts. (Germany).—Blanckenhorn, M., 1; Buecking, H., 4; Wuest, E., 5.
- Rhône R. (France).—Boistel, A., 1.
- Rhynchonella.—Antula, J., 1; Bittner, A., 1; Drevermann, F., 2; Etheridge, R., Fil., 2; Gortani, M., 3; Remeš, M., 2; Tchernyshev, T., 1; Weller, S., 2.
- Rhynchotreta.—Weller, S., 2.
- Ribeirella & Ribeiria.—Schubert, R. J., 4.
- Ribemont (Aisne).—Rabelle, —, 1.
- Richmond (Va.).—Woodworth, J. B., 1 & 2.
- Richmond Formation, Indiana.—Første, A. F., 1; Ohio.—Nickles, J. M., 1.
- Richmond R. (N.S.W.).—Mingaye, J. C. H., 2.
- Rickardite.—Ford, W. E., 1.
- Rico Mts. (Colo.).—Ransome, F. L., 1.
- Ridgeway (Dorset).—Darwin, H., 1.
- Riebeckite.—Butureanū, V. C., 2.
- Ries (Württemberg).—Fraas, E., 1; Schmidt, A., 1 & 2.
- Riesengebirge (Silesia).—Berg, G., 1.
- Rift-valleys.—Mennell, F. P., 3.
- Rimella.—Cossmann, M., 2.
- Ringicula.—Cossmann, M., 1.
- Riva (Tyrol).—Tietze, E., 5.
- River-curves.—Callaway, C., 2; Davis, W. M., 5; Ellis, T. S., 1.
- erosion.—Ball, J., 1; Hobbs, W. H., 3.
- robbing.—Fournier, E., 1; Mills, F. S., 2.
- terraces, California.—Hershey, O. H., 3 & 5.
- valleys, Almond buried.—Cadell, H. M., 2; permanence of.—Hill, E., 1.
- Rivers, subterranean.—Fortin, R., 1; Fournier, E., 1; Van den Broeck, E., 15.
- Riversdale Formation, Nova Scotia.—Ami, H. M., 2.
- Road-metal.—Bock, J., 1; Claes, —, 1; F'Anson, J. C., 1.
- Robache (Vosges).—Delépine, G., 1.
- Rocamadour (Lot).—Viré, A., 1.
- Rock-analyses.—Dittrich, M., 1; Gans, R., 1; Osann, A., 3.
- basins, Ontario.—Coleman, A. P., 1.
- magnas. *See* Magmas.
- metamorphism.—*See* Metamorphism, &c.
- sections, microscope.—Fedorov, E., 3; Souza-Brandão, V. de, 1; Støber, F., 2; Canada balsam in thin sections.—Benedicks, C., 1; photography of.—Heineke, F., 1; Moss, W., 1; scratches on.—Jevons, H. S., 1.
- Rockall (Atlantic).—Green, W. S., 1.
- Rocks, action of ammonium-chloride on.—Clarke, F. W., 2.
- , electrical resistance of.—Angelis d'Ossat, G. de, 1.
- , fragmental.—Bonney, T. G., 1.
- , origin of.—Kohler, E., 2.
- , rigidity of.—Kusakabe, S., 1 & 2.
- , thermal conductivities of.—Peirce, B. O., 1.
- , volume-composition of.—Moore, C. C., 1.

- Rocky Mts. (Alaska).—Schrader, F. C., 1; (Canada).—Bonney, T. G., 2, 6, & 11; Coleman, A. P., 3; Collie, J. N., 1; Woodward, H., 7; (U.S.A.).—Stobbs, L. S., 1.
- Rodentia, Quaternary.—Nehring, A., 1.
- , Tertiary.—Ameghino, F., 5; Matthew, W. D., 4; Osborn, H. F., 3; Sinclair, W. J.
- , *See also* Mammalia.
- Rome (Italy), R. School of Engineers.—Meli, R., 2.
- , Prov. of.—Moderni, P., 2; Verri, 5; Viola, C., 1.
- Römerite.—Scharizer, R., 1.
- Romingeria.—Beecher, C. E., 1; Weller, S., 2.
- Ronzotheorium.—Deninger, K., 1.
- Rosa, Mte., Italian side of.—Dainelli, G., 2.
- Roscommon (Ireland).—Kidston, R., 1.
- Rosita (Colo.).—Welles, A. M., 1.
- Rosshoden Glacier (Simplon).—Schardt, H., 4.
- Ross-shire (Scotland).—Clough, C. T., 2.
- ROTHWELL, R. P. *See Obit.*, Raymond, R. W.
- Rousses, Grandes, massif (Dauphiné).—Termier, P., 3.
- Routivaara (Norrbotten).—Lannay, L. de, 4.
- Rovereto (Tyrol).—Tietze, E., 4.
- Royat (Auvergne).—Brunhes, B., &c., 1.
- Royston (Herts).—Woodward, H. B., 2 & 9.
- Rubbiano (Emilia).—Sangiorgi, D., 1.
- Rudistæ, Cretaceous.—Douvillé, H., 6, 7; Hilber, V., 1.
- Jimestone, Dalmatia.—Schubert, R. J., 3.
- Rudolph (Prince) I.—Colomba, L. 1.
- RUFFORD, P. J. *See Obit.*, Woodward, H., 13.
- Ruhr R. (Westphalia).—Middelschulte, A., 1.
- Rulac.—Knowlton, F. H., 1.
- Rum, I. of (Hebrides).—Harker, A., 2.
- Rumania.—Angelis d'Ossat, G. de, 7; Bergeron, J., 1; Butureană, V. C., 1-3; Cadere, D., 1; Mrazec, L., 1; Nicolau, T., 1; Poni, P., 1; Sevastos, R., 1-4; Simionescu, J. T., 1-3; Uroshev, S., 1.
- Rupelian, Belgium.—Forir, H., 1.
- Russel Co. (Ontario).—Ells, R. W., 3.
- Russia (Central).—Bogoslovski, N. A., 1; (S.).—Popov, S. P., 2; Sokolov, N., 1.
- , *See also* Ekaterinoslav, Urals, &c.
- Russian Devonian fauna.—Schuchert, C., 4.
- Rzeszów (Galicia).—Friedberg, G., 1.
- Saba I. (W. I.).—Sapper, K., 9.
- Sabbione Valley (Piedmont).—Roccati, A., 1.
- Sabero (Léon).—Mallada, L., 1.
- Saccoblastus.—Hambach, G., 1.
- Safet-Daria Valley (Bokhara).—Levat, E. D., 1.
- Sagenodus.—Eastman, C. R., 1.
- Sagenopteris.—Penhallow, D. P., 1.
- Saghalin I. (Siberia).—Hawes, C. H., 1; Yabe, H., 1.
- Sahara (Africa).—Hochreutiner, B. P. G., 1; Jourdy, E., 1.
- Saint Christopher (W. I.).—*See* St. Kitts.
- Erth (Cornwall).—Millett, F. W., 1.
- Eustatius (W. I.).—Sapper, K., 9.
- Gall (Savoy).—Lugeon, M., 1.
- Gaudens (Haute-Garonne).—Carez, L., 7.
- Girons (Ariège).—Carez, L., 5.
- Helena (Atlantic).—Berg, G., 2.
- Helen's I. (Canada).—Nolan, A. W., 1.
- Kitts (W. I.).—Fels, G., 1; Sapper, K., 7.
- Lawrence R. (N. Am.).—Upham, W., 5.
- Lucia (W. I.).—Sapper, K., 5.
- Martory (Haute-Garonne).—Carez, L., 4.
- Minver (Cornwall).—Fox, H., 2.
- Pierre (Martinique).—Lacroix, A., 2.
- Pierre I. (Newfoundland).—Breton, —, Le, 1.
- Thomas I. (Atlantic).—Berg, G., 2.
- Vincent (W. I.).—Anderson, T., 1-5; Coppock, J. B., 1; Curtis, G. C., 1 & 3; Hoernes, R., 6; Hovey, E. O., 1; Howe, E., 1; Klein, C., 1; Lacroix, A., 6, 8 & 9; Lobley, J. L., 1; Powell, H., 1 & 2; Sapper, K., 4 & 12; Spencer, J. W., 1, 2, & 4; Stuebel, A., 2; Supan, A., 1.
- Salem (Ind.).—Ashley, G. H., &c., 1.
- Salenia.—Loriol, P. de, 2.
- Salenidia.—Lambert, J., 1.
- Salisbury (Wilts).—Andrews, W. R., 1; Reid, C., 7.
- (Tasmania).—Twelvetrees, W. H., 4.
- Salix.—Engelhardt, H., 1; Knowlton, F. H., 1.
- Salt, age of the earth &.—Mackie, W., 1.
- , blue rock.—Ochsenius, C., 3.
- , Galicia.—Schröter, A., 1.
- , Germany.—Löwe, L., 1; Ochsenius, C., 1 & 4; Van't Hoff, J. H., 1-5.
- , India.—Grundy, J., 1.
- , influence in nature.—Walther, J., 2.
- , lakes, Yenisei Gov.—Ludwig, F., 1; Tolmashev, J. P., 2.
- , oceanic deposits.—Van't Hoff, 1-5.
- , origin of rock.—Goodchild, J. G., 3.
- , Rumania.—Mrazec, L., 1.
- , United States.—Struthers, J., 11.
- , water, Carboniferous.—Cornet, J., 1; Gevers-Orban, E., 1.

- Salt Range (Punjab).—Koken, E., 1-4;
Lapparent, A. de, 3; Seeley, H. G., 1.
- Saltpetre.—Flamand, G. B. M., 1;
Grundy, J., 1.
- Salvador (Central Am.).—Sapper, K.,
2.
- Salzburg (Austria).—Crammer, H., 1;
Fugger, E., 1; Lorenz, J. von, 2;
Tietze, E., 4.
- Salzkammergut (Austria).—Mojsisovics,
E. von, 2.
- Samara Gov. (Russia).—Neustruev, S.,
1.
- Samarските.—Barker, G. F., 1.
- Sau Cristobal (Lower California).—
Schmidt, C., 2; Schottler, W., 2.
- Diego (Cal.).—Lakes, A., 10; Schal-
ler, W. T., 1.
- Juan Mts. (Mendoza).—Boden-
bender, G., 1.
- Luis Potosi (Mexico).—Manzano,
J. P., 1.
- Marino (Lombardy).—Salmojrighi,
F., 1.
- Orso (Venetia).—Oppenheim, P., 6.
- Stefano del Comelico (Venetia).—
Geyer, G., 1.
- Sancerrois (France).—Raulin, V., 1.
- Sand, absorption of liquids & gases.—
Spring, W., 1.
- -drifting, sedimentation &.—Hunt,
A. R., 3.
- - dunes, Towan Head.—Johnson,
J. P., 1; Kennard, A. S., 1; *see also*
Dunes.
- , Ile-et Vilaine.—Lechartier, G., 1.
- , mechanical analysis of.—Vinassa
de Regny, P., 3.
- , Moselle R. volcanic.—Van Wer-
veke, L., 2.
- , Paris Basin, granitic.—Dollfus,
G., 1; Grossouvre, A. de, 4.
- , quartz-veins &.—Hunt, A. R., 2.
- , Yorkshire sea.—Richardson, H.,
1.
- Sandfly R. (Tasmania).—Twelvetrees,
W. H., 5.
- Sandstones, analyses of British.—Anon.,
34.
- , Bamberg, calcareous.—Barnes,
J., 1.
- , Belgian.—Claes, —, 1.
- , Carpathian Gault.—Sevastos, R.,
2.
- dykes, Columbus (Ga.).—McCallie,
S. W., 2.
- , Ireland.—Elsden, J. V., 8.
- , Moray-Firth Basin.—Mackie, W.,
4.
- , Peel Red.—Gill, E. L., 1.
- , Superior, Lake.—Grant, U. A., 1.
- , Washington (U.S.A.).—Shedd, S.,
1.
- Sandwich Is. (Pacific). *See* Hawaii Is.
- Santa Croce, Lake (Venetian Alps).—
Longhi, P., 1.
- Cruz Beds, Patagonia.—Scott, W.
B., 1.
- Santa Cruzian.—Ameghino, F., 6.
- Eulalia Mines (Mex.).—Lakes, A.,
8.
- Lucia (Catalonia).—Ehlert, D. P.,
1.
- Maria de Meyá (Catalonia).—Zeil-
ler, R., 2.
- Maria del Rio (Mexico).—Manzano,
J. P., 1.
- Maria volcano (Guatemala).—Ber-
geat, A., 3; Brauns, B., 1; Sapper,
K., 1.
- Santander (Spain).—Cartailhac, E., 1.
- Saône-et-Loire (France).—Chantre, E.,
1; Delafond, E., 1.
- Sapindus*.—Knowlton, F. H., 1.
- Sapphires, Queensland.—Dunstan, B., 1.
- Sara Planina (Serbia).—Petkov, M. K.,
1; Petkov, V. K., 1.
- Saratov Gov. (Russia).—Kalitzki, K., 1;
Sinzov, I., 1.
- Sardinia.—Dainelli, G., 3; Dannenberg,
A., 1; Lovisato, D., 1-3; Pampaloni,
L., 2; Rimatori, C., 1 & 2; Tornquist,
A., 4.
- Sarlat (Dordogne).—Douvillé, H., 7.
- Sarmatian, Austria.—Fuchs, T., 3;
Steinmann, G., 3; Hungary.—
Lœrenthey, E., 1; Rumania.—
Simionescu, J., 1-3.
- Sauranodon*.—Gilmore, C. W., 1.
- Savernake (Wilts).—Bird, C., 1 & 3.
- Savona-Turin Railway (Liguria & Pied-
mont).—Sacco, F., 2.
- Savoy (France).—Belloc, E., 1; Frech,
F., 1; Girardin, P., 1; Haug, E., 4;
Kilian, W., 1 & 6; Lugeon, M., 1 & 5;
Mougin, P., 1; Sarasin, C., 1; Savin,
L., 1; Zaccagna, D., 1.
- Saxicava*.—Dollfus, G. F., 6; Smith,
J., 1.
- Saxony.—Beck, R., 1; Dalmer, K., 2;
Gebert, C., 1; Meissner, —, 1; Nes-
sing, R., 1; Petrascheck, W., 1; Wag-
ner, P., 1.
- Saybnsch (Galicia).—Rzehak, A., 1.
- Scales, reptilian.—Vaillant, L., 1.
- Scandinavia.—Kœveslighethi, R. von, 1;
Sernander, R., 2; *see also* Norway &
Sweden.
- Scania (Sweden).—Hennig, A., 1; Holst,
N. O., 1; Kjellén, R., 3.
- Scapanorhynchus*.—Leriche, M., 1.
- Scaphites*.—Etheridge, R., Fil., 2; Hil-
ber, V., 1; Wisniovski, T., 1.
- Scapolite.—Pettard, W. F., 1.
- Scarborough (Yorks).—Richardson, H.,
1.
- Scenery, Ceylon.—Coomáráswámy, A.
K., 5; Cleveland.—Hawell, J., 1.
- Scheelite.—Florence, W., 1; Pettard,
W. F., 1.
- Schemakha (Caucasus).—Andersson, F.,
1.
- Schiefergebirge (Thuringia).—Zimmer-
mann, E., 2.
- Schiosia*-beds, Goritz, &c.—Hørnes, R.,
2.

- Schira, Lake (Yemisei Gov.).—Tolmashév, I. P. 2.
- Schismopora*.—Maplestone, C. M., 1.
- Schistoceras*.—Smith, J. P., 1.
- Schists, Aranyo Valley.—Pálffy, M. von, 1.
- , Ariège.—Caralp, J., 1.
- , Calais, Pas de, Carboniferous with.—Deville, Ste.-C., 1.
- , Colorado nodule-bearing.—Read, T. T., 1.
- , crystalline.—Hobbs, W. H., 5.
- , granite-diffusion into.—Greenly, E., 1.
- , Grisons.—Schmidt, C., 1.
- , Himalayas.—McMahon, C. A., 1 & 3.
- , metamorphism of.—Hunt, A. R., 7.
- , Mysore.—Jayaram, B., 1; Sambasiva Iyer, V. S., 1 & 2; Smeeth, W. F., 1; Wetherell, E. W., 1.
- , Ross-shire.—Clough, C. T., 2.
- , Rumania.—Nicolau, T., 1.
- , Vermont plicated.—Dale, T. N., 1.
- Schizaster*.—Gauthier, V., 1; Martelli, A., 1; Loriol, P. de, 2.
- Schizodus*.—Yakovlev, N., 1 & 4.
- Schizoneura*.—Etheridge, R., Fil., 4.
- Schizophoria*.—Tchernyshev, T., 1.
- Schläfer tunnel, Wiesbaden.—Reinach, — von, 1.
- Schlaggenwald (Bohemia).—Focke, F., 1.
- Schleswig-Holstein (Germany).—Petersen, J., 1; Reinke, J., 1; Stolley, E., 1; Zeise, O., 1.
- Schlotheimia*.—Bistram, A. von, 1.
- Schmalenseeia*.—Moberg, J. C., 1.
- Schnaitheim (Würt.).—Fraas, E., 2.
- Schneeberg (Tyrol).—Weinschenk, E., 8.
- Schönite. See Picromerite.
- Schuchertites*.—Smith, J. P., 1.
- Schwagerina*.—Gortani, M., 3.
- Schwarzwald (Baden).—Keidel, H., 1; Schalf, F., 1; Steinmann, G., 2.
- Schwarz-See (Valais).—Tornquist, A., 2.
- Scobinella*.—Casey, T. L., 1.
- Scotland.—Anon., 18; Goodchild, J. G., 7 & 8; Johnston, T. N., 1; Lake, P., 1; Heddle, M. F., 1; Murray, Sir J., 1; Thomson, A. G. M., 1; see also Great Britain.
- Scratches on thin rock-sections.—Jevons, H. S., 1.
- Scurcola (Abruzzi).—Cassetti, M., 1.
- Scutari, Lake (Albania).—Vinassa de Regny, P., 2.
- Scylacosaurus*.—Broom, R., 1.
- Sea-bottom, Gulf of Manaar.—Lomas, J., 6.
- , influence on Flemish water-level.—Andrimont, R. d', 1.
- , saltness, age of the earth &. — Mackie, W., 5.
- , Sudan ancient.—Lapparent, A. de, 7.
- , water, density of.—Arętowski, H., 4; Thoulet, J., 1.
- Seals, Tertiary Italian.—Ugolini, R., 2.
- Sebenico (Dalmatia).—Kerner, F. von, 6.
- Secka (Siberia).—Ilovaïski, D., 1.
- Sedbury Cliff (Gloucester).—Richardson, L., 2; Vaughan, A., 1.
- SEDGWICK Museum, Cambridge.—Reed, F. R. C., 4; see also WOODWARDIAN.
- Sedimentary deposits, manganese-dioxide &.—Mackie, W., 3.
- , original form of.—Blake, J. F., 2.
- , Patagonia.—Ameghino, F., 6.
- , Rhodesia.—Molyneux, A. J. C., 1.
- Sedimentation.—Hunt, A. R., 3; Joly, J., 1.
- Seebpore (Bengal).—Grover, F., 1.
- Seeds, Perno-Carboniferous.—Smedley, H. E. H., 1.
- Seine R. (France).—Grossouvre, A. de, 2.
- Seine-et-Oise (France).—Grossouvre, A. de, 1.
- Seine-Infre. (France).—Fortin, R., 1.
- Seismographs.—Credner, H., 1; Farr, C. C., 1; Hecker, O., 1; Lippmann, G., 1; Rudzki, M. P., 1; Tanakadate, A., 1.
- Seismological Congress, 1903.—Montessus de Ballore, F. de, 4.
- Observatory, Vesuvius.—Anon., 24.
- stations, Gt. Britain & abroad.—Milne, J., 5.
- Seismology. — Milne, J., 1; Wiechert, E., 1; see also Earthquakes.
- Selbornian, Dorset.—Lang, W. D., 1.
- Seligmannite.—Solly, R. H., 1.
- SELWYN, A. R. C. See *Obit.*, Ami, H. M., 7 & 9; and Woodward, H., 4.
- Sénula I. (Gulf of Aden).—Kossmat, F., 1.
- Seminula*.—Beede, J. W., 2.
- Semionotus*.—Eaton, G. H., 1.
- Senaite.—Hussak, E., 2.
- Sengwe (Rhodesia).—Molyneux, A. J. C., 1.
- Senonian, Denmark.—Ravn, J. P. J., 1.
- Septarian clay, Alsace-Lorraine.—Andree, A., 1.
- Sequoia*.—Knowlton, F. H., 1; Penhallow, D. P., 1; Zeiller, R., 3.
- Sereudibite.—Prior, G. T., 5.
- Séreth Valley (Rumania).—Sevastos, R., 3.
- Seringapatam (Mysore).—Wetherell, E. W., 1.
- Serpentine, Greece.—Hilber, V., 2.
- , Maryland.—Clark, W. B., 4.
- , Washington (U.S.A.).—Shedd, S., 1; pseudo-, Washington.—Clarke, F. W., 1.
- Serre Massif (Jura).—Bourgeat, —, 1.
- Servia.—Bajetz, M. J., 1; Djlagoi, M. T., 1; Eletz, V. M., 1; Pavlov, P. S., 1 & 2; Petkov, M. K., 1; Petkov, V. K., 1; Peucker, K., 1; Vinassa de Regny, P., 2.

- Sesami (Rhodesia).—Molyneux, A. J. C., 1.
- Sette Comuni (Venetia).—Campana, D. del, 1.
- Seward Peninsula (Alaska).—Collier, A. J., 1.
- Sewerby (Yorks).—Lamplugh, G. W., 3.
- Shales, Michigan.—Russell, I. C., 2.
- , tests for gold and silver in Kansas.—Lindgren, W., 2.
- Shamrock, Mt. (Queensl.).—Ball, L. C., 1.
- Shantung (China).—Crick, G. C., 1; Monke, H., 1.
- Sharkham Point (Devon).—Hunt, A. R., 8.
- Sharks, subfossil.—Eastman, C. R., 2.
- Shawnee Formation, Kansas.—Beede, J. W., 3.
- Shearing, secondary.—Clough, C. T., 2.
- Shenley Hill (Beds).—Lamplugh, G. W., 7.
- Shide (I. of Wight).—Milne, J., 1, 3, & 5.
- Shimoga (Mysore).—Sambasiva Iyer, V. S., 2.
- Shingle, Ault.—Bardou, —, 1.
- , Devon.—Hunt, A. R., 1.
- Shoalhaven River (N.S.W.).—Thiele, E. O., 1.
- Shore-changes, Wirral Peninsula.—Pickstone, W., 1.
- concretions, Dutch Guiana.—Du Bois, G. C., 1.
- deposits, Ille-et-Vilaine.—Lecharrier, G., 1.
- lines, French Tertiary.—Depéret, C., 2; *see also* Raised beaches &c.
- Shotley (Suffolk).—Whitaker, W., 1.
- Shrinkage, junction-bed disturbances &.—Lamplugh, G. W., 4.
- Shropshire.—Cobbold, E. S., 1; Moore, H. C., 1.
- Shumardia*.—Reed, F. R. C., 5.
- Shumardites*.—Smith, J. P., 1.
- Siberia (Asia).—Bordeaux, A., 1; Gerasev, A. P., 1; Hawes, C. H., 1; Herz, O., 1; Ijitzki, N., 1 & 2; Ilovaïski, D., 1; Jaczewski, L., 1; Kaschen, N., 1; Krotov, P., 1; Launay, L. de, 3; Ludwig, F., 1; Meister, A., 1 & 2; Obruchev, V., 1; Peetz, H. von, 1; Tolmashev, I. P., 1 & 2; *see also* Gold, Coal, &c.
- Sicily, I. of.—Lotz, H., 2; Pampaloni, L., 1; Seguenza, L., 1-3.
- Siegen District (Westphalia & Nassau).—Drevermann, F., 1.
- Siegen Schists.—Drevermann, F., 1.
- Siegersdorf (Silesia).—Guerich, G., 1.
- Siena (Tuscany).—Clerici, E., 2; Fucini, A., 3; Pantanelli, D., 1; Verri, A., 3.
- Sierra Nevada, &c. *See* Nevada, &c.
- Sigillaria*.—Zaleski, M., 1.
- Sikhim (Himalayas).—Freshfield, D. W., 1.
- Silberberg (Bavaria).—Weinschenk, E., 8.
- Silcrete.—Bonney, T. G., 5.
- Silesia.—Berg, G., 1; Dathe, E., 1; Felix, J., 1; Guerich, G., 1 & 2; Illner, —, 1; Michael, R., 1; Scupin, H., 1; Uhlig, V., 1; Wisniowski, T., 1.
- Silicates, action of ammonium-chloride on.—Clarke, F. W., 2.
- Siliceous stratified rocks, origin of.—Meunier, S., 1.
- Silicic acid, mountain-stream water with.—Headden, W. P., 1.
- Silicified fossils, Algeria.—Fourtau, R., 2; Lot.—Douvillé, H., 8; trees, Sardinia.—Pampaloni, L., 2.
- Siliceous rocks, chemistry of.—Morozevich, I., 1.
- Sillian (Tyrol).—Geyer, G., 1.
- Silurian, Belgium.—Malaise, C., 1 & 2.
- , Bohemia.—Zelizko, J. V., 1.
- , Brittany.—Barrois, C., 5; Kerfome, F., 1.
- , Calais (Pas-de-).—Barrois, C., 1.
- Carboniferous contact, Liévin.—Desailly, —, 1.
- , Gotland, I. of.—Wiman, C., 1.
- , Herefordshire.—Callaway, C., 4.
- , Hesse.—Denckmann, A., 1.
- , Indiana.—Kindle, E. M., 1.
- , Ireland (N.E.).—Clark, R., 1.
- , Maryland.—Schuchert, C., 6.
- , New Jersey.—Weller, S., 2.
- , New York.—Prosser, C. S., 1; Schuchert, C., 3; Whitfield, R. P., 1.
- , Norrbotten.—Holmquist, P. J., 2.
- , Ohio.—Prosser, C. S., 2.
- , Saxony.—Dalmer, K., 2.
- , Shropshire.—Moore, H. C., 1.
- , Tennessee, &c.—Først, A. F., 2 & 3.
- , Vermont.—Perkins, G. H., 1.
- , Victoria (Austral.).—Chapman, F., 1.
- Silver, Canada.—Ingall, E. D., 2.
- , Chile.—Labastie, F., 1.
- , Colorado.—Lakes, A., 4 & 6; Ransome, F. L., 1.
- , Mexico.—Aguilera, J. G., 1; Blake, W. P., 2; Halse, E., 2; Lakes, A., 7, 1; Ordoñez, E., 3.
- , Mongolia.—Lyman, B. S., 2.
- , Montana.—Weed, W. H., 7.
- , New South Wales.—Beaumont, E. K., 1; Pittman, E. F., 1; Warren, J., 1.
- , Queensland.—Cameron, W. E., 2.
- , Sardinia.—Lovisato, D., 1.
- , Silesia.—Guerich, G., 2.
- , Tasmania.—Walker, G. A., 1 & 3.
- , Turkestan.—Levat, E. D., 1.
- , United States production.—Day, D. T., 1; Robarts, G. E., 1; *see also* Colorado, &c.
- , Washington.—Spurr, J. E., 1.
- Silver Cliff (Colo.).—Welles, A. M., 1.
- Silverton (Colo.).—Lakes, A., 4.
- Simon-la-Veneuse (Vendée).—Chartron C., 1.

- Simonyite.—Jäger, F. M., 1; *see also* Blödit.
- Simplon Tunnel (Pennine Alps).—Ginné-
nez, J. V., 1; Schardt, H., 2 & 4;
Spezia, G., 1.
- Sinalosa (Mex.).—Weed, W. H., 2.
- Sinjsko Polje (Dalmatia).—Kerner, F.,
1.
- Siphonalia*.—Cossmann, M., 2.
- Sirenia, Tertiary.—Delheid, E., 1.
- Sjangeli (Norrbotten).—Holmquist, P.
J., 1.
- Skalička (Moravia).—Remeš, M., 1.
- Skara (Gotland).—Munthe, H. H., 1.
- 'Skarn,' Prince of Wales I. (Alaska).—
Thomæ, W. F. A., 1.
- Skipton (Yorks.).—Smith, W. G., 1.
- Skulls, mammalian.—Osborn, H. F., 1.
- Skye, I. of (Scotland).—Harker, A., 1.
- Slates, dolerite intrusive in.—Moore,
C. C., 1.
- , Ireland.—Elsden, J. V., 8.
- , Witwatersrand.—Sawyer, A. R.,
4.
- Slattberg (Dalecarlia).—Læfstrand, G.,
1.
- Slaty rocks, Beni-Toufout massif.—
Termier, P., 4.
- Slaughterbridge Beds, Cornwall.—Park-
inson, J., 1.
- Slavonia (Austria - Hungary).—Pavlov,
P. S., 1.
- Sligo, Co. (Ireland).—Cole, G. A. J., 6 &
7; Prager, R. L., 1.
- Smilodectes*.—Wortman, J. L., 1.
- Smyrna (Asia Minor).—Yung, —, 1.
- Snake-River Plains (Idaho).—Russell, I.
C., 3 & 4.
- Snow, Sweden.—Jansson, M., 1.
- Snowdon (N. Wales).—Jehu, T. J., 1.
- , lakes, colour of water.—Dakyns,
J. R., 1.
- Soapstone, Mysore.—Primrose, A., 1;
Sambasiva-Iyer, V. S., 2.
- , United States.—Pratt, J. H., 4.
- Soda, carbonate of.—Van't Hoff, J. H.,
3.
- , Mysore.—Sambasiva - Iyer, V. S.,
2.
- Sodbury (Gloucester).—Strahan, A., 1.
- Sohländ-a.-d.-Spree (Saxony).—Beck, R.,
1.
- Soils, analysis of.—Gans, R., 1.
- , Bohemia.—Hanamann, J., 1.
- , Cheshire.—Edwards, W., 2.
- , Dominica (W.I.).—Morris, Sir D.,
1.
- , Dublin Co.—Lamplugh, G. W.,
6.
- , Egypt.—Lucas, A., 1.
- , electrical resistance of.—Angelis
d'Ossat, G. de, 1.
- , forestry &.—Bradfer, R., 1.
- , freezing of.—Bunge, —, 1.
- , frost &.—Roberts, M., 1.
- , humus &.—Hardy, M., 1.
- , Hungary.—Horusitzky, H., 1 & 2;
Treit, P., 1-3; Timko, E., 1.
- Soils, Ille-et-Vilaine. — Lechartier, G.,
1.
- , Maryland.—Clark, W. B., 3 & 4.
- , mechanical analysis of.—Schlög-
sing, T., Sen., 1; Vinassa de Regny,
P., 3.
- , Nebraska.—Barbour, E. H., 1.
- , nitrogen &c. in.—Miller, N. H. J.,
1.
- , Siberian frozen.—Tolmashev, I. P.,
1.
- , Umbria.—Bortolotti, C., 1.
- Sokotra I. (Gulf of Aden).—Blanford,
W. T., 2; Kosmat, F., 1.
- Solariaæ.—Seguenza, L., 3.
- Solda Valley (Lombardy).—Bistram, A.
von, 1 & 2.
- Sölden (Tyrol).—Hess, H., 2.
- Solen & Solenocurtus*.—Dollfus, G. F.,
6.
- Solenomorpha*.—Hind, W., 1.
- Solenopora*.—Maplestone, C. M., 1.
- Solenopsis*.—Cockerell, T. D. A., 1;
Hind, W., 1; *see also Solenomorpha*.
- Sologne (Orléanais).—Dollfus, G., 1;
Grossouvre, A. de, 4.
- Somaliland (Africa).—Arsандаux, H., 1.
- Somerset.—Reid, C., 2; Small, E. W.,
1; Vaughan, A., 2.
- Somerville (Mass.).—Palache, C., 1.
- Somme R. (France).—Bardou, —, 1.
- Sonninia*.—Burckhardt, C., 1.
- Sonnwendgebirge (Tyrol).—Ampferer,
O., 1.
- Sonora (Mex.).—Weed, W. H., 2.
- Sopra, Forni di (Carinthia).—Angelis
d'Ossat, G. de, 5.
- Sösdala (Scania).—Kjellén, R., 3.
- Soufrière, La (Guadeloupe).—Lacroix,
A., 5.
- (St. Lucia).—Sapper, K., 5.
- (St. Vincent).—Anderson, T., 1-5;
Howe, E., 1; Klein, C., 1; Lacroix,
A., 6, 8, & 9; *see also* St. Vincent, &c.
- Southport (Lancs.).—Lomas, J., 2.
- SOWERBY'S types.—Healey, M., 1.
- Spain.—Caralp, J., 2 & 3; Maestre, A.,
1; Sauvage, H. E., 1 & 2; Woodward,
A. S., 4; Zeiller, R., 2; *see also*
Catalonia, &c.
- Spalato (Dalmatia).—Kerner, F., 2-4.
- Spalax*.—Nehring, A.
- SPALLANZANI, L. *See* Capellini, G., 2.
- 'Spalte.' *See* Valleys, rift-.
- Spanish Peak (Cal.).—Lawson, A. C., 2.
- Sparnacian, Belgium.—Van Ertborn, O.,
2.
- Sparth (Lancs.).—Baldwin, W., 2.
- Spathic iron-ore, Styria.—Taffanel, J., 1.
- Specific gravity. *See* Gravity.
- Sperrylite.—Goldschmidt, V., 2; Nicol,
W., 1.
- Spezia (Liguria).—Capellini, G., 2; Cle-
rici, E., 1; Pellati, N., 1.
- Sphaerocystites*.—Schuchert, C., 5.
- Sphaeroloculina*.—Schick, T., 1.
- Sphaerulites*.—Dacqué, E., 1; Hilber, V.,
1.

- Sphenia*.—Dollfus, G. F., 6.
Sphenodiscus.—Solger, F., 1.
Sphenophyllum.—Nathorst, A. G., 1.
Sphenopteris.—Seward, A. C., 2; Zeiller, R., 2.
Sphenotus.—Drevermann, F., 2; Maurer, F., 1.
Sphenozamites.—Compter, G., 1.
 Spherulitic structure, St. Minver coast.—Fox, H., 2.
 Spielgarten (Baden).—Keidel, H., 1.
Spirangium.—Sauvage, H. E., 2.
Spirifer.—Ehlert, D. P., 1; Tchernyshev, T., 1; Walther, K., 1; Weller, S., 2.
Spiriferina.—Bittner, A., 1; Tchernyshev, T., 1.
Spirigera.—Bittner, A., 1.
Spiroculina & *Spiropecta*.—Liebus, A., 2.
 Spitsbergen (Arctic).—Baun, A., 1; Kayser, E., 1; Yakovlev, N., 2.
 Spizza (Dalmatia).—Bukowski, G. von, 1.
 Spodumene.—Kunz, G. F., 4; Pettard, W. F., 1; Schaller, W. T., 1.
Spondylus.—Dacqué, E., 1; Shattuck, G. B., 1.
 Sponge-gravel, Faringdon.—Lamplugh, G. W., 1.
 Sponges, Cretaceous.—Ungern-Sternberg, E. von, 1.
 —, geological zones &.—Goodchild, J. G., 4.
 —, Jurassic.—Bistram, A. von, 1.
 —, Silurian.—Perkins, G. H., 1; Weller, S., 2.
 Spores, Carboniferous plant.—Sellards, E. H., 2.
Stachyotaxus.—Møller, H., 1.
 Stafford Limestone, N.Y.—Talbot, M., 1.
 Staffordshire.—Anon., 28; Barrow, G., 1; Cadman, J., 1; Elsdon, J. V., 8; Hind, W., 6 & 7; Stobbs, J. T., 1 & 3; Turner, E. P., 1.
 Stansfield (Suffolk).—Whitaker, W., 1.
 Stanton-Harcourt (Queensl.).—Ball, L. C., 1.
 Start Point (Devon).—Hunt, A. R., 1.
 Stassfurt (Germany).—Læwe, L., 1; Ochsnius, C., 3; Van't Hoff, J. H., 1-5.
Stegaster.—Airaghi, C., 2.
Stegoceras.—Lambe, L. M., 2; Nopčsa, F. von, Jun., 5; Osborn, H. F., 4.
Stegosauria.—Lucas, A., 6.
Stegotherium.—Scott, W. B., 1.
 Steinheim (Würt.).—Fraas, E., 3.
Steneofiber.—Depéret, C., 3.
Steneosaurus.—Thévenin, A., 1.
Stenogyra.—Felix, J., 2.
Stenomelopon.—Boulenger, G. A., 1.
Stenonia.—Gauthier, V., 1.
Stenorrachis.—Nathorst, A. G., 2.
Stenosmia.—Felix, J., 2.
Stenotatus.—Scott, W. B., 1.
Stephanocare.—Monke, H., 1.
Stereocephalus.—Lambe, L. M., 2; Osborn, H. F., 4.
Stereogenys.—Andrews, C. W., 1.
Stethacanthus.—Eastman, C. R., 1.
 STEVENSON, J. See *Obit.*, Lapworth, C., 1.
 Stibiodomeykite.—König, G. A., 1.
Stigmaria.—Poole, H. S., 1.
 Stilbite.—Focke, F., 1.
 Still Rivers (Conn.).—Hobbs, W. H., 3.
 Stolzite.—Florence, W., 1.
Stomechinus.—Gauthier, V., 2.
 Stone-implements, nephrite.—Wolff, F. von, 2; see also *Implements*.
 —fall, Commission, Prussia. See *Coal-fall*.
 —, fireclay with waterworn. — Sutcliffe, R., 1.
 — industries, Paris Exhibition, 1900. — Schafarzik, F., 7.
 Stonyhurst (Laucs).—Hind, W., 1.
 STOPES, H. See *Obit.*, Anon., 12.
 Storeton Hill (Cheshire).—Beasley, H. C., 2.
 Stow-on-the-Wold (Gloucester).—Richardson, L., 4.
 Stramberg (Moravia).—Remeš, M., 1; Steinmann, G., 4 & 5.
 Strasburg (Alsace).—Gerlaud, G., 1 & 3; Montessus de Ballore, F. de, 4; Weigand, B., 1.
 Strata, movements of, Dorset.—Darwin, H., 1.
 Strathy Point (Sutherland).—Greenly, E., 1.
 Stratified siliceous rocks, origin of.—Meunier, S., 1.
 Stratigraphical classification.—Prosser, C. S., 2; Safford, J. M., 1.
Streblodus.—Eastman, C. R., 1.
Streblopteria.—Drevermann, F., 2; Yakovlev, N., 4.
Strophochetus.—Perkins, G. H., 1.
 Stretto (Dalmatia).—Schubert, R. J., 1-3.
Striastæonina.—Chartron, C., 1.
Striatopora.—Penecke, K. A., 1.
 Striegau (Styria).—Sachs, A., 1.
 Stripåsen (Svealand).—Tenow, O., 1.
Strobilus.—Førster, B., 5.
Strombus.—Cossmann, M., 1.
 Stromeyerite.—Pettard, W. F., 1.
 Strontianite.—Pratt, J. H., 12; Popov, S. P., 1.
 Strontium-ores, U.S.A.—Day, D. T., 1.
Stropheodonta.—Chapman, F., 1; Weller, S., 2.
Strophomena.—Nickles, J. M., 1.
Struthiosaurus.—Nopčsa, F. von, Jun., 2.
Sturia.—Airaghi, C., 1.
Stylocenia.—Osasco, E., 1.
 Stylolites.—Reis, O. M., 1.
Stylophora.—Osasco, E., 1.
Stylophyllopsis.—Bistram, A. von, 1.
 Styria (Austria).—Dreger, J., 1; Hernes, R., 1 & 7; Laska, W., 1; Redlich, K. A., 1; Taffanel, J., 1.

- Succinea*.—Wuest, E., 3 & 4.
 Suczava (Moldavia).—Butureanu, V. C., 1.
 Sudan (N. Africa).—Cohen, E., 2; Haug, E., 3; Lacoïn, —, 1; Lapparent, A. de, 2, 6, 7 & 8; Linck, G., 6.
 Sudbury (Ont.).—Dickson, C. W., 1.
 Suez, Isthmus of.—Fourteau, R., 4.
 Suffolk.—Bassett, H., Jun., 1; Jukes-Browne, A. J., 3; Monckton, H. W., 5; Whitaker, W., 1.
 Sulphate of iron.—Scharizer, R., 1.
 Sulphur, Chile.—Salcedo, J. V., 1.
 —, crystallization of.—Baumhauer, H., 1.
 —, Paris, native.—Meunier, S., 3.
 —, Russia.—Shklyarevski, A., 1; Vernadski, V. S., 1.
 —, Siena.—Pantanelli, D., 1.
 — springs, Dominica.—Sapper, K., 8; Sta. Lucia.—Sapper, K., 5.
 Sulz unterm Wald (Alsace).—Herrmann, A., 1.
 Sulza (Thuringia).—Henkel, L., 2.
 Sumatra (D. E. I.).—Neeb, E. A., 1; Truscott, J., 1.
 Summit Co. (Colo.).—Lakes, A., 1.
 Sundgau (Alsace).—Förster, B., 1-3; Klöhn, G., 1.
 Sunspots, volcanic eruptions &.—Jensen, H. I., 1.
 Superior, Lake (N. Am.).—Birkinbine, J., 1; Grant, U. A., 1; Vattier, C., 1.
 Surinam (Dutch Guiana).—Du Bois, G. C., 1.
 Surrey.—Coomáráswamy, A. K., 3; Monckton, H. W., 3 & 5.
 Surveys. See Geological Surveys.
 Sussex.—Dawson, C., 1; Dixon, H. B., 1; Monckton, H. W., 5; Reid, C., &c., 5 & 6; Thorpe, T. E., 1; Woodward, H. B., 11.
 Sutherland.—Goodchild, J. G., 11; Greenly, E., 1.
 Sutherland Division (Cape Colony).—Rogers, A. W., 5.
 Sutlej Valley (Himalayas).—McMahon, C. A., 1 & 3.
 Svappavaara (Norrbotten).—Launay, L. de, 4.
 Svealand (Sweden).—Sernander, R., 3; Tenow, O., 1.
Sveltia.—Cossmann, M., 2.
 Swabia.—Schick, T., 1; Schmierer, T., 1.
 Sweden.—Andersson, G., 1; Kjellén, R., 1-3; Lagerheim, G., 1 & 2; Munthe, H., 2; Sernander, R., 1-3; maps of, 1600-1850.—Lønborg, S., 1; see also Scandinavia, &c.
 Swedish Antarctic Expedition.—Andersson, G., 3.
 Swellendam (Cape Colony).—Rogers, A. W., 2.
 Switzerland.—Burcart, E., 1; Käch, M., 1; Lugeon, M., 1 & 3-5; Muehlberg, 1-3; Preller, C. S. du R., 1; Rollier, L., 1 & 3; Schardt, H., 6; Schmierer, T., 1.
 Sydenham (Victoria, Austral.).—Hart, T. S., 1.
 Sydney (N.S.W.).—Mingaye, J. C. H., 3.
 Syenite, Canada.—Adams, F. D., 3; Miller, W. G., 1.
 —, Charnwood.—Watts, W. W., 1; Woodward, H. B., 6.
 —, Crete.—Cayeux, L., 4.
 —, Tasmania.—Twelvetrees, W. H., 12.
 —, Tyrol.—Ippen, J. A., 6; Romberg, J., 1.
 Sylt (Frisian Is.).—Martin, J., 1; Petersen, J., 1.
Sylvana-limestone. See *Helix*.
Synecyclonema.—Etheridge, R., Fil., 2; Hind, W., 4.
 Syria (Asia Minor).—Blanckenhorn, M., 2 & 4; Hilber, V., 1.
 Szeged (Hungary).—Treitz, P., 2.
 Taberg (Norrbotten).—Launay, L. de, 4.
 Table Mt. (Cape Colony).—Anon., 36.
 Taconic Range (N. Y., Vermont, &c.).—Hobbs, W. H., 6.
 Tacora (Chile).—Salcedo, J. V., 1.
Teniopteris.—Zeiller, R., 1.
 Tagliacozzo (Abruzzi).—Cassetti, M., 1.
 Tainton Downs (Oxon).—Walford, E. A., 1.
 Talabor Valley (Hungary).—Posewicz, T., 1.
 Talc, United States.—Pratt, J. H., 4.
 Taminite.—Popov, S. P., 3.
 Taminick (Victoria).—Kitson, A. E., 2.
 Tanganyika, Lake (Equatorial Africa).—Blanford, W. T., 1; Mennell, F. P., 3; Moore, J. E. S., 1.
Tapirus.—Ameghino, F., 2.
 Tarascon-sur-Ariège (Ariège).—Carez, L., 7.
 Tarija Valley (Buenos Aires).—Ameghino, F., 2; Nordenskjöld, E., 1 & 2.
 Tarkwa (Gold Coast).—Sawyer, A. R., 6.
 Tarn-et-Garonne (France).—Martel, E. A., 5.
 Tarnócz (Hungary).—Koch, A., 4.
 Tasmania.—Coghlan, T. A., 1; Gregory, J. W., 1 & 4; Hall, T. S., 1; Pettard, W. F., 1; Stephens, T., 1; Stewart, H., 1; Twelvetrees, W. H., 1-12; Waller, G. A., 1-4.
 Tatarka R. (Siberia).—Meister, A., 1.
 TATE, R. See *Obit.*, Hutton, F. W., 1.
Tatella.—Etheridge, R., Fil., 2.
 Tatra Mts. See Carpathians.
 Tauern, Hohe (Tyrol).—Termier, P., 6.
 Tauern Tunnel (Tyrol).—Berwerth, F., 3.
 Taunus Mts. (Germany).—Buecking, H., 5; Delkeskamp, R., 1; Reinach, — von, 1.
 Taurida (S. Russia).—Sokolov, N., 1.
 Taurus Mts. (Anatolia).—Penecke, K. A., 1; Schaffer, F. X., 1-3.
 Tay Basin (Scotland).—Murray, Sir J., 1.
Tarites.—Møller, H., 1.

- Taxodium*.—Knowlton, F. H., 1.
 Tchad, Lake (Sudan).—Lacoin, —, 1.
 Tea-Green Marls, Keuper age of.—Richardson, L., 2.
 Teesdale (Durham, &c.).—Clough, C. T., 1; P'Anson, J. C., 1.
 Teeth, Jurassic reptilian.—Gilmore, C. W., 1.
Tegulifera.—Tchernyshev, T., 1.
 Tehuelche system, Patagonia.—Ameghino, F., 6.
 Teign Valley (Devon).—Lowe, H. J., 1; Somervail, A., 1.
Teinistion.—Monke, H., 1.
 Telek Alsó (Hungary).—Halaváts, J., 1.
Tellina.—Casey, T. L., 1.
 Tellina Valley (Lombardy).—Brugnattelli, L., 1; Hammer, W., 1; Hecker, O., 2.
 Telluride (Colo.).—Lay, H. C., 1.
 Tellurides, W. Australia.—Spencer, L. J., 1.
Telmatosaurus.—Nopčsa, F. von, Jun., 4.
Temnocheilus.—Franz, V., 1.
 Tennantite.—Pettard, W. F., 1.
 Tennessee (U.S.A.).—Første, A. F., 2 & 3; Kemp, J. F., 3; McCallie, S. W., 1; Safford, J. M., 1 & 2.
Teratorhynchus.—Reed, F. R. C., 15.
 Tercis (Landes).—Arnaud, H., 1.
Terebratulina.—Antula, J., 1; Bittner, A., 1; Gortani, M., 3; Lamplugh, G. W., 1.
 ———limestone, Sokotra.—Kossmat, F., 1.
Terebratulina.—Kossmat, F., 1.
Terebratuloidea.—Tchernyshev, T., 1.
 Terlingua (Tex.) & Terlinguaite.—Moses, A. J., 1.
 Terneuzen (Flanders).—Brouwer, M. de, 1.
 Terni (Umbria).—Lotti, B., 1.
 Terraces, Klamath Region.—Hershey, O. H., 2; Séreth Valley.—Sevastos, R., 3.
 ———river.—Hershey, O. H., 5; Mills, F. S., 2.
Terrapene.—Hay, O. P., 1.
 Tertiary, Algeria.—Ritter, É., 1.
 ———, Alpes-Maritimes.—Riaz, A. de, 2.
 ———, Alsace-Lorraine.—Andree, A., 1-5; Førster, B., 1, 2; Herrmann, A., 1.
 ———, Argentina.—Ameghino, F., 2.
 ———, Asia Minor.—Schaffer, F. X., 1-3; Toulou, F., 1.
 ———, Austria (Lr.).—Abel, O., 3; Fuchs, T., 1-5.
 ———, Baluchistan.—Nötling, F., 1.
 ———, Bavaria.—Blanckenhorn, M., 1.
 ———, Belgium.—Forir, H., 1; Rutot, A., 4; Seward, A. C., 5; Van Értborn, O., 1 & 6.
 ———, Berkshire.—Blake, J. H., 1; Monckton, H. W., 5.
 ———, Brittany.—Kerforne, F., 3; Lebesconte, P., 1.
 ———, California.—Lucas, F. A., 7.
 Tertiary, Cameroons.—Oppenheim, P., 1.
 ———, classification of.—Dollfus, G. F., 3.
 ———, Crete.—Cayeux, L., 3.
 ———, Croatia.—Gorjanovič-Kramberger, K., 2.
 ———, Dakota.—Lucas, F. A., 3.
 ———, Egypt.—Blanckenhorn, M., 2; Pachundaki, D. E., 1; Stromer, E. von, 2.
 ———, Florida.—Dall, W. H., 3.
 ———, Galicia.—Rzehak, A., 1; Szajnocha, W., 1.
 ———, Hauts Basin.—Ormerod, H. A., 1.
 ———, Hungary.—Lœrenthey, E., 1; Tegled, L. R. von, 1.
 ———, Italy.—Fornasini, C., 1; Nelli, B., 1; Stefano, G. de, 4; Viola, C., 1; see also Piedmont, &c.
 ———, Karikal.—Cossmann, M., 2.
 ———, land-mollusca, Oppeln.—Michael, R., 2.
 ———, Lombardy.—Salmogrighi, F., 1.
 ———, Mainz.—Schuster, W., 1; Steuer, A., 2.
 ———, Maryland.—Clark, W. B., 4.
 ———, Meiningen.—Wuest, E., 5.
 ———, Mississippi, &c.—Dall, W. H., 1-3; Hilgard, E. W., 1; Smith, E. A., 2.
 ———, Montana.—Rowe, J. P., 1.
 ———, Moravia.—Fuchs, T., 4.
 ———, New England Plateau (N.S.W.).—Andrews, E. C., 1.
 ———, Norfolk, &c.—Elsden, J. V., 5; Monckton, H. W., 5; Rutot, A., 4.
 ———, Oregon.—Washburne, C., 1.
 ———, Paris Basin.—Dollfus, G. F., 5; Leriche, M., 3; Ramond, G., 2.
 ———, Patagonia.—Ameghino, F., 6; Tournouër, A., 1.
 ———, Persia.—Douvillé, H., 2.
 ———, Piedmont.—Patrini, P., 1.
 ———, Podolia.—Venukov, P. I., 1.
 ———, Provence.—Depéret, C., 2.
 ———, Rumania.—Angelis d'Ossat, G. de, 7; Sevastos, R., 1; Simionescu, J., 1.
 ———, Sardinia.—Dainelli, G., 3.
 ———, Servia.—Pavlov, P. S., 1 & 2.
 ———, Sicily.—Seguenza, L., 1-3.
 ———, Slavonia.—Pavlov, P. S., 1.
 ———, Styria.—Hernes, R., 1.
 ———, Sudan.—Lapparent, A. de, 2 & 8.
 ———, Suffolk.—Bassett, H., Jun., 1.
 ———, Surrey.—Monckton, H. W., 3 & 5; Rutot, A., 4.
 ———, Switzerland.—Gerber, E., 1; Rollier, L., 3; Stehlin, H. G., 1.
 ———, Tunisia.—Pervinquière, L., 1.
 ———, Tuscany.—Ugolini, R., 1 & 3.
 ———, Tyrol.—Dreger, J., 2.
 ———, Umbria.—Verri, A., 1.
 ———, Vaucluse.—Châtelet, C., 1.
 ———, Venetia.—Gortani, M., 1-3; Oppenheim, P., 6; Patrini, P., 1.
 ———, Victoria (Austral.).—Dennant, J., 3; Pritchard, G. B., 1.
 ———, Vienna Basin.—Fuchs, T., 6.
 ———, See also Miocene, &c.

- Testudo*.—Andrews, C. W., 5; Færster, B., 5 & 7; Hay, O. P., 1.
- Tetragonites*.—Yabe, H., 1.
- Tetrahedrite.—Pettard, W. F., 1; Schweitzer, J., 1.
- Tetraplopora*.—Steinmann, G., 5.
- Teutoburg Forest (Germany).—Stille, H., 2.
- Towkesbury (Gloucester).—Richardson, L., 5.
- Texas (U.S.A.).—Case, E. C., 1 & 2; Eldridge, G. H., 1; Hill, B. F., 1; Kilian, W., 3; Lucas, A. F., 1; Matthew, W. D., 1; Shattuck, G. B., 1; Stanton, T. W., 1; Sternberg, C. H., 1 & 2; Stæk, H. H., 1; Taff, J. A., 1; Whitfield, R. P., 1.
- Textularia*.—Fornasini, C., 1.
- Thecosiphonia-nobilis* zone.—Schrammen, A., 1.
- Thalassemys*.—Fraas, E., 2.
- Thalassochelys*.—Stefano, G. de 2.
- Thames R. (England).—Fitzmaurice, M., 1; Haige, A. H., 1; Thames Valley.—Kennard, A. S., 2; Newton, E. T., 2; Pocock, T. I., 1; Warren, S. H., 1.
- Thamnastræa*.—Felix, J., 2.
- Thamnophyllum*.—Penecke, K. A., 1.
- Thebes (Egypt).—Oppenheim, P., 3.
- Theocyrtina* & *Theospira*.—Bittner, A., 1.
- Thecosmia*.—Osasco, E., 1.
- Theford (Ont.).—Shimer, H. W., 1.
- Theralite.—Bauer, F., 1.
- Theriodontia, Triassic.—Broom, R., 1.
- Thermal conductivity, rock.—Peirce, B. O., 1.
- waters, Carlsbad. — Prinz, W., 1 & 3; earth's crust &.—Hoffmann, J. F., 1.
- Theux (Liège).—Fourmarier, P., 1 & 3.
- THIM, J. VAN S. *See* *Obit.*, Firket, A., 1.
- Thinnfeldia*.—Etheridge, R., Fil., 1.
- Thomsonite.—Schaleh, F., 1.
- Thorium-minerals.—Barker, G. F., 1.
- Thornwick Bay (Yorks).—Richardson, H., 1.
- Thracia*.—Dollfus, G. F., 6.
- Thuites*.—Knowlton, F. H., 1.
- Thunder Mts. (Idaho).—L'Haine, W. E., 1.
- Thuringia (Germany).—Henkel, L., 2 & 3; Kolesch, K., 1; Luedecke, O., 1; Oehsenius, C., 1; Schuetze, E., 1; Wuest, E., 3, 4, & 5; Zimmermann, E., 1 & 2.
- Thylax*.—Renault, B., 4.
- Tian-Shan Mts. (Central Asia).—Friedrichsen, M., 2.
- Tibet (Asia).—Futterer, K., 2.
- Ticino (Switzerland).—Bistram, A. von, 1 & 2.
- Tiflis Gov. (Russia).—Mushketov, J., 1.
- Timan Mts. (Russia).—Tchernyshev T., 1.
- Tim, Australia (W.).—Krusch, P., 1.
- Tim, Britanny.—Kerforme, F., 5.
- , Celebes.—Koperberg, M., 1.
- , Cornwall.—Flett, J. S., 1.
- , Malay Peninsula.—Penrose, R. A. F., Jun., 1.
- , Queensland.—Cameron, W. E., 1.
- , Sumatra.—Neeb, E. A., 1.
- , tourmaline &. — MacAlister, D. A., 1.
- Tinguaite, Tyrol.—Ippen, J. A., 1.
- Tintagel Head (Cornwall).—Parkinson, J., 1.
- Tiree (Hebrides).—Coomaraswamy, A. K., 4.
- Tirerrill (Sligo).—Cole, G. A. J., 6 & 7.
- Tirliau (Ufa Gov.).—Kovalev, P., 1.
- Tissotia*.—Dacqué, E., 1.
- Tisza R. (Hungary).—Treitz, P., 2.
- Titaniferous iron-sand, Caernarvon. — Cope, T. H., 1.
- minerals, rocks with.—Thuerach, H., 1.
- pyroxene.—Winchell, A. N., 4.
- Titanite.—Beris, G., 1; Zambonini, F., 3.
- Titanium-ores, United States.—Day, D. T., 1; Snelling, W. O., 1.
- Titano, Mte. (Lombardy).—Salmojrighi, F., 1.
- Titanomys*.—Depéret, C., 3.
- Titanotheres, extinction of.—Andrews, C. W., 2.
- , Oligocene.—Osborn, H. F., 2.
- Tithonian, Moravia. — Remeš, M., 1; Steinmann, G., 4 & 5.
- Tmetoceras*.—Burckhardt, C., 1.
- Toadstone-bed, Derbyshire.—Moore, S., 1.
- Toarcian, Worcestershire.—Buckman, S. S., 1 & 2; Hull, F., 1.
- Todea*.—Seward, A. C., 6.
- Tokyo (Japan).—Omori, F., 3 & 4.
- Tollesbury (Essex).—Holmes, T. V., 3.
- Tomsk (Siberia). — Kaschen, N., 1; Peetz, H. von, 1; Tanfiliev, G. I., 1.
- Tonalites, Lombardy.—Salomon, W., 1.
- Tonga Group (Pacific).—Skeats, E. W., 1.
- Tongrian, Belgium.—Forir, H., 1.
- , Britanny.—Bézier, T., 1.
- Topangalva (Hungary).—Pálffy, M. von 1.
- Tor Bay (Devon).—Hunt, A. R., 8.
- Torbernite.—Buchholz, Y., 1.
- Torda (Transylvania).—Gesell, A., 1.
- Toretocnemus*.—Merriam, J. C., 1.
- Torishima (Japan).—Kutschera, M., 1.
- Tornea Lake (Norrbotten).—Holmquist, P. J., 2; Tørnebohm, A. E., 1.
- Tornoceras*.—Smith, J. P., 1.
- Toroczko (Transylvania). — Telegd, L. R. von, 1.
- Torreglia (Venetia).—Squinabol, S., 2.
- Torrionian, I. of Rum.—Harker, A., 2.
- Tortoises, Tertiary.—Andrews, C. W., 5; Lydekker, R., 1; Sinclair, W. J., 1; *see also* Chelonia.
- Touat (Algeria).—Flanand, G. B. M., 1.

- Toulon (Provence).—Répin, J., 1.
Toulouse (Languedoc).—Michel-Lévy, A., 1.
Touraine (France).—Lambert, J., 2.
Tourmaline, Dartmoor.—Worth, R. H., 1; Scotland.—Goodchild, J. G., 7; Tasmania.—Waller, G. A., 4.
—, tin &.—MacAlister, D. A., 1.
Tournai (Hainault).—Delépine, G., 2; Leriche, M., 2.
Towan Head (Cornwall).—Johnson, J. P., 1; Kennard, A. S., 1.
Towaster.—Loriot, P. de, 2; Pellat, E., 2.
Trachodon.—Osborn, H. F., 4.
Trachyceras.—Airaghi, C., 1.
Trachydolerite, Tasmania.—Twelvetrees, W. H., 1.
Trachypora.—Weller, S., 2.
Trachyte, New South Wales.—Andrews, E. C., 2; Card, G. W., 3.
Tracks, worm-, &c.—Ami, H. M., 3; Bonney, T. G., 2 & 6; Walther, J., 1.
Transkei District (Cape Colony).—Rogers, A. W., 3 & 6.
Transported gravel, Baltic coast.—Geinitz, E., 2.
Transvaal (S. Africa).—Black, W. G., 1; Hammond, J. H., 1; Hatch, F. H., 1 & 2; Sawyer, A. R., 1, 3, 4, & 5; Weldon, H., 1 & 2.
Transylvania (Hungary).—Gesell, A., 1; Nopcsa, F. von., Jun., 1; Pálffy, M. von., 1; Telegd, L. R. von., 1; Ver-nadski, V. S., 3.
Trau (Dalmatia).—Kerner, F. von., 6.
Tredorn Beds, Cornwall.—Parkinson, J., 1.
Tree in a Colorado fissure-vein, 1000 ft. deep.—Lakes, A., 9.
Treisa (Hesse).—Chelius, C., 1.
Tremadoc (Merioneth).—Fearnside, W. G., 1.
Trenton (N.J.).—Hrdlička, A., 1.
—, Limestone, Ottawa.—Whiteaves, J. F., 1.
Trienoceras.—Drevernann, F., 3.
Trias, Alsace-Lorraine.—Fliche, P., 4; Meyer, G., 1; Schaller, J., 1; Schumacher, E., 4; Steur, A., 1.
—, Ariège.—Carez, L., 4.
—, Bavaria.—Henkel, L., 3.
—, Biarritz.—Carez, L., 6; Scunes, J., 1.
—, Bosnia.—Bittner, A., 1.
—, California.—Merriam, J. C., 1.
—, Carnic Alps.—Tommasi, A., 1.
—, China.—Schellwien, E., 1.
—, Crete.—Cayeux, L., 6.
—, Dakota.—Richardson, G. B., 1.
—, Dalmatia.—Bittner, A., 1; Kittl, E., 1.
—, Devon.—Bonney, T. G., 7; Somervail, A., 2 & 3.
—, Elgin.—Boulenger, G. A., 1.
—, Franche Comté.—Piroutet, M., 2.
—, Hungary.—Papp, C., 1.
—, Leicester.—Fox-Strangways, C., 1; Watts, W. W., 1.
Trias, Naumburg.—Henkel, L., 1.
—, New England.—Hobbs, W. H., 6.
—, occurrence of.—Frech, F., 1.
—, Oregon.—Washburne, C., 1.
—, Sardinia.—Lovisato, D., 3.
—, Servia.—Eletz, V. M., 1.
—, Thuringia.—Henkel, L., 2 & 3; Kolesch, K., 1; Ochsenius, C., 1.
—, Tunisia.—Pervinguière, L., 1.
—, Tuscany.—Angelis d'Ossat, G. de, 3; Fucini, A., 3.
—, United States.—Hobbs, W. H., 3.
—, Venetia.—Bittner, A., 1; Oppenheim, P., 6.
—, *See also* Keuper, Rhatic, &c.
Triassic fossils, Nova-Scotian boulder-clay with.—Haycock, E., 1.
—, landscape, buried, Charnwood.—Watts, W. W., 1; Woodward, H. B., 6.
—, pebble-beds, S. Devon & Midlands.—Hunt, A. R., 5; Shrubsole, O. A., 1.
Trienbach (Alsace-Lorraine).—Zeiller, R., 1.
Trient (Tyrol).—Dal Piaz, G., 1 & 2; Oppenheim, P., 6; Tietze, E., 4.
Triest (Austria).—Mazelle, E., 1.
Trigonia.—Burckhardt, C., 1; Etheridge, R., Fil., 2; Kitchin, F. L., 1; Lucas, F. A., 3; Newton, R. B., 1; Paulcke, W., 1; Shattuck, G. B., 1.
Trigonostoma.—Cossmann, M., 2.
Trilobites, Cambrian.—Etheridge, R., Fil., 1; Monke, H., 1; Weller, S., 2; Woodward, H., 7.
—, Carboniferous.—Illés, V., 1; Parkinson, H., 1; Reed, F. R. C., 2.
—, Devonian.—Drevernann, F., 2; Maurer, F., 1; Walther, K., 1; Weller, S., 2; Woodward, H., 1.
—, eyes of.—Spencer, W. K., 1.
—, Silurian.—Hall, T. S., 2; Moberg, J. C., 1; Reed, F. R. C., 1 & 5; Weller, S., 2.
Trinidad (Colo.).—Hill, R. T., 1.
Trinidad (W.I.).—Anon., 20; Gordon, J. W., 1; Guppy, R. J. L., 1.
Trinucleus.—Reed, F. R. C., 5.
Triumphalia.—Dollfus, G. F., 6.
Trionyx.—Lerenthey, E., 2; Rutot, A., 5.
Triplite.—Nordenskjöld, I., 1.
Trocharion & Trochictis.—Major, C. I. F., 1.
Trochidæ.—Seguenza, L., 3.
Trochocyathus.—Felix, J., 2; Oppenheim, P., 6.
Trochosaris.—Osasco, E., 1.
Trochosmita.—Felix, J., 2; Shattuck, G. B., 1.
Trochus.—Dainelli, G., 3; Shattuck, G. B., 1; Wollemann, A., 1.
Troitsk (Urals).—Duparc, L., 4.
Tropea (Calabria).—Lojacono, M., 1.
Tshelekenj I. (Caspian Sea).—Shklyarevski, A., 1.
Tubulostium.—Weller, S., 1.
Tuff, Italy.—Fantappiè, L., 1.

- Tuff, St. Vincent.—Howe, E., 1.
 —, Württemberg.—Eudriss, K., 1.
 Tuli (Rhodesia).—Molyneux, A. J. C., 1.
 Tullu (Lr. Austria).—Abel, O., 3.
 Tullstorp (Scania).—Holst, N. O., 1.
 Tumilat, Wadi (Egypt).—Lucas, A., 1.
 Tumkar (Mysore).—Primrose, A., 1;
 Wetherell, E. W., 3.
 Tungsten.—Hobbs, W. H., 1; Pratt, J. H., 3.
 Tunisia (N. Africa).—Meunier, S., 16;
 Pervinquière, L., 1; Stefano, G. de, 2;
 Termier, P., 2.
 Tunnel, Baker Street-Waterloo Railway.
 —Haige, A. H., 1; Ligurian Apennine.
 —Rovereto, G., 1; Meudon.—Ramond,
 G., 1; Simplon.—Giménez, J. V., 1;
 Schardt, H., 2; Tauern.—Berwerth,
 F., 3; Tauus.—Reinach, — von, 1.
 Turgite.—Samoilov, J., 4.
 Turin-Savona Railway (Piedmont &
 Liguria).—Sacco, F., 2.
 Turkestan (Asia).—Levat, E. D., 1 & 2.
 Turkey (European).—Gounot, A., 1;
 Hilber, V., 2; Hørnes, R., 3; Peucker,
 K., 1; Vinassa de Regny, P., 2.
 Turnerite.—Pohl, O., 1.
 Turonian, Egypt.—Fourtau, R., 3.
Turritella.—Cossmann, M., 1; Shattuck,
 G. B., 1.
 Turtle Mt. (Alberta Terr.).—Brewer, W. M., 2; Lakes, A., 11.
 Turtles, Tertiary.—Hay, O. P., 3.
 Tuscany.—Angelis d'Ossat, G. de, 3;
 Barsanti, L., 1; Clerici, E., 1 & 2;
 —Dainelli, G., 1; Elsdén, J. V., 9;
 Fucini, A., 1 & 3; Lotti, B., 2 & 3;
 Pantanelli, D., 1; Regàlia, E., 1;
 Ristori, G., 1; Sacco, F., 3; Trabucco,
 G., 1; Ugolini, R., 1 & 3; Verri, A.,
 3, 4, & 6; Zambonini, F., 4.
 Tweed Valley.—Goodchild, J. G., 2.
Tympanotomus.—Hærnes, R., 1.
 Types, D'ARCHIAC.—Thévenin, A., 2.
 —, Geol. Soc. Mus.—Blake, J. F., 1.
 —, refigured.—Ehlert, D. P., 2.
 —, SOWERBY'S.—Healey, M., 1.
Typha.—Engelhardt, H., 1.
Typhis.—Cossmann, M., 2.
Tyroglyphites.—Pampaloni, L., 1.
 Tyrol (Austria).—Ampferer, O., 1, 2, &
 3; Blaas, J., 1; Dal Piaz, G., 1;
 Dreger, J., 1; Fabian, K., 1; Frech,
 F., 1; Geyer, G., 1 & 2; Gordon,
 M. M. O., 1; Greim, G., 1; Guen-
 ther, S., 1; Hammer, W., 2; Hess, H.,
 2; Hezner, L., 1; Ippen, J. A., 1-7;
 Kossmat, F., 2; Oppenheim, P., 6;
 Pohl, O., 1; Romberg, J., 2; Tietze,
 E., 4; Termier, P., 6; Weinschenk,
 E., 2 & 8; Wolff, F. von, 1.
 Tyson, J. W. *See Obit.*, Glenn, W., 1.
 Ufa Gov. (Russia).—Kovalev, P., 1.
 Uganda (Equatorial Africa).—Prior, G. T., 2.
 Uinta Co. (Wy.).—Knight, W. C., 1.
 Uitenhage Series.—Seward, A. C., 2.
 Uhn a. D. (Würt.).—Gerhardt, K., 1.
Ulmus.—Engelhardt, H., 1; Knowlton,
 F. H., 1.
Ulophylia.—Osasco, E., 1.
Ulrichiana.—Jones, T. R., 1.
 Ulten Valley (Tyrol).—Hammer, W., 2.
 Umbria (Italy).—Bortolotti, C., 2;
 Lotti, B., 1; Segrè, C., 1; Verri, A., 1.
Uncinulites.—Pampaloni, L., 1.
 Underground temperature, Michigan.—
 Lane, A. C., 2.
Undina.—Sauvage, H. E., 2.
Unio.—Stanton, T. W., 1.
 —tracks.—Walther, J., 1.
 Union Formation, Nova Scotia.—Ami,
 H. M., 2.
 United States.—Blake, W. P., 4; Hayes,
 C. W., 1; Jones, T. R., 1; Mabery, C. F., 1;
 Walcott, C. D., 1-2, 5, & 6.
 —, mineral resources.—Day, D. T., 1.
 —. *See also* Devonian, Iron, &c.
 Upsala (Svealand).—Sjøegren, H., 1.
 Ural Mts. (Russia).—Bertrand, M., 1;
 Duparc, L., 1, 2, & 4-7; Illovaïski, D.,
 1; Mamontov, V. N., 1; Pencak, A.,
 1; Surguov, N., 1; Tchernyshev, T.,
 9.
 Uranite.—Buchholz, Y., 1.
 Uranium.—Pratt, J. H., 3.
Urenchelys.—Woodward, A. S., 2.
 Uri (Switzerland).—Bœckh, J., 3
 Lugeon, M., 1.
Ursus.—Flores, E., 1 & 3; Smallwood,
 W. M., 1.
 Utah (U.S.A.).—Davis, W. M., 3;
 Eldridge, G. H., 1; Emmons, S. F.,
 2; Huntington, E., 1; Stobbs, L. S.,
 1.
Vaccinium.—Engelhardt, H., 1.
 Vachères (Basses-Alpes).—Jacob, C., 1.
Vaginulina.—Herrmann, A., 1.
 Valais (Switzerland).—Solly, R. II., 1 &
 2; Tornquist, A., 2.
 Valanginian (Provence).—Pellat, E., 1.
 VALLÉE POUSSIN, C. de la. *See* Firket,
 A., 2; Van den Broeck, E., 6.
 —marl, Thuringia.—Wuest, E., 1.
 Valley, Teign R.—Somervail, A.
 Valleys, Austria (Upper).—Haag, F., 1.
 —, hanging.—Branner, J. C., 5;
 Crosby, W. O., 2.
 —, Klamath.—Hershey, O. H., 4.
 —, Norway.—Monckton, H. W., 2 &
 4.
 —, permanence of river.—Hill, E., 1.
 —, rift.—Graber, H. V., 1.
 —, Tuscany.—Lotti, B., 2.
 —, Tyrol.—Hess, H., 2.
 —. *See also* River, &c.
Valvata.—Færster, B., 5; Pavlov, P. S., 2.
 Vanadinite.—Bowman, H. L., 1; Lovi-
 sato, D., 2.
 Vanadium, occurrence of.—Mingaye, J. C. H., 1; Pratt, J. H., 3.
Vanikoropsis.—Etheridge, R., Fil., 2.
 Vanthoffite.—Van't Hoff, J. H., 4.

- Vanua Levu (Fiji).—Bonney, T. G., 10.
Varanus.—Nopcsa, F. von, Jun., 3.
 Variolitic pillow-lava, Newfoundland.—
 Daly, R. A., 1.
 Värmland (Sweden).—Blomberg, A., 2.
 Vaskö (Hungary).—Weinschenk, E., 3.
 Vaslui (Rumania).—Sevastos, R., 1.
 Vaucluse (Provence).—Putzeys, E., 2;
 Savornin, J., 2; Van den Broeck, E.,
 13.
 Vaugirard (Paris).—Meunier, S., 6 & 8;
 Stehlin, H. G., 1 & 2.
 Vecchio, Mte. (Sardinia).—Millosevich,
 F., 2.
 Vegas, Las (New Mex.).—Springer, A., 1.
 Vegetation, changes of level &. — Ser-
 nander, R., 2.
 Veglia I. (Adriatic).—Waagen, L., 1.
 Veins, Cornwall.—Flett, J. S., 1.
 —, country-rock &. —Weed, W. H., 1.
 —, earthquakes & mineral.—Mou-
 tessus de Ballore, F. de, 2.
 —, fissure.—Lakes, A., 9.
 —, formation of.—Joly, J., 3; Kemp,
 J. F., 2.
 —, I. of Man.—Bonney, T. G., 4;
 Lomas, J., 1.
 —, ore-enrichment.—Pošepny, F., 1;
 Weed, W. H., 4.
 —, Skiddaw Series of.—Postlethwaite,
 J., 1.
 —. *See also* Ore-deposits, &c.
 Vendée (France).—Chartron, C., 1;
 Michel-Lévy, A., 1.
 Venediger, Gross (Tyrol).—Weinschenk,
 E., 2.
Venericardia.—Casey, T. L., 1.
 Veneridae.—Dall, W. H., 1.
 Venetia (Italy).—Airaghi, C., 2; Bittner,
 A., 1; Campana, D. del, 1; Checchia-
 Rispoli, G., 1; Gortani, M., 1-3;
 Keyserling, H. von, 1; Ochsenius, C.,
 2; Oppenheim, P., 5 & 6; Patrini, P.,
 1; Taramelli, T., 2; *see also* Alps,
 Carnic.
 Venice (Italy).—Ochsenius, C., 2.
Ventriculites.—Ungern-Sternberg, E.
 von, 1.
Venus.—Dollfus, G. F., 4; Franchis, F.
 de, 1.
 Vergada I. (Dalmatia).—Schubert, R. J.,
 1.
 Vergys (Savoy).—Sarasin, C., 1.
Vermieras.—Fucini, A., 1.
 Vermont (U.S.A.).—Dale, T. N., 1;
 Hobbs, W. H., 6; Perkins, G. H.,
 1.
Verneuilina.—Liebus, A., 2.
 Vernon Mt. (Ky.).—Merrill, G. P., 4.
 Verona (Italy).—Oppenheim, P., 6; Tara-
 melli, T., 3.
 Verrucano (Moldavia).—Simionescu, J.
 T., 1.
Vestinautilus.—Crick, G. C., 2.
 Vesuvius.—Anon., 24; Kewitsch, G., 1;
 Matteucci, R. V., 1; Medanich, G., 1.
Viburnum.—Penhallow, D. P., 1.
 Vicenza (Italy).—Campana, D. del, 1.
 Vicksburg (Miss.).—Casey, T. L., 1.
 Victoria (Austral.).—Chapman, F., 1 &
 2; Coghlan, T. A., 1; Dennant, J., 2
 & 3; Grant, F. E., 1; Gregory, J. W.,
 2 & 3; Jenkins, H. C., 1; Kitson, A. E.,
 1-3; Maplestone, C. M., 1; Pritchard,
 G. B., 1 & 2; Woodward, A. S., 11.
 Victoria Quarry, Buxton.—Dawkins, W.
 B., 1.
Vidalia.—Sauvage, H. E., 2.
 Vielsalm (Belgium).—Delvaux, E., 1.
 Vienna Basin (Austria).—Abel, O., 2;
 Fuchs, T., 6; Toula, F., 2.
 Vieuxvy (Ille-et-Vilaine).—Bigot, A., 2
 & 4.
 Villedieu (Indre).—Canu, F., 2.
 Ville-Sauvage (Seine-et-Oise). — Gros-
 souvre, A. de, 1.
Virgatites.—Burckhardt, C., 1.
 Virgilia (Va.).—Watson, T. L., 1.
 Virginia (U.S.A.).—Campbell, H. D., 1;
 Watson, T. L., 1; Woodworth, J. B.,
 1 & 2.
 Virginia, W. (U.S.A.).—Campbell, M.
 R., 2; Eldridge, G. H., 1; Griffith,
 W., 1; Heurteau, C. E., 1; Simmers-
 bach, B., 1; White, D., 3; White, I.
 C., 1.
 Viscous fusion, mineral.—Joly, J., 5.
 Visé (Liège).—Lespigneux, G., 1.
 Viterbo (Latium).—Meli, R., 1.
 Vivara crater (Campania).—Lorenzo, G.
 de, 5.
Vivipara.—Pavlov, P. S., 2; Stanton,
 T. W., 2.
 Vogelgebirge (Hesse-Darmstadt). —
 Buecking, H., 4.
 Vogtland (Altenburg).—Zimmermann,
 E., 2.
 Voklinshofen (Alsace).—Dæderlein, L.,
 1.
Vola.—Schubert, R. J., 3.
 Volcanic activity, origin of.—Meunier,
 S., 11; earth's crust &. — Fleischer,
 A., 1.
 —, ashes, Mont Pelé.—Colonna, E., 1;
 Montana.—Rowe, J. P., 2; Sta. Maria
 (Guatemala).—Brauns, R., 1; Bergeat,
 A., 1 & 3; Sapper, K., 1; Schottler,
 W., 2.
 —, craters, Dominica.—Sapper, K., 8.
 —, dust, atmospheric absorption &. —
 Backhouse, T. W., 1; Barbados.—Cop-
 pock, J. B., 1; Powell, H., 2; Iceland.
 —Meunier, S., 12; Italy.—Flores, E.,
 1; Martinique.—Gillot, H., 1; New
 Zealand.—Marshall, P., 1; *see also*
 Dust, Red rain, &c.
 —, eruptions, earthquakes &. —Anon.,
 22; Milne, J., 6; cause of.—Rossel,
 A., 1; Crete.—Cayeux, L., 2; pheno-
 mena of.—Anderson, T., 1-5; Stuebel,
 A., 1; sunspots &. —Jensen, H. I., 1;
 Torishima.—Kutschera, M., 1.
 —, West Indies.—Anderson, T.,
 1-5; Curtis, G. C., 1; Gentil, L., 1;
 Giraud, J., 1; Hørnes, R., 6; Hovey,
 E. O., 1; Issel, A., 3; Kewitsch, G.,

- 1; Klein, C., 1; Lacroix, A., 1-4, 6, 7-9; Lagrange, E., 2; Lobley, J. L., 1; Meunier, S., 14; Powell, H., 1; Sapper, K., 4, 11, & 12; Spencer, J. W., 2 & 4; Supan, A., 1; Verrill, A. E., 3; *see also* Martinique, St. Vincent, &c.
- Volcanic formations, age of West Indian.—Spencer, J. W., 2.
- gases.—Gautier, A., 1.
- islands, Mediterranean.—Meunier, S., 5; Azores.—Howarth, O. H., 1; Pacific.—Bonney, T. G., 10.
- phenomena, underground observations &.—Laisant, A., 1.
- plugs.—Brauner, J. C., 4; Buecking, H., 4; Hovey, E. O., 4; Kitson, A. E., 3; Knebel, W., von, 2; Strachey, R., 1.
- rocks, Argyll.—Kynaston, H., 1; Tintagel Head.—Parkinson, J., 1; *see also* Igneous rocks.
- secondary phenomena, West Indies.—Curtis, G. C., 3.
- Volcano, Quenast.—Simoëns, G., 5.
- Volcanoes, Aleutian Is.—Merriam, C. H., 1.
- , America (N.).—Russell, I. C., 1.
- , Andes.—White, R. B., 1 & 2.
- , Argentina & Chile.—Hauthal, R., 1.
- , Auvergne.—Montlosier, — de, 1.
- , boiler-scale miniature.—Stromeyer, C. E., 1.
- , Deccan.—Strachey, R., 1.
- , distribution of.—Lallemand, C., 1; Miron, F., 1.
- , Europe, &c.—Anderson, T., 3.
- , Griqualand (E.).—Schwarz, E. H. L., 2.
- , Guatemala.—Bergeat, A., 1-3; Brauns, R., 1; Schottler, W., 2.
- , Iceland.—Anderson, T., 3.
- , Italy.—Fantappiè, L., 1; Lorenzo, G. de, 1-6; Moderni, P., 2; Verri, A., 5.
- , Mexico.—Felix, J., 5; Ordóñez, E., 1.
- , Oregon.—Diller, J. S., 3.
- , origin of.—Lorenzo, G. de, 4; Stuebel, A., 2; Van den Broeck, E., 7; Van Ertborn, O., 5.
- , Salvador.—Sapper, K., 2.
- , Suabian embryo.—Branco, W., 1 & 2; Knebel, W. von, 2.
- Volhynia (Russia).—Tutkovski, I., 1.
- Vulture Mte. (Basilicata).—Lorenzo, G. de, 3.
- Vomper R. (Tyrol).—Ampferer, O., 3.
- Vosges Mts.—Benecke, E. W., 2 & 5; Delépine, G., 1; Meunier, S., 9; Schumacher, E., 2; Van Werveke, L., 3, 4, 7, 10, 11, 13 & 19.
- Vreddefort (Transvaal).—Sawyer, A. R., 5.
- VUILLEMIN, E. *See* *Obit.*, Delecroix, —, 1.
- Vulcanology, Vesuvius.—Anon., 24.
- Vulsinian volcanoes, Rome.—Moderni, P., 2.
- Waagenoceras*.—Smith, J. P., 1.
- Wabash Valley (Ill. & Ind.).—Fuller, M. L., 4.
- Wabaunsee Formation, Kansas.—Beede, J. W., 3.
- Waihi (N.Z.).—Morgan, P. C., 1.
- Walchen (U. Styria).—Redlich, K. A., 1.
- Waldenburg (Silesia).—Dathe, E., 1.
- Waldheimia*.—Antula, J., 1; Bittner, A., 1.
- Waldron (Ind.).—Newsom, J. F., 1.
- Wales. *See* Monmouthshire, &c.
- WALKER, E. E. *See* *Obit.*, Woodward, H., 11.
- Wallensen (Hanover).—Menzel, H., 1.
- Walpello Co. (Iowa).—Leonard, A. G., 1.
- Walthamstow (Essex).—Hohmes, T. V., 2.
- Wang-Ping (China).—Drake, N. F., 1.
- Waratah (Tasmania).—Twelvetrees, W. H., 3.
- WARD, J. *See* *Obit.*, Dickson, J.
- Wardour, Vale of (Wilts).—Andrews, W. R., 1; Jukes-Browne, A. J., 2.
- Warsaw (Poland).—Levinski, J., 1.
- Warwickshire.—Shrubsole, O. A., 1.
- Wasatch Mts. (Utah).—Emmons, S. F., 2.
- Washington (U.S.A.).—Clarke, F. W., 1; Landes, H., 1; Shedd, S., 1; Smith, G. O., 1 & 2; Spurr, J. E., 1.
- Water, Aargau.—Muehlberg, F., 1.
- , Aisne.—Babinet, —, 1.
- , Alabama.—Hall, B. M., 1.
- , Brussels.—Putzeys, E., 2.
- , California.—Manson, M., 2.
- , Cape Town.—Anon., 36.
- , Caucasus.—Yermolov, A., 1.
- , Cherbourg.—Bigot, A., 6.
- , Colorado.—Fellows, A. L., 1.
- , coloration of.—Dakyns, J. R., 1; Golliez, H., 1; Imbeaux, —, 1.
- , Cuba.—Eigenmann, C. H., 1.
- , density of sea.—Arctowski, H., 4; Thoulet, J., 1.
- , Doubs.—Van den Broeck, E., 11.
- , Egypt.—Lucas, A., 1.
- , filtration, river-gravels &.—Andrimont, R. d', 2.
- , Flanders.—Andrimont, R. d', 1; Van Ertborn, O., 4 & 11.
- , 'fossil'.—Mackie, W., 4.
- , Hawaiian Is.—Lindgren, W., 1 & 4.
- , Herts.—Fitzmaurice, M., 1; Saunders, J., 1.
- , Idaho.—Russell, I. C., 4.
- , Jurassic limestone.—Woodward, H. B., 12.
- , Kansas.—Johnson, W. D., 1.
- , Lecce.—Taranelli, T., 4.
- , Javel, Alost.—Van Ertborn, O., 8; Belgian coalfields.—Kersten, J., 1.
- , Liguria & Elba.—Cortese, G., 1.
- , Manchester.—Pickstone, W., 2.
- , Maryland.—Clark, W. B., 3.
- , Mexico.—Richards, E. H., 1.

- Water, Mondovi.—Sacco, F., 1.
 —, Neundorf.—Stille, H., 1.
 —, New Jersey.—Kuemmel, H. B., 1.
 —, Nord.—Vaillant, V., 1.
 —, ore-enrichment by hot.—Weed, W. H., 4.
 —, origin in Belgian Carboniferous Limestone.—Moulan, T. C., 2.
 —, Paris Basin.—Kemna, A., 2; Maillet, E., 1.
 —, quarry rock.—Anon., 32.
 —, rainfall & underground.—Hooker, C. P., 1.
 —, Rappoltsweiler.—Van Werveke, L., 5.
 —, Ruhr coal-basin.—Middelschulte, A., 1.
 —, Russia (Central).—Sinzov I., 1.
 —, salinity of.—Mackie, W., 4.
 —, (salt & fresh), denudation by solution.—Joly, J., 2.
 —, sea, with arsenic.—Gautier, A., 2.
 —, Servia.—Bajetz, M. J., 1.
 —, silicic acid in.—Headden, W. P., 1.
 —, Simplon Tunnel.—Schardt, H., 2.
 —, Swiss mountain-lake, Burcart, E., 1; Swiss underground.—Lugeon, M., 6.
 —, Thames & Lea.—Fitzmaurice, M., 1.
 —, Tuscany.—Ristori, G., 1; Trabucco, G., 1.
 —, underground circulation of.—Couppe de la Forest, M. le, 2; Dienert, F., 1; Fournier, E., 2 & 3; Marboutin, F., 1 & 2; Martel, A. E., 3 & 5; Meunier, S., 15; Rahir, E., 1; Schardt, H., 3; Slichter, C. S., 1; Trillat, A., 1; Van den Broeck, E., 10-13 & 15; Woodward, H. B., 5.
 —, Vaucluse.—Putzeys, E., 2; Van den Broeck, E., 13.
 —, Venetia.—Ochsenius, C., 2; Taramelli, T., 3.
 —, Wyoming (E.).—Adams, G. I., 1.
 —, Yorks.—Dwerryhouse, A. R., 1.
 —. *See also* Artesian, Mineral, &c.
 Wavellite.—Zambonini, F., 1.
 Wealden, Boulonnais.—Rigaux, E., 1.
 Weathering of building-stone in London.—Anon., 33.
 Weiler Valley (Alsace).—Bruhns, W., 2; Linck, G., 2.
 Weinheim (Hesse).—Deninger, K., 1.
 Weir (Kan.).—Crane, W. R., 2.
 Weissenburg (Alsace).—Linck, G., 2.
 Wellington (N.Z.).—Hogben, G., 1.
 Wellington College (Berks).—Blundell, G. E., 1.
 Wells, Bagnacavallo.—Corti, B., 1.
 —, Biggleswade.—Home, H., 1.
 —, Punjab.—Simpson, R. R., 1.
 Wemmelian, Belgium.—Forir, H., 1.
 Wenlock Limestone.—Reed, F. R. C., 1.
 Werribee Plains (Victoria, Austral.).—Kitson, A. E., 1.
 Weser R. estuary.—Schucht, F., 1.
 Weser Hills (Westphalia).—Wiese, T., 1.
 West Indies.—Anon., 2 & 17; Issel, A., 3; Lagrange, E., 2; Lobleby, J. L., 1; Milne, J., 6; Morris, Sir D., 1; Sapper, K., 9; Spencer, J. W., 1-4; Verrill, A. E., 1-3; *see also* Martinique, &c.
 Westmorland.—Burns, D., 1; Postlethwaite, J., 1.
Westonia.—Walcott, C. D., 3.
 Westphalia (Germany).—Bruecher, M., 1; Drevermann, F., 1; Habets, A., 1; Kaiser, E., 1; Middelschulte, A., 1; Stille, H., 2 & 3; Wiese, T., 1.
 Wetzlar (Germany).—Harbort, E., 2.
 Whales, subfossil.—Eastman, C. R., 2.
 —, Tertiary.—Abel, O., 1.
 Whetstones, United States.—Pratt, J. H., 5.
 Whinstone, Teesdale.—I'Anson, J. C., 1.
 White Bay (Newfoundland).—Howley, J. P., 1.
 WHITE, T. G. *See* *Obit.*, Kemp, J. F., 1.
 White Chalk, Devon.—Rowe, A. W., 2.
 Whitehaven (Cumberland).—Arber, E. A. N., 4.
 White Horse (Yukon).—Brewer, W. M., 1.
 White Range (S. Austral.).—Brown, H. Y. L., 1.
 White River (U.S.A.).—Matthew, W. D., 2.
 White Sea (Russia).—Fedorov, E., 1.
Whitella.—Weller, S., 2.
 Wicklow (Ireland).—Seymour, H. J., 2.
 Wieliczka (Galicia).—Schroeter, A., 1.
 Wiesbaden (Nassau).—Bellinger, J., 2; Delkeskamp, R., 2; Lotz, H., 2; Reinach, — von, 1.
 Wight, I. of.—Colenutt, G. W., 1; Woodward, H., 5.
 Willemite.—Paniebianco, R., 1.
Williamsonia.—Nathorst, A. G., 2.
Wilsonia.—Weller, S., 2.
 WILTSHIRE, T. *See* *Obit.*, Anon., 13; Wiltshire, E. W., 1; Woodward, H., 2.
 Wiltshire.—Andrews, W. R., 1; Cunningham, W., 1; Jukes-Browne, A. J., 2; Reid, C., 1, 3 & 7; Rowe, A. W., 1.
 Windward Is. (W.I.).—Spencer, J. W., 1.
 Windworn stones.—Johnsen, A., 3 & 4; Koken, E., 3 & 4.
 Windy Knoll (Derby).—Dawkins, W. B., 1.
 Windgälle (Uri).—Böckh, H., 3.
 Wirral Peninsula (Cheshire).—Pickstone, W., 1.
 Wisconsin (U.S.A.).—Fenneman, N. M., 1; Grant, U. A., 1; Slichter, C. S., 1; Upham, W., 3; Weidman, S., 2.
Witchellia.—Burckhardt, C., 1.
 Witwatersrand (Transvaal).—Black, W. G., 1; Hatch, F. H., 1 & 2; Sawyer, A. R., 1 & 4.

- Wojczy (Galicia).—Szajnocha, W., 1.
 Wolchonskoite.—Krotov, P., 1.
 Wolfrämite.—Kerforme, F., 5; Irving, J. D., 1.
 Wollastonite, Mexico.—Collins, H. F., 1.
 Wood, fossil.—Tuzson, J., 1.
 Woodbridge (Suffolk).—Whitaker, W., 1.
 Woodford (Essex).—Howe, J. A., 2.
 Woodlark I. (New Guinea).—Pinder, C. R., 1.
 Woodnorton (Worcester).—Richardson, L., 3.
 WOODWARDIAN Museum, Cambridge.—Kurtz, F., 1; Reed, F. R. C., 1, 2, & 4.
 Woolhope District (Hereford).—Callaway, C., 4.
 Woolverstone (Suffolk).—Whitaker, W., 1.
 Worcestershire.—Buckman, S. S., 1; Hull, E., 1; Richardson, L., 3.
 Worm-burrows, Rocky Mt. quartzite.—Bonney, T. G., 2 & 6.
 — tracks.—Walther, J., 1.
 Wurm, R. (Belgium).—Andrimont, R. d', 2.
 Württemberg (Germany).—Branco, W., 1 & 2; Endriss, K., 1; Engel, —, 1; Fraas, E., 1; Freudenberg, W., 1; Koch, K. R., 1; Schmidt, A., 2; Schuetze, E., 2.
 Wutach R. (Baden).—Steinmann, G., 2.
 Wyoming (U.S.A.).—Adams, G. I., 1; Hatcher, J. B., 1; Knight, W. C., 1 & 3; Richardson, G. B., 1; Salisbury, R. D., 1; Stobbs, L. S., 1.
 Wyoming buried valley, Pennsylvania.—Lyman, B. S., 1.
 Xanten (Rhenish Prussia).—Mueller, G., 1.
Xenodiscus.—Schellwien, E., 1.
 Xenotime.—Hussak, E., 2.
 Xinantecatl (Mexico).—Ordóñez, E., 1.
Xylophomya.—Whitfield, R. P., 3.
 Yakutsk (Siberia).—Rein, J., 1; Tolmashev, I. P., 1; Woodward, A. S., 9.
 Yellow Sands, Northumberland & Durham.—Lebour, G. A., 1.
 Yenisei R. (Siberia).—Ijitski, N., 1 & 2; Jaczewski, L., 1; Ludwig, F., 1; Meister, A., 1 & 2; Tolmashev, I. P., 1 & 2.
 Yesso (Japan).—Yabe, H., 1.
 Yeu, I. d' (Vendée).—Michel-Lévy, A., 1.
 Yonne (France).—Couppez de la Forest, M. le, 1.
 York Peninsula (S. Austral.).—Greenway, T. C., 1.
 Yorke's Peninsula (N. Terr., S. Austral.).—Brown, H. Y. L., 4.
 Yorke's Goldfield (Queensl.).—Ball, L. C., 3.
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 Yosemite Valley (Cal.).—Branner, J. C., 5.
 YOUNG, J. See *Obit.*, McKendrick, J. G., 1.
 Ypresian, Paris Basin, &c.—Leriche, M., 3.
 Yubari (Japan).—Anon., 26.
 Yucatan (Mex.).—Ordóñez, E., 2.
 Yukon district (N. W. Canada).—Brewer, W. M., 1.
 Yverdon (Vaud).—Stehlin, H. G., 2.
Zamites.—Zeller, R., 2.
Zanthoxylon.—Engelhardt, H., 1.
 Zaratsechia (Dalmatia).—Schubert, R. J., 1.
Zatrachys.—Case, E. C., 2.
 Zebra Valley (Lombardy).—Hammer, W., 1.
 Zeehan (Tasm.).—Waller, G. A., 1 & 2.
 Zeeland (Holland).—Lorié, J., 1.
 Zeolites.—Cornu, F., 1; Pelikan, A., 1.
Zeuglodon.—Lucas, F. A., 4; Stromer, E. von, 2.
 Ziapine (Ural Mts.).—See *Secka*.
 Ziller Valley (Tyrol).—Termier, P., 5.
 Zinc, Arkansas.—Branner, J. C., 2; Hedburg, E., 1.
 —, Bavaria & Tyrol.—Weinschenk, E., 8.
 —, Missouri.—Bain, H. F., 2; Hedburg, E., 1; Keyes, C. R., 2.
 —, New Jersey.—Kuemmel, W. H., 1.
 —, Russia.—Nenadkevich, K., 1.
 —, Servia.—Bajetz, M. J., 1; Djlagoi, M. T., 1; Guerich, G., 2.
 —, Tasmania.—Waller, G. A., 2.
 —, Taunus Mts.—Delkeskamp, R., 2.
 —, United States.—Day, D. T., 1; Kirchoff, C., 3.
 Zircon.—Børis, G., 1; Hussak, E., 2; Kœchlin, R., 1; Stevanovič, S., 1 & 2; Smith, G. F. H., 3; Thuerach, H., 1.
 Zlottowo (Prussia).—Jentszsch, A., 4.
 Zones, bryozoan.—Canu, F., 1.
 —, Carboniferous.—Arber, E. A. N., 5; Hind, W., 5; Stobbs, J. T., 2.
 —, Chalk.—Jukes-Browne, A. J., 3; Rowe, A. W., 1 & 2; Schrammen, A., 1; Woodward, H. B., 7.
 —, geological.—Goodchild, J. G., 4.
 —, plants as indices.—Arber, E. A. N., 1.
 Zöptau (Moravia).—Neuwirth, V., 1.
Zosterites.—Fliche, P., 1.

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LIST OF ABBREVIATIONS USED FOR THE NAMES OF PUBLICATIONS, SOCIETIES, AND PUBLIC BODIES.

- Aarsh.* = Aarshefter.
Abh. = Abhandlungen.
Abs. = Abstracts.
Acad. = Academy.
Actes = also Verh.
Afh. = Afhandlingar.
Agr. = Agriculture.
Allgem. = Allgemeine.
An. = Anales.
Ann. = Annals, Annuaire, Annual, etc.
Anthr. = Anthropologie, etc.
Anz. = Anzeiger.
Arch. = Archiv, Archives.
Archæol. = Archæologist, Archæology,
etc.
Årsskr. = Årsskrift.
Assoc. = Association.
Austral. = Australia, etc.
Balk. = Balkanique.
Beitr. = Beiträge.
Ber. = Bericht, Berichte.
Bergw. = Bergwesen.
Bibl. = Biblical.
Biol. = Biological.
Biom. = Biometry.
Bol. = Boletin, Boletim.
Boll. = Bollettino.
Bot. = Botanical.
Bull. = Bulletin.
Bur. = Bureau.
Centrabl. = Centralblatt.
Chem. = Chemical.
Coll. = Colliery, College.
Com. = Comitato, etc.
Comm. = Communications, etc.
Commiss. = Comissão, etc.
Conch. = Conchology, etc.
Congr. = Congress.
C.-R. = Comptes-rendus.
Denkschr. = Denkschriften.
Dir. = Direccão, etc.
Earthq. = Earthquake.
Engin. = Engineering, Engineers.
Erdk. = Erdkunde.
Erläut. = Erläuterungen.
F. C. = Field-Club.
Festschr. = Festschrift.
Földt. = Földtani.
Fom. = Fomento.
Foren. = Forening.
Förh. = Förhandlingar.
Geogn. = Geognostische.
Geogr. = Geographical.
Geol. = Geological, Geologist.
Gesch. = Geschichte.
Gesellsch. = Gesellschaft.
Giorn. = Giornale.
Handl. = Handlingar.
Helv. = Helvétique.
Hist. = History.
Hofmus. = Hofmuseum.
Hütt. = Hüttenwesen, etc.
Idrogr. = Idrografico.
Industr. = Industrial.
Inst. = Institute, Institution.
Izv. = Izvestia.
Jaarb. = Jaarboek.
Jahrb. = Jahrbuch.
Jahresb. = Jahresbericht.
Jahresh. = Jahreshfte.
Journ. = Journal.
K. = Königlich, Kaiserlich, etc.
Közl. = Közlöny.
Kryst. = Krystallographie.
Landesanst. = Landesanstalt.
Landesd. = Landesdurchforschung.
Lefnadst. = Lefnadsteckningar.
Lingust. = Lingustica.
Linn. = Linnean, etc.
Lit. = Literary.
Mag. = Magazine.
Malacol. = Malacological, etc.
Mater. = Materialien, Matériaux.
Math. = Mathematisch, etc.

M. E. = Mining Engineers.
Med. = Medical, etc.
Meddel. = Meddelanden, Meddelelser.
Mem. = Memoirs, etc.
Met. = Meteorological.
Metall. = Metallurgy.
Micr. = Microscopical.
Mijnw. = Mijnwezen.
Min. = Mineralogy, Mining, etc.
Minist. = Ministerio, etc.
Monogr. = Monographs.
Mus. = Museum, etc.
N. = Neues, New, etc.
Nac. = Nacional.
Nachr. = Nachricht.
Nat. = National, Natural.
Naturf. = Naturforschend.
Naturgesch. = Naturgeschichte.
Naturh. = Naturhistorisch.
Naturw. = Naturwissenschaftlich.
Ned. O.I. = Nederlandsch Oost-Indië.
Notizbl. = Notizblatt.
Nouv. = Nouveau.
N.S. = Nova Scotia.
N.Z. = New Zealand.
Observ. = Observatoire, etc.
Öfvers. = Öfversigt.
Overs. = Oversigt.
Palæont. = Palæontographical, etc.
Parerg. = Parergones.
Petr. = Petrography, etc.
Phil. = Philosophical.
Philom. = Philomathique.
Photogr. = Photographical.
Phys. = Physical, etc.
Proc. = Proceedings.
Proc. verb. = Procès-verbaux.
Prof. = Professional.
Progr. = Progress.

Publ. = Publications.
Q. = Quarterly.
R. = Royal, Real, Reale, etc.
Rass. = Rassegna.
Rec. = Records.
Reliq. = Reliquary.
Rendic. = Rendiconti.
Rep. = Report, etc.
Rev. = Revue.
Riv. = Rivista.
Rozpr. = Rozprawy.
S. A. = South Africa.
Samml. = Sammlungen.
Sav. = Savant, etc.
Schr. = Schriften.
Schw. = Schweizer, etc.
Sci. = Science, Scientific, etc.
Selsk. = Selskab.
Senckenb. = Senckenbergisch.
Serv. = Service, etc.
Sitz. = Sitzungsberichte.
Smiths. = Smithsonian.
Soc. = Society, etc.
Summ. = Summary.
Surv. = Survey.
Tosc. = Toscana.
Trans. = Transactions, etc.
Umiej. = Umiejetości.
Undersög. = Undersögelse.
Undersökn. = Undersökning.
Univ. = University, etc.
Ver. = Verein.
Verh. = Verhandlungen.
Vidensk. = Videnskab, etc.
Wetterau. = Wetterauisch.
Zap. = Zapiski.
Zeitschr. = Zeitschrift.
Zool. = Zoology, etc.

EXAMPLES OF ABBREVIATIONS OF THE NAMES OF SOCIETIES AND PUBLIC BODIES.

* These are new to the Library.

Acad. Cæsarea Leopoldino-Carolina. Academia Cæsarea Leopoldino-Carolina
 Naturæ Curiosorum. Halle.
Acad. Stanislas. Académie de Stanislas. Nancy.
Acad. Umiej. Krakow. Akademii Umiejetości. Cracow.
Allgem. schw. Gesellsch. Naturw. Allgemeine schweizerische Gesellschaft für die
 gesammten Naturwissenschaften. Geneva, Zürich, &c.
Am. Acad. Arts & Sci. American Academy of Arts & Sciences. Boston (Mass.).
Am. Geol. American Geologist. Minneapolis (Minn.).
Am. Inst. M. E. American Institute of Mining Engineers. New York.
Am. Mus. Nat. Hist. N.Y. American Museum of Natural History. New York.
Am. Nat. American Naturalist. Boston (Mass.).
Analyst. Analyst (Society of Public Analysts). London.
**An. Mus. Nac. Buenos Aires.* Anales del Museo Nacional. Buenos Aires.
Ann. Géogr. Paris. Annales de Géographie. Paris.
Ann. géol. Pévins. balk., Belgrade. Annales géologiques de la Péninsule balkanique.
 Belgrade.
Ann. idrogr. Rome. Annali idrografici. Rome.
Ann. Sci. nat. (Zool. & Palé.). Annales des Sciences naturelles: Zoologie &
 Paléontologie. Paris.
Arch. f. Anthr. & Geol. Schleswig-Holsteins. Archiv für Anthropologie & Geologie
 Schleswig-Holsteins & der benachbarten Gebiete. Kiel.

- Arch. néerland. Sci.* Archives des Sciences exactes & naturelles, publiées par la Société hollandaise des Sciences à Haarlem. La Haye.
- Arch. Sci. phys. & nat. Genève.* Archives des Sciences physiques & naturelles. Geneva.
- Assoc. franç. Av. Sci.* Association française pour l'Avancement des Sciences. Paris.
- Austral. Inst. M. E.* Australasian Institute of Mining Engineers. Melbourne (Vict.).
- Austral. Mus.* Australian Museum. Sydney (N.S.W.).
- Badisch. geol. Landesanst.* Grossherzoglich badische geologische Landesanstalt. Heidelberg.
- Beitr. Geophys. Leipzig.* Beiträge zur Geophysik. Leipzig.
- Beitr. Paläont. Österr.-Ung.* Beiträge zur Paläontologie & Geologie (Esterreich-Ungarns & des Orients. Vienna.
- Berg-hütt. Jahrb. Wien.* Berg- & hüttenmännisches Jahrbuch der kaiserlich-königlichen Bergakademien zu Leoben & Pöfbram & der königlich-ungarischen Bergakademie zu Schemnitz. Vienna.
- Berwicks. Nat. Club.* Berwickshire Naturalists' Club. Alnwick.
- Biol. Soc. Washington.* Biological Society of Washington. Washington (D.C.).
- *Bol. Ing. Minas, Peru.* Boletín del Cuerpo de Ingenieros de Minas. Lima.
- Bristol Mus.* Bristol Museum. Bristol.
- Brit. Assoc. Waterworks Eng.* British Association of Waterworks Engineers. London.
- Canad. Rec. Sci.* Canadian Record of Science. (Natural History Society of Montreal.) Montreal.
- Carolina (N.) Geol. Surv., Econ. Papers.* North Carolina Geological Survey : Economic Papers. Raleigh (N. Car.).
- Carte géol. Suisse.* Carte géologique de la Suisse. Berne.
- Centralbl. f. Min.* Centralblatt für Mineralogie, Geologie & Paläontologie. Stuttgart.
- Chem. News.* Chemical News. London.
- Coll. Guard.* Colliery Guardian. London.
- Coll. Sci. Tokyo.* College of Science, Imperial University. Tokyo.
- Colo. Coll. Studies.* Colorado College Studies. Colorado Springs (Colo.).
- Com. geol. España.* Comisión del Mapa geológico de España. Madrid.
- Com. géol. Russie.* Comité géologique. St. Petersburg.
- Commiss. géol. Finlande.* Commission géologique de Finlande. Helsingfors.
- Congrès Soc. sav. Paris.* Congrès des Sociétés savantes. Paris.
- Connect. Acad.* Connecticut Academy of Arts & Sciences. New Haven (Conn.).
- Cotteswold Nat. F. C.* Cotteswold Naturalists' Field-Club. Gloucester.
- Dan. geol. Undersög.* Danmarks geologiske Undersögelse. Copenhagen.
- Dansk geol. Förening.* Dansk geologisk Förening. Copenhagen.
- Dep. Geol. Indiana.* Department of Geology & Natural Resources of Indiana. Indianapolis (Ind.).
- Dep. Lands, W. Austral.* Department of Lands & Surveys. Perth (W. A.).
- Dep. Mines, N.S.* Department of Mines of Nova Scotia. Halifax (N.S.).
- Dep. Mines, N.S.W.* Department of Mines, New South Wales. Sydney (N.S.W.).
- Deutsch. geol. Gesellsch.* Deutsche geologische Gesellschaft. Berlin.
- Deutsch. u. österreich. Alpenver.* Deutscher & österreichischer Alpenverein. Munich.
- Deutsch. wissensch. Ver. Santiago.* Deutscher wissenschaftlicher Verein zu Santiago. Valparaiso.
- Devon. Assoc.* Devonshire Association for the Advancement of Science, Literature, & Art. Plymouth.
- Dir. Serv. geol. Portugal.* Direcção dos Serviços geologicos de Portugal. Lisbon.
- Earthq. Comm. Tokyo.* Earthquake Investigation-Committee. Tokyo.
- Eclogæ Geol. Helv.* Eclogæ Geologicae Helvetiæ. Lausanne.
- *Essax Nat.* Essex Naturalist. Stratford.
- Földt. Közl.* Földtani Közlöny. [Geological Magazine.] Budapest.
- Geogn. Jahresh., München.* Geognostische Jahreshefte. Munich.
- Geogr. Abh., Wien.* Geographische Abhandlungen, Wien. Vienna.
- Geogr. Anz.* Geographischer Anzeiger. See *Peterm. Mitth.*
- Geol. palæont. Abh. Jena.* Geologische & palæontologische Abhandlungen. Jena.
- *Geol. Surv. Vict.* Geological Survey of Victoria. Melbourne.
- Geol. Univ. Cal.* Department of Geology, University of California. Berkeley (Cal.).
- Gesellsch. f. Erdk., Berlin.* Gesellschaft für Erdkunde. Berlin.
- *Giorn. Geol. prat., Genova.* Giornale di Geologia Pratica, Genoa [now Perugia].

- Ind. Acad. Sci.* Indiana Academy of Science. Indianapolis (Ind.).
- Inst. Mines & Forests Brit. Guiana.* Institute of Mines & Forests. Georgetown (Demerara).
- Jaarb. Mijnw. Ned. O.-Ind.* Jaarboek van het Mijnwezen in Nederlandsch Oost-Indië. Amsterdam.
- Jahrb. f. Berg- u. Hüttenw. Sachsen.* Jahrbuch für das Berg- & Hüttenwesen im Königreiche Sachsen. Freiberg.
- Lunds Univ. Årssk.* Lunds Universitets Årsskrift. Lund.
- Malacol. Soc.* Malacological Society. London.
- Manch. Lit. & Phil. Soc.* Manchester Literary & Philosophical Society. Manchester.
- Meddel. Grönland.* Meddelelser om Grönland, udgivne af Commissionen for Ledelsen af de geologiske & geografiske Undersøgelser i Grönland. Copenhagen.
- Meddel. Indust. Finland.* Meddelanden från Industristyrelsen i Finland. Helsingfors.
- Min. petr. Mitth.* Mineralogische & petrographische Mittheilungen. Vienna.
- Naturw. Landesd. Böhmen.* Naturwissenschaftliche Landesdurchforschung von Böhmen. Prague.
- Oberrhein. geol. Ver.* Oberrheinischer geologischer Verein. Stuttgart.
- *Parery. Inst. Geol. Mex.* Parergones del Instituto geológico. Mexico.
- Peterm. Mitth.* Petermann's Mittheilungen. Gotha.
- *Proc. Rhodesia Sci. Assoc.* Rhodesia Scientific Association. Bulawayo.
- Reliq. & Ill. Archaeol.* The Reliquary & Illustrated Archæologist. London.
- Rev. Cienc., Lima.* Revista de Ciencias. Lima.
- Rev. crit. Paléozool.* Revue critique de Paléozoologie. Paris.
- Roy. Inst. G. B.* Royal Institution of Great Britain.
- Russ.-k. min. Gesellsch.* Russisch-kaiserliche mineralogische Gesellschaft. St. Petersburg.
- Sect. géol. Cab. S. M. St. Pétersb.* Section géologique du Cabinet de Sa Majesté. St. Petersburg.
- Senckenb. naturf. Gesellsch.* Senckenbergische naturforschende Gesellschaft. Frankfurt-am-Main.
- Soc. cient. 'Ant. Alzate.'* Sociedad científica 'Antonio Alzate.' Mexico.
- Soc. franç. Min.* Société française de Minéralogie. Paris.
- Soc. helv. Sci. nat.* Société helvétique des Sciences naturelles. See *Allgem. schw. Gesellsch.*
- Soc. philom. Verdun.* Société philomathique de Verdun. Verdun.

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

Author's names without a number refer to the first or only title.

- Alkali-deposits, Wyoming.—Read, T. T.
— See also Potash & Salt.
- Allchar (Macedonia).—Goldschmidt, V., 2; Stevanović, S., 3.
- Allochete.—Ippen, J. A.; Ronberg, J.
- Allonema*.—Ulrich, E. O.
- Alluvium, Godavari R.—Holland, T. H., 4.
— See also Quaternary, &c.
- Alm Valley (Westphalia).—Stille, H., 2.
- Alpes-Maritimes (France).—Roccati, A.
- Alps, ancient climates.—Schutz, A., 2.
—, Australian.—Lendenfeld, R.
—, Bavarian.—Schlosser, M., 4.
—, Carnic.—Angelis d'Ossat, G. de, 2.
—, Carpathian Mts. &.—Vetters, H.
—, Cottian.—Jacob, C.; Kilian, W., 2 & 3; Termier, P., 2.
—, Dauphiné.—Haug, É., 2; Kilian, W., 1-3.
—, Eastern.—Diener, C., 2; Termier, P., 3.
—, Graian.—Franchi, S., 2.
—, Lepontine.—Bistram, A. von; Dickson, E., 2; Klemm, G.
—, Ligurian.—Taramelli, T., 4.
—, Lombardy.—Termier, P., 7.
—, overfolds in.—Haug, É., 3 & 5; Suess, E.
—, Pennine.—Schardt, H.; Stella, A.
—, Piedmontese.—Zaccagna, D.
—, Rhaetian.—Paulcke, W.
—, Savoy.—Haug, É., 2.
—, Swiss.—Baltzer, A.; Penck, A.; Rössinger, G.; Schulz, A., 2.
—, systems of.—Suess, E., 3.
—, Tyrol.—Termier, P., 4 & 8.
— See also Jura, Glacial, &c.
- Alsace.—Klahn, G.; Neumann, B.
- Altai Mts. (Siberia).—Peeetz, H. de; Tanfelev, G.
- Altcar (Lanes).—Reade, T. M.
- Altenburg (Saxony).—Dammer, B.
- Alum, Nevada.—Emmons, S. F., 4.
—, occurrence of.—Brough, B. H.
- Alvaux (Namur).—Dorlodot, L. de; Gosselet, J., 4.
- Alveopora*.—Tornquist, A.
- Alvinia*.—Seguenza, L.
- Alzate (Lombardy).—Taramelli, T.
- Amani (German East Africa).—Kœrt, W., 1.
- Amazon R. (Brazil).—Katzner, F.
- Amber, Prussia (E.).—Jentzsch, A.; Meunier, F.
- Amblygonite.—Schaller, W. T.
- Ambocalia*.—Reed, F. R. C.
- America, Glacial Man?—Winchell, N. H., 6.
— (N.), fracture-lines.—Geikie, Sir Archibald, 2.
— (N.E.), Palæozoic Seas.—Ulrich, E. O., 2.
- American Association for the Advancement of Science, 1904.—Shattuck, G. B.
- Ames Knob, North Haven I. (Me.).—Willis, B.
- Amiata, Mte. (Tuscany).—Clerici, E., 2; Lotti, B.
- Ammonella*.—Walther, J., 3.
- Ammonites, Cretaceous.—Esch, E. von; Hyatt, A.; Lasswitz, R.; Pavlov, A. P.; Yabe, H.
—, Jurassic.—Beck, H.; Buckman, S. S., 1 & 4; Crick, G. C., 1, 2, & 6; Fucini, A.; Healey, M.; Madsen, V.; Prinz, G.; Struebin, K.; Uhlig, V.; Yokoyama, M., 2.
—, Permo-Triassic.—Nœtling, F., 4.
'*Ammonites plicatilis*' & '*Am. bplex*,' Sowerby.—Blake, J. F., 1.
- Amozoc (Mex.).—Ordoñez, E., 3.
- Ampasindava (Madagascar).—Lacroix, A., 7.
- Amphibole-schists, Manhattan I.—Julien, A. A.
- Amphibolite, Annam.—Hubert, H., 3.
—, Caucasus.—Dannenberg, A.
—, Elba.—Achiardi, G. d', 4.
—, Kherson.—Tapesenko, V.
- Amphicyon*.—Schlosser, M., 5.
- Amphiope*.—Schuetze, E.
- Amphoreopsis*.—Crick, G. C., 4.
- Amplexopora*.—Ulrich, E. O.
- Ampyx*.—Clarke, J. M., 12.
- Amygdaloid-Beds, Ventersdorp.—Hatch, F. H., 3.
- Anabaia*.—Clarke, J. M.
- Analcime-melaphyre, Tyrol.—Proboscht, H.
- Analyses, Canadian minerals, &c.—Hoffmann, G. C.
—, coal of Raniganj.—Saise, W.; see also Coal, &c.
—, fluvial deposits.—Reade, T. M., 2.
—, igneous rocks.—Kaiser, E.; Washington, H. S., 1-3.
—, soils.—Hall, A. D.; Ibáñez, J. A.
—, United States Geological Survey mineral & rock.—Clarke, F. W., 1 & 2.
- Anantapur (Mysore).—Wetherell, E. W.
- Anaphragma*.—Ulrich, E. O.
- Anatase.—Solly, R. H.
- Andalusite, Styria.—Wessely, C.
- Andaman Is. (Gulf of Bengal).—Holland T. H., 2.
- Andes (S. Am.).—Holdich, Sir T. H.; Montessus de Ballore, F. de, 3; Ochsensius, C., 2.
- Andesite, Caucasus.—Dannenberg, A.
—, Chile.—Pöchlmann, R.
—, Ecuador.—Reiss, W., 1 & 2.
—, Lake-District.—Harker, A.; Walker, E. E.
—, Mexico.—Finlay, G. I.
—, Shropshire.—Boulton, W. S., 2.
—, Transylvania.—Pálffy, M. von.
- Andesitic lavas, European Turkey.—Flett, J. S., 1.
— veins, Arbizon.—Romeu, — de.
- Anganguco (Mexico).—Ordoñez, E., 2.
'Angara Land.'—Suess, E., 2.
- Angaraes (Peru).—Zumaita, W. A.

- Anglesite.—Hermann, P., 2.
 Angola (W. Africa).—Cunninghame, B. A.
Anguillavus.—Hay, O. P., 2.
 Anhalt (Germany).—Linstow, O. von, 3.
 Anhydrite.—Van't Hoff, J. H.
Anisocardia.—Oppenheim, P.
Anisodonta.—Dall, W. H.
 Annam (Indo-China).—Hubert, H., 3;
 Zeiller, R., 2.
 Annelida, Carboniferous. — Etheridge, R., *fil.*, 3.
 —, Tertiary.—Rovereto, G.
Annulariopsis.—Zeiller, R., 2.
Anodontopsis.—Clarke, J. M.
Anogmus.—Hay, O. P.
Anomalocardia.—Dall, W. H.
Anomia.—Dollfus, G. F., 5.
Anopæa.—Behm, G.
Anoplothea.—Kindle, E. M., 2.
Anoptychia.—Picard, A.
 Antarctic.—Drygalski, E. von, 1 & 2;
 — Nathorst, A. G.; Pirie, J. H. H.
 — Expedition, German.—Philippi, E.
 —, Swedish.—Nordenskjöld, O.
 — rock-peaks.—Jentsch, A., 3.
Antepithecus.—Ameghino, F., 2.
Anthograptus.—Törnquist, S. L.
 Anthracite, Pennsylvania.—Lyman, B. S.
 —, Piedmont.—Pellati, N.
 —, Wales (S.).—Roberts, J.
 Anthracitization of coal.—Burns, D., 2.
Anthracotherium.—Major, C. I. F., 2;
 Newton, R. B., 4.
 Antigorite.—Hamberg, A.
 Antilles (W. I.). See also Caribbean,
 Windward Is., &c.
Antilope.—Schlosser, M., 2.
 Antimony.—Michel, L.; Sigmund, A.;
 Struthers, J., 4.
Antispira.—Perner, J.
 Antrim (Ireland).—Welch, R.
 Antwerp (Belgium).—Putzeys, E., 2.
 Aosta Valley (Piedmont).—Colomba, L.;
 Millosevich, F.
Aparchites.—Clarke, J. M., 12.
 Apatite.—Achiardi, G. d', 3; Becke, F.,
 2; Hermann, P.
 —, green.—Zimányi, K., 2.
Apatosaurus.—Riggs, F. S.
 Apennines (Italy).—Bouarelli, G.;
 Rovereto, G., 2; Sacco, F.
 Apes, Tertiary.—Abel, O., 2.
Aphaneramma.—Woodward, A. S., 5.
Apiotoma.—Pritchard, G. B.
Aplosmilias.—Rauff, H., 2.
Apocynophyllum.—Deane, H.
 Apolda (Weimar).—Compter, G.
 Apophyllite.—Cornu, F.
Aprorrhais.—Wollemann, A., 4.
 Appalachian Basin (N. Am.).—Steven-
 son, J. J.
 — folds, New York. — Kindle, E.
 M., 3.
 — Mts. (U.S.A.).—Weed, W. H., 4.
 — River (U.S.A.).—White, C. H.
Apterodus.—Matthew, W. D.
Aptychopsis.—Chapman, F., 5.
 Apulia (Italy).—Checchia-Rispoli, G.,
 3-5; Vinassa de Regny, P. E.
 Arabia.—Houdas, —.
 Arachnida, Carboniferous, &c.—Fritsch,
 A., 1 & 2.
 Aráfalí (Erythræa).—Manasse, E., 2.
 Aragón (Mex.).—Villarelo, J. D., 3.
 Aragonite.—Melczner, G.
 Aranyos R. (Hungary).—Pálffy, M. von,
 3.
 Arapahoe glacier (Colo.).—Henderson, J.
Araucarioxylon.—Chapman, F., 3.
 Arbe, I. (Dalmatia).—Waagen, L., 4.
 Arbizon (Hautes-Pyrénées). — Romeu,
 — de.
Arca.—Broili, F., 3; Cossmann, M., 4;
 Dall, W. H.; Esch, E. von; Oppen-
 heim, P.; Remeš, M.; Wollemann,
 A., 4.
 Archaean, American Great Lakes. —
 Clements, J. M.; Willmott, A. B.
 —, Belgium.—Lohest, M., 3; Van
 Ertborn, O., 2.
 —, Charnwood.—Watts, W. W., 2.
 —, ellipsoidal structure in.—Clements,
 J. M.
 —, Saxon Erzgebirge.—Dahmer, K.
Archæocidaritis.—Girty, G. H.
Archicapsa.—Squinabol, S., 3.
Archinacella.—Perner, J.
 Arcier R. (Doubs).—Fournier, E., 3.
Arcomya.—Cossmann, M., 3.
Arcoptera.—Broili, F., 3.
 Arctic.—Anon., 11; Schmidt, F., 1 &
 2; Sohns-Laubach, H. Graf zu.
 — Ocean.—Breitfuss, L.
 Arcy-sur-Cure (Yonne).—Hamy, E. T.
 Ardennes.—Cornet, J., 3; Dorlodot, L.
 de, 3.
 Ardwick (Lancs.), & Ardwick Series.—
 Arber, E. A. N.
 Arenig graptolite-zones.—Elles, G. L.
 Argentina (S. Am.).—Ameghino, F., 2;
 Hauthal, R.; Ihering, H. von.
 Argolis (Greece).—Cayeux, J.
 Argon, natural gas with.—Moissan, H.
Argophyllites.—Deane, H.
Argyrolambda.—Ameghino, F., 2.
Argyrothea.—Dall, W. H.
 Ariège (France).—Caralp, J., 4.
Arius.—Priem, F., 2.
 Arizona (U.S.A.).—Blake, W. P., 1 & 2;
 Campbell, M. R., 4; Church, J. A.;
 Duryee, E.; Emmons, S. F., 4;
 Lakes, A., 3; Lee, W. T.; Lindgren,
 W., 7; Lucas, F. A., 2; Ransome,
 F. L., 1-3.
 Arkansas (U.S.A.).—Adams, G. I., 2;
 Hayes, C. W., 5; Newsom, J. F.;
 Purdue, A. H.
 Arkhangelski Works (Perm).—Konu-
 shevski, L.
 Arrée-Tregorrois Mts. (Britanny).—
 Martonne, E. de, 4.
 Arrest (Picardie).—Bédé, P., 5.
 Arsenic.—Struthers, J., 5.
Arseniotherium.—Andrews, C. W.

- Artesian water, Brussels.—Cuvelier, E.
 ———, California.—Hamlin, H.
 ———, Cape Colony.—Ritso, B. W.
 ———, changes of level.—Honda, K.
 ———, Flanders.—Rutot, A., 6.
 ———, Hungary.—Horowitzky, H., 2.
 ———, Iowa.—Norton, W. H.
 ———, Ithaca.—Tarr, R. S., 2.
 ———, Leipzig.—Gäbert, C.
 ———, origin of.—Andrimont, R. d',
 5 & 6; Jentzsch, A., 2.
 ———, Peru.—Guillet, E. A.
 ———, Rome.—Angelis d'Ossat, G.
 de, 3.
 ———, salt &.—Stella, A., 2.
 ———, Tuscany.—Pantaneli, D., 2.
 ———. *See also* Borings.
Artholycosia.—Fritsch, A., 2.
Arthropycus.—Hauthal, R.
 Arthropoda, Carboniferous.—Baldwin,
 W., 1 & 2.
 Artinskian.—Karpinski, A., 4; Tchern-
 yshev, T.
Artophormis.—Squinabol, S., 3.
Asaphus.—Reed, F. R. C., 4.
 Asbestos, Bangalore.—Sambasiva Iyer,
 V. S.
 ———, Canada, &c.—Obalski, T., 2;
 Pratt, J. H., 9.
 ———, Mexico.—Villarello, J. D., 4.
Ascondictyon.—Ulrich, E. O.
Ascosoma.—Lorenz, T.
 Ascutney Mt. (Vt.).—Daly, R. A.
 Asenraij (Limbourg).—Dewalque, G.,
 2.
 Asia, fracture - lines of.—Geikie, Sir
 Achibald, 2.
 ———, orography of.—Hobbs, W. H., 3;
 Kropotkin, Prince P., 1 & 2; Tron-
 nier, R.; Suess, E., 3.
 Asia Minor.—English, T.; Flett, J. S.;
 Newton, R. B., 4.
Asperipes.—Matthew, G. F., 4.
 Asphalt, Arkansas.—Hayes, C. W., 5.
 ———, Bahrein I.—Henry, T. A., 4.
 ———, Sicily.—Lotz, H.
 ———, Trinidad.—Blake, G. S.; Louis,
 H.; Struthers, J., 6.
 ———, United States.—Eldridge, G. H.;
 Fuller, M. L.; Struthers, J., 6.
Aspideretes.—Hay, O. P., 3.
Aspidoceras.—Campana, D. del; Cana-
 vari, M.; Loriol, P. de; Uhlig, V.
Aspidosaurus.—Broili, F., 2.
 Assam (India).—Blake, G. S., 2; Bose,
 P. N.; Grundy, J., 12; Maclaren, J.
 M., 3.
 Assynt, Loch (Sutherland).—Murray,
 Sir John, 3; Peach, B. N., 3.
Astarte.—Cossmann, M., 3; Dall, W.
 H.; Ilovaiski, D.; Remes, M.
Astela.—Pritchard, G. B.
Asteracanthus.—Chapman, F., 7.
Asteroceras.—Fucini, A.
Asterolepis.—Jäkel, O., 3.
Asterolepus.—Eastman, C. R.
Astræa & Astroccenia.—Felix, J.
Astriclepus.—Tokunago, S.
 Astrolite.—Kœchlin, R., 2; Reinisch,
 R., 2.
 Atacama Desert (Chile).—Kämpfer, E.;
 Pöhlmann, R.
 Atacamite.—Pelloux, A.
 Athabasca District (Canada).—Dowling,
 D. B.
Atherosperma.—Deane, H.
Athyris.—Drevermann, F., 2.
 Atjeh Valley (Sumatra).—Jansen, P.
 Atlantic Ocean, floor of the.—Cole, G.
 A. J., 3; Murray, Sir John.
 ———, submarine valleys.—Spencer, J.
 W., 1 & 3.
 ——— (S.).—Pirie, J. H. H.
 ——— (B. C.).—Macbride, R.
 Atmospheric erosion, Corsica.—Bonney,
 T. G.; Lake, P., 2; Tuckett, F. F.
 ——— pressure, earthquakes &.—Omori,
 F., 6.
Atractilites.—Crick, G. C., 7.
Aturia.—Hamilton, A.
Atys.—Dall, W. H.
Aucella.—Wollemann, A., 2.
 Aude (France).—Doncieux, L.
 Augen-gneiss, Tyrol.—Ohnesorge, T.
 Augite.—Zambonini, F., 4.
Aulosteges.—Etheridge, R., *fil.*, 3.
 Ault (Somme).—Bardou, —.
 Auriferous sandstones, Chiltern (Vict.).
 —Dunn, E. J.
 ———. *See also* Gold.
Auripitygma.—Perner, J.
 Australia, origin of marsupials.—Lydek-
 ker, R., 2.
 ——— (S.).—Brown, H. Y. L.; Coghlan,
 T. A.; Dennant, J., 4; Duffield, T.;
 Macdonald, R. M.
 ——— (W.).—Anon., 25; Blatchford, T.;
 Chapman, F., 3; Coghlan, T. A.;
 Etheridge, R., *fil.*, 3; Gibson, C. G.,
 1 & 2; Maitland, A. G., 1-4.
 Australian Alps, glaciation of.—Lenden-
 feld, R.
 Austria-Hungary.—Diener, C., 4.
 Austria (Lower).—Fuchs, T., 2; Geyer,
 G.; Rzehak, A., 2; Sigmund, A.
 ——— (Upper).—Fugger, E.
 Autun (Burgundy).—Sauvage, H. E.,
 1 & 2.
 Avane, Monte (Tuscany).—Ugolini, R.
 AVELINE, W. T. *See* *Obit.*, Geikie,
 Sir Archibald, 4.
 Avesnes (Nord).—Carpentier, A.
Avicula.—Archangel, A. D.; Broili, F.,
 3; Hoyer, W.; Kittl, E.
Aviculopecten.—Girty, G. H., 2.
 Avon R. (Bristol).—Vaughan, A.
 Axes, crystalline.—Osthoff, A.
 Axinite.—Dœlter, C., 5.
Avinus.—Archangel, A. D.; Oppen-
 heim, P.
 Ayas Valley (Piedmont).—Zambonini,
 F.
 Ayr (Scotland).—Smith, W.
 Ayton (Yorks).—Hey, W. C.
 Aywaille (Liège).—Fourmarier, P.
 Aznalcollar (Seville).—Schmidt, C., 4.

- Baculites*.—Laswitz, R.
 Baden (Germany).—Brombach, F.; Henkel, L., 2; Lang, I.; Schalch, F., 1 & 2; Schnarrenberger, C.; Thuerach, H., 1 & 2.
 Baden (Lr. Austria).—Fuchs, T.
Badiotella.—Broili, F., 3.
Baëna.—Hay, O. P., 3.
 BAER'S law, valleys &.—Fabre, L. A., 2.
 Bagnères-de-Luchon (Hautes-Pyrénées).—Carez, L., 3.
 Bagshot (Surrey).—Monckton, H. W., 8.
 Bahrein I. (Persian Gulf).—Henry, T. A., 4.
 Bahuria Oasis (Egypt).—Ball, J., &c.
Baiera.—Zeiller, R., 2.
 Baikal, Lake (Siberia).—Makeev, P. de.
 Baikal, Trans- (Siberia).—Karpinski, A., 3.
 BAIN, F. See *Obit.*, Watson, L. W.
 Bakal (Ufa Gov.).—Konushovski, L., 2.
 Bala (N. Wales).—Davison, C., 7.
Balænoptera.—Salle, E.
 Balangoda Group, Ceylon. — Coomaraswamy, A. K., 2 & 3.
Balanus.—Cushman, J. A., 4.
 Balaton, Lake (Hungary).—Handmann, R.
 Balearic Is.—Major, C. I. F., 2; Martel, E. A., 4.
 Balkans (Turkey).—Moureaux, T.
 Ballarat (Victoria).—Hart, T. S.
 Balmoral (Transvaal).—Dœrffel, D.; Horwood, C. B.; Mellor, E. T., 1 & 2.
 Baluchistan (India).—Grundy, J., 8, 9, 13, 14; Vredenburg, E., 4.
 Banbury (Oxon).—Walford, E. A.
 Banff (Alberta).—Ogilvie, I. H.
 Bangalore (Mysore). — Sambasiva-Iyer, V. S.; Wetherell, E. W., 1 & 3.
 Banket, Transvaal.—Fourmarier, P., 3.
 —. See also *Conglomerates*.
Bankivia.—Pritchard, G. B.
 Baoussé-Roussé caverns (Mentone). — Boule, M.
 Baraboo (Wisc.). — Weidman, S., 2; Winchell, N. H., 5.
 Barbados.—Emtage, R. H.
 Barcelona (Spain).—Almera, J.
 Barents Sea.—Breitfuss, L.
 Bari (Apulia).—Vinassa de Regny, P. E.
Barillopus.—Matthew, G. F., 4.
 Barkly (Cape Colony).—Broom, R., 9; Graichen, W.
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 Barnwell (Camb.).—Fearnside, W. G.
Baropezia.—Matthew, G. F., 4.
Barroisiceras.—Esch, E. von, &c.
 Barting, Lake (Prussia, E.).—Braun, G.
 Barwon R. (Victoria).—Hall, T. S., 2.
Barythelia.—Rauff, H., 2.
Barypoda.—Andrews, C. W., 2.
 Barytes.—Brongniart, M.; Guédras, M., 2; Pratt, J. H., 8; Stainier, X., 6; Strandmark, J. E.
 Basalt, Cameroons.—Esch, E. von.
 —, Caucasus.—Dannenberg, A.
 —, Clee Hill.—Clark, W.
 —, Colorado.—Stevens, E. A.
 —, Durham Co.—Lee, M.
 —, Ecuador.—Reiss, W., 1 & 2.
 —, Erythrea.—Aloisi, P., 2.; Manasse, E., 2 & 3.
 —, Greenland.—Nordenskjeld, O., 2; Phalen, W. C.
 —, Hesse.—Bauer, M.; Schwantke, A., 3.
 —, Homberg a. d. Efze.—Reuber, O.
 —, Hungary.—Koch, A., 3.
 —, Lake-District.—Harker, A.
 —, magnetism of.—Allan, G. E.
 —, Mexico.—Finlay, G. I.
 —, Scamian.—Calker, F. J. P. van.
 —, Shantung.—Rinne, F., 3.
 —, Shropshire.—Boulton, W. S. 2.
 —, Sicily.—Platania, G.
 —, Tongking.—Hubert, H., 2.
 —, Victoria.—Gregory, J. W.
 —, Weston-super-Mare.—Boulton, W. S.
 Basel (Switzerland).—Baumberger, E., 3; Leuthardt, F.; Sarasin, F., 3; Struëbin, K., 2.
 Bashahr (Himalayas).—Hayden, H. H.
 Basque District (Spain).—Dufau, C.
 Bassano (Venetia).—Campana, B. del.
 Bath (Somerset).—Strutt, R. J.
Bathropyramis.—Squinabol, S., 3.
 Batjan (D. E. I.).—Martin, K.
 Batrachia, Triassic.—Lucas, F. A., 2.
 Batrachian Palæozoic footprints.—Matthew, G. F., 4 & 5.
 Baumann's Cave, Rübeland.—Blasius, W., 1 & 3.
 Bautshi (Nigeria).—Dunstan, W. R., 3.
 Bauxite.—Kaiser, E., 5; Struthers, J.
 Bavaria.—Klockmann, F., 2; Knebel, W. von; Neischl, A.; Schlosser, M., 4 & 5; Walther, J., 3.
 —. See also *Rhenish Bavaria*.
 Beaches, travel of.—Douglas, W. T.
 —. See also *Raised Beaches*.
 Beaumont (Tex.).—Hill, R. T.
 Beaver River (Pa.).—Hice, R. R.
 Beddington (Surrey).—Hinde, G. J.
 Bedfordshire.—Woodward, H. B., 4.
 BEECHER, C. E. See *Obits.*, Anon., 1; Clarke, J. M., 8; Dall, W. H., 2; Schuchert, C.; Winchell, N. H., 3.
 Beinn-Ledi Group, Scotland.—Cunningham-Craig, E. H.
 Bela (Bengal).—Vredenburg, E.
Belemnitella mucronata-zone, Brunswick.—Wolleman, A.
 Belemnites, Cretaceous.—Crick, G. C., 7.
 —, Jurassic.—Ilovaïski, D.; Roesinger, G., 2.
 Belfast (Ireland).—Gough, G. C., 2; Lamplugh, G. W., 4.
 Belfast Lough.—Patterson, Sir R. L.
 Belgium, Archæan geology.—Lohest, M., 3.

- Belgium, coalfields & iron of Northern.—Lambert, G.
 — geological map, &c.—Dewalque, G.
 —, hydrography and faults.—Greindl, Baron, —, 2.
 —, river-evolution.—Cornet, J.
 —, tectonic map of.—Deladrier, E.; Prinz, W., 2.
 BELL, M. *See* *Obit.*, Geikie, Sir Archibald, 4.
 Bellefonte (Pa.).—Collie, G. L.
Bellerophon.—Clarke, J. M., 2; Perner, J.
 Belluno (Venetia).—Dal Piaz, G.
 Belmont (Vaud).—Kissling, E.
 Belvédère Château, Vienna.—Depéret, C.; Hørnes, R.
 Bena de Padru (Sardinia).—Lovisato, D., 2.
 Bendigo (Vict.).—Whitelaw, H. S.
 Bengal (India).—Oldham, R. D.
 Benkovac (Dalmatia).—Schubert, R. J.
Bennettites.—Seward, A. C., 2; Wieland, G. R., 3.
 Beocsin (Hungary).—Koch, A.
Berenicea.—Toula, F.
 Berezna (Hungary).—Pošewitz, T.
 Bergamo (Lombardy).—Pozzi, Z.
 Bergen (Norway).—Monckton, H. W.
 Berkshire.—White, H. J. O.
Berliria.—Loriol, P. de.
 Bermuda (W. I.).—Gulick, A.
 Berne (Switzerland).—Baltzer, A.; Roesinger, G.
 Bernician, Durham, &c.—Simpson, J. B.
 Berringa (Victoria).—Bradford, W., 10.
 Berry Lead, &c. (Victoria).—Gregory, J. W.
 Berwick (Victoria).—Deane, H.; Kitson, A. E., 3.
 Berwickshire (Scotland).—Goodechild, J. G., 2-4; Norman, F. M.
 Berwyn Hills (N. Wales).—Cope, T. H., 2; Jevons, H. S.
 Beryl.—Achiardi, G. d', 2; Kerforne, F.; Hubert, E.
 Besançon (Doubs).—Fournier, E., 3.
 Bettolina Pass (Pennine Alps).—Zambonini, F.
Betulinium.—Pampaloni, L.
 Bezuidenhout Valley (Transvaal).—Hatch, F. H., 6.
 Biarritz (Basses-Pyrénées).—Stuart-Menteath, P. W.
 Biella (Piedmont).—Franchi, S.
 Bienne, L. (Berne).—Baumberger, E., 3.
 Bihar (Hungary).—Szadeczki, J.
 Bingham (Utah).—Boutwell, J. M., 2.
 Binn Valley (Valais).—Solly, R. H., 1 & 2.
 Biotite.—Zambonini, F., 4.
Biradiolites.—Parona, C. F.
 Birds, Cretaceous.—Lucas, F. A., 3.
 —, Dinosaurs &c.—Gadow, H.
 —, fossil, British Museum (Natural History).—Woodward, A. S., 8.
 —, Jurassic.—Lambe, L. M., 2.
 Birds, New Zealand extinct.—Hamilton, A., 2 & 3.
 —, Quaternary.—Grandidier, G.
 —, Tertiary.—Andrews, C. W., 5.
 Bisbee (Ariz.).—Ransome, F. L., 1 & 3.
 Bischofite.—Przibyla, C.
 Bismuth.—Ball, L. C., 3; Struthers, J., 5.
 Bitterroot Range (Mont.).—Lindgren, W., 2 & 5.
 Bitumen, origin of.—Morgan, W. C.
 —. *See also* Petroleum.
 Bituminous coal, &c., United States.—Campbell, M. R., 2; Eldridge, G. H.
 Black Hills (Wyoming & S. Dakota).—Irving, J. D.
 Black-Reef Series, Witwatersrand.—Corstorphine, G. S., 2; Molengraaff, G. A. F., 4.
 Black Ven (Dorset).—Lang, W. D.
 Blackpool (Lancs).—Dawkins, W. B.
 Blende.—Beck, R.; Rimatori, C.; Stainier, X., 6.
 Bléville (Normandy).—Dubus, A., 1 & 2.
 Blitz (Silesia).—Schwantke, A., 2.
 Block Mts. (N. Mex.).—Keyes, C. R.
 Blocks, Moravia, exotic.—Wiesbauer, J.
 —, Swedish transported.—Aminov, G.
 Blue Mts. (N.S.W.).—Andrews, E. C.
 Boccheggiano district (Corsica).—Taccioni, E.
Bochianites.—Bohm, G.
 Bogs, Lake-District, &c.—Lewis, F. J.
 —, Switzerland.—Frueh, J., 3.
 —. *See also* Peat.
 Bohemia.—Bilharz, O.; Dathe, E.; Diener, C., 4; Hibsck, J. E.; Jækel, O., 5; Jahn, J. J., 1-3; Kafka, J.; Katzer, F., 5; Knett, J., 2; Kořistka, K.; Liebus, A.; Perner, J.; Petrascheck, W., 4; Potonié, H., 2.
 —. *See also* Komorau, &c.
Bohemura.—Jækel, O., 5.
 Bokkeveld Beds (S. Africa).—Reed, F. R. C.; Lake, P.
 Bolca, Mte. (Venetia).—Eastman, C. R.
 БОЛГНО medal.—Collins, J. H., 3.
 Bolivia (S. Am.).—Nordenskjöld, E.; Steinmann, G., 4.
Bollia.—Clarke, J. M., 1 & 12.
 Bolsena, Lake (Rome).—Moderni, P.; Sabatini, V., 2.
 'Bolson' Plains (New Mexico).—Keyes, C. R., 2.
 Boltsburn Flats (Co. Durham).—Watson, S.
 Bone-bed, Ludlow Formation.—Hinde, G. J., 3.
 — breccia, Istria.—Moser, L. K., 2.
 Boogardie (W. Austral.).—Gibson, C. G.
 Boothite.—Kœchlin, R., 2; Schaller, W. T.
 Borax, California.—Campbell, M. B., 3; Struthers, J., 7.
 —, Chile.—Campo, F. del.
 Borbolya (Hungary).—Capellini, G.; Telegd, L. R. von, 2.

- Borings, Altcar (Lancs).—Reade, T. M.
 —, Asenraij.—Dewalque, G., 2.
 —, Australia (W.).—Maitland, A. G.
 —, Austria (U.).—Schubert, R. J.,
 2.
 —, Campine, &c.—Lohest, M., 7 & 8;
 Van Erthorn, O.
 —, Durham.—Simpson, J. B.
 —, Funafuti Atoll.—Sollas, W. J.,
 3.
 —, Grosszössen.—Gæbert, C.
 —, Halifax.—Simpson, W.
 —, Hull.—Sheppard, T., 2.
 —, Iowa.—Calvin, S., 4.
 —, Ithaca (N.Y.).—Tarr, R. S., 2.
 —, Madras.—Rau, H. Narayana.
 —, Mühlhausen (Thuringia).—Kaiser,
 E., 2.
 —, Münster Basin.—Mueller, G., 2.
 —, Nord.—Ladrière, J.
 —, Paris Basin.—Gosselet, J., 6.
 —, Pas-de-Calais.—Gosselet, J., 5.
 —, Prussia.—Henrich, F., 2; Schmeis-
 ser, K., 2; Tornau, F.; Zimmermann,
 F.
 —, Rhenish Bavaria.—Leppla, A.
 —, Templeux-la-Fosse.—Dollfus, G.
 T., 2.
 —, Trinidad.—Guppy, R. J. L., 2.
 —, Tver Gov.—Sinzov, I.
 —, Victoria.—Anderson, W. R.;
 Gregory, J. W.
 Borneo.—Schmidt, C.
Bornia.—Dall, W. H.
 Borow (Sumatra).—Buecking, H.,
 4.
 Borrowdale (Cumberland).—Walker, E.
 E.
 Boryslav (Galicia).—Schmidt, C., 3;
 Zuber, R., 2.
Bos.—Blasius, W., 2; Portis, A.
 Bosnia.—Beck, H.; Dreger, J., 2; Kat-
 zer, F., 2 & 4; Kittl, E.; Schubert,
 R. J., 3.
 Bosrück Tunnel (Upper Austria).—
 Geyer, G., 2.
Bothriolepis.—Eastman, C. R., 2; Tra-
 quair, R. H., 2.
 Botticino (Lombardy).—Cacciamali, G.
 B., 2.
Bouchardia.—Ihering, H. von, 2
 Boulder-Beds, Ventersdorp.—Hatch, F.
 H., 3.
 Boulder-Belt (W. Austral.).—Maitland,
 A. G., 4; Rickard, T. A.
 Boulder City (Colo.).—Fenneman, N. M.
 Boulder-Clay, Essex.—Thresh, M.
 —, Minsk Gov.—Missuna, A., 2.
 Boulder-deposits, vegetation &.—Mueller,
 G., 4.
 Boulders, Cambridgeshire Drift.—Ras-
 tall, R. H., 3.
 —, Manchester glacial.—Hobson, B.
 —, Nelson (N.Z.) Triassic con-
 glomerate.—Marshall, P.
 —, Netherlands, Scanian basalt.—
 Calker, F. J. P. van.
 —, rock-decay &.—Upham, W., 2.
 Boulders, Yorkshire.—Howarth, J. H.;
 Sheppard, T., 7.
 —. See also Erratic blocks.
 Boulonnais (France).—Briquet, A.;
 Dollé, L.; Parent, H.; Zeiller, R., 4.
 Bouquet R. (Languedoc).—Mazauric, F.
 Bourges (Berry).—Dollfus, G. F., 3.
 Brabant (Belgium).—Simoons, G., 3.
Brachauchenias.—Lucas, F. A., 4.
 Brachiopoda, Cambrian.—Delgado, J.
 F. N., 2; Matthew, G. F., 2.
 —, Carboniferous.—Etheridge, R.,
fl., 3; Girty, G. H.; Greger, D. K.;
 Smith, J.; Vaughan, A.
 —, Cretaceous.—Schepotiev, A.
 —, Devonian.—Clarke, J. M., 5;
 Drevermann, F., 2; Guerich, G.;
 Raymond, P. E.; Reed, F. R. C.
 —, Jurassic.—Buckman, S. S., 2;
 Cossmann, M., 3; Illovaïski, D.
 —, Permian.—Diener, C.
 —, Permo-Carb.—Greger, D. K., 2.
 —, Silurian.—Buckman, S. S., 5;
 Clarke, J. M., 1 & 12; Jahn, J. J.;
 Kindle, E. M., 2; Rowley, R. R.;
 Ruedemann, R.
 —, Tertiary.—Dall, W. H.; Ihering,
 H. von, 2; Rzehak, A., 5.
 —, Triassic.—Broili, F., 3; Kittl, E.;
 Philippi, H.
 Bradenham (Bucks).—Spicer, Rev.
 E. C.
 Bradford Colliery (Lancs).—Gerrard, J.,
 2.
 Bragdon Formation, California.—Her-
 shey, O. H.
 Brandenburg (Prussia).—Keilhack, K.;
 Maas, G., 3; Schmierer, T.
 BRAVAIS'S law, formation of crystals &.
 —Friedel, G., 3.
 Brazil (S. Am.).—Branter, J. C., 1 &
 3; Clarke, J. M., 1 & 2; Derby, O. A.;
 Hussak, E.; Katzer, F.; Scott, H. K.,
 1 & 2; Woodward, A. S., 7.
 Breccia, Chablais Jurassic.—Rössinger,
 G., 2.
 Brecknockshire.—Howard, F. T.
 Bredon Hill (Worcester).—Buckman,
 S. S., 3.
 Breidden Hills (Shropshire).—Jevons,
 H. S.
 Brenner Pass (Tyrol).—Termier, P., 4 &
 8.
 Brenton R. (Venetia).—Squinabol, S., 4.
 Brescia (Lombardy).—Cacciamali, G. B.,
 1 & 2.
 Breton, Cape (Canada).—Matthew, G. F.,
 2.
 Breuillet R. (Seine-et-Oise).—Janet, L.
 Briançonnais (Dauphiné).—Termier, P.,
 2.
 Brick-earth, Vienna Basin.—Fuchs, T.
 Bridges, natural, Utah.—Dyar, W. W.
 Bridlington 'Crag.'—Lamplugh, G. W.;
 Sheppard, T., 4.
 Bristol.—Morgan, C. L.; Short, A. R.;
 Vaughan, A., 2.
 —, Coalfield.—Onions, J. T.

- Britanny (France).—Brun, P. de; Dollfus, G. F.; Kerforne, F.; Martonne, E. de, 4.
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- British Central Africa.—Brown, H.
- British Columbia (Canada).—Atkin, A. J. R.; Barber, W. B.; Brewer, W. M.; Kendall, J. D.; Macbride, R.; Monckton, G. F.; Spencer, A. C.; Stonier, G. A.; Sutton, W. J.; Vicaire, A.
- British Isles, coast-changes.—Parkinson, J.
- , earth-movements.—Geikie, Sir Archibald, 3; Strahan, A.
- Museum. *See* Museum.
- , upheaval of the.—Hull, E.
- Brixen (Tyrol).—Petrascheck, W., 2.
- Brochantite.—Lindgren, W., 7.
- Brome Mt. (Quebec).—Dresser, J. A., 2.
- Brongiartia*.—Collie, G. L.
- Bronteopsis*.—Reed, F. R. C., 4.
- Bronteus*.—Harbort, E.; Reed, F. R. C., 4.
- Bronzite.—Klein, C., 5.
- Brooksella*.—Kinkelin, F., 2.
- BROWN, J. A. *See* *Obit.*, Geikie, Sir Archibald, 4; Monckton, H. W., 2.
- Brown-coal, Bohemia.—Schlosser, M.
- Bruchköbel (Hanau).—Rausenberger, J.
- Brünn (Moravia).—Suess, F. E.
- Brunswick (Germany).—Blasius, W., 2; Grabowski, F.; Kloos, H.; Kock, V. von; Nehring, A.; Wollemann, A., 1 & 3.
- Brussels (Belgium).—Cuvelier, E.; Rutot, A., 5; Van Ertborn, O., 2.
- , Museum of Paintings.—Dewalque, G.
- Bryograptus*.—Tørnquist, S. L.
- Bryozoa, Carboniferous.—Girty, G. H.
- , Cretaceous.—Cann, F.
- , Devonian & Silurian.—Cummings, E. R., 2; Ulrich, E. O.
- , rock-cementing by.—Lomas, J., 5.
- , Tertiary.—Canu, F., 2; Maplestone, C. M., 1 & 2; Neviani, A.; Tornquist, A.
- Bryozoan limestone, Flinders.—Kitson, A. E., 2.
- Bucania*.—Clarke, J. M., 1 & 2.
- Bucaniella*.—Clarke, J. M., 1 & 2; Perner, J.
- Buccinum*.—Esch, E. von; Laskarev, V.
- Bucheggberg (Berne).—Baumberger, E., 3.
- Buchiceras*.—Hyatt, A.
- Buckinghamshire.—Davies, A. M.; Spicer, Rev. E. C.
- Budapest (Hungary).—Hofmann, K.
- Budua (Dalmatia).—Renz, C.
- Buenos Aires (Argentina).—Hauthal, R.
- Buffelsdoorn Beds, Klerksdorp.—Dœrffel, D., 4; Draper, D., 2; Voit, F. W.
- Buglovska Beds, Volhynia.—Laskarev, V.
- Building-stones, British.—Brough, B. H.
- , Illinois.—Alden, W. C.
- , Mysore.—Primrose, A., 2.
- , natural & artificial.—Ford, L. P.
- , New South Wales.—Anon., 23.
- , United States.—Day, D. T.
- Bukovina (Galicia).—Olszewski, S.; Teisseyre, W., 2.
- Bulgaria.—Cvijić, J.; Toula, F.
- Bulimina*.—Chapman, F., 1 & 2; Schuber, R. J., 2.
- Buliminus*.—Bédé, P., 5.
- Bulla*.—Laskarev, V.
- Bunælorus*.—Matthew, W. D.
- Bung Bong (Victoria).—Hunter, S. B.
- Bunter. *See* Trias.
- Büren (Basel).—Baunberger, E., 3.
- Buri Penin. (Erythræa).—Aloisi, P., 2.
- Burnett (Queensland).—Ball, L. C.
- Burmouth (Berwick).—Goodchild, J. G., 4.
- Burtinella*.—Rovereto, G., 4.
- Buru (D.E.I.).—Martin, K., 2.
- Butte (Mont.).—Upham, W., 2; Weed, W. H., 3; Winchell, H. V.
- Buttes, concretions &.—Todd, J. E.
- Buxton (Derbyshire).—Arnold-Bemrose, H. H., 2; Strutt, R. J.
- Cadoceras*.—Madsen, V.
- Caermarthenshire.—Canttrill, T. C.; Davison, C., 2; Fearnside, W. G., 2.
- Cagnano (Apulia).—Checchia-Rispoli, G., 5.
- Caillou-qui-bique (Namur).—Dorlodot, L. de.
- Cala (Huelva).—Schmidt, C., 4.
- Calabria (Italy).—Crema, C.; Fucini, A., 2; Seguenza, L., 2; Stefano, G. di, 2 & 3.
- Calamine, Urals.—Revostzki, E. D.
- Calamites*.—Arber, E. A. N., 6.
- Calamophyllia*.—Rauff, H., 2.
- Calcareous coal, Lanarkshire.—Dron, R. W.
- tufa, Jemtland.—Kjellmark, K.
- , Liège.—Lohest, M., 5.
- , Orzechau (Gt.).—Ržehak, A.
- , *See also* Tufaceous.
- Calceocrinus*.—Rowley, R. R.
- Calcite.—Billows, E.; Gaubert, P., 3; Goldschmidt, V., 4; Hinden, F.; Muegge, O.; Samoïlov, J., 2; Sterrett, D. B., 2.
- Caleretes.—Lomas, J., 5.
- Calcutta (Bengal).—Oldham, R. D.
- California (U.S.A.).—Adams, G. I., 5; Angermann, E.; Campbell, M. B., 3; Diller, J. S. 1 & 2; Eckel, E. C., 6; Eldridge, G. H., 2; Gilbert, G. K.,

- 2 & 4; Hæhl, H. L.; Hamlin, H.; Hershey, O. H., 1 & 2; Holway, R. S.; Lakes, A., 2; Lippincott, J. B.; Merriam, J. C., 1-3; Newsom, J. F.; Schaller, W. T.; Simmersbach, B.; Sinclair, W. J.; Struthers, J., 2 & 3.
- Calizzano Valley (Liguria).—Issel, A.
- Callao (Peru).—Guillet, E. A.
- Calliostoma*.—Cossmann, M., 2.
- Calloporina*.—Ulrich, E. O.
- Callovian, Morocco.—Gentil, L., 2.
- , Poland.—Rehbinder, B. von, 2.
- Caloosahatchie R. (Florida).—Dall, W. H.
- Calvados (France).—Bigot, A.; Douvillé, R.
- Calvinia (Cape Colony).—Rogers, A. W., 4.
- Calymene*.—Drevermann, F.
- Calyptæa*.—Esch, E. von; Mayer-Eymar, C.
- Camarotoechia*.—Clarke, J. M., 12.
- Cambridge University, &c.—Clarke, J. W.
- Cambridgeshire.—Fearnside, W. G.; Marr, J. E., 1 & 2; Rastall, R. H., 3; Whitaker, W., 2.
- Cambrian, Canada.—Matthew, G. F., 3.
- , Liège.—Lohest, M., 4.
- , New Brunswick.—Matthew, G. F.
- , Portugal.—Delgado, J. F. N., 2.
- Camborne (Cornwall).—Macalister, D. A.
- Camerino (Marches, Italy).—Canavari, M.
- Cameroons (W. Africa).—Esch, E. von; Solger, F.
- Campine (Belgian Limbourg).—Forir, H.; Harzé, E., 1, 3, & 4; Lohest, M., 7 & 8; Stainier, X., 9; Van Ertborn, O.; Rutot, A., 8.
- Camposus*.—Karpinski, A., 4.
- Camptonite, Monzoni.—Romberg, J., 3.
- , Taganrog Gov.—Morozovich, I., 2.
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- , Geological Survey.—Bell, R., 1 & 2; Dawson, G. M.
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- , minerals.—Hoffmann, G. C.
- , mines.—Gibson, T. W.; Ingall, D. D.
- , nickel-ores.—Pratt, J. H., 3.
- , petroleum.—Henry, T. A., 8.
- (N.W.).—Tyrrell, J. B., 1 & 2.
- , *See also* Asbestos, British Columbia, Ontario, &c.
- CANALI Collection, Perugia University.—Bortolotti, C.
- Canandaigua Lake (N.Y.).—Clarke, J. M., 11.
- Cananea (Mex.).—Blake, W. P., 4.
- Cancellophycus*, mechanical origin of.—Martin, D.
- Cancer*.—Toula, F., 2.
- Cancrinite.—Vredenburg, E., 3.
- Caninia*.—Vaughan, A.
- Canis*.—Merriam, J. C.; Praeger, R. L., 4; Schlosser, M., 2.
- Camel-coal, Nyřan.—Ryba, F.
- Canoe in Dyle alluvium, Malines.—Halet, F.
- Cañon City (Cal.).—Ward, H. A.
- Cantharidus*.—Pritchard, G. B.
- Cape Colony (S. Africa).—Corstorphine, G. S.; Dunn, E. J., 2; Graichen, W.; Kuntz, J., 4; Lake, P.; Molengraaff, G. A. F., 3; Reed, F. R. C., 1 & 2; Ritso, B. W.; Rogers, A. W., 1-5; Schwarz, E. H. L., 1, 2, 4, & 5; Seeley, H. G., 1-3; Seward, A. C., 3 & 4; Skinner, B.; Suess, E., 3.
- Capitanata (Apulia).—Checchia-Rispoli, G., 3-5.
- Capitosaurus*.—Woodward, A. S., 5.
- Capri, I. of (Italy).—Parona, C. F., 3.
- Carabaya (Peru).—Tristan, A.
- Caranx*.—Eastman, C. R., 3.
- Carbonic acid, sea-water &.—Kroggh, A.
- Carboniferous, Algeria.—Bureau, E., 2.
- , Australia (W.).—Etheridge, R., *fl.*, 3.
- , Belgium.—Destinez, P.; Lohest, M., 7 & 8; Renier, A., 2; Smeysters, J., 2.
- , Caermarthenshire.—Cautrill, T. C.
- , Dalmatia.—Renz, C.
- , Devon.—Arber, E. A. N., 6.
- , Eurasia.—Tchernyshev, T.
- , igneous rocks, Cape Colville (N.Z.).—Mackay, A.
- , Iowa.—Beyer, S. W., 2.
- , Kansas.—Adams, G. I., 4.
- , Lancashire.—Arber, E. A. N.; Bolton, H.
- , Lorraine (French).—Laur, F.
- , Missouri.—Ball, S. H.
- , New Brunswick.—Bailey, L. W.
- , New Mexico.—Keyes, C. R., 3.
- , New South Wales.—Herrmann, A.
- , New York.—Glenn, L. C.
- , Pennsylvania.—Fluck, F.; Glenn, L. C.; Stevenson, G. J.
- , Peru.—Braun, J. M.
- , Pyrenees.—Roussel, J., 2.
- , Tongking.—Zeiller, R., 2.
- , Westphalia, &c.—Schulz-Briesen, —.
- , zones.—Hind, W., 3.
- Carboniferous Limestone, Belgium.—Frapont, J.
- , Bristol.—Vaughan, A., 2.
- , Chepstow.—Richardson, L., 3.
- , Durham, &c.—Simpson, J. B.
- , Galicia.—Guerich, G., 2; Renier, A., 3.
- , quartz in.—Brien, V.
- , *See also* Corals, &c.

- Carcharodon*.—Koch, A., 2.
Cardinia.—Cossmann, M., 3.
Cardiocaris.—Clarke, J. M., 5.
Cardiocephalus.—Broili, F., 2.
Cardioceras.—Ilovaïski, D.
Cardita.—Archangel, A. D.; Cossmann, M., 4; Dall, W. H.; Ihering, H. von; Mayer-Eymar, C.; Oppenheim, P.; Philipp, H.
Carditopsis.—Dall, W. H.
Cardium.—Andrussov, N.; Archangel, A. D.; Cossmann, M., 3 & 4; Dall, W. H.; Dollfus, G. F., 5; Esch, E. von; Laskarev, V.
 Caribbean Is. (W. I.).—Frazer, P.
 Cariboo (B. C.).—Macbride, R.
 Carnallite.—Przibylla, C.
 Carniola (Austria).—Kossmat, F., 2.
 Carnivora, Bohemian fossil.—Kafka, J.
 —. See also Mammalia, &c.
 Carnotite.—Phillips, A. H.
 Carolina, N. (U.S.A.).—Keith, A., 1 & 3; Pratt, J. H., 1 & 11; Watson, T. L., 1-3; Weed, W. H., 4.
 —, S. (U.S.A.).—Pratt, J. H., 11.
 Caroline Is. (Pacific).—Kaiser, E., 3.
 Carpathian Mts.—Beck, —, 2; Bergeron, J., 2; Diener, C., 4; Limanovski, M.; Martonne, E. de, 2 & 3; Teissyre, W., 2; Vettors, H.
Carpocanistrum.—Squinabol, S., 3.
Carpolithes.—Deane, H.
 Carrara (Tuscany).—Lindemann, B.; Manasse, E., 3.
 Carrickfergus (Antrim).—Rigby, J.
 Cartersville (Ga.).—Hayes, C. W., 2, 7, & 8.
 Carved bones, Kesslerloch cave.—Schœtensack, O.
Carychium.—Gulick, A.
Caryophyllia.—Angelis d'Ossat, G. de.
 Casele, Monte (Palermo).—Merciai, G.
Cassianella.—Philipp, H.
 Cassiterite.—Borgstrøm, L. H., 2.
 Castlemaine (Victoria).—Baragwanath, W., jun.
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 Cats, Mont des (Nord).—Dollé, L., 2.
 Caucasus (Russia).—Dannenberg, A.; Pyatnizki, P.; Tchernik, G. P., 1 & 3; Thiess, F.; Weber, V., 2; Yushkin, E.
 Cauville (Normandy).—Leprévost, E.
 Caverns & caves, Balearic Is.—Martel, E. A., 5.
 —, Basque District.—Dufau, C.
 —, Bavaria.—Nieschl, A.
 —, Belgium.—Harzé, E., 2; Mailleux, E., 2; Rauff, H.
 —, Bohemia.—Kafka, J.
 —, California.—Furlong, E. L.; Sinclair, W. J.
 —, Cheddar.—Davies, H. N.
 —, Clare, Co.—Praeger, R. L., 3.
 —, Cyprus.—Bate, D. M. A.
 Caverns & caves, Derbyshire.—Arnold-Bemrose, H. H., 3; Brodrick, H.
 —, France.—Cahen, A.; Briet, L.; Boule, M., 1-3; Gazel, A.; Hamy, E. T.; Martel, E. A., 1-4, 6, 10, & 11; Mazauroic, F.; Viré, A., 1 & 2.
 —, Gibraltar.—Acland, H. D.
 —, Harz.—Blasius, W., 1 & 3.
 —, Kentucky, &c.—Couppey de la Forest, M. le, 2; Hovey, H. C.
 —, New Brunswick.—Bailey, L. W., 2.
 —, New South Wales.—Pittman, E. F.
 —, New Zealand.—Macleod, H. N.
 —, Patagonia.—Cordovez, M.
 —, Rome.—Stefani, C. de.
 —, Schaffhausen.—Kollmann, J.; Nuesch, J., 1 & 2; Studer, T.
 —, Sligo Co.—Praeger, R. L., 4.
 —, Transcaucasus.—Martel, E. A., 7-9.
 —, Trieste.—Marinitsch, J.
 —, Yorkshire.—Brodrick, H.
 Cavour, Monte (Piedmont).—Colomba, L., 2.
 Cayuga, Lake (N.Y.).—Matson, G. C.
 Cedar-Valley Formation, Iowa.—Calvin, S., 4.
Cedroxylon.—Pampaloni, L.
 Ceiriog R. (Wales).—Cope, T. H.
 Celebes (D. E. I.).—Bruhns, W.; Buecking, H., 2; Koperberg, M.; Man, J. G. de.
 Celestite.—Billows, E., 2; Henkel, L.; Kraus, E. H.; Strandmark, J. E.; Zambonini, F., 2.
 Cement-marl, Hungary.—Koch, A.
 Cements, United States.—Duryee, E.; Eckel, E. C., 5; Emerson, B. K.; Emmons, S. F., 4; Kimball, L. L.; Ries, H., 4; Smith, E. A., 1 & 2.
 —. See also Portland cement.
Cenellipsis & *Cenosphaera*.—Squinabol, S., 3.
Centrastræa.—Rauff, H., 2.
 Cephalopoda, Cambrian.—Karpinski, A., 2.
 —, Carboniferous.—Crick, G. C., 4 & 5.
 —, Cretaceous.—Crick, G. C., 3 & 8; Hamilton, A.; Hyatt, A.; Lasswitz, R.; Wollemann, A., 4; Yabe, H.
 —, Culm.—Rogers, I.
 —, Devonian.—Kolbe, H. J.
 —, Jurassic.—Bohm, G.; Campana, D. del; Canavari, M.; Crick, G. C., 1 & 6; Ilovaïski, D.; Loriol, P. de; Madsen, V.; Uhlig, V.; Yokoyama, M., 1 & 2.
 —, Permian.—Diener, C., 1 & 3.
 —, Silurian.—Blake, Rev. J. F., 2; Kindle, E. M., 2.
 —, Tertiary.—Dollfus, G. F., 5; Steinmann, G., 3.
 —, Triassic.—Crick, G. C., 6; Vredenburg, E., 4.
 —. See also Ammonites, &c.
Ceratiocaris.—Chapman, F., 5; Clarke, J. M., 3.

- Ceratites*.—Linstow, O. von, 2; Philipp, H.
- Ceratodus*-Beds, Sahara.—Haug, É., 4.
- Ceratophyre*, Liège.—Mathieu, E.
- Ceratotrochus*.—Dennant, J., 3.
- Ceres* (Cape Colony).—Rogers, A. W., 4.
- Ceriomya*.—Loriol, P. de.
- Cerithium*.—Archangel, A. D.; Dollfus, G. F., 5; Laskarev, V.; Wollemann, A., 4.
- Cervus*.—Koenen, C.; Marani, M.; Pavlov, M., 2; Renevier, E.; Schlosser, M., 2.
- Cestracion*.—Chapman, F., 7.
- Cetacea, Tertiary.—Abel, O.; Capellini, G.; Dal Piaz, G.
- Cetona, Monte di (Tuscany).—Fucini, A., 1 & 2.
- Ceylon.—Coomáráswámy, A. K., 1-8; Dixon, G. G.; Dunstan, W. R., 6; Henry, T. A., 7; Lomas, J., 7; Ramsay, W.; Stonier, G. A., 3; Struthers, J., 12; Vredenburg, E.
- , Mineralogical Survey of.—Coomáráswámy, A. K., 7.
- Cèze R. (Languedoc).—Mazaucic, F.
- Chablais (Savoie).—Rössinger, G., 2.
- Chad, Lake (Sudan).—Elliot, G. S. McD.; Foureau, F.; Gentil, L.; Hubert, H., 4; Lacoïn, L.
- Chatetes*.—Vaughan, A.
- Chalcedony, Martinique.—Lacroix, A., 2.
- Chalcophyllite, dehydration of.—Gaubert, P., 4.
- Chalcosite.—Lindgren, W., 7; Winchell, H. V.
- Chalk, Brunswick.—Wollemann, A., 1 & 3.
- , Denmark.—Hennig, A.
- , England.—Burnet, A.; Dibley, G. E.; Jukes-Browne, A. J., 3; Hinde, G. J.; Holmes, W. M.; Rowe, A. W.; Sherborn, C. D.; Wright, W.
- , Normandy cliffs.—Leprévost, E.
- , Pomerania.—Wahnschaffe, F.
- , Pyrenees (French).—Grossouvre, A. de.
- soils, water-purification &.—Davies, A. M., 2.
- , Swedish 'writing,' Drift &.—Holst, N. O., 2.
- , Transylvania.—Pálffy, M. von.
- Chalk-rubble, Sewerby.—Lamplugh, G. W., 2.
- Chama*.—Dall, W. H.; Oppenheim, P.; Remeš, M.
- Chamosite.—Andrimont, R. d'; Zalinski, E. R.
- Champlain Valley (N.Y. & Vt.).—Peet, C. E.; Van Ingen, G.
- Chanamayo (Peru).—Steinmann, G., 2.
- CHAPMAN, E. J. *See Obit.*, Anon., 2; Woodward, H., 4.
- Charcas (Mex.)—Caballero, G. de J., 2.
- Chard (Somerset).—Jukes-Browne, A. J.
- Charleroi (Hainault).—Smeyster, J., 1 & 2.
- Charles, Glacial lake (Mass.).—Clapp, F. G.
- Charmouth (Dorset).—Lang, W. D.
- Charnwood Forest (Leicester).—Röchling, H. A.; Watts, W. W., 2.
- Cheddar (Somerset).—Davies, H. N.
- Cheirotherium* - footprints.—Lomas, J., 3.
- Chelonia, Cretaceous.—Wieland, G. R., 1 & 2.
- , Tertiary. — Reinach, A. von; Stefano, G. di.
- Cheltenham (Gloucester).—Richardson, L., 7.
- Chemakha (Caucasus).—Weber, V., 2.
- Chemung formation, New York.—White, D.
- Chenopus*.—Loriol, P. de.
- Chepstow (Monmouth). — Richardson, L., 3.
- Cherso I. (Adriatic).—Waagen, L., 2.
- Chert, Belgian Devonian.—Fourmarier, P.; Sinoëns, G., 2.
- , Ceylon. — Coomáráswámy, A. K., 6.
- , Rustenburg (Transvaal). — Jorissen, E.
- Chervettaz, Bois de la (Vaud).—Lugeon, M.
- Cheshire.—Lomas, J., 2.
- Cheviot Hills (Northumberland). — Goodchild, J. G., 4.
- Chicago (Ill.).—Alden, W. C.
- Chickasaw Co. (Iowa).—Calvin, S., 3.
- Chiesa (Lombardy).—Brugnatelli, L., 2.
- Chihuahua (Mex.).—Caballero, G. de J.
- Chile (S. Am.). — Campo, F. del; Kämpfer, E.; Montessus de Ballore, F. de, 3; Ochsenius, C., 2; Pöhlmann, R.; Semper, —; Steinmann, G., 3.
- Chiltern (Vict.).—Dunn, E. J.; Hunter, S. B., 2.
- Chimæra*.—Jækel, O., 2.
- China.—Heurteau, C. E.; Hobbs, W. H., 3; Rinne, F., 3; Schlosser, M., 2; Vogelsang, K.
- , *See also Asia*.
- Chione*.—Dall, W. H.
- Chipping Sodbury (Gloucester). *See Sodbury*.
- Chistochina (Alaska).—Mendenhall, W. C., 2.
- Chitraldroog (Mysore).—Slater, H. K.
- Chlamys*. — Cossmann, M., 3 & 4; Ihering, H. von; Vinassa de Regny, P. E., 2.
- Chloromelanite. — Bauer, M., 2; Colomba, L., 3.
- Chonetes*.—Raymond, P. E.; Reed, F. R. C.
- Chopwell Woods (Durham).—Simpson, J. B.
- Chota-Nagpur (Bengal).—Maclaren, J. M., 2.
- Chota-Udepur State (Bombay).—Henry, T. A.

- Choteboř (Bohemia).—Petrascheck, W., 4.
- Christiania*.—Clarke, J. M., 12.
- Chromite, New Caledonia.—Glasser, E.
- , United States.—Pratt, J. H., 10.
- , *See also* Iron.
- Chrysemys*.—Loomis, F. B.
- Chrysoberyl.—Slavik, F., 3.
- Chrysocolla.—Lindgren, W., 7.
- Chumung concretions, New York. — Kundle, E. M.
- Chuniola*.—Gagel, C.
- Church Stretton (Salop).—Cobbold, E. S.
- Cibali (Catania).—Scalia, S., 2.
- Cidaris*.—Loriol, P. de, 2.; Tokunago, S.
- Cimitaria*.—Clarke, J. M., 2.
- Cincinnati (Ohio).—Første, A. F.
- Cinnabar, British Columbia.—Kendall, J. D.; Monckton, G. F.
- , Peru.—Umlauff, A. F.
- , *See also* Quicksilver.
- Cirropsis*.—Perner, J.
- Cittanova (Istria).—Moser, L. K., 2.
- Clacton-on-Sea (Essex).—Webb, W. M.
- Cladophlebis*.—Zeiller, R., 2.
- Clanwilliam (Cape Colony).—Rogers, A. W., 3.
- Clapham (Beds.).—Woodward, H. B., 4.
- CLAR, K. *See Obit.*, Waagen, L., 3.
- Clare Co. (Ireland).—Praeger, R. L., 3.
- Clarendon (Texas).—Gidley, J. W., 3.
- Clastic dykes.—Newsom, J. F.
- Claudette.—Lozcka, J.
- Clavella*.—Pritchard, G. B.
- Clavulites*.—Girty, G. H., 4.
- Claxheugh (Durham).—Woolacott, D., 1, 2, & 4.
- Clay, analyses of U.S.—Clarke, F. W., 2.
- , composition of.—Ludwig, —.
- , geology of.—Beyer, S. W.
- , George's Bay (Tasm.).—Twelve-trees, W. H., 4.
- mining.—Brough, B. H.
- , Mississippi & Tennessee.—Eckel, E. C., 3.
- , New Jersey.—Knapp, G. N.; Kuenmel, H. B.
- , New York.—Ries, H.
- , Pennsylvania.—Anon., 19; Emmons, S. F., 4.
- , 'Posen-flaming.' — Maas, G.; Berent, G.
- , United States production.—Middleton, J.; Ries, H., 2.
- with flints, Woldingham. — Roberts, N. F.
- Clearwater Mts. (Mont.).—Lindgren, W., 2 & 5.
- Cleavage, Mineral.—Friedel, G., 1 & 3.
- , *See also* Minerals.
- Clee Hill (Salop).—Clarke, W.
- Cleeve Hill (Gloucester).—Gray, J. W.
- Cleiothyris*.—Etheridge, R., *fil.*, 3.
- Cleveland Hills (Yorks).—Howarth, J. H.; Kendall, P. F.
- Clidophorus*.—Clarke, J. M.
- Cliffwood Clays, New Jersey.—Knapp, G. N.
- Cliffwood (N.J.).—Berry, E. W.
- Clifton (Ariz.).—Lindgren, W., 3 & 7.
- Climates, evolution of.—Winchell, N. H.
- , geological.—Fairchild, H. Le R., 3.
- , Palæolithic alpine.—Schuls, A., 2.
- Clinocompass.—Blaas, J.
- Climopains. *See* Terrace-plains.
- Clinton Co. (Pa.).—Anon., 19.
- Cliona*.—Schuetze, E.
- Clitophæna*.—Squinabol, S., 3.
- Clonograptus*.—Tornquist, S. L.
- CLOSE, M. H. *See Obit.*, Geikie, Sir Archibald, 4.
- Clunes (Victoria).—Bradford, W., 5.
- Clunie, Glen (Aberdeen).—Barrow, G.
- Coal, Alaska.—Collier, A. J., 1 & 2.
- , analysis of Austrian.—John, C. von, 1 & 2.
- , analyses of British.—Anon., 14.
- , analyses of gas.—Lishman, G. P.
- , anthracitization of.—Burns, D., 2.
- , Assam.—Bose, P. N.; Grundy, J., 12.
- , Baluchistan.—Grundy, J., 8, 9, 13, & 14.
- , Belgium. — Fourmarier, F., 2; Lambert, G.
- , *See also* Campine, &c.
- , Brazil.—Scott, H. K., 2.
- , British Columbia.—Macbride, R.; Stonier, G. A.; Vicaire, A.
- , Campine, &c.—Harzé, E., 4; Lohest, M., 7 & 8; Van Ertborn, O.
- , Canada.—Hoffmann, G. C.
- , Cape Colony.—Dunn, E. J., 2.
- , China.—Heurteau, C. E.
- , Derbyshire.—Deacon, M.
- , Durham & Northumberland.—Lee, M.; Simpson, J. B.
- , Egypt.—Alford, C. J.
- , Farøe Is.—Greener, G. A.
- , formation of.—Hall, H.; Hutton, F. W.
- , Gard.—Dougados, —.
- , Great Britain, &c.—Atkinson, J. B., 1-3.
- , Hungary.—Kalecsinszky, A. von, 1 & 3.
- , India.—Fermor, L. L.; Grundy, J., 1-15; Saise, W.; Simpson, R. R., 2.
- , Iowa.—Beyer, S. W., 2.
- , Japan.—Heurteau, C. E.; Lozé, E.; Yonekra, K.
- , Lanarkshire calcareous.—Dron, R. W., 2.
- Measures. *See* Carboniferous.
- mining.—Brough, B. H.
- , history of.—Galloway, R. L.
- , Natal.—Gray, C. J.
- , New Brunswick.—Bailey, L. W.; Poole, H. S.
- , New Caledonia.—Glasser, E.
- , New Mexico.—Reagan, A. B., 2.

- Coal, New South Wales.—Atkinson, A. A.; Herrmann, A.; Pittman, E. F.
 —, Northumberland. *See* Coalfields & Durham.
 —, Nova Scotia.—Gilpin, E., Jun., 3 & 4; Poole, H. S., 2.
 —, Nyřan Permian.—Ryba, F.
 —, Pennsylvania, &c.—Emmons, S. F., 4.
 —, Peru.—Anon., 16; Pinzás, E. J., 2.
 —, plants forming.—Grand'Eury, —, 2.
 —, Queensland.—Dunstan, B.
 —, Saarbrücken.—Van Werveke, L.
 —, Saxony.—Dalmer, K., 2.
 —, Silesia.—Herbing, J.; Michael, R.
 —, Tasmania.—Twelvetrees, W. H., 7-10.
 —, Trinidad.—Dunstan, W. R.
 —, United States production.—Parker, E. W.
 —, Vaud molasse.—Kissling, E.
 —, Warwickshire.—Swallow, F. C.
 —, Welshpool (Vict.).—Kitson, A. E., 4.
 —, Yukon Territory.—Haanel, E., 2.
 Coalfields, Africa (S.).—Corstorphine, G. S.; Molengraaff, G. A. F., 3.
 —, Belgium.—Forir, H.; Harzé, É., 1 & 3; Stainier, X., 1, 3, 4, & 6.
 —, Bristol.—Onions, J. T.
 —, Colorado.—Lakes, A.
 —, Illinois.—Fuller, M. L., 3.
 —, India.—Blake, G. S., 2; Fuller, M. L., 3; Simpson, R. R.; Stonier, G. A., 2.
 —, Indo-China.—Monod, G. H.
 —, Iowa.—Beyer, S. W., 2.
 —, Japan.—Yonekra, K.
 —, Lancashire.—Gerrard, J.
 —, New Zealand.—Park, J., 2.
 —, Pennsylvania.—Campbell, M. R., 2.
 —, Pictou.—Poole, H. S., 2.
 —, Scotland.—Moore, R. T.; Smith, W.; Traquair, R. H.
 —, Silesia.—Gäbler, D.; Tornau, F.
 —, United States distribution of.—Hayes, C. W., 3.
 —, Wales (S.).—Roberts, J.; Strahan, A., 3.
 Coast-changes, British Isles, &c.—Geikie, Sir Archibald, 3 & 5; Parkinson, J.
 — erosion.—Allanson-Winn, R. G.; Spiller, J.; Worth, R. H.
 — forms, Cheshire & Lancashire.—Lomas, J., 2.
 — ranges, America (N.).—Spencer, A. C.
 Cobalt, Canada & United States.—Pratt, J. H., 3.
 —, Hungary.—Gesell, A.
 —, New Caledonia.—Glasser, E.
 —, Transvaal.—Dœrffel, D.; Horwood, C. B.
 Cobaltiferous mispickel, Norway.—Fletcher, M.
 Coblenz (Rh.-Prussia).—Kœnen, C.
Cocodus.—Hay, O. P., 2; Jækel, O., 3.
Cochlearites.—Reis, O. M.
 Cockburn Law & Cockburnspath (Berwick).—Goodchild, J. G., 2 & 4.
 Cockroaches, Carboniferous.—Sellards, E. H.
Codakia.—Dall, W. H.
 Cœlestine. *See* Celestite.
Cœloceras.—Yokoyama, M., 2.
Cœloma.—Ravn, J. P. J., 2.
 Cœur d'Alène (Idaho).—Finlay, J. R., 1 & 2.
Coilopoceras.—Hyatt, A.
 Colima Volcano (Mexico).—Arreola, J. M.; Ordoñez, E.
Collonia.—Pritchard, G. B.
 Colombia (S. Am.).—Codazzi, R. L.; Hubert, E.; Williams, E. G.
 Colorado (U.S.A.).—Cross, W.; Emmons, S. F., 4; Fenneman, N. M.; Howe, E.; Lakes, A., 1 & 5; Purington, C. W.; Spencer, A. C., 3.
 —. *See also* Gold, &c.
 Colossal Cavern (Ky.).—Hovey, H. C.
 Cols, Lauenen district.—Ræssinger, G.
Columbella.—Dall, W. H.; Esch, E. von; Laskarev, V.; Pritchard, G. B.
 Columbite.—Tchernik, G. P.
Cominella.—Archangel, A. D.
 Commission, International Geological.—Geikie, Sir Archibald.
 Como, L. (Italy).—Bisram, A. von; Repossi, E.
Comoseris.—Rauff, H., 2.
 Concepcion Bay (Chile).—Steinmann, G., 3.
Conchidium.—Kindle, E. M., 2.
 Concretions, Chumung.—Kindle, E. M.
 —, geological effects & origin of.—Todd, J. E.
 Condroz massif (Namur).—Destinez, P., 1 & 2.
 Cones, artificial volcanic.—Tabary, P.
Congeria.—Andrussov, N.; Laskarev, V.
 — beds, Lr. Austria, &c.—Handmann, R., 2; Rzehak, A., 2.
 Conglomerate, Kromdraai.—Sawyer, A. R., 2.
 —, Lehigh (Pa.).—Peck, F. B.
 —, Liège Coal-Measure.—Stainier, X., 4.
 —, Namur Devonian.—Dorlodot, L. de.
 —, Sashalom.—Lœrenthey, E., 4.
 —, Würtemberg Quaternary.—Dietrich, W.
 —. *See also* Banket, Gold, &c.
 Conglomerate-dykes, Arizona.—Campbell, M. R., 4.
 Congo Free State (Equat. Africa).—Buttgenbach, H.
 Congress. *See* Geological Congress.
Coniferites.—Potonié, H., 2.
Conites.—Zeiller, R., 2.
 Connecticut (U.S.A.).—Rice, W. N., 2.

- Contact-deposits, origin of.—Weed, W. H., 5.
 — metamorphism.—Ells, R. W.; Erdmannsdorffer, O. H.; Hubert, H., 3; Klockmann, F.; Lane, A. C., 2 & 3.
 —. See also Metamorphic.
 — ore-deposits, Thuringia.—Hess von Wichdorf, H.
 Continental elevation and subsidence.—Geikie, Sir Archibald, 3.
 — origin of Fiji.—Woolnough, W. G.
 Continents, origin of.—Mackie, W.
Conularia.—Clarke, J. M.
 Coë (Liège).—Dewalque, G., 4; Mathieu, E.
 Coolgardie (W. Austral.).—Gibson, C. G., 2; Maitland, A. G., 2-4.
 —. See also Gold, &c.
Cooperella.—Dall, W. H.
 Copford (Essex).—Webb, W. M.
 Coppaelian volcanoes (Rome).—Sabatini, V.
 Copper, Alaska.—Mendenhall, W. C., 3.
 —, Arizona.—Lindgren, W., 3; Ransome, F. L., 1-3.
 —, Brazil.—Scott, H. K., 2.
 —, California & Carolina, &c.—Diller, J. S., 1 & 4.
 —, Chile.—Kämpffer, E.
 —, Colorado.—Spencer, A. C., 3.
 —, Cornwall.—Macalister, D. A.
 —, Corsica.—Tacconi, E.
 —, Cuba.—Hamilton, S. H.
 —, Darjiling.—Hayden, H. H., 2.
 —, deposition of.—Lane, A. C.
 —, garnet in association with.—Blake, W. P., 3.
 —, Georgia, &c.—Emmons, S. F., 4.
 —, Ireland.—Kinahan, G. H., 2.
 —, Montana.—Weed, W. H., 3.
 —, Namaqualand.—Kuntz, J., 4; Voit, F. W., 2.
 —, New Caledonia.—Glasser, E.
 —, New Mexico.—Turner, H. W.
 —, New South Wales.—Pittman, E. F.
 —, Northampton (W. Austral.).—Maitland, A. G.
 —, Ontario.—Carter, W. E. H.; Miller, W. G.
 —, Paris sub-soil.—Durandière, — de la.
 —, Peru.—Anon., 17; Pinzàs, F. J.
 —, Queensland.—Ball, L. C., 5; Dunstan, B., 2.
 —, Rhodesia.—Dowie, R. C.
 —, Sumatra.—Milch, L., 3.
 —, Tasmania.—Waller, G. A.
 —, Transcaucasus.—Nicou, P.
 —, United States production.—Kirchoff, C., 1.
 —, Utah.—Boutwell, J. M., 2.
 —, Wyoming.—Emmons, S. F., 2; Lakes, A., 8; Spencer, A. C., 2 & 6.
 —, Yukon Territory.—Haanel, E., 2.
 Copper, origin of.—Hornung, F.
 Copper pyrites, Bolivia.—Toborvi, Z.
 — veins, Bohemia & Saxony.—Andriamont, R. d', 3.
 Coprolites, Permian.—Neumayer, L.
 Coral-reefs, Palæozoic.—Grabau, A. W., 1.
 —, recent.—Agassiz, A.; Branner, J. C., 3; Crossland, C.; Gardiner, J. S., 1 & 2; Schwarz, E. H. L., 3; Sollas, W. J., 3.
 Corals, Carboniferous.—Girty, G. H.; Vaughan, A.; Yakovlev, N., 1 & 4.
 —, Cretaceous.—Capeder, G., 2; Dacqué, E.; Felix, J.
 —, Devonian.—Angelis d'Ossat, G. de, 2; Clarke, J. M., 12.
 —, Jurassic.—Bellini, R.; Rauff, H., 2.
 —, Permian.—Diener, C.
 —, prototheca of.—Bernard, H. M.; Yakovlev, N., 4.
 —, Quaternary.—Felix, J., 2.
 —, Silurian.—Bernard, H. M.; Etheridge, R., *fil.*, 4; Whitfield, R. P., 2; Yakovlev, N., 4.
 —, Tertiary.—Angelis d'Ossat, G. de; Dennant, J., 3; Duerden, J. E.; Felix, J., 2; Janensch, W.; Newton, R. B., 4.
Corbula.—Archangel, A. D.; Esch, E. von; Laskarev, V.
Corbicula.—Newton, R. B., 4.
Cordylocrinus.—Rowley, R. R.
 Corea. See Korea.
 CORFIELD, W. H. See *Obit.*, Geikie, Sir Archibald, 4.
 Corfu I. (Ionian Is.).—Renz, C., 2.
 Cork Co. (Ireland).—Muff, H. B.; Wright, W. B.
 Cornwall.—Collins, J. H.; Davison, C., 6; Flett, J. S., 3; Fox, H., 1 & 2; Green, U., 1 & 2; Macalister, D. A.; Pearce, R.; Prior, G. T.; Reid, C., 2 & 4; Ussher, W. A. E.; Whitley, D. G.
 Coronadite.—Lindgren, W., 7.
 Corsica.—Bonney, T. G.; Lake, P., 2; Tacconi, E.; Tuckett, F. F.
 Corundum.—Brough, B. H.; Carter, W. E.; Coomáraswámy, A. K., 6; Lacroix, A.; Pratt, J. H., 6; Primrose, A., 2; Zeiska, F.
Cosmacanthus.—Evans, H. M.
Cosmina.—Perner, J.
 Côte-d'Or (France).—Martel, E. A., 11.
 Cotentin (Normandy).—Cossmann, M., 4.
 Cotteswold Hills (Gloucester).—Richardson, L., 5.
 Coulsdon (Surrey).—Holmes, W. M.
 Courny, Puy- (Auvergne).—Capitan, L.
 Courtmacsherry Bay (Co. Cork).—Wright, W. B.
 Couvin (Namur).—Mailleux, E., 1 & 2.
 Couzeranite, limestone with.—Depéret, C., 3.
 Covehithe (Suffolk).—Spiller, J.
 Cracow (Galicia).—Guerich, G., 3.
 Cranbourne (Victoria).—Kitson, A. E., 3.

- Cranæna*.—Girty, G. H.
Crania.—Clarke, J. M., 12; Schepotiev, A.
Crassatella.—Oppenheim, P.
Crassatellites.—Dall, W. H.
 Crati Valley (Calabria).—Crema, C.; Fucini, A., 3.
Creosaurus.—Osborn, H. F., 3.
Crepidula.—Dall, W. H.; Mayer-Eymar, C.
 Cretaceous, Antrim.—Welch, R.
 —, Argentina.—Ihering, H. von.
 —, Bavarian Alps.—Schlosser, M., 4.
 —, Belgium.—Van Ertborn, O., 2.
 —, Berne.—Baumberger, E., 2.
 —, Bohemia.—Jahn, J. J.
 —, Brunswick.—Wollemann, A., 1 & 3.
 —, Cambridgeshire.—Marr, J. E., 1 & 2.
 —, Cameroons.—Esch, E. von.
 —, Dauphiné.—Lory, P., 2.
 —, Denmark.—Henning, A.
 —, England.—Fox-Strangways, C.; Jukes-Browne, A. J., 3; Rowe, A. W.
 —, France (N.).—Briquet, A., 2; Gosselet, J., 7.
 —, Galician Podolia.—Teisseyre, W.
 —, Greece.—Cayeux, L.
 —, Hanover.—Wollemann, A., 4.
 —, Japan.—Yabe, H.
 —, Libyan Desert.—Quaas, A.
 —, Maryland.—Clark, W. B.
 —, Mexico.—Hall, C. E.
 —, New Jersey.—Berry, E. W.
 —, New Mexico.—Keyes, C. R., 3.
 —, Paris Basin.—Péron, A.
 —, Patagonia.—Wilckens, O.
 —, Persia.—Pilgrim, G. E.
 —, Portugal.—Felix, J.
 —, Pyrenees.—Carez, L., 5; Depéret, C., 3.
 —, Sahara.—Haug, E., 4.
 —, Silesia.—Flegel, K.; Petrascheck, W., 5.
 —, Somaliland.—Dacqué, E.
 —, Spain.—Mallada, L.
 —, Sula Is.—Bœhm, G.
 —, Swiss Jura.—Baumberger, E., 1 & 2.
 —, Teutoburg Forest.—Mueller, G.
 —, Texas.—Lasswitz, R.
 —, Tobolsk Gov.—Ilovaïski, D., 2.
 —, Venetia.—Airaghi, C.
 —, Vorarlberg.—Stizenberger, J.
 Crete, I. of.—Cayeux, L., 2.
Cribricella.—Canu, F., 2.
 CRICK, W. D. *See Obit.*, Geikie, Sir Archibald, 4; Monckton, H. W., 3; Thompson, B., 4; Woodward, H., 5.
 Crieff (Perth).—Kerr, W., 1-3.
 Crinoidea, Cretaceous.—Ravn, J. P. J.; Schuchert, C., 3; Wollemann, A., 4.
 —, Devonian.—Wood, E., 2.
 —, Jurassic.—Schuchert, C., 3.
 Cripple Creek (Colo.).—Rickard, T. A., 2; Stevens, E. A.
Cristellaria.—Schubert, R. J.
 Croatia.—Gorjanović-Kramberger, D., 1-3.
Crocodylus.—Loomis, F. B.
 Crocoite.—Slavík, F., 3.
Cromyodrinus.—Squinabol, S., 3.
 Croydon (Surrey).—Dibley, G. E.; Wright, W.
 — Bourne (Surrey).—Latham, B.; Whitaker, W., 3.
 Crustacea, Devonian.—Clarke, J. M., 3 & 5.
 —, Jurassic.—Remeš, M.
 —, Permian.—Beecher, C. E.
 —, Quaternary.—Checchia-Rispoli, G.; Man, J. G. de.
 —, Silurian.—Clarke, J. M., 1 & 3.
 —, Tertiary.—Ravn, J. P. J., 2; Toula, Q.
 Cryolite.—Pratt, J. H., 7.
 Cryolithionite.—Kœchlin, R., 2; Ussing, N. V.
Cryptonella.—Reed, F. R. C.
 Crystalline limestone, Ceylon.—Coomaraswamy, A. K.
 — surfaces, refracted light &.—Osthoff, A.
 Crystallization, order of mineral.—Tschermak, G.
 Crystallography.—Cesàro, G.; Gaubert, P., 1 & 7; Wallerant, F.
 Crystals, faces of.—Gaubert, P., 1, 2, & 7; Miers, H. A.
 —, formation of.—Brazza, F. di; Friedel, G., 1 & 3; Gaubert, P., 3; Samoilov, J.; Wallerant, F.
 —, magnetism &.—Baviak, B.
 —, polarization of.—Osthoff, A.
 —, projection of.—Smith, G. F. H., 2.
 —, rock-salt.—Andrée, K.
 —, symmetry of.—Grattarola, G.; Nold, A.; Sommerfeldt, E.
 —, twinning of.—Friedel, G., 2; Goldschmidt, V., 3; Kœchlin, R.; Tschermak, G.; Wallerant, F., 3.
 Crystosphenes.—Tyrrell, J. B., 2.
Ctenobolbina.—Ruedemann, R.
Ctenodonta.—Delgado, J. F. N., 2.
Ctenopteris.—Zeiller, R., 2.
Ctenothrissa.—Hay, O. P., 2.
 Cuba (W.I.).—Birkinbine, J.; Hamilton, S. H.; Spencer, J. W., 2 & 4.
Cucullæa.—Archangel, A. D.; Broili, F., 3; Ihering, H. von; Oppenheim, P.; Tommasi, A.
 Cudowa (Bohemia).—Petrascheck, W.
 Culham (Oxon).—White, H. J. O.
 Culm, Devon.—Arber, E. A. N., 6; Hind, W.; Rogers, I.; Vaughan, A., 3.
 —, Germany.—Parkinson, H.
 Cumberland.—Burns, D.; Harker, A.; Lewis, F. J.; Walker, E. E.
 CUMENGE, É. *See Obit.*, Launay, L. de.
 Cummingtonite.—Tapesenko, V.
Cupressinoxylon.—Arber, E. A. N., 2; Pampaloni, L.
Cupressoxylon.—Penhallow, D. P.

- Curgy (Burgundy).—Sauvage, H. E., 2.
Cursipes.—Matthew, G. F., 4.
Cuspidaria.—Dall, W. H.
 Cuxton (Kent).—Bennett, F. J., 2.
 Cuyrmaca Mt. (Cal.).—Lakes, A., 2.
Cyathaspis.—Jäkel, O., 4.
Cyathidium.—Ravn, J. P. J.
Cyathocrinus.—Rowley, R. R.
Cyathodonta.—Dall, W. H.
Cycadeoidea.—Ward, L. F.; Wieland, G. R., 3.
Cycadolepis.—Zeiller, R., 2.
 Cycads, fruit of.—Zeiller, R., 3.
Cyclinella.—Dall, W. H.
Cyclolites.—Felix, J.
Cyclolobus.—Diener, C., 1 & 3.
Cyloseris.—Bellini, R.; Newton, R. B., 4.
Cyclotropis.—Perner, J.
 Cyndrite.—Prior, G. T., 2.
Cymbularia.—Perner, J.
Cynodiectis.—Matthew, W. D.
Cynognathus.—Broom, R., 10.
Cyphaspis.—Harbort, E.
Cyphastræa.—Felix, J., 2.
Cyphotrypa.—Ulrich, E. O.
Cypricardella.—Clarke, J. M., 2.
Cypridina.—Jones, T. R.
Cyprina.—Cossman, M., 3; Jensen, A. S., 1 & 2; Oppenheim, P.
 Cyprus.—Bate, D. M. A.
Cyrena.—Dall, W. H.; Oppenheim, P.; Yokoyama, M.
Cyrenoida.—Dall, W. H.
Cyrenopsis.—Etheridge, R., *fl.*, 2.
Cyrospira.—Clarke, J. M., 12.
Cyrthocapsa.—Squinabol, S., 3.
Cyrtodelphis.—Dal Piaz, G.
 Cyrtolite. See Zircon.
Cyrtolites.—Perner, J.
Cyrtophormis.—Squinabol, S., 3.
Cystiphyllum.—Angelis d'Ossat, G. de, 2.
Cythara.—Dall, W. H.
Cytheræa.—Archangel, A. D.; Dall, W. H.; Esch, E. von.
Cytheridea.—Chapman, F.
Cytheropteron.—Chapman, F., 1 & 2.
 Czenstochau (Russian Poland).—Reh-binder, B. von.
 Dachsenbüel cave (Schaffhausen).—Kollmann, J.; Nuesch, J.
Dactyloceras.—Yokoyama, M., 2.
Dactylius.—Roman, F.
 Daghestan (Asia Minor).—Renz, C., 4.
 Dahlonega (Ga.).—Eckel, E. C.
 Dakota, N. (U.S.A.).—Todd, J. E., 1-3; Upham, W., 5; Wilder, F. A., 2.
 —, S.—Bendrat, T. A.; Irving, J. D.; Todd, J. E., 1-3; Upham, W., 5.
 Dakota Group, America (N.).—Bureau, E.
 Dalecarlia (Sweden).—Huene, F. von.
Dalmanites.—Lake, P.
 Dalmatia.—Dainelli, G.; Diener, C., 4; Faidiga, A.; Kerner, F., 1 & 2; Martelli, A.; Renz, C.; Schubert, R. J., 1 & 4; Waagen, L., 3 & 4.
 Damaraland (S.W. Africa).—Kuntz, J., 4.
 DAMOUR, A. See *Obit.*, Ternier, P.
 Danburite.—Goldschmidt, V.; Millosevich, F.
 Dandenong (Victoria).—Sutherland, I. M.
 Dandot (Salt Range).—Grundy, J., 7.
 Danian, Denmark.—Hennig, A.
 —, France.—Grossouvre, A. de, 2.
 Danube R. (Rumania).—Sevastos, R.
Daonella.—Philipp, H.
Daphnandra.—Deane, H.
 Dardanelles.—English, T.; Flett, J.; Newton, R. B., 4.
 Darjiling (Bengal Pres.).—Hayden, H. H., 2.
 Darwin, Mt. (Tasm.).—Waller, G. A.
 Dauphiné (France).—Haug, E., 2; Kilian, W.; Lory, P., 1 & 2; Martel, E. A., 10; Ternier, P., 2.
Davidia.—Delgado, J. F. N., 2.
 Davie Co. (N. Car.).—Watson, T. L., 2.
 Dayvhurst (W. Austral.).—Gibson, C. G., 2.
 Dawley (Middlesex).—Monckton, H. W., 7.
 Dax (Gascony).—Stuart-Menteath, P. W., 2.
 Daylesford (Victoria).—Bradford, W., 2.
 De Kaap goldfield (Transvaal).—Molengraaff, G. A. F.; Rathbone, E. P.
 Dead Sea (Palestine).—Ackroyd, W.
 Dearne R. (Yorks).—Carter, W. L., 2.
 Death Gulch (Yellowstone Park).—Trapp-lagen, F. W.
 Dębnik (Galicia).—Guerich, G.
 Dedolomitization.—Teall, J. J. H., 2.
 Deep Creek (Victoria).—Herman, H.
 Deep-sea deposits, Atlantic (S.).—Pirie, J. H. H.
 Dehesa (Cal.).—Kessler, H. H.; Lawson, A. C.
 Dehydration, mineral.—Gaubert, P., 4.
Dekayella.—Ulrich, E. O.
 Delaware (U.S.A.).—Clark, W. B.
Delphinula.—Picard, E.
Delphinus.—Abel, O.; Koch, A., 2.
Dendracis.—Torquist, A.
 Denmark.—Hennig, A.; Holst, N. O.
Dentalium.—Cossman, M., 2; Wolle-mann, A., 4.
Dentilucia.—Cossman, M., 3.
 Dephosphorization, iron &.—Launay, L. de, 2.
 Deposits, origin of geological.—Monck-ton, H. W., 6.
 Derbyshire.—Arnold-Bemrose, H. H., 1-3; Brodick, H.; Davison, C., 1 & 3; Deacon, M.; Howe, J. A.; Stobbs, J. T.
Dermatemys.—Reinach, H. von.
Deroceras.—Fucini, A.
 Desborough (Northants).—Moore, J. R.
 Descloizite.—Caballero, G. de J., 2; Lovisato, D., 2; Sigmund, A.
 Deserts, discoloration of rocks in.—Blake, W. P., 5.

- Deserts, origin of.—Kœnen, A. von.
 —, sands of.—Vinassa de Regny, P. E.
 —, Triassic.—Walther, J.
Desmoceras.—Yabe, H.
Desorella.—Woods, H.
 Deutschbrod (Bohemia).—Hinterlechner, K.
 Dévoluy (Hautes-Alpes).—Martel, E. A., 2.
 Devon.—Collins, J. H.; Hind, W.; Irving, A.; Jukes-Browne, A. J., 2; Lowe, H. J.; Maclaren, J. M.; Rogers, I.; Somervail, A., 1-3; Ussher, W. A. E.; Vaughan, A., 3; Worth, R. H.
 Devonian, Africa (S.).—Reed, F. R. C., 1 & 2; Suess, E., 3.
 —, Bohemia.—Potonié, H., 2.
 —, classification of Upper.—Frech, F.
 —, Colorado.—Cross, W.
 —, Condroz.—Destinez, P.
 —, Cornwall.—Green, U., 2; Ussher, W. A. E., 1 & 2.
 —, Galicia.—Guerich, G., 1 & 3.
 —, Hesse, &c.—Kaiser, E., 4.
 —, Iowa.—Calvin, S., 1-4.
 —, Namur.—Destinez, P., 2; Dorlodot, L. de.
 —, New York.—Clarke, J. M., 10; Dickinson, H. T.; Kindle, E. M., 1 & 3; Williams, H. S., 2 & 3.
 —, Ohio & Pennsylvania.—Williams, H. S., 2.
 —, Ontario.—Parks, W. A.
 —, picrites, Dillenburg.—Brauns, R.
 —, Sahara.—Foureau, F., 2.
 —, Westphalia.—Denckmann, A., 1 & 2; Drevermann, F., 2.
 —. *See also* Old Red Sandstone, &c.
 Devonian cherts, Belgian.—Simoëns, G., 2.
 Dewlish (Dorset).—Fisher, Rev. O.
 Diabase, California.—Hæhl, H. L.
 —, contact-metamorphism of.—Erdmannsdorffer, O. H.
 —, Erythrea.—Alais, P., 2.
 —, Greenland.—Nordenskjöld, O., 2.
 —, Poltava.—Morozevich, I.
 —, Saxony.—Bergt, W., 2.
 —, Tongking.—Hubert, H., 2.
 —, Tuscany.—Manasse, E.
 Diablo-Cañon meteorite (Arizona).—Moissan, H., 2.
Diacanthocapsa.—Squinabol, S., 3.
Diacranodus.—Broili, F.
 Dial Range (Tasin).—Twelvetrees, W. H.
 Diamantiferous deposits, Transvaal.—Kynaston, H., 2.
 Diamonds.—Brough, B. H.; Gaubert, P., 3; Graichen, W.; Hall, A. L., 3; Kunz, G.; Pittman, E. F.
Diaphorostoma.—Clarke, J. M., 2.
 Diapsida.—Osborn, H. F., 4.
 Diaptase.—Lindgren, W., 7.
 Diaptsauria.—Osborn, H. F., 4.
 Diatomaceous earth. *See* Tripoli.
Dicellograptus.—Elles, G. L., 2.
Diceras.—Menzel, H., 2.
Dichograptus.—Tærnquist, S. L.
Dicholocapsa.—Squinabol, S., 3.
Dicrostonyx.—Præger, R. L., 4.
Dictyastrum, *Dictyocephalus*, *Dictyomitra*.—Squinabol, S., 3.
Dictyophyllum.—Zeiller, R., 2.
Didolodus.—Ameghino, F.
Didymodus.—Broili, F.
Didymograptus.—Hall, T. S.
Didymospira.—Philipp, H.
Dielasma.—Diener, C.; Drevermann, F., 2.
 Dierdorf (Westphalia).—Drevermann, F., 2.
 Dillenburg (Nassau).—Brauns, R.
Dimetron.—Case, E. C.
Dimorphastrea.—Rauff, H., 2.
 Dinant (Namur).—Frapout, J.
Dinopilio.—Fritsch, A., 2.
 Dinornithidæ.—Hamilton, A., 2 & 3.
 Dinosauria, birds &.—Gadow, H.
 —, Cretaceous.—Inkey, B. von; Lambe, L. M., 3; Riggs, E. S.
 —, Jurassic.—Woodward, A. S., 7.
 —, Triassic.—Riggs, E. S., 2.
 —. *See also* Reptilia.
 Diorite, Carolina (N.).—Watson, T. L., 2.
 —, Greenland.—Phalen, W. C.
 —, Ural Mts.—Morozevich, I., 3.
Diplocaulus.—Broili, F., 2.
Diploctenium.—Felix, J.
Diplodon.—Ihering, H. von.
Diplodonta.—Oppenheim, P.
Diplomystus.—Newton, R. B., 4.
Diplostrobos.—Squinabol, S., 3.
Dipoides.—Schlosser, M., 2.
Discinisca.—Dall, W. H.
Discinocaris.—Clarke, J. M., 5.
Discovermetulus.—Rovereto, G., 4.
Dispongotropis.—Squinabol, S., 3.
 Disthene. *See* Kyanite.
Dithyrocaris.—Chapman, F., 5.
Divaricella.—Dall, W. H.
 Djoua (Sahara).—Haug, E., 4; Foureau, F., 2.
 Dobrudsha (Rumania).—Toula, F.
 Dobsina (Hungary).—Gesell, A.
Dolatocrinus.—Wood, E., 2.
 Dolerite, Hesse.—Schwantke, A.
 —, Shropshire.—Boulton, W. S., 2.
 Dolnja-Tuzla (Bosnia).—Schubert, R. J., 3.
 Dolomite, calcite &.—Hinden, F.
 —, Iowa.—Knight, N.
 —, Lepontine Alps.—Bistram, A. von.
 —, Lombardy.—Tommasi, A.
 —, Transvaal.—Hatch, F. H., 5; Jorissen, E.
 —, Tyrol.—Skeats, E. W.
 Dome-structure, Sierra Nevada (Cal.).—Gilbert, G. K., 2.
 Domes, Vesuvian lava.—Mercalli, G.
 Domeykite.—Caballero, G. de J.; Kœnig, G. A.
 Don Cossacks, Prov. (Russia).—Bogachev, V.
 Don R. (Russia).—Derjavin, A.

- Don R. (Yorks).—Carter, W. L., 1 & 2.
 Donaueschingen (Baden).—Schalch, F.
Donax.—Laskarev, V.
 Donegal (Ireland).—MacHenry, A.
 Donetz Basin (Russia).—Yakovlev, N.;
 Zalesski, M. D.
 Dorset.—Fisher, Rev. O.
Dorysphaera.—Squinabol, S., 3.
 Dos de Mayo Prov. (Peru).—Pinzás,
 E. J.
 Douglas I. (Alaska).—Kinzie, R. A.
 Drawings, palæolithic.—Munro, R.
 Dresden (Saxony).—Bergt, W., 3.
 Drewenz, Lake (Prussia, E.).—Braun,
 G.
 Drift, Cambridgeshire.—Rastall, R. H.,
 2.
 —, Denmark.—Hill, Rev. E.
 —, Ilford.—Johnson, J. P., 1, 3, & 8.
 —, Iowa.—Macbride, T. H.; Savage,
 T. E.; Udden, J. A.
 —, Kansas & Missouri.—Broadhead,
 C. C., 2.
 —, London.—Cameron, A. C. G.;
 Pocock, T. I., 1 & 2.
 —, New Jersey.—Salisbury, R. D.
 —, Scania.—Holst, N. O., 2.
 —, Stour Valley.—Whitaker, W.
 Drumlins. *See* Moraines.
Dryopithecus.—Abel, O., 2.
Dryptosaurus.—Lambe, L. M.
 Dulcigno (Montenegro).—Nelli, B.; Vi-
 nassa de Regny, P. E., 3.
 Duncrue Salt Mine (Antrim).—Rigby, J.
 Dunedin (N.Z.).—Park, J., 3.
 Dunes, Hungary.—Horusitzky, H., 3.
 —, New Jersey.—Harshberger, J. W.
 Dunkard flora, Pennsylvania, &c.—
 White, D., 2.
 Dunolly (Victoria).—Bradford, W., 4 &
 7.
 Duntun Green (Kent).—Skeats, E. W., 2.
 Dunwich (Suffolk).—Spiller, J.
 Durham Co.—Abbott, G.; Egglestone,
 W. M.; Lee, M.; Lewis, F. J.; Simp-
 son, J. B.; Teasdale, T.; Watson, S.;
 Watts, W. W.; Woolacott, D., 1-4.
 —. *See also* Weardale, Whin Sill, &c.
 Dust-fall, England (S.) 1903.—Flett, J.
 S., 2; Mill, H. R., 2.
 —, volcanic.—Goodchild, J. G., 7;
 Rennie, E. H.; Woolnough, W. G., 2.
 Dutch East Indies.—Buecking, H., 2-4;
 Martin, K., 1 & 2.
 —. *See also* Celebes Is., &c.
 Dwyka Conglomerate (Transvaal).—
 Mellor, E. T., 2.
 Dykes, Arizona conglomerate.—Camp-
 bell, M. R., 4.
 —, grain of.—Lane, A. C., 2 & 3.
 —, Llyn-Padarn.—Elsden, J. V.
 —, Nugget Point (N.Z.).—Speight,
 R.
 —, sandstone.—Newsom, J. F.
 Dyle R. (Antwerp).—Halet, F.
Dystrophæus.—Huene, F. von, 2.
 Dzyshra Mts. (Transcaucasus).—Zeitlin,
 A. G.
 Eagle, Lake (Indiana).—Mills, W. M.
 Earth, advent of life on the.—Winchell,
 N. H., 2.
 —, axes of.—Péroche, J.
 —, chemical elements.—Lauunay, L.
 de, 4.
 —, compression of crust of the.—
 Fisher, Rev. O., 2.
 —, contraction, changes of land level
 &.—Geikie, Sir Archibald, 3.
 —, crust of.—Anon., 20; Folie, F.;
 Fox, C. J. J.; Frazer, P., 2; Geikie,
 Sir Archibald, 3; Suess, E., 3; Wiik,
 F. J.
 —, figure of the.—Lallemand, C.;
 Puiseux, M.
 —, moon &.—Shaler, N. S.
 —, movements, British Isles.—Strahan,
 A.
 —, nebular theory.—Mistockles, N.
 —, NEWTON'S theory of.—Borredon,
 G.
 —, origin of.—Fairchild, H. Le R., 3;
 Howorth, Sir Henry H.
 —, orthogonal system.—Golfier, J.
 —, underground temperature.—Bar-
 ker, J.; Jaczewski, L.
 Earthquake Observatory, Rome.—Aga-
 mennone, G., 2.
 —, waves.—Fisher, Rev. O., 4; Kusa-
 kabe, S.; Láska, W.; Lippmann, G.;
 Montessus de Ballore, F. de, 6.
 Earthquakes, Andes.—Montessus de
 Ballore, F. de, 3.
 —, atmospheric pressure &.—Omori,
 F., 6.
 —, Austria (Lr.).—Schwab, P. F.
 —, Balkans.—Moureaux, T.
 —, Bohemia.—Knett, J., 1 & 2.
 —, buildings &.—Montessus de
 Ballore, F. de.
 —, Caernarvon.—Davison, C., 2.
 —, Canada.—Stupart, R. F.
 —, Caucasus.—Weber, V., 2.
 —, Cornwall.—Davison, C., 6.
 —, Dalmatia.—Faidiga, A.
 —, Derbyshire.—Davison, C., 1 & 3.
 —, distribution of.—Montessus de
 Ballore, F. de, 2.
 —, geology &.—Montessus de Ballore,
 F. de, 5.
 —, Hungary.—Kalecsinszki, A. von,
 4.
 —, Iceland.—Thoroddsen, T., 16, 20,
 & 21.
 —, India.—Montessus de Ballore, F.
 de, 7; Oldham, R. D.
 —, investigations.—Milne, J.
 —, Japan.—Imamura, A., 1-4; Omori,
 J., 3-5.
 —, Leicester.—Davison, C., 4.
 —, Mexico.—Bøse, E., 5.
 —, New Brunswick.—Kain, S. W.
 —, New Mexico.—Bagg, R. M.
 —, photographic records.—Aga-
 mennone, G.
 —, Portugal.—Choffat, P., 3 & 4.
 —, propagation of.—Lamb, H.

- Earthquakes, Pyrenees.—Marchand, E.
 —, Rome.—Agamennone, G., 2.
 —, Rumania.—Montessus de Ballore, F. de, 4.
 —, Russia.—Pavlov, A. P., 2 & 3.
 —, Scotland, N. Wales, & Yorkshire.—Davison, C., 7.
 —, Spain.—Gerland, G.
 —, Sweden.—Svedmark, R. J.
 —, Trieste.—Mazelle, E., 2.
 —, twin.—Davison, C., 5.
 —, volcanoes &.—Lallemand, C.
 —, Würtemberg, &c.—Schmidt, A.
 —. *See also* Seismology.
- Earths, rare.—Baskerville, C.
 Eberbach (Hesse).—Salomon, W., 2 & 3.
 Eberswalde (Brandenburg).—Krause, G.; Maas, G., 3.
 Ecca Beds, Cape Colony.—Dunn, E. J., 2.
 —, Transvaal.—Hatch, F. H., 5.
Echinarachnius & *Echinodiscus*.—Tokunaga, S.
 Echinoidea, Carboniferous.—Fraipont, J.; Girty, G. H.; Klem, M. J.
 —, Cretaceous.—Loriol, P. de, 2; Newton, R. B., 3; Tokunaga, S.
 —, Jurassic.—Cossmann, M., 3; Fucini, A., 2; Walther, J., 3; Woods, H.
 —, Silurian.—Jäkel, O., 5; Rowley, R. R.; Spencer, W. K.
 —, Tertiary.—Bather, F. A.; Lambert, J.; Gagel, C.; Schuetze, E.; Tornquist, A., 1 & 3.
 —, Triassic.—Broili, F., 3.
 Echizen (Japan).—Yokoyama, M., 3.
 Eclogites, California.—Holway, R. S.
 Ecuador (S. Am.).—Reiss, W., 1 & 2.
 Eden Valley (Cumberland).—Burns, D.; Lewis, F. J.
 Edenvale Caves (Co. Clare).—Praeger, R. L., 3.
Edestus.—Newton, E. T.
 Edge Hill (Warwick).—Walford, E. A.
 Edinburgh (Scotland).—Traquair, R. H.
 Edjudina (W. Australia).—Maitland, A. G., 2.
Edmondia.—Hind, W., 2.
 Education, geology &.—Rice, W. N.; Watts, W. W., 4.
 Egerton (Victoria).—Bradford, W., 8.
 Egge Mts. (Westphalia).—Stille, H.
 Eggenburg (Lr. Austria).—Fuchs, T., 2.
 Eggs, fossil.—Morgan, W. C., 1 & 2.
 Eglestonite.—Gaubert, P., 6; Kœchlin, R., 2; Moses, A. J., 2.
 Egypt.—Alford, C. J.; Andrews, C. W., 1-5; Ball, J.; Barrow, T.; Felix, J., 2; Oppenheim, P.; Reinach, A. von; Stromer, E. von, 3 & 4.
 Eifelian fault, Liège.—Fourmarier, P., 4.
 Eildon Hills (Roxburgh).—Goodchild, J. G., 4.
 Eisengebirge (Bohemia).—Koštka, K.
 Eisern (Carniola).—Kossmat, F., 3.
 Ekaterinoslav (Russia).—Michaelovski, G. P.
Ekbainacanthus.—Yakovlev, N., 3.
 Elands R. (Transvaal).—Kynaston, H.; Mellor, E. T.
 Elandsfontein (Transvaal).—Kynaston, H., 2.
 Elba, I. of.—Achiardi, G. d', 1-4.
 Elbert Formation.—Cross, W.
 Elbeuf (Seine-Inférieure).—Coulon, L.
 Elbrus, Mt. (Caucasus).—Pyatnizki, P.
Elephas.—Andrews, C. W., 4; Bate, D. M. A.; Bortolotti, C.; Dawqins, W. B.; Fisher, Rev. O.; Gregory, W. K.; Holland, T. H.; Seguenza, L., 2; Studer, T.; Troll, O. von.
 Elf Valley (Sweden).—Aminov, G.
 Elgin (Scotland).—Boulenger, G. A., 2.
 Ellesmere (Victoria).—Herman, H.
Elonichthys.—Wellburn, E. D.
 Embarras R. (Ill.).—Hubbard, G. D.
 Emerald.—Brough, B. H.
 Emilia (Italy).—Sangiorgi, D.
 EMMONS, E. *See* *Obit.*, Clarke, J. M., 4; Fairchild, H. L.
 Emmonsite.—Hillebrand, W. F.
Empo.—Hay, O. P.
Enallaster.—Loriol, P. de, 2.
Enchelion.—Hay, O. P., 2.
Enchodus.—Hay, O. P.
Encrinurus.—Collie, G. L.; Kindle, E. M., 2.
 Enfield (Victoria).—Bradford, W., 3.
 Engadine (Grisons).—Delebecque, A.; Grubenmann, U.; Schiller, W.; Termier, P., 6.
 Engis (Liège).—Harzé, E., 2.
 England, Chalk of.—Jukes-Browne, A. J., 3.
 —, coast-changes.—Geikie, Sir Archibald, 3; Parkinson, J.
 —, gold.—Collins, J. H.; Maclaren, J. M.
 —, mines, &c.—Atkinson, J. B., 1-3; Foster, Sir Clement Le N.
 —, orography of.—Mill, H. R.
Engonoceras.—Hyatt, A.; Lasswitz, R.
Ensis.—Laskarev, V.
Eobuthus.—Fritsch, A., 2.
 Eocene, Africa (Central).—Bather, F. A.; Lelean, P. S.
 —, Cornwall.—Reid, C., 2.
 —, Maine-et-Loire.—Bigot, A., 2.
 —, Senegambia.—Meunier, S., 1 & 2.
 —. *See also* Tertiary.
- Eocyliopterus*.—Clarke, J. M., 12.
Eohyrax.—Ameghino, F., 2.
 Eolithic implements.—Capitan, L.
Eophiura.—Jäkel, O., 5.
Eopolychætus.—Ruedemann, R.
Eoprotherotherium.—Ameghino, F., 2.
Eoscorpis.—Baldwin, W., 1 & 2.
Epiaster.—Loriol, P. de, 2.
 Epidote.—Zambonini, F.
Epipatriarchus & *Epipithecus*.—Ameghino, F., 2.
Episageceras.—Nœtling, F., 4.
 Eppingen (Baden).—Schnarrenberger, C.

- Éprave (Namur).—Deladrier, E., 2.
Équisetum.—Zeiller, R., 2.
Equus.—Ameghino, F.; Studer, T.
 Erbdorf (Rh.-Bavaria).—Luczizky, W. von.
 Erikite.—Bøggild, O. B.; Kæchlin, R., 2.
 Erosion, coast.—Allanson-Winn, R. G.; Parkinson, J.
 —, Corsica rock.—Bonney, T. G.; Lake, P., 2; Tuckett, F. F.
 —, North American plains.—Upham, W., 3.
 —. See also Atmospheric, Rock-erosion, &c.
 Erratic blocks, Basel Jura.—Struebin, K., 2.
 —, British Isles.—Kendall, P. F., 2.
 —, Netherlands.—Calder, F. J. P. van.
Ervilia.—Laskarev, V.
 Erythraea (N.E. Africa).—Aloisi, P., 2; Manasse, E., 2.
 Erzberg [Mt.] (Styria).—Reibenschuh, A. F.
 Erzgebirge (Bohemia).—Knett, J.
 — (Saxony).—Beck, R., 1 & 2; Dalmer, K.; Dammer, B.
 — (Transylvania).—Telegd, L. R. von.
 Eschbach (Nassau).—Buecking, H.
 Eskdale (Cumberland).—Walker, E. E.
 Essex.—Hinton, M. A. C., 1-3; Holmes, T. V., 2 & 3; Johnson, J. P., 1-3 & 8; Kennard, A. S., 1 & 3; Reid, C.; Thresh, M.; Webb, W. M.
 —. See also Ilford, &c.
 Essexite.—Dresser, J. A.
Estheria.—Clarke, J. M., 3; Walther, J., 2.
 Estuarine deposits, Kirmington.—Stather, J. W.
 —, origin of.—Monckton, H. W., 6; Reade, T. M., 2.
 Étampes (Seine-et-Oise).—Gosselet, J., 6.
 ETHERIDGE, R. See *Obit.*, Geikie, Sir A., 4; Monckton, H. W., 4; Thompson, B., 5; Woodward, H.; Woodward, H. B., 2.
Etioblattina.—Sellards, E. H.; Zeiller, R., 2.
Eubiodectes.—Hay, O. P., 2.
Eucalyptus & *Eucryphia*.—Deane, H.
Euceratherium.—Sinclair, W. J.
Eucinepeltus.—Brown, B.
Euconulus.—Gulick, A.
Eucrite.—Berwerth, F., 2.
Eucyclus.—Cossmann, M., 2.
 Euganean Hills (Venetia).—Billows, E.; Squinabol, S., 2 & 3.
Eulambda.—Ameghino, F., 2.
Eulimella.—Dollfus, G. F., 5.
Eunoa.—Clarke, J. M., 5.
 Euphotide, Tuscany.—Manasse, E.
 Eurasia, Upper Palæozoic in.—Tchernyshev, T.
 Europe, fracture-lines.—Geikie, Sir Archibald, 2.
 — (N.), Quaternary.—Frech, F., 2.
 — & Asia, orographical connection.—Kropotkin, Prince P., 2; Suess, E., 3.
Eurychilus.—Clarke, J. M., 12.
Eurydesma.—Koken, E.
Eusyringium.—Squinabol, S., 3.
Eutrochus.—Pritchard, G. B.
 Euxite.—Lincio, G., 2.
 EVERETT, J. D. See *Obit.*, Anon., 3.
 Evesham (Worcester).—Richardson, L., 5.
 Evolution, climate &.—Winchell, N. H.
 —, mammalian.—Bensley, B. A.; Lydekker, R.
 —, vertebrate, in time.—Woodward, H., 7.
 Ewe, Loch (Scotland).—Murray, Sir John, 5.
 Exhibition, Louisiana Mining.—Storrs, A. H.
 —, Paris International, 1900.—Gesell, A., 2.
 —, St. Louis, 1904.—Bauerman, H.; Coomaraswamy, A. K., 4; Pellati, N., 3.
Exogyra.—Ihering, H. von.
 EXTON, H. See *Obit.*, Geikie, Sir Archibald, 4.
 Eyling, Lake (E. Prussia).—Braun, G.
Fagus.—Deane, H.
Fajumia.—Stromer, E. von, 4.
 Falkland Is. (Atlantic).—Vallentin, R.
 Falls Creek (Victoria).—Herman, H., 2.
 Famennian, Condroz Massif.—Destinez, P., 1 & 2.
 Farnham (Surrey).—Monckton, H. W., 7.
 Farøe Is.—Greener, G. A.
 Farrell, Mount.—Waller, G. A., 3.
 Fassa Valley (Tyrol).—Romberg, J., 2.
 Fault, Shropshire Great East or Symon.—Elsden, J. V., 2.
 Faults, Ballarat.—Hart, T. S.
 —, Loir Valley.—Welsch, J.
 —, Meuse Valley.—Lespineux, G.
 —, origin of.—Douville, H.
 Faunas, migration of.—Williams, H. S.
Favosites.—Angelis d'Ossat, G. de, 2.
 Fayalite, Wisconsin.—Weidman, S., 3.
 Fayûm (Egypt).—Andrews, C. W., 5; Stromer, E. von, 4.
Fedaiella.—Picard, E.
 Fées Cave, Arcy-sur-Cure.—Hamy, E. T.
Feistmantelia.—Fritsch, A., 2.
 Felday (Surrey).—Herries, R. S.
Felis.—Schlosser, M., 2; Sheppard, T., 6; Studer, T.
 Felsősztergály (Hungary).—Koch, A., 2.
 Felspars.—Ries, H., 3.
 —. See also Orthoclase, Plagioclase, &c.
 Felspathic rocks, Stavelot.—Dewalque, G., 4.
Fenestella.—Cumings, E. R., 2.
 FENNEMA, R. See *Obit.*, Verbeek, R. D. M.

- Ferghana (Turkestan).—Bronyaikov, M.; Weber, V.
- Fermanagh Hills (Ireland).—Praeger, R. L.
- Fern Pass (Tyrol).—Ampferer, O., 3.
- Ferrato, Monte (Tuscany).—Panichi, U., 2.
- Fibularia*.—Tokunaga, S.; Tornquist, A.
- Fichtelite.—Bæckh, H.
- Ficula*.—Esch, E. von.
- Ficus*.—Zeiller, R., 2.
- Fiji Is. (Pacific).—Gardiner, J. S.; Woolnough, W. G.
- Finger-Lakes Region (N.Y.).—Matson, G. C.; Tarr, R. S.
- Finkenwalde (Pomerania).—Wahnschaffe, F.
- Finland.—Berghell, H.; Borgstrøm, L. H.
- Fire-clays, Pennsylvania.—Anon., 19.
- damp, Gard coal-basin.—Dougados, —.
- Fishes, Carboniferous.—Karpinski, A., 4; Newton, E. T.; Traquair, R. H.; Wellburn, E. D.; Woodward, A. S., 6.
- , Cretaceous.—Bayer, F.; Coulon, L.; Hay, O. P., 1 & 2; Pantanelli, D., 3; Priem, F.; Woodward, A. S., 2.
- , Devonian.—Eastman, C. R., 1 & 2; Jækel, O., 2 & 3; Kemna, A.; Leriche, M., 3; Sollas, W. J., 2; Traquair, R. H., 2.
- , parietal eye in fossil.—Jækel, O.
- , Permian.—Broili, F.; Dean, B.; Karpinski, A., 4.
- , Silurian.—Jækel, O., 4; Kemna, A.
- , Teleostean.—Boulenger, G. A.
- , Tertiary.—Chapman, F., 7; Coulon, L.; Eastman, C. R., 3; Esch, E. von; Koch, A., 1, 2, & 4; Leriche, M.; Newton, R. B., 4; Pantanelli, D., 4; Priem, F., 2; Simionescu, J., 2; Stromer, E. von; Vinassa de Regny, P. E., 3.
- , Triassic.—Evans, H. M.; Linstow, O. von, 2; Scupin, H.
- Fissurella*.—Mayer-Eymar, C.
- Flamborough Head (Yorks).—Rowe, A. W.; Sheppard, T.
- 'Flaming-clay,' Silesia. — Berent, G.; Maas, G.
- Flaming Mts. (Anhalt).—Linstow, O. von, 3.
- Flanders.—Andrinnot, R. d', 4; Cornet, J., 2; Putzeys, E., 2.
- Fleims Valley (Tyrol).—Ippen, J. A.; Romberg, J., 2.
- Flinders (Victoria).—Kitson, A. E., 2.
- Flint, natural flaking of.—Rutot, A., 4.
- , Paris Basin.—Grossouvre, A., 3.
- , Salisbury plateau. — Hughes, T. McK., 2.
- , United States.—Ries, H., 3.
- Florence (Tuscany).—Stefani, C. de, 2.
- Florida (U.S.A.).—Schuchert, C.; Spencer, J. W., 2; Vaughan, T. W.
- FLOYER, E. A. *See Obit.*, Cornish, V.
- Fluorspar.—Bain, H. F.; Dudenhausen, H.; Gaubert, P., 3; Lee, M.; Pratt, J. H., 7; Ulrich, E. O., 3.
- Fluviatile deposits.—Monckton, H. W., 6; Reade, T. M., 2.
- Flysch, Alpine.—Frueh, J., 2; Zuber, R.
- Fætorius*.—Nehring, A., 2.
- Foldings, Alps (Eastern).—Haug, E., 3 & 5; Ternier, P., 3.
- , rock.—Douvillé, H.
- Fontainebleau sand, Marchais.—Bédé, P., 3.
- Footprints, Carboniferous reptilian.—Matthew, G. F., 4 & 5.
- , Jurassic reptilian.—Fraas, E., 2.
- , Permo-Triassic reptilian.—Cushman, J. A.; Lomas, J., 3; Lull, R. S., 2; Matthew, G. F., 4 & 5; Rigg, E. S., 2; Seeley, H. G.; Woodward, A. S.
- Foraminifera, Carboniferous.—Girty, G. H., 3.
- , Cretaceous & Jurassic.—Chapman, F.
- , Quaternary.—Cushman, J. A., 2; Gough, G. C., 2.
- , recent and fossil, Sicily.—Silvestri, A.
- , Tertiary.—Cecchia-Rispoli, G., 2; Fornasini, C., 1 & 2; Guppy, R. J. L., 2; Holland, R.; Prever, P. L., 1-3; Schubert, R. J., 2-4; Thuerach, H., 2.
- , *See also* Nummulitic, &c.
- Forelands, Lake Ontario cusped.—Wilson, A. W. G., 2.
- Forest, Carboniferous, New Mexico.—Herrick, C. L.
- Fort-Union Beds (N. Dakota).—Wilder, F. A., 2.
- Fortore Valley (Apulia).—Cecchia-Rispoli, G., 4.
- Fossils, serial sections of.—Sollas, W. J.
- FOSTER, Sir CLEMENT LE N. *See Obit.*, Anon., 4; Collins, J. H., 2; Judd, J. W.
- FOTQUÉ, F. A. *See Obit.*, Anon., 5; Geikie, Sir Archibald, 6; Mascart, —.
- France, Central massif.—Thévenin, A.
- , *See also* Boulonnais, &c.
- FRANCIS, W. *See Obit.*, Anon., 6; Geikie, Sir Archibald, 4.
- Frankente.—Prior, G. T., 2.
- Frank (Alberta Terr.).—Macconnell, R. G.
- Franklin Furnace (N.J.).—Lane, A. C., 2; Spencer, A. C., 5; Wolff, J. E.
- Franz Josef Land (Arctic).—Solms-Laubach, H. Graf zu.
- Frechiella*.—Hoyer, —; Prinz, G.
- Freistadt (Moravia).—Rzehak, A., 4.
- Fritschia*.—Picard, E.
- Fucoids, Silurian.—Hauthal, R.
- , Tertiary.—Fugger, E.
- Fuller's earth, Florida, &c.—Vaughan, T. W.
- Fulwell (Durham).—Abbott, G.
- Funafuti Atoll (Pacific).—Gardner, J. S.; Sollas, W. J., 3.

- Fungi, Carboniferous.—Etheridge, R., *fil.*, 3.
 Furdia (Hungary).—Schafarzik, F.
 Furka Pass (Lepontine Alps).—Dickson, E., 2.
 Fürstenwalde (Saxony).—Gæbert, C., 2.
Fusus.—Archangel, A. D.; Wollemann, A., 4.
- Gabbro, Grisons.—Grubenmann, U.
 —, Lake District.—Harker, A.
 —, Monzoni, Mt.—Went, K.
 —, orbicular.—Kessler, H. H.; Lawson, A. C.
 — pebbles, Atlantic floor.—Cole, G. A. J., 3.
 —, Skye.—Harker, A., 2.
 —, Tongking.—Hubert, H., 2.
 —, Torre Valley.—Piolto, G.
 —, Valais.—Preiswerk, H.
 Gabbro-diorite (N. Carolina).—Watson, T. L., 2.
 Gadawara (India).—Grundy, J., 2.
 Gadolinite.—Holland, T. H.
 Galena, Belgian coal with.—Smeysters, J.; Stainier, X., 6.
 Galicia (Austria).—Guerich, G., 1 & 2;
 Olszewski, S.; Renier, A., 3; Schmidt, C., 3; Teisseyre, W., 1 & 2; Wójcik, K.; Zuber, R., 2 & 3.
 Galway (Ireland).—MacHenry, A.
 Ganges R. mud.—Reade, T. M., 2.
 Ganophyllite.—Hamber, A.
 Garadimi (Sokoto).—Bather, F. A.; Lean, P. S.
 Gard caverns (Languedoc).—Mazauric, F.
 — coal-basin (Languedoc).—Dougados, —.
 Garéwaite.—Duparc, L., 5.
 Garfagnana (Tuscany).—Stefani, C. de, 3.
 Garnet.—Bergt, W.; Tchernik, G. P., 2;
 Villarello, J. D., 2.
 —, copper in association with.—Blake, W. P., 3.
 Garnetiferous rocks, Borrowdale.—Walker, E. E.
 —, Predazzo.—Slavík, F., 2.
 Garnierite.—Lacroix, A., 4.
 Garonne R. (France).—Fabre, L. A.
 Garry, Glen (Perth).—Barrow, G.
 Gas (natural), argon in.—Moissan, H.
 — (—), Indiana.—Fuller, M. L.; Kinney, B. A.
 — (—), Ohio.—Bownocker, J. A.
 — (—), radioactivity of.—MacLennan, J. C.
 — (—), Sussex.—Oliphant, F. H.; Pearson, R.; Woodward, H. B., 7.
 — (—), United States, occurrence of.—Oliphant, F. H.
 Gascoyne District (W. Austral.).—Etheridge, R., *fil.*, 3.
 Gastein Bad (Salzkammergut).—Mache, H., 1 & 2.
- Gasteropoda, Carboniferous.—Etheridge, R., *fil.*, 3; Girty, G. H.
 —, Cretaceous.—Bial de Bellerade, —;
 Cossmann, M., 2; Dacqué, E.; Etheridge, R., *fil.*; Wollemann, A., 4.
 —, Devonian.—Clarke, J. M., 2;
 Parks, W. A., 2.
 —, Jurassic.—Allen, H. A.; Ilovaïski, D.; Loriol, P. de; Toula, F.
 —, Permian.—Diener, C.
 —, Quaternary.—Gulick, A.; Kennard, A. S., 3; Marr, J. E., 2; Menzel, H.
 —, Silurian.—Kindle, E. M., 2; Perner, J.
 —, Tertiary.—Andrussov, N.; Archangel, A. D.; Dall, W. H., 1 & 4; Crema, C.; Cross, W. H.; Dollfus, G. F., 5; Esch, E. von; Kormos, T.; Laskarev, V.; Lœrenthey, E., 1-3; Mayer-Eymar, C.; Michaelovski, G. P.; Newton, R. B., 4; Pritchard, G. B.; Ravn, J. P. J., 2; Seguenza, L.; Steimann, G., 3.
 —, Triassic.—Picard, E.
 GATTY, C. H. *See Obit.*, Geikie, Sir Archibald, 4.
 GAUDRY, A. *See* Boule, M., 4.
 Gault, Barnwell.—Fearnside, W. G.
 —, Hanover.—Wollemann, A.
Gazella.—Schlosser, M., 2 & 3.
 Gedinian, Cornwall.—Green, U., 2.
 Gedrite-bearing rocks, Mysore.—Wetherell, E. W., 2.
 GEIKIE, SIR ARCHIBALD. *See* Anon., 13.
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Gemma.—Dall, W. H.
 GEMMELLARO, G. G. *See Obit.*, Bassani, F.; Niccolo, P.; Parona, C. F., 2; Pellati, N., 2.
 Geneva, Lake of (Switzerland).—Forel, F. A.; Preller, C. S. du R., 2.
Geniohyus.—Andrews, C. W.
 Genoa (Liguria).—Sacco, F.
 —, Novi railway.—Taramelli, T., 4.
 Geo-biological terms.—Eastman, C. R., 4.
 Geodes, Euganean Hills.—Billows, E.
 Geography, geology &.—Mill, H. R.
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 — Congress, Vienna, 1903.—Dreger, J., 2; Geikie, Sir Archibald, 1 & 2; Mourlon, M.
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 — maps.—Watts, W. W.; Wilson, T. S.
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 — models, making of.—Wilson, T. S.
 — nomenclature.—Gilbert, G. K.
 — photographs.—Anon., 22; Watts, W. W., 3.
 — Society, medals, &c.—Geikie, Sir Archibald, 3 & 4.

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 ———, ———, 1904.—Shattuck, G. B.
 ———, France.—Haug, É.
 ———, Manchester.—Hollingworth, G. H.
 ———, Servia.—Radonovon, S.; Stevanović, S. 1 & 2.
 ———, Yorkshire.—Carter, W. L., 3.
 ———, Survey, Algeria.—Ficheur, E., 2.
 ———, Australia (W.).—Maitland, A. G., 3.
 ———, Austria-Hungary.—John, C. von, 2; Tietze, E., 1 & 2.
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 ———, ———, chemical laboratory.—Hoffmann, G. C.
 ———, Cape Colony.—Rogers, A. W., 2.
 ———, Carolina (N.).—Pratt, J. H.
 ———, England & Wales.—Allen, H. A.; Cameron, A. C. G.; Flett, J. S., 3; Fox-Strangways, C.; Jukes-Browne, A. J., 3; Pocock, T. L., 1 & 2; Strahan, A., 3; Teall, J. J. H.; Ussher, W. A. E., 2.
 ———, Hungary.—Boeckh, J.
 ———, ———, chemical laboratory.—Kalecsinszky, A. von.
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 ———, Indiana.—Blatchley, W. S.; Hopkins, T. C., 1-3.
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 ———, Ireland.—Lamplugh, G. W., 4; Teall, J. J. H.
 ———, Italy.—Pellati, N., 3.
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 ———, Mysore.—Primrose, A., 1 & 2; Sambasiva Iyer, V. S., 1 & 2; Slater, H. K.; Smeeth, W. F., 1 & 2; Wetherell, E. W., 1-3.
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 ———, New York State.—Ellis, M.; Merrill, F. J. H., 1-3.
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 ———, Saxony.—Credner, H.; Gæbert, C., 2; Weise, E.
 ———, Scotland.—Harker, A., 2; Teall, J. J. H.
 ———, Transvaal.—Hall, A. L., 1 & 2; Kynaston, H., 1 & 2; Mellor, E. T.
 ———, United States.—Gilbert, G. K.; Walcott, C. D., 1-3.
 ———, ———, index to publications of HAYDEN, KING, POWELL, & WHEELER Surveys.—Schmeckebier, L. F.
 ———, ———, laboratories of the.—Clarke, F. W., 1 & 2.
 ———, Victoria.—Gregory, J. W., 2.
 ———, Wisconsin.—Weidman, S., 1 & 2.
 Geological surveying.—Haanel, E.
 ———, text-books.—Frech, F., 2; Harrison, W. J.
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 ———, agriculture &.—Bennett, F. J.
 ———, America (N.), 1902.—Weeks, F. B., 2.
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 ———, Belgium.—Stainier, X., 2.
 ———, Brazil, 1800-1903.—Branner, J. C.
 ———, Canadian, 1902.—Ami, H. M.
 ———, education &.—Rice, W. N.; Watts, W. W., 4.
 ———, experimental.—Martin, D.
 ———, first use of the term.—Eastman, C. R., 6.
 ———, geography &.—Mill, H. R.
 ———, international co-operation in.—Geikie, Sir Archibald.
 ———, Italy, 1902.—Bonarelli, G.
 ———, progress of.—Druce, G. C.; Zittel, K. A. von.
 ———, Prussian during 200 years.—Schmeisser, K.
 ———, science of.—Angelis d' Ossat, G. de, 4.
 ———, Switzerland.—Schardt, H., 2; Sarasin, C., 1 & 2.
 ———, terrestrial magnetism &.—Creak, E.
 ———, Württemberg, &c.—Schuetze, E., 2.
 ———, Yorkshire, 1900.—Sheppard, T., 3.
 George's Bay (Tasm.).—Twelvetrees, W. H., 4.
 Georgia (U.S.A.).—Emmons, S. F., 4; Fluker, W. H.; Hayes, C. W., 2, 7, & 8; Stevenson, J. J.; Vaughan, T. W.
 Georgian Bay (Ont.).—Comstock, F. M.
Gerablattina.—Sellards, E. H.
 Geraldton (W. Austral.).—Chapman, F., 2.
Geralycosa.—Fritsch, A., 2.
 Gerhardtite.—Lindgren, W., 7.
 Geringswalde (Saxony).—Credner, H., 2.
 German Antarctic Expedition.—Drygalski, E. von, 1 & 2; Philippi, E.
 ———, East Africa.—Køert, W.
 ———, S.W. Africa.—Kuntz, J., 4; Voit, F. W., 2.
 Germany, ore-deposits.—Krahmann, M., 2.
 ——— (N.), alkali-industry.—Galloway, W.
 ——— (—) Quaternary.—Holst, N. O.
 ———. See also Copper, Glacial, Potash, &c.
Gervillia.—Broili, F., 3; Cossmann, M., 3; Linstow, O. von, 3; Merciai, G.; Tommasi, A.; Yokoyama, M.
 Gesso Valley (Piedmont).—Roccati, A.
Gibbula.—Crema, C.
 Gibraltar.—Acland, H. D.

- Gila Valley (Ariz.).—Lee, W. T.
Ginglymostoma.—Leriche, M., 2.
 Gippsland (Victoria).—Ferguson, W. H.
Girardotia.—Loriol, P. de.
 Gironde R. (France).—Cahen, A.;
 Daleau, F.
 Gismondite.—Sachs, A., 2.
 Giuf, Piz (Tödi District).—Weber, F.
 Glacial deposits, Anhalt.—Linstow, O.
 von, 3.
 ———, Austria (Upper).—Fugger, E.
 ———, Bavaria.—Knebel, W. von.
 ———, Co. Cork.—Muff, H. B.
 ———, Dakota, Montana, &c. —
 Upham, W., 5.
 ———, Hanover.—Menzel, H.
 ———, Jemtland.—Munthe, H.
 ———, Lake-District.—Dickson, E.,
 2.
 ———, Long I. (N.Y.).—Veatch, A.
 C.
 ———, Prussia. — Petersen, J.;
 Wahnschaffe, F.
 ———, Schleswig-Holstein.—Gagel,
 C., 2.
 ———, Washington.—Upham, W., 6.
 ———, Westphalia.—Stille, H., 2.
 ———. See also Drift, Quaternary,
 &c.
 ——— lakes, Cleveland.—Kendall, P. F.
 ——— periods.—Hughes, T. McK.; Lorié,
 J.; Pilgrim, L.; Schulz, A., 2.
 ——— strigæ, Mosbach boulders.—Behlen,
 H.
 ——— theory.—Chamberlin, T. C.
 ——— valleys, New York & Vermont.—
 Peet, C. E.
 ———. See also Valleys.
 Glaciers, Alaska.—Gilbert, G. K., 5.
 ———, California.—Gilbert, G. K., 4.
 ———, Colorado.—Henderson, J.
 ———, Cottian Alps.—Jacob, C.
 ———, Dauphiné.—Kilian, W.
 ———, East Anglian.—Harmer, F. W.
 ———, Garonne Valley.—Fabre, L. A.
 ———, Greenland.—Engell, M. C.
 ———, International Commission on.—
 Finsterwalder, S.; Reid, H. F., 1
 & 2.
 ———, Lepontine Alps.—Dickson, E., 2.
 ———, Lombardy (N.).—Hess, H.
 ———, Lucerne post-Pliocene.—Hull, E.,
 2.
 ———, Oregon.—Chamberlin, T. C.
 ———, variation of Swiss &c.—Forel, F.
 A., 2; Reid, H. F., 1 & 2.
 Glaciation, Australian Alps.—Lenden-
 feld, R.
 ———, Durham.—Watts, A.
 ———, Holyhead Mt.—Greenly, E.
 ———, Iceland.—Pjetnsson, H.; Thorod-
 dsen, T., 21.
 ———, Illinois.—Hubbard, G. D.
 ———, Inn Valley.—Amperferer, O., 3.
 ———, Kashmir.—Oldham, R. D., 3.
 ———, Massachusetts. — Clapp, F. G.;
 Fuller, M. L., 2.
 ———, New Hampshire.—Upham, W.
 Glaciation, New York State.—Fairchild,
 H. Le R., 2; Matson, G. C.
 ———, New Jersey.—Salisbury, R. D.
 ———, Peru.—Benrath, A.
 ———, Saxony.—Wuest, E.
 ———, Sweden (S.).—Holmstræm, L.
 ———, Switzerland.—Penck, A.; Schulz,
 A., 1 & 2.
 ———, Tasmania.—Gregory, J. W., 4.
 ———, Transvaal.—Mellor, E. T., 2.
 ———, Wales (S.).—Howard, F. T.
 ———, Windermere.—Crewdson, G.
 ———, Yorkshire.—Carter, W. L.; Dakyns,
 J. R.
 Glamorganshire.—Strahan, A., 3.
Glandaria-limestone, Lebanon.—Rauff,
 H., 2.
Glandina.—Roman, F.
 Glapwell (Derby).—Deacon, M.
 Glaserite.—Grossner, B.
 Glass-House Mts. (Queensl.).—Jensen,
 H. J.
 ——— sand, United States.—Coons, A. T.
 Glauber's salt, Bosnia.—Katzner, F., 4.
Glauconia.—Cossman, M., 2.
 'Glauconic marl,' Callovian. — Reli-
 binder, B. von, 2.
 Glen Roy (Inverness).—Duke, T. A.
 Glengower (Victoria).—Herman, H.
 Globe District (Ariz.).—Ransome, F. L.,
 2.
 Glogovnica (Croatia). — Gorjanović-
 Kramberger, D.
Glossograptus.—Hall, T. S.
 Gloucestershire.—Gray, J. W.; Rey-
 nolds, S. H.; Richardson, L., 1, 4, 5,
 7, & 8.
Glycimeris.—Dreger, J.; Etheridge, R.,
 fil.
Glyphioceras.—Kolbe, H. J.
Glyptocrinus.—Rowley, R. R.
Glyptotherium.—Osborn, H. F., 2.
 Gmelinite, Sicily.—Franco, S. di.
 Gneiss, Cameroons.—Esch, E. von.
 ———, Ecuador.—Reiss, W., 1 & 2.
 ———, Erythræa.—Manasse, E., 2.
 ———, Erzgebirge (Saxony).—Beck, R.,
 2.
 ———, Greenland.—Nordenskjæld, O., 2;
 Phalen, W. C.
 ———, Loch Lomond. — Cunningham-
 Craig, E. H.
 ———, Mysore.—Wetherell, E. W., 1 & 3.
 ———, New York City.—Julien, A. A.
 ———, Nigeria.—Hubert, H.
 ———, Perthshire, &c.—Barrow, G.
 ———, Piedmont.—Colomba, L., 2; Roc-
 cati, A.
 ———, Rofna.—Rüetschi, G.
 ———, Ticino.—Klemm, G.
 ———, Tongking.—Hubert, H., 2.
 ———, Tuscany.—Manasse, E.
 ———, Tyrol.—Petrascheck, W., 2.
 Godavari R. (Bombay Pres.).—Holland,
 T. H., 4.
 Gold, Alaska.—Brooks, A. H.; Em-
 mons, S. F., 4; Kinzie, R. A.; Men-
 henhall, W. C., 2.

- Gold, Angola.—Cuninghame, B. A.
 —, Arizona.—Blake, W. P.; Church, J. A.
 —, Assam.—Maclaren, J. M., 3.
 —, Australia (S.).—Duffield, T.
 —, Australia (W.).—Anon., 25; Gibson, C. G., 1 & 2; Jackson, C. F. V.; Maitland, A. G., 1-4; Rickard, T. A.
 —, Bengal Pres.—Maclaren, J. M., 2.
 —, Brazil.—Derby, O. A.; Scott, H. K., 1 & 2.
 —, British Columbia.—Atkin, A. J. R.; Macbride, R.; Vicaire, A.
 —, California.—Lakes, A., 2; Lindgren, W.
 —, Canada.—Lindgren, W., 4.
 —, Cape Colony.—Schwarz, E. H. L., 5.
 —, Carolina (N.).—Pratt, J. H.
 —, Ceylon.—Dixon, G. G.
 —, Colorado.—Lakes, A., 5; Purington, C. W.; Rickard, T. A., 2; Stevens, E. A.
 —, Congo.—Buttgenbach, H.
 —, Egypt.—Alford, C. J.
 —, England.—Collins, J. H.; Maclaren, J. M.
 —, Georgia.—Eckel, E. C.; Fluker, W. H.
 —, Ireland.—Kinahan, G. H., 2 & 3; Maclaren, J. M.
 —, Klondyke.—Obalski, T.
 —, Manicaland.—Sawyer, A. R.
 —, Mexico.—Lindgren, W., 4; Ordoñez, E., 2.
 —, Montana.—Lindgren, W., 2; Weed, W. H., 1 & 3.
 —, Mysore.—Grundy, J.
 —, Natal.—Gray, C. J.
 —, Nevada.—Spurr, J. E., 2.
 —, New Caledonia.—Glasser, E.
 —, New South Wales.—Pittman, E. F.
 —, New Zealand.—Macgowan, J.
 —, Nova Scotia.—Faribault, E. R.; Gilpin, E., Jun., 4; Woodman, J. E., 1 & 2.
 —, Ontario.—Carter, W. E. H.; Miller, W. G.
 —, Peru.—Pinzás, E. J., 2.
 —, Queensland.—Ball, L. C., 1-3; Dunstan, B.; Lewis, A. A.
 —, Rhine R.—Neumann, B.
 —, Russia.—Morozovich, I., 2; Simmersbach, B., 2.
 —, Scotland & Wales.—Maclaren, J. M.
 —, Sudan (W.).—Arsandaux, H.
 —, Tasmania.—Twelvetrees, W. H., 3 & 7-10; Waller, G. A., 2.
 —, Transvaal.—Bleloch, W.; Draper, D., 1 & 2; Hatch, F. H., 3; Kuntz, J., 3; Liebenam, W. A.; Molengraaff, G. A. F.; Rathbone, E. P.; Sawyer, A. R., 2-4; Wilkinson, D.
 —, Tyrol.—Isser Gaudententhurm, M. von; Neugebauer, F.
 —, United States production.—Lindgren, W., 4; Robarts, G. E.
 Gold, Utah.—Boutwell, J. M., 2; Dean, G. H.
 —, Victoria.—Anderson, W. R.; Baragwanath, W., jun.; Bradford, W., 1-10; Gregory, J. W.; Herman, H., 2 & 3; Howitt, A. M.; Howitt, A. W.; Hunter, S. B., 2; Kitson, A. E., 5; Lindgren, W., 6; Whitelaw, H. S.
 —, Washington.—Smith, G. O.
 —. See also Auriferous.
 Gold-dredging, Otago.—Seelye, F. T.
 Goldsborough (Victoria).—Kitson, A. E., 5.
Gomphognathus.—Broom, R., 10.
 'Gondwana Land.'—Suess, E., 2.
 — Series, Kashmir.—Nætling, F.
Goniograptus.—Ruedemann, R., 3.
 Goniometer.—Leiss, C.; Smith, G. F.; Stöckl, K.; Souza-Brandão, V. de, 3.
Goniomya.—Loriol, P. de.
Goniophora.—Clarke, J. M., 2.
Goodallia.—Dall, W. H.
Goossensia.—Cossmann, M., 4.
 Gordon (Victoria).—Bradford, W., 8; Howitt, A. M.
 Gorges, New York, &c.—Watson, G. C.
 Gorgona, I. of (Tuscany).—Manasse, E.
 Gorran Haven (Cornwall).—Prior, G. T.
 Göstling (Lower Austria).—Kittl, E., 2.
 Gothland (Sweden).—Holmström, L.; Törnquist, S. L.
 GOURN'S Cavern, Cheddar.—Davies, H. N.
Gouldia.—Dall, W. H.
 Gouritz R. (Cape Colony).—Rogers, A. W.
 Gramat, Causse de (Lot).—Viré, A., 2.
Grammoceras.—Beck, H.; Yokoyama, M., 2.
Grammysia.—Clarke, J. M., 2.
 Grandcour (Vaud).—Renevier, E.
 Grande, Rio (New Mex.).—Herrick, C. L., 2.
 Grange Quarry, near Brassington (Derby).—Arnold-Bemrose, H. H., 3.
 Graniphyro-liparose-alaskose.—Iddings, J. P., 3.
 Granite, Aberdeen.—Anon., 24.
 —, Africa (S.).—Mennell, F. P.
 —, Cameroons.—Esch, E. von.
 —, Carolina (N.).—Watson, T. L., 3.
 —, Chile.—Pöchlmann, R.
 —, Cornwall.—Flett, J. S., 3.
 —, Dandenong.—Sutherland, J. M.
 —, Elba.—Achiardi, G. d', 4.
 —, Erythraea.—Manasse, E., 2.
 —, Eskdale.—Walker, E. E.
 —, Greenland.—Nordenskjöld, O., 2; Phalen, W. C.
 —, Ingleton.—Elsden, J. V., 5.
 —, Lake-District.—Harker, A.
 —, Leicestershire.—Rastall, R. H.
 —, Madagascar.—Lacroix, A., 7.
 —, Mysore.—Slater, H. K.; Wetherell, E. W.
 —, Nigeria.—Hubert, H.
 —, Shantung.—Rinne, F., 3.

- Granite, Sioux Falls.—Todd, J. E., 2.
 —, Skye.—Harker, A., 2.
 —, Sumatra.—Volz, W.
 —, Ticino banded.—Klemm, G.
 —, Tongking.—Hubert, H., 2.
 —, Transvaal.—Corstorphine, G. S., 3;
 Derffel, D., 3; Horwood, C. B., 1 & 2.
 Granitic porphyry, Rofina.—Rüetschi, G.
 Granulite, Ceylon.—Coomáráswamy,
 A. K., 5.
 —, Pyrenees.—Roussel, J.
 —, Saxony.—Credner, H., 2; Käst-
 ner, M.
 Graphite, analysis of.—John, C. von, 2.
 —, Bohemia.—Billharz, O.
 —, Ceylon.—Coomáráswamy, A. K.,
 4; Stonier, G. A., 3; Struthers, J., 12.
 —, India.—Stonier, G. A., 3.
 —, New York.—Emmons, S. F., 4.
 —, Ontario.—Carter, W. E. H.
 —, Piedmont.—Sacco, F., 2.
 —, production of.—Brough, B. H.
 —, Urals.—Kunz, G. F.
 Gaptolites, Ordovician.—Hall, T. S.;
 Tornquist, S. L.
 —, Silurian.—Elles, G. L., 1 & 2; Ma-
 laise, C., 3; Ruedemann, R., 2 & 3;
 Wood, E. M. R.
 Graslitz (Bohemia).—Andrimont, R. d',
 3.
Gratelopua.—Dall, W. H.
 Gravels, Austria (Lower).—Depéret, C.;
 Haernes, R.
 —, Cambridgeshire.—Marr, J. E., 1 & 2.
 —, Cape Colony.—Schwarz, E. H. L.,
 5.
 —, Gloucester.—Gray, J. W.
 —, Kent.—Johnson, J. P., 4.
 —, Massachusetts.—Clapp, F. G.
 —, Middlesex & Surrey.—Monckton,
 H. W., 7.
 —, Minsk Gov.—Missuna, A., 2.
 —, Norwood plateau.—Hogg, A. J.;
 Robarts, N. F., 2.
 —, Oxfordshire.—Bell, A. M.; Foley,
 M. C.
 —, Pomerania.—Linstow, O. von.
 —, Salisbury plateau.—Hughes, T.
 McK., 2.
 —, Thames Valley (N.).—Irving, A., 3.
 Gravity, variations, India.—Fisher, Rev.
 O., 3; Schweydar, W.
 GRAY'S (J. E.) types, locality of.—Blan-
 ford, W. T.
 Grays (Essex).—Kennard, A. S.; John-
 son, J. P.
 Grays Thurrock (Essex).—Hinton, M.
 A. C., 3; Holmes, T. V., 2.
 Great Britain, geological atlas of.—Wood-
 ward, H. B., 8.
 —. *See also* England, &c.
 Great Namaqualand (S.A.). *See* Nama-
 qualand.
 Great Salt Lake (Utah).—Jenney, W. P.
 Greece.—Cayeux, L.; Philippson, A.;
 Renz, C., 3.
 Green Beds, Loch Lomond.—Cunning-
 ham-Craig, E. H.
 Greenland.—Bøggild, O. B., 1 & 2;
 Engell, M. C.; Fraas, E., 2; Krogh,
 A.; Madsen, V.; Nordenskjöld, O., 2;
 Phalen, W. C.; Pratt, J. H., 7; Ravn,
 J. P. J., 2; Skeat, E. G.; Thomsen, J.
 Greenockite.—Lovisato, D.
 Greensand, Antrim.—Welch, R.
 Greenstone-schists, San Juan Mts. (Colo.).
 —Howe, E.
 Greenstones, Cornwall.—Flett, J. S., 3.
 Greymouth District (N.Z.).—Macleod,
 H. N.
 Greywethers. *See* Sarsen-stones.
 Grimsel Massif (Switzerland).—Dele-
 becque, A.
Griphopithecus.—Abel, O., 2.
 Grisons (Switzerland).—Delebecque, A.;
 Rüetschi, G.
 Grits, Loch Lomond.—Cunningham-
 Craig, E. H.
 Grodno Gov. (Russia).—Missuna, A.
 Grorudite - rocks, Transbaikal.—Kar-
 pinski, A., 3.
 Grosszössen (Saxony).—Gäbert, C.
 Grozny (Caucasus).—Yushkin, E.
 Grulich (Bohemia).—Koštka, K.
 Grund (Harz).—Harbort, E., 2.
 Guadalquivir R. (Spain).—Douvillé, R.,
 2.
 Guadeloupe (W.I.).—Moissan, H.
 Guatemala (C. Am.).—Sapper, K., 1-4.
 Guerrero (Mex.).—Bese, E., 5.
 Guntur volcano (Java).—Volz, W., 2.
 Gur, Lough (Limerick).—Reid, C., 3.
 GURLT, A. *See* *Obit.*, Philippson, A.
 GURNEY, H. P. *See* *Obit.*, Fletcher, L.,
 4.
 Gwendraethfawr (Caermarthen).—Can-
 trill, T. G.
Gymnoptychus.—Matthew, W. D.
 Gympie (Queensl.).—Lewis, A. A.
 Gypsum, crystals.—Rinne, F., 4.
 —, Cumberland.—Burns, D.
 —, dolomitic limestone with.—Hæfer,
 H.
 —, Iowa.—Wilder, F. A.
 —, New York.—Merrill, F. J. H., 2.
 —, origin of.—Fairchild, H. Le R.,
 3.
 —, United States production.—Adams,
 G. I., 5.
 —, Utah.—Emmons, S. F., 4.
 —, Virginia.—Eckel, E. C., 4.
Gyracanthides.—Woodward, A. S., 6.
 Haddenham (Bucks).—Davies, A. M.
Hadrianus.—Hay, O. P., 3.
 Hæmatite, Chota Udepur State.—Henry,
 T. A.
 — crystals.—Mackee, G. W.
 —, Perm.—Nikolaev, D.
 —. *See also* Iron, &c.
 Hainault (Belgium).—Rutot, A., 1 & 5.
 Haine-Saint-Pierre (Hainault).—Rutot,
 A.
 Hainrich Mt. (Thuringia).—Kaiser, E.,
 2.
Halicapsa.—Squinabol, S., 3.

- Halifax (Yorks).—Simpson, W.
Haliotis.—Bial de Bellerade, —
Haliserites.—White, D.
 Halloysite.—Schaller, W. T.
 Hallsands (Devon).—Worth, R. H.
 Halolimnic fauna, Lake Tanganyika.—
 Hudleston, W. H.
Halorites.—Vredenburg, E., 4.
Halysites.—Etheridge, R., *fil.*, 4;
 Whitfield, R. P., 2.
 Hamlin, Fort (Alaska).—Mendenhall,
 W. C.
 Hanau (Prussia).—Rausenberger, J.
 Hanging Valleys, New York.—Tarr, R.
 S.
 Hanover (Germany).—Hoyer, W., 2 & 3;
 Menzel, H.; Wollemann, A., 4; Zim-
 mermann, E.
 Hanter Hill (Radnor).—Raw, F.
Haploceras.—Uhlig, V.
Haplophragmium.—Chapman, F.
Harpoceras.—Struebin, K.; Yokoyama,
 M.
 Häring (Tyrol).—Dreger, J.
 Harrietville (Victoria).—Bradford, W.,
 9.
 Harz (Germany).—Blasius, W., 1 & 3;
 Brandes, G.; Ermisch, K.; Harbort,
 E.; Klockmann, F., 2.
 Hassan (Mysore).—Primrose, A., 2.
 Hastings (Sussex).—Abbott, W. J.
 HATCHER, J. B. *See Obit.*, Holland,
 W. J.; Scott, W. B.
 Hatherley (Transvaal).—Kynaston, H.
Hauericeras.—Yabe, H.
 Hausmannite.—Gorgeu, A.
 HAUTEFEUILLE, —. *See Obit.*, Wal-
 lerant, F., 2.
 Haverfordwest (Pembroke).—Reed, F.
 R. C., 3.
 Havre (Normandy).—Dubus, A., 1 & 2;
 Leprévost, E.
 Hawaiian Is. (Pacific).—Cross, W., 2;
 Hitchcock, C. H., 2; Wood, E.
 HAYDEN Memorial Geological Award,
 1902.—Anon., 13.
 Heathfield (Sussex).—Pearson, R.;
 Woodward, H. B., 7.
Hecticoceras.—Uhlig, V.
Hedycarya.—Deane, H.
 Heersum (Hanover).—Hoyer, W., 2.
 Heidelberg (Baden).—Schweydar, W.
Heinzia.—Hyatt, A.
Helicoceras.—Yabe, H.
 Heligoland I. (North Sea).—Conze, A.;
 Kört, W.; Wolff, W.
Heliosphera.—Squinabol, S., 3.
Helix.—Bédé, P., 5.
 Hellandite.—Brögger, W. C.
 Helvetian.—Schalch, F., 2.
Hemiacodon.—Wortman, J. L.
Hemiasiter.—Bather, F. A.
Hemistyllops.—Ameghino, F., 2.
 Henley-on-Thames (Oxon).—Foley, M. C.
Henricosbornia.—Ameghino, F., 2.
 Hérault (France).—Gazel, A.
 Herberton (W. Austral.).—Cameron,
 W. E., 2.
 Herblingen (Schaffhausen).—Nuesch,
 J.
 Hernösand (Jemtland).—Munthe, H.
 Hertfordshire.—Kidner, H.; Woodward,
 H. B., 6.
 Herve plateau (Liège).—Renier, A.,
 2.
 Herzegovina.—Dreger, J., 2; Katzer, F.,
 2 & 3.
Hesperornis.—Lucas, F. A., 3.
 Hesse (Germany).—Bauer, M.; Chelius,
 C., 1-3; Kayser, E.; Neumann, B.;
 Parkinson, H.; Reinach, A. von, 2;
 Schwantke, A.
 Hessenbergite.—Gruenling, F.
 Hesse (Yorks).—Davison, C., 7.
Heterocœnia.—Janensch, W.
Heterolambda.—Ameghino, F., 2.
Heteronema.—Ulrich, E. O.
Heterosteus.—Jäkel, O., 3.
Heterotrypa.—Ulrich, E. O.
 Heulandite.—Gaubert, P., 5.
 Heuscheuergebirge (Silesia).—Flegel
 K.; Petrascheck, W., 3 & 5.
Hexagonella.—Etheridge, R., *fil.*, 3.
Hexapyramis & *Hexastylus*.—Squina-
 bol, S., 3.
Hicksia.—Delgado, J. F. N., 2.
 Hildesheim (Hanover).—Hoyer, W.
Hildoceras.—Yokoyama, M., 2.
 Hildoceratidæ.—Buckman, S. S., 4.
 Hills, Flanders.—Cornet, J., 2.
Himalayites.—Bœhm, G.
 Himalaya Mts. (Asia).—Crick, G. C., 6;
 Diener, C.; Garwood, E. J.; Hayden,
 H. H.; Nøtling, F., 1, 3, & 4; Suess,
 E., 3; Uhlig, V.
 Hindu-Kush (India).—Suess, E., 3.
Hipparion.—Ameghino, F.
Hippopotamus.—Bortolotti, C.
Hoferia.—Broili, F., 3.
 Hohenzollern (Germany).—Schmidt, A.;
 Schuetze, E.
 Hokkaido (Japan).—Yabe, H.; Yonekra,
 K.
Holcostephanus.—Uhlig, V.
 Holland.—Calder, F. J. P. van.
 Höllenstein (Lower Austria).—Geyer,
 G., 1 & 3.
 Holmbury Hill (Surrey).—Herries, R.
 S.
Hologyra.—Picard, E.
 Holyhead (Anglesey).—Greenly, E.
 Holyoke Range (Mass.).—Emerson, B.
 K.
Homalonotus.—Fox, H., 2; Lake, P.
 Homberg a. d. Efze (Hesse).—Bauer, M.;
 Reuber, O.
 Homberg a. d. Ohm (Hesse).—Schwantke,
 A., 3.
Homotrypella.—Ulrich, E. O.
 Hönne R. (Westphalia).—Denckmann,
 A.
 Hopeite.—Schulten, A. de.
 Hope's Nose (Devon).—Hunt, A. R.
Hoplites.—Bœhm, G.; Lang, W. D.
Hoplitoides.—Esch, E. von.
Hoplopara.—Ravn, J. P. J., 2.

- Hornblende derived from pyroxene.—Gordon, C. H.
 —. *See also* Amphibole.
 Hornung Valley (Lower Austria).—Zeleny, V.
 Horse, ancestry of the.—Lydekker, R.
 Horsham (Victoria).—Dennant, J.
 Hospital-Hill Shales, Johannesburg.—Marriott, H. F.
Hostimella.—Potonié, H., 2.
 Hot Springs. *See* Thermal waters.
 Houldsworth Colliery (Ayr).—Smith, W.
 Hoyoux Valley (Liège).—Lespineux, G., 2; Lohest, M., 5.
 Hualgayoc (Peru).—Bernard, C.
 Huallanca (Peru).—Pinzás, E. J., 2.
 Huancavelica (Peru).—Hadley, W. M.; Tamayo, A.; Umlauff, A. F.
 Huánuco (Peru).—Ochoa, N. G.
 HUDLESTON, W. H. *See* Anon., 12.
 Hudson Bay (Canada).—Low, A. P., 1 & 2.
 — River Beds, Albany.—Ruedemann, R.
 — Cañon (Atlantic).—Spencer, J. W.
 — Valley (N.Y.).—Peet, C. E.
 Huelgoat (Britanny).—Martonne, E. de, 4.
 Huelva (Spain).—Schmidt, C., 4.
 Huitzoco (Mexico).—Villarello, J. D.
 Hull (Yorks).—Crofts, W. H.; Sheppard, T., 1-3, 5 & 6.
 Humboldt Range (Nevada).—Louderbeck, G. D.
 Hungary.—Böckh, J.; Diener, C., 4; Halaváts, G., 1 & 2; Handmann, R.; Hornitzky, H., 1-3; Inkey, B. von, 1 & 2; Kalecsinszky, A. von, 1, 3, & 4; Liffa, A.; Luerenthey, E., 1-4; Pálffy, M. von, 1-3; Papp, K.; Pošewitz, T.; Schafarzik, F., 1 & 2; Szadeczki, J.; Timko, E.
 —. *See also* Carpathian Mts., Transylvania, &c.
 Hurricane Fault, Utah.—Huntington, E.
 Hurst Wood (Surrey).—Herries, R. S.
 Hvitis (Finland).—Borgström, L. H.
Hyæna & Hyænarctos.—Schlosser, M., 2.
Hyænognathus.—Merriam, J. C.
 HYATT, A. *See* *Obit.*, Crosby, W. O.
Hybodus.—Linstow, O. von, 2.
 Hyderabad (Deccan).—Grundy, J., 3.
 Hydroquent (Pas-de-Calais).—Gosselet, J., 3.
 Hydrogöthite.—Zemyatčenski, P.
Hylopus.—Matthew, G. F., 3.
Hyolithes.—Delgado, J. F. N., 2.
 Hyperite, Iceland.—Thoroddsen, T., 4.
 Iano (Tuscany).—Barsanti, L.
Iber.—Pavlov, M., 2.
 Ice, North American buried.—Tyrrell, J. B., 2.
 Ice-Age, Alps.—Penck, A.; Schulz, A., 1 & 5.
 Ice-Age, Durham Co.—Watts, A.
 —, recurrence of.—Howorth, Sir Henry H.; Hughes, T. McK.
 Ice-fields, Greenland.—Engell, M. C.
 Iceland.—Pjetursson, H.; Thoroddsen, T., 1-24.
Ichnytes.—Vinassa de Regny, P. E., 3.
Ichthyosaurus.—Jäkel, O., 6; Sauvage, H. E., 2; Yakovlev, N., 3.
Ictops.—Matthew, W. D.
 Idaho (U.S.A.).—Finlay, J. R., 1 & 2; Lindgren, W., 5; Russell, I. C., 2; Upham, W., 5.
 Idocrase.—Klein, C., 3.
 Igneous rocks, Alaska.—Emerson, B. K., 3.
 —, analyses of.—Clarke, F. W., 2; Washington, H. S., 1-3.
 —, average composition of.—Mennell, F. P., 2.
 —, Bristol.—Morgan, C. L.
 —, British Columbia.—Barber, W. B.
 —, Charnwood.—Watts, W. W., 2.
 —, classification by chemical composition.—Iddings, J. P.
 —, Dardanelles.—English, T.; Flett, J. S.
 —, Devon (S.).—Ussher, W. A. E., 2.
 —, Ecuador.—Reiss, W., 1 & 2.
 —, Erythræa.—Aloisi, P., 2; Manasse, E., 2.
 —, grain of.—Lane, A. C., 2 & 3.
 —, Idaho, &c.—Russell, I. C., 2.
 —, Lake-District.—Harker, A.
 —, Lake Chad.—Gentil, L.
 —, Madagascar.—Lacroix, A., 7.
 —, magnetic stability of.—David, P.
 —, Moravia.—Suess, F. E.
 —, New Caledonia.—Glasser, E.
 —, New Zealand.—Mackay, A.
 —, ore-deposits &.—Spurr, J. E., 3.
 —, origin of.—Goodchild, J. G., 5 & 6.
 —, Radnor.—Raw, F.
 —, Rhodesia.—Broad, W.
 —, Skye Tertiary.—Harker, A., 2.
 —, Somerset.—Boulton, W. S.
 —, Sudan.—Hubert, H., 4.
 —, Tyrol.—Ippen, J. A.; Kolenc, F.
 —, Wales (N.).—Cope, T. H., 2.
 —. *See also* Andesite, Magmas, Volcanic, &c.
 Iguala (Mex.).—Hall, C. E.
Iguanodon bernissartensis.—Harmer, S. F.
 Ikushumbetsu (Hokkaido).—Yonekra, K.
 Ilford (Essex).—Hinton, M. A. C., 1 & 2; Johnson, J. P., 1, 3, & 8.
Illænus.—Reed, F. R. C., 4.
 Illinois (U.S.A.).—Alden, W. C.; Emmons, S. F., 4; Fuller, M. L., 3; Hubbard, G. D.

- Immenite.—Bavink, B.; Hussak, B.
 Immendingen (Württemberg).—Dietrich, W.
 Implements, flint & stone.—Abbott, C. C.; Bauer, M., 2; Bell, A. M.; Blasius, W.; Daleau, F.; Davies, H. N.; Dubus, A., 1 & 2; Evelyn, A. d'; Gower, H. D.; Holmes, W. H.; Hunt, A. R.; Johnson, J. P., 1, 4, 6, & 7; Kennard, A. S.; Nuesch, J., 2; Rutot, A., 1 & 3; Schönland, S.; Stopes, C.; Treacher, L.
 —. *See also* Flint.
 India, gravity-changes in.—Fisher, Rev. O., 3.
 —, petroleum.—Evans, J. W.
 —, water-supply.—Wilson, H. M.
 —. *See also* Coal, Earthquakes, Gold, Graphite, Manganese, &c.
 Indian Territory (U.S.A.).—Adams, G. I., 4.
 Indiana (U.S.A.).—Blatchley, W. S.; Breeze, F. J.; Epperson, J.; Første, A. F., 1 & 2; Fuller, M. L., 1 & 3; Hopkins, T. C., 1-3; Kindle, E. M., 2; Kinney, B. A.; Mills, W. M.
 Indo-China (Asia).—Monod, G. H.; Zeiller, R., 2.
 Infusorial earth, Victoria.—Herman, H.
 —. *See also* Tripoli.
 Ingleton (Yorks).—Elsden, J. V., 5.
 Inn Valley (Tyrol).—Ampferer, O., 2.
Inoceramus.—Airaghi, C.; Pálffy, M. von.
 Insects, Carboniferous.—Sellards, E. H.; Zeiller, R., 2.
 —, Jurassic.—Walther, J., 3.
 —, mineralized.—Lacroix, A., 4.
 —, Tertiary.—Meunier, F.
 Integrata.—Ulrich, E. O.
 Interference-figures, calcite.—Muegge, O.
Interhippus.—Ameghino, F., 2.
 Ionian Is. (Adriatic).—Renz, C.
 Iowa (U.S.A.).—Beyer, S. W.; Calvin, S., 1-4; Høen, A. B.; Knight, N.; Leonard, A. G.; Macbride, T. H.; Norton, W. H.; Savage, T. E.; Udden, J. A.; Wilder, F. A.
 Ireland, coast-changes.—Parkinson, J.
 —, gold.—Kinahan, G. H., 1-3; Mac-laren, J. M.
 —, minerals.—Seymour, H. J.
 —, mines, &c.—Atkinson, J. B., 1-3; Foster, Sir Clement Le N.
 —. *See also* Caverns, Geological Survey, &c.
 Iron, Belgium.—Lambert, G.
 —, California.—Diller, J. S., 2.
 —, Carolina (N.).—Keith, A.
 —, Cuba.—Birkinbine, J.
 —, Durham.—Lee, M.
 —, Finland.—Henriksen, G.
 —, Georgia.—Hayes, C. W., 7.
 —, Greenland.—Phalen, W. C.
 —, Hesse.—Chelius, C., 1-3.
 —, Ireland.—Gough, G. C.; Kinahan, G. H., 2.
 —, Lake-Superior district.—Leith, C. K.; Macco, A.
 Iron, Luxemburg.—Pearse, J. W.
 —, magnetometric measurement of deposits of.—Haanel, E.
 —, meteoric.—Angermann, E., 3; Berwerth, F.; Brezina, A., 2; Fletcher, L., 1-4; Klein, C., 2; Sommerfeldt, E., 2.
 —, Michigan.—Bayley, W. S.
 —, Minnesota.—Clements, J. M., 2; Thomas, K., 1 & 2.
 —, Mysore.—Primrose, A., 2.
 —, Nassau.—Krahmann, K.; Krecke, F.
 —, New Caledonia.—Glasser, E.
 —, New South Wales.—Pittman, F.
 —, Norway.—Vogt, J. H. L., 2.
 —, Ontario.—Carter, W. E. H.; Leith, C. K., 2; Miller, W. G., 1 & 2.
 —, origin of deposition in lakes.—Gough, G. C.
 —, Peru.—Duval, A.; Pinzás, E. J.; Ventura, P. C.
 —, phosphorus &.—Launay, L. de, 2.
 —, Queensland.—Ball, L. C., 6.
 —, Spain.—Schmidt, C., 4.
 —, Styria.—Canaval, R.; Redlich, K. A.
 —, Sweden.—Hecker, —.
 —, Tennessee.—Keith, A., 1.
 —, titanic.—Doby, G.
 —, Ufa Gov.—Konusheski, L., 2.
 —, United States, production.—Birkinbine, J.
 —, Ural Mts.—Konusheski, L.; Morozovich, I., 3; Mrazec, L.; Nikolaev, D., 1 & 2.
 —, Wisconsin.—Weidman, S., 2; Winchell, N. H., 5.
 —. *See also* Chromite, Magnetite, Meteoric, &c.
 Iron-glance, serpentine with.—Zeleny, V.
 Ironstone-conglomerate, Cape Patton.—Dennant, J.
 Irr, Lake (Upper Austria).—Függer, E.
 Isa Khel (Punjab).—Simpson, R. R., 2.
 Isa R. (Urals).—Vuisotzki, N.
Ischyodus.—Leriche, M.
Ischyromys.—Matthew, W. D.
Isechinus.—Lambert, J.
 Iseo, L. (Lombardy).—Hess, H.
 Island, new, off Borneo.—Schmidt, C.
Isochilina.—Clarke, J. M., 12.
Isocyprina.—Cossmann, M., 3.
 Isopoda, Jurassic.—Remeš, M.
 Issachki (Poltava Gov.).—Morozovich, I.
 Istria (Austria).—Moser, L. K., 1 & 2.
 Italy, volcanoes of Central, 1899-1903.—Sabatini, V., 2.
 —. *See also* Lombardy, &c.
 Ithaca (N.Y.).—Tarr, R. S., 2.
 Jacupirangite.—Twelvetrees, W. H., 6.
 Jade.—Bauer, M.; Collyer, H. C.
 Jakobshavn (Greenland).—Eugell, M. C.

- Jalomita R. (Rumania).—Bergeron, J., 2.
 Jalovybach (Bohemia).—Liebus, A.
 Jamaica (W.I.).—Dall, W. H.
 James Bay (Canada).—Low, A. P.
 James R. (S. Dak.).—Todd, J. E., 3.
 Jamestown (Colo.).—Lakes, A., 5.
 Jammu (N.W. India).—Simpson, R. R.
 Japan.—Heurteau, C. E.; Hobbs, W. H., 3; Honda, K.; Iki, T.; Imamura, A., 1-4; Kanehara, N.; Kochibe, T., 1 & 2; Lozé, E.; Ogawa, T.; Omori, J., 3-6; Otsuki, Y.; Tokunaga, S.; Yabe, H.; Yokoyama, M., 1 & 2; Yonekra, K.
 Java (D.E.I.).—Van Bosse, P.; Volz, W., 2; Wichmann, A.
 Jemez (New Mex.).—Reagan, A. B., 1 & 2.
 Jemtland (Sweden).—Kjellmark, K.; Munthe, H.
 Jherria (Bengal).—Stonier, G. A., 2.
 Jintown. *See* Jamestown.
 Joachim Valley (Bohemia).—*See* St. Joachim.
 Johannesburg (Transvaal).—Hatch, F. H., 6.
 Joplin (Mo.).—Crane, W. R., 2; Smith, W. S. T.; Sterrett, D. B., 2.
 Jorat (Berne).—Baumberger, E., 2.
 Jordan Valley (Palestine).—Bonney, T. G., 2.
 Jordanite.—Sachs, A., 3.
 Judica, Monte (Catania).—Checchia-Rispoli, G., 2.
 Junction-beds, consolidation &.—Lampugh, G. W., 3.
 Jura, French.—Fournier, E., 4.
 —, Swiss.—Baumberger, E., 1 & 2; Struebin, K., 2.
 —, Tertiary freshwater limestone.—Schmidt, C., 2.
 —, Triassic, Victoria, &c.—Etheridge, R., *fl.*, 2.
 Jurassic, Alaska.—Emerson, B. K., 3.
 —, Austria (Lower).—Trauth, F.
 —, Bavaria.—Walther, J., 3.
 —, Brescia.—Cacciarnali, G. B., 1.
 —, Cambridgeshire.—Marr, J. E., 1 & 2.
 —, Daghestan.—Renz, C., 4.
 —, Dauphiné.—Kilian, W., 3; Lory, P., 1 & 2.
 —, Greenland.—Fraas, E., 2; Madsen, V.; Skeat, E. G.
 —, Hanover.—Hoyer, W., 2.
 —, Herzegovina.—Katzner, F., 3.
 —, Japan.—Yokoyama, M., 1 & 2.
 —, Lebanon.—Rauff, H., 2.
 —, Lena District.—Yakovlev, N., 2.
 —, Luxemburg.—Greindl, Baron, —.
 —, Moravia.—Rzehak, A., 3.
 —, Morocco.—Gentil, L., 2.
 —, New Zealand.—Park, J., 1 & 4.
 —, Normandy.—Douvillé, R.
 —, Poland.—Rehbinder, B. von, 1 & 2.
 —, Portugal.—Choffat, P.
 —, Pyrenees.—Depéret, C., 3.
 Jurassic, Russia.—Ilovaïski, D., 1 & 2; Rehbinder, B. von, 1 & 2.
 —, Savoy.—Rössinger, G., 2.
 —, Spain.—Mallada, L.
 —, Spiti.—Uhlig, V.
 —, Stramberg.—Remeš, M.
 —, Sula Is.—Bøhm, G.
 —, Venetia.—Campana, D. del.
 —, Victoria.—Etheridge, R., *fl.*, 2.
 —, Worcestershire.—Buckman, S. S., 3.
 —, Yorkshire.—Fox-Strangways, C.
 Kabania (Tomsk Gov.).—Tanfelev, G.
 Kadir (Mysore).—Primrose, A., 2.
 Kafué R. (S.A.).—Ferguson, D.
 Kalgoorlie (W. Aust.).—Rickard, T. A.
 Kalksberg (Lr. Austria).—Toula, F., 2.
Kalligramma.—Walther, J., 3.
 Kalmar (Gothland).—Munthe, H., 2.
 Kamchatka (Siberia).—Bogdanovich, K.
 Kangchenjunga Mt. (Himalayas).—Freshfield, D. W.; Garwood, E. J.
 Kanopolis (Kan.).—Crane, W. R.
 Kansas (U.S.A.).—Adams, G. I., 4; Broadhead, G. C., 2; Crane, W. R., 1 & 2; Heydrick, W. H.
 Kaolin.—Dunstan, W. R., 2; Lee, M.; Weyberg, Z., 1 & 2.
 Karadagh (Persia).—Stahl, A. F.
 KARRER, F. *See* *Obit.*, Geikie, Sir Archibald, 4.
 Karroo Beds, Cape Colony.—Seeley, H. G., 1-3.
 — gold, Cape Colony.—Schwarz, E. H. L., 5.
 Karwendel Mts. (Tyrol).—Ampferer, O.
 Kashmir (India).—Nætling, F.; Oldham, R. D., 2 & 3.
 Katanga district (Congo).—Buttgenbach, H.
 Keewatin District (Canada).—Dowling, D. B.; Tyrrell, J. B.
 Kelei R. (Sumatra).—Buecking, H., 4.
 Kellerwald (Hesse).—Walther, J., 2.
 Kent.—Bennett, F. J., 2; Johnson, J. P., 4; Kidner, H.; Skeats, E. W., 2; Stopes, C.
 Kentucky (U.S.A.).—Bain, H. F.; Første, A. F.; Hovey, H. C.; Tight, W. G.; Ulrich, E. O., 3.
 Keratophyres, Berwyn & Breidden Hills.—Jevons, H. S.
 Kerosene-shale. *See* Oil-shale.
 Kersantonite.—Ippen, J. A.; Rinne, F., 3.
 Kesh Caves (Sligo Co.).—Praeger, R. L., 4.
 Kesslerloch Cave (Schaffhausen).—Nuesch, J., 2; Schöten sack, O.; Studer, T.
 Kesztolec (Hungary).—Kalecsinszky, A. von.
 Keuper, Devon.—Irving, A., 1 & 2; Somervail, A., 1 & 3.

- Keuper, Weimar.—Compter, G.
 —. *See also* Trias.
 —. Rhatic, unconformity, Gloucestershire, &c.—Richardson, L.
 Khakhadian Massif (Sudan).—Arsandaux, H., 1 & 3.
 Kharkov Gov. (Russia).—Armashevski, P.
 Kherson Gov. (Russia).—Faas, A.; Tapesenko, V.
 Khost (Baluchistan).—Grundy, J., 9 & 14.
 Kiau-chau Bay (Shantung).—Rinne, F., 3.
 Kiirunavaara (Norrbotten).—Hecker, —.
 Kilacheri (Madras).—Rau, H. N.
 Killerjoch Mt. (Tyrol).—Ohnesorge, T.
 Kimberly (Minn.).—Thomas, K., 2.
 KING, C. *See Obit.*, Raymond, R. W.
 Kingsbridge (Devon).—Ussher, W. A. E., 2.
 Kingston (Ont.).—Ells, R. W.
 Kirchberg, Upper & Lower (Württemberg).—Kranz, W.
 Kirchbichl (Tyrol).—Dreger, J.
 Kirchheim (Würt.).—Bräulhaenser, M.
 Kirmington (Lincs.).—Stather, J. W., 1 & 2.
 Kisel (Perm.).—Mrazec, L.
 Kishengarh (India).—Vredenburg, E.
 Kishon Valley (Palestine).—Bonney, T. G., 2.
 Kishtim (Perm.).—Nikolaev, D.
 Kitchen-middens, Andaman Is.—Holland, T. H., 2.
 Kitzelberg (Silesia).—Langenhan, A.
 Klerksdorp (Transvaal).—Bleloch, W.; Dörfel, D., 4; Draper, D., 1 & 2; Higgs, M. S., 2; Kuntz, J., 3; Voit, F. W.; Wilkinson, D.; Zimmermann, J.
 Klingen Valley (Saxony).—Andrimont, R. d', 3.
 Klippen, Moravia.—Rzehak, A., 3.
 Klondyke (N.W. Canada).—Obalski, T.
Knemicerus.—Hyatt, A.
 КНИГНТ, W. C. *See Obit.*, Williston, S. W., 2.
 Knobs, concretions.—Todd, J. E.
 Knolls, Issachki diabase.—Morozovich, I.
 Kohlbach (Styria).—Canaval, R.
 Kolar (Mysore).—Wetherell, E. W.
 Kolguev I. (Arctic).—Knipovich, N.
 Komai (Bengal).—Hayden, H. H., 2.
 Komarom Com. (Hungary).—Timkó, E.
 Komját (Hungary).—Horowitzky, H.
 Komorau (Bohemia).—Jahn, J. J., 3; Liebus, A.
 Komuto shell-bed, Trinidad.—Guppy, R. J. L., 4.
 Königsgnad (Hungary).—Engelhardt, H.
 Kootenay (B.C.).—Macbride, R.
 Korea (E. Asia).—Perviniquière, L.
 Koskullskulle (Norrbotten).—Hecker, —.
 Kosva R. (Urals).—Duparc, L.
 Kotterbach (Hungary).—Zimányi, K.
 Kotzebue Sound (Alaska).—Mendenhall, W. C.
Krambergeria.—Simionescu, J., 2.
 Krapina (Croatia).—Gorjanović-Kramberger, D., 2.
 Kremsmünster (Lower Austria).—Schwab, P. F.
 Krivaya Mouzga (Donetz Basin).—Sokolov, N. A.
 Krivoi Rog (Kherson).—Faas, A.; Tapesenko, V.
 Krizevci (Croatia).—Gorjanović-Kramberger, D.
 Kroglje (Istria).—Moser, L. K.
 Kromdraai (Transvaal).—Dörfel, D., 2.
 —. conglomerates, Transvaal—Sawyer, A. R., 2.
 Kroutikha (Tomsk Gov.).—Tanfelev, G.
 Krugersdorp (Transvaal).—Sawyer, A. R., 3.
 Krugite.—Geiger, A.
 Krübel (Galicia).—Wójcik, K.
 Kryuka R. (Taganrog Gov.).—Morozovich, I., 2.
 Krzesowice (Galicia).—Renier, A., 3.
 Kunzite.—Baskerville, C.; Davis, R. O. E.; Kœchlin, R., 2.
 Kurhesse (Germany).—Kayser, E.
 Kursk Gov. (Russia).—Armashevski, P.
Kurtodon.—Osborn, H. F., 5.
 Kyanite.—Dorlodot, L. de, 2.
 Labagh quarry (Bangalore).—Wetherell, E. W., 3.
 Lábatlan (Hungary).—Lœrenthey, E., 3.
 Labrador (Canada).—Low, A. P.
 Labradorite-rocks, Norway.—Kolderup, C. F.
 Lacave (Lot).—Viré, A.
 Laccolites, Hungary.—Koch, A., 3.
Lacogyra.—Perner, J.
Lagenostoma.—Oliver, F. W., 2.
 Lagoon-deposits.—Monckton, H. W., 6.
 Laibach (Carniola).—Kossmat, F.
 Lake-basins, Switzerland.—Preller, C. S. Du R.
 Lake-District, English.—Dickson, E., 2; Harker, A.; Lewis, F. J.; Walker, E. E.
 Lakes, American Great.—Chalmers, R.
 —, Engadine.—Delebecque, A.
 —, Grinsel.—Delebecque, A., 2.
 —, Lombardy.—Hess, H.
 —, New Zealand.—Lucas, K.
 —, Prussia.—Braun, G.; Haldfass, W.
 —, St.-Gothard Massif.—Delebecque, A., 2.
 —, Småland.—Gustafsson, J. P.
 —. *See also* Lochs.
 Lamellibranchiata, Cambrian.—Delgado, J. F. N., 2.
 —, Carboniferous.—Etheridge, R., *fl.*, 3; Girty, G. H., 1, 2, & 4; Hind, W., 2.

- Lamellibranchiata, Cretaceous.—Airaghi, C.; Dacqué, E.; Etheridge, R., *fl.*; Ihering, H. von; Pálffy, M. von; Pâquier, V.; Whitfield, R. P.
 —, Devonian.—Clarke, J. M., 12;
 Drevermann, F., 2.
 —, Jurassic.—Bohm, G.; Borisyak, A.; Cossmann, M., 3; Ilovaiski, D.; Loriol, P. de; Madsen, V.; Merciai, G.; Remeš, M.; Toula, F.; Yokoyama, M.
 —, Permo-Carboniferous.—Koken, E.
 —, Quaternary.—Jensen, A. S., 1 & 2;
 Kennard, A. S., 3; Marr, J. E., 2.
 —, Rhaetic.—Reynolds, S. H.
 —, Silurian.—Clarke, J. M.; Ruedemann, R.
 —, Tertiary.—Andrussov, N.; Archangel, A. C.; Cossmann, M., 4; Dall, W. H.; Dollfus, G. F., 5 & 6; Drezer, J.; Esch, E. von; Laskarev, V.; Leriche, M., 4; Mayer-Eymar, C.; Michaelovski, G. P.; Newton, R. B., 4; Oppenheim, B.; Ravn, J. P. J., 2; Solger, F.; Vinassa de Regny, P. E.
 —, Triassic.—Broili, F., 3; Kittl, E.; Linstow, O. von, 2 & 3; Philipp, H.; Reis, O. M.; Tommasi, A., 1 & 2.
 —. *See also* Rudistæ, &c.
Laminarites.—Fugger, E.
 Lamprophyre, British Columbia.—Barber, W. B.
 —, Taganrog Gov.—Morozovich, I., 2.
 Lanarkshire (Scotland).—Dron, R. W., 2.
 Lancashire.—Arber, E. A. N.; Bolton, H.; Brodrick, H., 1 & 3; Dickson, E.; Gerrard, J., 1 & 2; Lomas, J., 2 & 4; Reade, T. M.
 Land, changes of level.—Bailly, L.; Geikie, Sir Archibald, 3; Guenther, R. T.; Hull, E.; Munro, R., 2; Negris, P.; Parkinson, J.; Salmon, W.; Schmidt, C.; Tuttle, G. W.
 —. —. *See also* Coast-erosion.
 Landenian, Nord.—Leriche, M., 7.
 Landeshut (Silesia).—Herbing, J.
 Landslips, Flanders.—Halef, F., 2.
 —, Frank.—Macconnell, R. G.
 —, Tyrol.—Amperferer, O., 3.
 —, Washington (U.S.A.).—Smith, G. O., 2.
 Land-subsidence, Sévran.—Dollfus, G. F.
 Languedoc (France).—Bergeron, J., 3;
 Carez, L.; Mazaucic, F.; Roman, F.
 Lausing (Kan.).—Parker, C. A.; Winchell, N. H., 6.
 Lanzo Valley (Piedmont).—Sacco, F., 2.
Laotira.—Huene, F. von.
 Laramie Group, Dakota, &c.—Bureau, E.; Wilder, F. A., 2.
 Laterite.—Bruhns, W.; Kaiser, E., 5.
Latimæandra.—Rauff, H., 2.
Latiris.—Esch, E. von.
 Latour (Pyrénées-Orientales).—Roussel, J.
 Lauder (Berwick).—Norman, F. M.
 Lauenen (Berne).—Rössinger, G., 2.
 Launching (Victoria).—Chapman, F., 6.
 Lauterberg (Harz).—Ermisch, K.
 Lava, Mayor I. (N.Z.).—Wolff, F. von.
 —, Java.—Volz, W., 2.
 —, Skve.—Harker, A., 2.
 Laval (Mayenne).—Michel, L.
 Lawsonite.—Schaller, W. T., 2; Zambouini, F., 3.
 Laziali Hills (Rome).—Angelis d'Ossat, G. de, 3.
 Leaching, sea-water.—Macallum, A. B.
 Lead, Arizona.—Ransome, F. L., 3.
 —, Arkansas.—Adams, G. I., 2; Purdue, A. H.
 —, Austria (Lower).—Sigmund, A.
 —, British Columbia.—Macbride, R.
 —, Carinthia.—Gobl, W.
 —, Durham Co.—Lee, M.
 —, Illinois.—Eimmons, S. F., 4.
 —, Kansas, &c.—Crane, W. R., 2.
 —, Kentucky.—Ulrich, E. O., 3.
 —, Mexico.—Salazar, L.
 —, Missouri.—Crook, A. R.; Smith, W. S. T.
 —, New South Wales.—Pittman, E. F.
 —, Northampton (W. Austral.).—Maitland, A. G.
 —, Saxony.—Beck, R.
 —, Sunatra.—Milch, L., 3.
 —, Tasmania.—Twelvetrees, W. H., 7-10; Waller, G., 5.
 —, Thuringia.—Hess von Wieddorff, H.
 —, United States production.—Kirchhoff, C., 2.
 —, Wisconsin.—Grant, U. S., 2.
 Leadhillite.—Pelloux, A.
 Lebanon, Mt. (Syria).—Hay, O. P., 2;
 Rauff, H., 2.
Lecanocrinus.—Rowley, R. R.
Leda.—Andrussov, N.; Archangel, A. D.; Borisyak, A.; Cossmann, M., 3;
 Esch, E. von; Wollemann, A., 4.
 Lehigh Co. (Pa.).—Peck, F. B., 1 & 2.
 Leicestershire.—Davison, C., 4; Rastall, R. H.; Röchling, H. A.; Watts, W. W., 2.
Leiorhynchus.—Guerich, G.
Leitha-limestone, Vienna Basin.—Abel, O., 2.
 Lemurs, Tertiary.—Grandidier, G., 2.
 Lena R. (Siberia).—Tolmashev, J. P. Yakovlev, N., 2.
 Lenne R. (Westphalia).—Denckmann, A.
 Lemnonville (W. Austral.).—Gibson, C. G.
Lentisulina.—Cecchia-Rispoli, G., 2.
 Leny-Grit Group, Scotland.—Cunningham-Craig, E. H.
 Leobersdorf (Lower Austria).—Handmann, R., 2.
 Leonora (W. Austral.).—Jackson, C. F. V.
 Leopardite.—Watson, T. L.
Lepidocyclina.—Prever, P. L., 3.

- Lepidodendron*.—Arber, E. A. N.; Herrick, C. L.; Renault, B.; Zaleski, M. D.
Lepidodiscus.—Clarke, J. M., 12.
 Lepidolite.—Achiardi, G. d., 3; Pratt, J. H., 2.
Lepidophyllum.—Pellati, N.
Lepidostrobus.—Zaleski, M. D.
Leptobolus.—Ruedemann, R.
Leptocelia.—Reed, F. R. C.
Leptosomus.—Hay, O. P.
Leptotrachelus.—Hay, O. P., 1 & 3.
Leptotragulus.—Matthew, W. D.
Lepus.—Major, C. I. F.
 LESLEY, J. P. See *Obit.*, Geikie, Sir Archibald, 4.
Lessuerella.—Perner, J.
 Leutenberg (Thuringia).—Hess von Wichdorff, H.
 Leucite, Wyoming.—Kemp, J. F., 4.
 Liapine District (Tobolsk Gov.).—Ilovai-ski, D., 2.
 Lias, Alaska.—Emerson, B. K.
 —, Albania.—Renz, C., 3.
 —, Bosnia.—Beck, H.
 —, Hanover.—Boyer, W.
 —, Moravia.—Rzehak, A., 3 & 4; Wiesbaur, J.
 —, Northants.—Thompson, B., 2 & 3.
 —, Piedmont.—Franchi, S.
 —, Poitiers.—Cossmann, M., 3.
 —, Portugal.—Choffat, P.
 —, Tuscany.—Fucini, A.
 Libethenite.—Lindgren, W., 7; Melcher, G., 2.
 Libyan Desert (Egypt).—Quaas, A.
Licaphrium.—Ameghino, F., 2.
 Lichnaya (Volga).—Sokolov, N. A.
 Liège (Belgium).—Fourmarier, F., 2 & 4; Lespineux, G., 2; Lohser, M., 2, 4 & 5; Questienne, P., 1-3; Renier, A., 1 & 2; Simoëns, G., 2; Stainier, X., 3 & 4.
 Life on the earth, advent of.—Winchell, N. H., 2.
 Light, crystalline surfaces and refracted.—Osthoff, A.
 —. See also Crystals, &c.
 Lignite, Peru.—Ugarteché, M. de.
 —, Turkestan.—Bronyaikov, M.; Weber, V.
 —, Wonwron.—Kitson, A. E.
 Liguria (Italy).—Issel, A.; Pellati, N.; Rovereto, G., 2 & 3; Sacco, F.
 Lille (Nord).—Ladrière, J., 2.
 Lilliput Bridge (Gloucester).—Reynolds, S. H.
Lima.—Broili, F., 3; Cossmann, M., 3 & 4; Dreger, J.; Merciai, G.; Oppenheim, P.; Remeš, M.; Tommasi, A., 2; Woods, H., 2.
 Lima (Peru).—Steinmann, G., 2.
 Limestone, Batjan.—Martin, K.
 —, California.—Diller, J. S., 3.
 —, Jura Tertiary freshwater.—Schmidt, C., 2.
 Limestone, Kesztölcz.—Kalecsinszky, A. von.
 —, metamorphism of.—Lindemann, B.
 —, New York State.—Ries, H., 4.
 —, Pennsylvanian Silurian.—Peck, F. B.
 —, quartz in.—Fournier, G., 2.
 —, Queensland.—Ball, L. C., 6.
 —, Salina vermicular.—Kraus, E. H.
 —, Salzkammergut.—Fugger, E.
 —, silicification of crystalline.—Coomáraswámy, A. K.
 —, Touraine freshwater.—Dollfus, G. F., 3.
 — valleys, Namur.—Lohest, M., 6.
 —, water in.—Van den Broeck, E.
 —, Westphalian Devonian.—Denckmann, A., 2.
 —. See also Carboniferous, Lithographic, &c.
Limipecten.—Girty, G. H., 4.
Limnæa.—Roman, F.
 Lignite.—Dawkins, W. B., 2.
 Limonite, Tuscany.—Ristori, G.
Limopsis.—Cossinann, M., 4; Oppenheim, P.
 Linarite.—Pelloux, A.
 Lincoln Co. (S. Dak.).—Bendrat, T. A.
 Lincolnshire.—Burnet, A.; Preston, H. Stather, J. W., 1 & 2.
Lingula.—Reed, F. R. C.
Lingulella.—Delgado, J. F. N., 2.
Lingulops.—Clarke, J. M.
Linthia.—Lambert, J.; Newton, R. B., 3; Tokunaga, S.
Lioclema.—Ulrich, E. O.
Liopteria.—Clarke, J. M., 2.
Liospira.—Clarke, J. M., 12; Collie, G. I.
 Liparite, Major I.—Wolff, F. von.
 Lipezk (Tambov Gov.).—Zemyatčenski, P.
Lirodiscus.—Dall, W. H.
 Lischanna Massif (Grisons).—Schiller, W.
Lithapium.—Squinabol, S., 3.
Lithiotis.—Reis, O. M.
Lithiotis-Beds, Herzegovina.—Katzner, F., 3.
Lithocampe.—Squinabol, S., 3.
Lithodomus.—Oppenheim, P.
 Lithographic Stone, Iowa.—Calvin, S., 4; Hæn, A. B.
Lithostrobus.—Squinabol, S., 3.
Lithothamnium.—Vinassa de Regny, P. E., 3.
Littorina.—Wollemann, A., 4.
Lituites.—Kindle, E. M., 2.
 Livingston (Mont.).—Iddings, J. P., 2.
 Llano (Tex.).—Iddings, J. P., 3.
 Llanvirn Beds, Caernarvon.—Fearnsides, W. G., 2.
 Llyn Padarn (Wales).—Elsden, J. V.
 Loa, Mauna (Hawaii).—Hitchcock, C. H., 2; Wood, E.
 Loch-Lomond district, Scotland.—Cunningham-Craig, E. H.

- Lochowitz (Bohemia).—Liebus, A.
 Lochs, Scottish freshwater.—Johnson, T. N.; Murray, Sir John, 1-5.
 Loess, Austrian.—Rutot, A., 3.
 —, Brunswick.—Koch, V. von; Nehring, A.
 —, Hungary.—Handmann, R.
 —, Indiana.—Fuller, M. L., 4.
 —, Missouri.—Owen, L. A.; Wright, G. F.
 —, Vienna Basin.—Troll, O. von.
 —. See also Quaternary.
 Loir Valley (France).—Welsch, J.
 Loire Basin (France).—Dollfus, G. F., 6.
 Lomatia.—Deane, H.
 Lombardy (Italy).—Cacciamali, G. B., 2; Hess, H.; Pozzi, Z.; Repossi, E.; Taramelli, T., 1 & 2; Termier, P., 5 & 7; Tommasi, A.
 Lomme R. (Namur).—Deladrier, É., 2.
 Lonchoconus.—Ameghino, F.
 London Basin.—Cameron, A. C. G.; F'Anson, J. C.; Pocock, T. I.
 —, water-supply.—F'Anson, J. C.
 Long I. (N.Y.).—Veatch, A. C.; Woodward, J. B.
 Longcliffe (Derbyshire).—Arnold-Bemrose, H. H., 3.
 Lophogododon & Lopholambda.—Ameghino, F., 2.
 Lophophyllum.—Yakovlev, A., 1 & 4.
 Lorandite.—Jannasch, P.; Loczka, J.
 Loriolella.—Fucini, A., 2.
 Lorraine.—Laur, F.; Van Werveke, L.
 Lot (France).—Viré, A., 1 & 2.
 Louisiana (U.S.A.).—Harris, G. D.; Hayes, C. W., 4 & 9.
 — Mining Exhibition.—Storrs, A. H.
 Loxoconcha.—Chapman, F.
 Loxonema.—Picard, E.
 Lozère (France).—Guédras, M.
 Lübeck (Germany).—Range, P.
 Lucerne glacier; post-Pliocene.—Hull, E., 2.
 Lucette, La (Mayenne).—Michel, L.
 Lucina.—Archangel, A. D.; Dall, W. H.; Esch, E. von; Laskarev, V.; Oppenheim, P.
 Ludlow (Salop).—Arber, F. A., 5; Blake, Rev. J. F., 2; Buckman, S. S., 5; Woodward, A. S., 4.
 Ludlow Formation, bone-bed.—Hinde, G. J., 3.
 —, graptolites.—Wood, E. M.
 — fossils in Cornish Silurian.—Green, U.
 Lugano, Lake (Lepontine Alps).—Bis tram, A. von.
 Lüneburg (Hanover).—Linstow, O. von, 2.
 Lunulites.—Mapleston, C. M.
 Lunz Beds, Lower Austria.—Kittl, E., 2.
 Luossavaara (Norrbotten).—Hecker, —.
 Lussan (Gard).—Mazauric, F.
 Lutetian, Senegambia.—Meunier, S., 1 & 2.
 Lutetian. See also Eocene & Tertiary.
 Lutravia.—Dollfus, G. F., 5.
 Luxembourg (Belgian), extension of Secondary rocks in.—Greindl, Baron.
 —. See also Campine, &c.
 Luxemburg, Duchy of.—Pearse, J. W.
 Luz (Hautes-Pyrénées).—Carez, L., 1 & 3.
 Lychnocanium.—Squinabol, S., 3.
 Lycopodites.—Potonié, H., 2.
 Lyell, Mount (Tasmania).—Gregory, J. W., 4.
 Lyginodendron.—Berry, E. W., 2; Oliver, F. W.
 Lyonsia.—Dall, W. H.
 Lystrosaurus.—Broom, R., 2.
 Lytoceratide.—Buckman, S. S.
 Lytoloma.—Wieland, G. R., 2.
 Machairodus.—Schlosser, M., 2.
 McMAHON, C. A. See *Obit.*, Bonney, T. G., 3; Holland, T. H., 3; Woodward, H., 6; Woodward, H. B., 5.
 Macoma.—Dall, W. H.
 Macrauchenia.—Ameghino, F.
 Macrocallista.—Dall, W. H.
 Macrocephalites.—Madsen, V.
 Macrocypris.—Chapman, F., 5.
 Macrodon.—Broili, F., 3; Ilovaïski, D.; Tommasi, A.
 Macronotella.—Clarke, J. M., 12.
 Macrophthalmus.—Man, J. G. de.
 Mactra.—Dollfus, G. F., 6; Esch, E. von; Laskarev, V.; Newton, R. B., 3; Madagascar.—Boule, M., 5; Lacroix, A., 7; Lemoine, G.; Lemoine, P.; Torquist, A.
 Maddalene springs (Venetia).—Taramelli, T., 3.
 Madeira (Atlantic).—Gagel, C., 3.
 Madonna di Rogaredo (Lombardy).—Taramelli, T.
 Madras (India).—Rau, H. N.
 Madrid (Spain).—Puerta, G. de la.
 MAFFUCCI, A. See *Obit.*, Canavari, M.
 Magaliesberg (Transvaal).—Hall, A. L., 1 & 2.
 Magellania.—Ihering, H. von, 2.
 Maggiore, Lago (N. Italy).—Käch, M.
 Magilus.—Torquist, A.
 Magmas, rock.—Harker, A., 2; Lane, A. C., 4; Vogt, J. H. L.
 Magnesite, distribution.—Brough, B. H.
 —, Elba.—Achiardi, G. d'.
 —, Mysore.—Primrose, A.
 Magnet, Mount (W. Austral.).—Gibson, C. G.
 Magnetic iron-ore, origin of.—Klockmann, F., 3.
 — stability, igneous rock.—David, P.
 Magnetism, crystals &.—Baviak, B.
 —, geology and terrestrial.—Creak, E.
 Magnetite, Brazil.—Hussak, E.
 — crystals.—Zambonini, F., 4.
 — deposits, contact-metamorphism &.—Klockmann, F.
 —, New Jersey.—Spencer, A. C., 5.
 —, Styria.—Redlich, K. A.

- Magnetite, surveying.—Haanel, E.
 —, Urals.—Morozovich, I., 3.
 —, *See also* Iron, Magnetic, &c.
 Magnitnaya Gora (Ural Mts.).—Morozovich, I., 3.
 Maine-et-Loire (France).—Bigot, A.
 Maitai Series, New Zealand.—Park, J., 4.
 Majorca (Balearic Is.).—Major, C. I. F., 2; Martel, E. A., 4.
 Maldive Is. (Indian Ocean).—Agassiz, A.
 Malenco Valley (Lombardy).—Brunnatelli, L., 1 & 2.
 Malines (Belgium).—Halet, F.
Malletia.—Etheridge, R., *fil.*
 Malmani Goldfield (Transvaal).—Sawyer, A. R., 4.
 Malnitz-Beds, Choteboř.—Petrascheck, W., 4.
 Mamanite.—Van't Hoff, J. H., 6.
 Mammalia, British Museum fossil.—Woodward, A. S., 8.
 —, Cretaceous.—Ameghino, F., 1 & 2.
 —, dentition of.—Ameghino, F.; Lydekker, R., 3; Osborn, H. F., 5.
 — distribution of, Africa &.—Stromer, E. von, 2.
 —, evolution of.—Bensley, B. A.; Lydekker, R.; Woodward, H., 7.
 —, Quaternary.—Arnold-Bemrose, H. H., 3; Blasius, W., 2; Bortolotti, C.; Brown, B., 2; Holland, T. H., 4; Kaska, J.; Major, C. I. F.; Mariani, M.; Merriam, J. C.; Nehring, A., 2; Osborn, H. F., 2; Praeger, R. L., 4; Schroeder, H.; Wagner, G.
 —, Tertiary.—Ameghino, F., 1 & 2; Andrews, C. W., 1, 2, & 4; Brown, B.; Fraas, E.; Gidley, J. W., 1 & 2; Hornes, R.; Major, C. I. F., 2; Matthew, W. D., 1 & 2; Merriam, J. C.; Newton, R. B., 3; Pavlov, M., 1 & 2; Schlosser, M., 1-3 & 5; Simionescu, J.; Simionescu, J. T.; Stehlin, H.; Wortman, J. L.
 —, *See also* Man, Cetacea, &c.
 Mammoth, Siberia.—Howorth, Sir Henry H.
 Mammoth Cave (Ky.).—Couppey de la Forest, M. le, 2.
 Man, American glacial.—Winchell, N. H., 6.
 —, antiquity of, S. African.—Johnson, J. P., 6.
 —, —, Victoria.—Gregory, J. W., 3.
 —, Dachsenbüel Cave.—Kollmann, J.; Nuesch, J.
 —, Kesslerloch Cave.—Nuesch, J., 2.
 —, Neand-Valley Cave.—Rauff, H.
 —, Quaternary.—Boule, M., 3; Davies, H. N.; Edwards, W. H.; Gorjanović-Kramberger D., 3; Gregory, J. W., 3; Hamy, E. T.; Kønen, C., 2; Krause, G.; Munro, R.; Parker, C. A.; Rauff, H.; Winchell, N. H., 6.
 —, Tertiary.—Schlosser, M., 2.
 Man, I. of.—Lomas, J., 6.
 Manchester (Lancs.).—Arber, E. A. N.; Hobson, B.; Hollingworth, G. H.
 Manchuria (E. Asia).—Heurteau, C. E.; Pervinquière, L.
 Manganese, Cuba.—Hamilton, S. H.; Spencer, A. C.
 —, Essex Boulder-Clay.—Thresh, M.
 —, Georgia.—Hayes, C. W., 2.
 —, Hesse.—Chelius C., 2; Salomon, W., 2 & 3.
 —, India.—Fermor, L. L.
 —, Istria.—Moser, L. K.
 —, Mysore.—Sambasiva Iyer, V. S., 2.
 —, New Jersey.—Wolff, J. E.
 —, Panama.—Williams, E. G.
 —, Queensland.—Ball, L. C., 4 & 6.
 —, Thames-Valley Drift.—Johnson, J. P., 3.
 —, United States production of.—Birkinbine, J., 2.
 Mangoli I. (D. E. I.).—Bøhm, G.
 Manhattan I. (N.Y.).—Julien, A. A.
 —, *See also* New York City.
 Manicaland (E. Africa).—Sawyer, A. R.
 Manich R. (S. Russia).—Bogachev, V.
 Manila (Philippine Is.).—Stainier, X., 5.
 Manitou Cave (Colo.).—Couppey de la Forest, M. le, 2.
 Manjak, Barbados.—Emtage, R. H.
 —, Trinidad.—Guppy, R. J. L., 3; Henry, T. A., 5.
 Maps, Belgian tectonic.—Deladrier, E.; Prinz, W., 2.
 —, geological.—Watts, W. W.
- MAPS.
- AFRICA (EQUATORIAL).
 Lake Tanganyika, $1\frac{1}{2}$ inches=69 miles.
 1904.—Hudleston, W. H.
- AFRICA (NORTH).
 ALGERIA. Orléansville, $\frac{1}{175,000}$. 1903.
 —Sarthon, J., 2.
 —, Service géologique de l'Algérie. Carte géologique. $\frac{1}{50,000}$.
 Sheets 8 & 23. Dellys, Tizi-Ouzou.
 —1904.—Ficheur, E., 2.
 Sheet 62. Marengo. 1904.—Ficheur, E., 2.
 EGYPT. Baharia Oasis. $\frac{1}{250,000}$. 1903.
 —Ball, J., &c.
- AFRICA (EAST).
 GERMAN EAST AFRICA. Usambara.
 Amani. $\frac{1}{10,000}$. 1904.—Kert, W.
 PORTUGUESE MANICA goldfield.
 1 inch=2 $\frac{1}{2}$ miles. 1903.—Sawyer, A. R.
- AFRICA (SOUTH). 1 inch=200 miles.
 1904.—Skinner, B.
 CAPE COLONY. Gouritz River-System. 1 inch=25 miles. 1903.—Rogers, A. W.
 —, Namaqualand. 1 inch=about 5 miles. 1904.—Kuntz, J., 4.
 —, Piquetberg. Verloren Valley. 1 inch=2 miles. 1904.—Rogers, A. W.

AFRICA (SOUTH).

- CAPE COLONY. Sutherland, Calvinia & Ceres. 1 inch = about 6 miles. 1904.—Rogers, A. W.
 — Willowmore & Uniondale. 1 inch = 4 miles. 1904.—Schwarz, E. H. L.
 NATAL. Insuzi Goldfield. 1 inch = 100 chains. 1904.—Gray, C. J.
 TRANSVAAL (S.). 1 inch = 4 miles. 1903.—Hatch, F. H.
 —. Balmoral (*No scale stated*). 1904.—Dorffel, D.
 —. —. 1 inch = $1\frac{1}{2}$ miles. 1904.
 —. Mellor, E. T., 2.
 —. Diamond-fields. $\frac{1}{64,720}$. 1904.
 —. Hall, A. L., 3.
 —. Elandsfontein. 2 inches = about 1 mile. 1904.—Kynaston, H., &c.
 —. Johannesburg. $1\frac{3}{8}$ inches = 1 mile. 1904.—Hatch, F. H., 6.
 —. Marico District. 1 inch = 10 miles. 1904.—Hatch, F. H., 4.
 —. Pretoria-Balmoral glacial conglomerate. 1904.—Mellor, E. T., 2.
 —. Pretoria to Limpopo R. 1 inch = about 13 miles. 1904.—Holmes, G. G.
 —. Pretoria & Middelburg Districts. 1 inch = about $2\frac{1}{2}$ miles. 1904.—Kynaston, H., 1 & 2.
 —. Rustenburg & Waterberg Districts. 1 inch = 4 miles. 1904.—Jorissen, E.
 —. Ventersdorp District. (*No scale stated*). 1904.—Hatch, F. H., 3.
 —. Vredefort District. 1 inch = 5 miles. 1904.—Molengraaff, G. A. F., 2.
 —. Waterberg Sandstone at Wilge River, 1 inch = 130 feet; & Balmoral Station, 1 inch = 65 feet. 1904.—Mellor, E. T., 3.
 —. Witwatersrand. 1 inch = $2\frac{1}{2}$ miles. 1904.—Hoffmann, J. I.
 —. —. Extreme Eastern Extension of Rand Witwatersrand Beds. 1 inch = $1\frac{3}{8}$ miles. 1904.—Hatch, F. H., 5.

AFRICA (S.W.).

- GREAT NAMAQUALAND. $\frac{3}{4}$ inch = 20 miles. 1904.—Voit, F. W., 2.

AMERICA (CENTRAL).

- MEXICO, Guatemala, & San Salvador. Active volcanoes. 1902. $\frac{1}{4,500,000}$. 1904. Sapper, K., 2.
 —. Michoacán. Anganguero. $\frac{1}{25,000}$. 1904.—Ordoñez, E., 2.

AMERICA (NORTH).

- ALASKA. 1 inch = 20 miles. 1904. Schrader, F. C.
 —. Fort Hamlin to Kotzebue Sound (*various*). 1902.—Mendenhall, W. C.
 —. Yukon (*various*). 1903.—Collier, A. J., 2.
 GREAT LAKES. 1 inch = about 60 miles. 1904.—Willmott, A. B.

AMERICA (NORTH).

- ONTARIO (Lake). Iroquois Beach. 1 inch = 20 miles. 1904.—Coleman, A. P.
 —, N.E. 1 inch = 12 miles. 1904.
 —. Wilson, A. W. G., 2.
 ROCKY MTS. $1\frac{1}{2}$ inches = about 70 miles. 1904.—Suess, E., 3.
 SUPERIOR (Lake) Iron-districts. 1 inch = about 75 miles. 1904.—Macco, A.
 CANADA. $\frac{1}{7,500,000}$. 1904.—Haas, H.
 —. Geological Survey:—
 702. Quebec. Nottaway River. 1 inch = 10 miles. 1903.—Bell, R.
 711. Atlin Goldfield (B.C.). 1 inch = 6 miles. 1901.—Dawson, G. M.
 766. Saskatchewan & Keewatin Districts. Green-River map. 1 inch = 8 miles. 1903.—Tyrrell, J. B.
 777. Quebec. Shefford Mts. 2 inches = 1 mile. 1903.—Dresser, J. A.
 779 & 781. Ungava (Labrador) & Quebec. 1 inch = 8 miles. 1903.—Low, A. P.
 —. —. Nova Scotia. 1 inch = 1 mile.—Bell, R. (Acting Director), 2.
 42. 1901. By H. Fletcher & E. R. Faribault.
 43. 1902. By H. Fletcher.
 44. 1902. Ditto.
 45. 1902. Ditto.
 46. 1903. Ditto.
 47. 1902. Ditto.
 48. 1902. By H. Fletcher & E. R. Faribault.
 56. 1903. Ditto.
 57. 1902. By H. Fletcher.
 58. 1902. Ditto.
 —. —. —. Pictou coalfield. 3 inches = about 3 miles. 1904.—Poole, H. S., 2.
 —. British Columbia. 1 inch = 7 miles. 1904.—Stonier, G. A.
 —. —. Crow's Nest-Pass Coalfield. 1 inch = 14 miles. 1904.—Vicaire, A.
 —. —. S.E. Kootenay coal-deposits. 1 inch = 4 miles. 1904.—Macbride, R., &c.
 —. —. —. 1 inch = 7 miles. 1904.—Stonier, G. A.
 —. New Brunswick. Kennebecasis Bay. 1 inch = $1\frac{1}{4}$ miles. 1898.—Matthew, G. F.
 —. Ontario. Sudbury District. Copper Cliff. 1 inch = 800 ft.; & Stobie & Frood nickel-deposits. 1 inch = 800 ft. 1903.—Coleman, A. P.
 —. Quebec. Monteregian Hills, 1 inch = 12 miles; & Brome Mt., 1 inch = 2 miles. 1904.—Dresser, J. A., 2.

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91. Hartville (Wy.). 1903. By W. S. T. Smith & N. H. Darton.
92. Gaines (Pa.). 1903. By M. R. Campbell, T. C. Chamberlin, M. L. Fuller, J. D. Irving, C. Butts, & W. C. Alden.
94. Brownsville - Connellsville (Pa.). 1903. By M. R. Campbell, L. C. Glenn, C. Butts, & L. H. Woolsey.
95. Columbia (Tenn.). 1903. By C. W. Hayes & E. O. Ulrich.
96. Olivet (S. Dak.). 1903. By J. E. Todd.
97. Parker (S. Dak.). 1903. By J. E. Todd.
98. Tishomingo (Ind. Terr.). 1903. By J. A. Taff & S. H. Ball.
99. Mitchell (S. Dak.). 1903. By J. E. Todd.
100. Alexandria (S. Dak.). 1903. By J. E. Todd & C. M. Hall.
101. San Luis (Cal.). 1904. By H. W. Fairbanks.
102. Indiana (Penn.). 1904. By M. R. Campbell & G. B. Richardson.
103. Nampa (Ido.). 1904. By W. Lindgren & N. F. Drake.
104. Silver City (Ido.). 1904. By W. Lindgren, N. F. Drake, & F. C. Schrader.
105. Patoka (Ind.). 1904. By M. L. Fuller & F. G. Clapp.
106. Mount Stuart (Wash.). 1904. By I. C. Russell, G. O. Smith, G. C. Curtis, & W. C. Men-denhall.

ALABAMA. 1 inch=40 miles. 1904. Smith, E. A., 1 & 2.

ARIZONA. Bisbee. 1 inch=1 mile & 1 inch=1000 feet. 1904.—Ransome, F. L.

— Globe District. 1 inch=1 mile & $5\frac{1}{2}$ inches=1 mile. 1903.—Ransome, F. L.

— Tombstone. 1 inch=1 mile. 1903.—Church, J. A.

ARKANSAS. Yellville. 1 inch=2 miles; & Zinc and Lead-District. 1 inch=5 miles. 1904.—Purdue, A. H.

CALIFORNIA. Santa Cruz Mts. $\frac{3}{4}$ inch=2 miles. 1904.—Hæhl, H. L., &c.

— See also Nevada.

COLORADO. Ouray Co. $\frac{3}{4}$ inch=1 mile. 1903.—Purinton, C. W., &c.

CONNECTICUT & MASSACHUSETTS. Harford & Greenfield Districts. $\frac{3}{8}$ inch=5 miles. 1904.—Rice, W. N., 2.

AMERICA (NORTH).

UNITED STATES.

DAKOTA. Black Hills. 1 inch=4 miles. 1904.—Irving, J. D., &c.

— (S.). South-Eastern, 1 inch=2 miles; & Mitchell, 1 inch=4 miles. 1904.—Todd, J. E., 3.

—, Lincoln Co. 1 inch=6 miles. 1904.—Bendrat, T. A.

EASTERN STATES. Piedmont Plateau. 1 inch=about 23 miles. 1904.—Matthews, E. B.

INDIANA. 1 inch=4 miles. 1904.—Hopkins, T. C.

— Oil-Region. 1 inch=2 miles. 1904.—Blatchley, W. S.

— Ripley Co. 1 inch=7 miles. 1904.—Første, A. F., 2.

—, Ohio, & Kentucky. 1 inch=40 miles. 1904.—Første, A. F., 2.

IOWA. Fremont & Mills Counties (Drift), *one of each*. 1 inch=2 miles. 1903.—Udden, J. A.

— Hancock, Kossuth, & Winnebago Counties (Drift), *one of each*. 1 inch=2 miles. 1903.—Macbride, T. H.

— Howard Co. (Solid.) 1 inch=2 miles. 1903.—Calvin, S., 2.

— Mitchell Co. (Solid.) 1 inch=2 miles. 1903.—Calvin, S., 3.

— Monroe Co. (Solid.) 1 inch=2 miles. 1903.—Beyer, S. W., 2.

— Tama Co. (Drift.) 1 inch=2 miles. 1903.—Savage, T. E.

— See also Missouri & Wisconsin.

—, Ohio & Kentucky. 1 inch=40 miles. 1904.—Første, A. F., 2.

KANSAS. Upper Carboniferous Limestone Outcrops (*various*). 1903.—Adams, G. I., 4.

KENTUCKY, Ohio, Pennsylvania, & West Virginia pre-Glacial valleys. (*various*). 1903.—Tight, W. G.

— See also Iowa.

LOUISIANA-TEXAS. 1 inch=25 miles; & Petroleum-map, 1 inch=20 miles. 1903.—Hayes, C. W., 9.

MASSACHUSETTS. Charles Glacial Lake (*various*). 1904.—Clapp, F. G.

— Neponset Glacial Lake. 1 inch=1 mile. 1904.—Fuller, M. L., 2.

MICHIGAN. Marquette District. 1 inch=about 2 miles. 1904.—Macco, A.

— Menominee iron-bearing district (*various*). 1904.—Bayley, W. S.

MISSOURI, &c., glaciation (*various*). 1904.—Wright, G. F.

NEBRASKA. 1 inch=40 miles, & 1 inch=5 miles. 1903.—Darton, N. H.

NEVADA. Tonopah. 2 inches=1 mile. 1904.—Lakes, A., 4.

— — $3\frac{1}{2}$ inches=1 mile. 1903.—Spurr, J. E., 2; also Emmons, S. F., 4.

— & California (*various*). 1903.—Spurr, J. E.

AMERICA (NORTH).

UNITED STATES.

NEW HAMPSHIRE. $\frac{3}{4}$ inch = 1 mile.
1904.—Perry, J. H.

NEW JERSEY. Glacial-Drift distribution. 1 inch = 5 miles, &c.
1904.—Salisbury, R. D., &c.

— & part of New York. 1 inch = 15 miles. 1904.—Salisbury, R. D., &c.

NEW MEXICO. Jemez-Albuquerque District. $1\frac{1}{4}$ inches = 6 miles. 1903.
—Reagan, A. B.

— San Pedro District. 1 inch = 6 miles, & 1 inch = 600 feet. 1903.
—Yung, M. B.

NEW YORK. Clinton & Essex Cos. 1 inch = 1 mile. 1902.—Van Ingen, G.

— Gypsum-districts (*various*).
1904.—Adams, G. I., 5.

— Long Island. 4 inches = 69 miles. 1903.—Veatch, A. C.

— Manhattan I., New York City. $1\frac{1}{2}$ inches = about 2 miles. 1903.—Julien, A. A.

— Ten-Mile Creek gorge. 1 inch = 600 feet. 1904.—Matson, G. C.

— See also New Jersey.

OHIO Geological Survey. Petroleum districts (*various*). 1903.—Bow-nocker, J. A.

— See also Kentucky.

PENNSYLVANIA. See Kentucky.

TEXAS. Clarendon District. 1 inch = 35 miles. 1903.—Gidley, J. W., 3.

UTAH. Toqueville District. $\frac{3}{4}$ inch = 1 mile. 1904.—Huntington, E., &c.

VERMONT. Ascutney Mt. $1\frac{1}{4}$ inches = 1 mile. 1903.—Daly, R. A.

VIRGINIA. Blue-Ridge Unakite-district. 1 inch = 2 miles. 1904.
Phalen, W. C., 2.

— (W.). See Kentucky.

WASHINGTON (*various*). 1903.—Smith, G. O., 2.

WISCONSIN. Baraboo iron-district. 1 inch = 1 mile. 1904.—Weidman, S., 2.

—, north central (*various*). 1903.—Weidman, S.

— & Iowa. 1 inch = 4 miles. 1903.—Grant, U. S., 2.

WYOMING. Encampment District. 1 inch = about $1\frac{1}{2}$ miles. 1904.—Spencer, A. C., 6.

— Rambler District. 1 inch = about 2 miles. 1904.—Kemp, J. F., 3.

— Sweetwater Co., leucite-hills. 1 inch = $4\frac{1}{2}$ miles. 1903.—Kemp, J. F., 4.

AMERICA (CENTRAL).

MEXICO. La Paz. $\frac{1}{50,000}$. 1904.—Angermann, E.

— Pachuca. 1 inch = 2,500 feet. 1904.—Halse, E.

AMERICA (CENTRAL).

MEXICO. Sonora Palaeozoic. $\frac{1}{1,000,000}$.
1904.—Angermann, E., 2.

AMERICA (SOUTH).

ARGENTINA. Buenos Aires. $\frac{1}{3,500,000}$.
1904.—Hauthal, R.

BRAZIL. Minas Geraes. Ouro Preto District. 1 inch = 15 miles. 1903.
—Scott, H. K.

— Pará. Lower Amazon District. $\frac{1}{4,400,000}$. 1903.—Katzger, F.

PATAGONIA. St. George's Gulf. $\frac{1}{6,000,000}$.—Tournouër, A.

PERU. Huancavelica quicksilver-district. $\frac{1}{200,000}$. 1904.—Umlauff, A. F.

ASIA.

ALTAI. Sheets Krutikha & Kabania. 1 inch = 10 versts. 1904.—Tanfelev, G.

CASPIAN SEA, &c., post-Pliocene. 1 inch = 315.65 miles, & 1 inch = 237 miles. 1904.—Kropotkin, Prince P., 2.

CEYLON. Balangoda, Denagama. 5 inches = $1\frac{1}{2}$ miles. 1904.—Coomáraswámy, A. K.

— Mineral-occurrence maps. 1904.—Coomáraswámy, A. K., 7.

INDIA. Assam. Um-Rileng coalfield. 1 inch = 1500 feet. 1904.—Bose, P. N.

—, Upper. 1 inch = 16 miles. 1904.—Maclaren, J. M., 3.

— Baluchistan. 1 inch = 16 miles. 1904.—Vredenburg, E., 4.

— Bengal Pres. Nagpur, Chota District. 1 inch = 16 miles. 1904.—Maclaren, J. M., 2.

—, Jherria coalfield. 1 inch = 1 mile. 1904.—Stonier, G. A., 2.

— Earthquake-map, $\frac{1}{5,100,000}$, & ditto, Bengal, 1 inch = 32 miles. 1904.—Montessus de Ballore, F. de, 7.

— Himalayas. Sikhim. 1 inch = 4 miles. 1903.—Garwood, E. J.

—, Hindu-Kush & Himalayas. 1 inch = about 35 miles. 1904.—Suess, E., 3.

— Mysore. Kadkola District, 1 inch = 1 mile; Mavinhalli, 1 inch = 1 mile. 1904.—Primrose, A.

—, Shimoga & Chitaldroog districts. 1 inch = 4 miles. 1904.—Slater, H. K.

—, Tarikere district, 1 inch = 1 mile; also Tumkar & Kolar districts, 1 inch = 4 miles. 1904.—Wetherell, E. W.

— Punjab. Maidan-Range coalfield. 1 inch = 4 miles, & 1 inch = 1 mile. 1904.—Simpson, R. R., 2.

— Spiti, with parts of Kanaur and Ruphu. 1 inch = 4 miles. 1904.—Hayden, H. H.

ASIA.

INDIA (N.W.). Jammu coalfields. 1 inch = 2 miles. 1904.—Simpson, R. R.

INDO-CHINA. Tongking (*various*). 1903.—Zeiller, R., 2.

JAPAN. $\frac{2}{3}$ inch = 120 miles. 1904.—Hobbs, W. H., 3.

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$\frac{1}{300,000}$
Zone 2, Col. II. Koshikijima. 1904.

—Iki, T.

Zone 6, Col. VIII. Nachi. 1904.

—Otsuki, Y.

Zone 6, Col. IX. Kinomoto. 1904.

—Ogawa, T.

Zone 7, Col. III. Tsunoshima. 1904.

Kochibe, T., 2.

Zone 17, Col. XVI. Kamaishi. 1904.

—Kanehara, N.

—Hondo. Mino-Owari earthquakes. 1 inch = 13 miles. 1904.—Kusakabe, S.

KOREA. $\frac{1}{4,000,000}$. 1904.—Pervinquier, L.

PERSIA (N.). Karadagh. 1 inch = 6 miles. 1904.—Stahl, A. F.

SIBERIA. Irkutsk. Lake Baikal. $\frac{1}{416,055}$. 1904.—Makeev, P. de.

—Kamchatka. $\frac{1}{2,000,000}$. 1904.—Bogdanovich, K.

TURKESTAN. Ferghana lignite-district (*various*). 1903.—Bronyaikov, M.

ASIA MINOR.

TRANSCAUCASUS. $\frac{1}{4,000,000}$. 1904.—Nicou, P.

—Tiflis. Sighenakh. 1 inch = 6 versts. 1903.—Riabinin, A.

ATLANTIC. Farøe Is. Suderø. 1 inch = 6 miles. 1904.—Greener, G. A.

AUSTRALASIA.

AUSTRALIA (S.). Clinton rock-phosphate deposits. 1 inch = 8 chains. 1903.—Chewings, C.

—(W.). Arrino, 1 inch = $\frac{1}{2}$ mile; Canning R., 1 inch = $\frac{1}{4}$ mile; Irwin coalfield, 1 inch = $\frac{1}{3}$ mile; & Wanneroo, 1 inch = $1\frac{1}{2}$ miles. 1904.—Maitland, A. G., 3.

—(—). Coolgardie. Great Boulder Belt. 1 inch = 4 chains. 1903.—Maitland, A. G., 4.

—(—). Edjudina. 1 inch = $\frac{1}{2}$ mile. 1903.—Maitland, A. G., 2.

—(—). Herberton. 1 inch = 3 miles. 1904.—Cameron, W. E., 2.

—(—). Leonora. 1 inch = 30 chains. 1904.—Jackson, C. F. V.

—(—). Malcolm Mt. 1 inch = $\frac{1}{2}$ mile. 1903.—Maitland, A. G., 2.

—(—). Mulline & Mulwarrie, both 1 inch = $\frac{1}{2}$ mile. 1904.—Gibson, C. G., 2.

—(—). Murchison goldfield, Boogardie & Mt. Magnet. 6 inches = 1 mile. 1903.—Gibson, C. G.

AUSTRALASIA.

AUSTRALIA (W.). Northampton. 2 inches = 1 mile. 1903.—Maitland, A. G.

—Phillips-River District. 1 inch = $2\frac{3}{4}$ miles. 1900.—Blatchford, T.

NEW SOUTH WALES. Sydney District, recent alluvium. 1 inch = about 2 miles. 1904.—Andrews, E. C.

NEW ZEALAND. South Island. Otago, Nugget-Point District. 1 inch = $1\frac{1}{2}$ miles. 1904.—Park, J., 5.

—Otago. Mount Mary. 1 inch = 6 miles. 1904.—Park, J.

QUEENSLAND. Boyne R. 1 inch = 1 mile; Calliope R. 1 inch = 1 mile; Duke Is. 1 inch = 15 chains; & Gassford District. 1 inch = 20 chains. 1904.—Ball, L. C., 6.

—Gladstone District iron-deposits. 1 inch = 8 miles; & Ipswich District. 1 inch = 2 miles. 1904.—Ball, L. C., 6.

—Glass-House Mts. District. 1 inch = 3 miles. 1904.—Jensen, H. I.

—Moonmerra. 1 inch = 11 chains. 1904.—Dunstan, B.

—Pemberton District. 1 inch = 10 chains; Port Curtis. 1 inch = 1 mile; & Targinie District. 1 inch = 30 chains. 1904.—Ball, L. C.

TASMANIA (N.W.). 1 inch = 24 miles. Mount Lyell. 1 inch = $1\frac{1}{2}$ miles. 1904.—Gregory, J. W., 4.

—Stanley-River tinfield. 1 inch = $\frac{1}{2}$ mile. 1904.—Waller, G. A., 4.

—Zeehan silver-lead district. 1 inch = 12 chains. 1904.—Waller, G. A., 5.

VICTORIA. Geological Survey. Berwick-Cranbourne District. 1 inch = 2 miles. 1903.—Kitson, A. E., 3.

—Chewton - Castlemaine goldfield. 1 inch = 20 chains. 1903.—Baragwanath, W., Jun.

—Chiltern goldfield. 1 inch = 40 chains. 1903.—Hunter, S. B., 2.

—Raywood & Northern Bendigo goldfield (*various*). 1904.—Whitelaw, H. S.

—Spring Hill, Berry, & Central Leads, &c. 1 inch = 40 chains. 1903.—Gregory, J. W.

—Wonwron. 1 inch = 40 chains. 1902.—Kitson, A. E.

—Dandenong. 1904.—Sutherland, I. M.

—Inverleigh. 1 inch = 2 miles. 1904.—Hall, T. S., 2.

EAST INDIES.

BRITISH EAST INDIES.

British North Borneo. 1 inch = 5 miles. 1904.—Schmidt, C.

DUTCH EAST INDIES.

Java. $\frac{1}{4,000,000}$. 1904.—Volz, W., 2.

Molucca Is. Buru. $\frac{1}{500,000}$. 1903.—Martin, K., 2.

EAST INDIES.

DUTCH EAST INDIES.

- Sumatra (S.). $\frac{1}{1,000,000}$. 1904.—Tobler, A.
 —. $\frac{1}{4,000,000}$ & $\frac{1}{1,250,000}$. 1904.—Volz, W.
 —. Atjeh Valley. $\frac{1}{200,000}$. 1903.—Jansen, P.
 —. Ulu-Rawas District. $\frac{1}{200,000}$. 1904.—Milch, L., 2.

EUROPE.

EUROPE (N.). Quaternary deposits (*various*). 1904.—Frech, F., 2.

EUROPE & ASIA, orographical connection of. 1904.—Suess, E., 3.

AUSTRIA-HUNGARY (*various*). 1903.—Diener, C., 4.

—. Austria (Lower). Göstling District. 1 inch = 2 kms. 1904.—Kittl, E., 2.

—. —. Höllenstein. $\frac{1}{40,000}$. 1903.—Geyer, G.

—. —. Vienna. $\frac{1}{25,000}$. 1904.—Schaffer, F. X.

—. Bohemia. 1 inch = 30 kms. 1903.—Diener, C., 4.

—. —. Horensko District. $\frac{1}{75,000}$. 1904.—Katzer, F., 5.

—. —. Komorau. 1 inch = $\frac{1}{2}$ mile. 1904.—Liebus, A.

—. —. Mittelgebirge. Sheet 4. Aussig. $\frac{1}{25,000}$. 1904.—Hibsch, J. E.

—. —. Nachod, &c. $\frac{1}{25,000}$. 1903.—Petrascheck, W.

—. —. Bosnia. Sarajevo. $\frac{1}{75,000}$. 1904.—Kittl, E.

—. —. Carniola. Laibach. $\frac{1}{75,000}$. 1904.—Kossmat, F., 2.

—. —. Croatia & Slavonia. Geologische Karte. $\frac{1}{75,000}$.

—. —. Zone 21, Col. XIII. Rohitsch-Drachenburg. 1904.—Gorjanović-Kramberger, K.

—. —. Zone 21, Col. XIV. Zlalar-Krapina. 1904.—Gorjanović-Kramberger, K., 2.

—. —. Galicia. Schodnica oil-district. 1 inch = $3\frac{1}{2}$ kms. 1904.—Zuber, R., 3.

—. —. Tarnopol. Palæozoic uplift and overlying Cretaceous and Tertiary deposits (2 maps). $\frac{1}{750,000}$. 1903.—Teisseyre, W.

—. —. & Bukovina. Carpathians. $\frac{2}{3}$ inch = 100 kms. 1903.—Teisseyre, W., 2.

—. —. & Podolia (Russia). Carpathians. $\frac{2}{3}$ inch = 100 kms. 1903.—Teisseyre, W.

—. —. Herzegovina. Bugojno. $\frac{1}{75,000}$; Doboj. $\frac{1}{75,000}$; Jajce & Jezero. $\frac{1}{75,000}$; Majevic Mts. & Dônja-Tuzla. $\frac{1}{300,000}$; Mostar. $\frac{1}{75,000}$; Prozor. $\frac{1}{75,000}$; & Zenica. $\frac{1}{75,000}$. 1903.—Katzer, F., 2.

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—. —. Dobsina District ore-deposits. $\frac{1}{25,000}$. 1903.—Gesell, A.

—. —. Tyrol. Fernpass. 1 inch = about 2 miles. 1904.—Amperferer, O., 3.

—. —. Karwendel Mts. $\frac{1}{100,000}$. 1903.—Amperferer, O.

—. —. Kellerjoch & Schwaz District. $\frac{1}{100,000}$. 1903.—Ohnesorge, T.

—. —. Monzoni Mt. $\frac{1}{25,000}$. 1903.—Dœlter, C., 3.

—. —. Predazzo. $\frac{1}{50,000}$. 1904.—Philipp, H.

BELGIUM. $\frac{1}{500,000}$. 1903.—Devalque, G.

—. —. Liège. Angleur & Vesdre Valley. $\frac{1}{40,000}$. 1904.—Fourmarier, P., 4.

—. —. Salm Château District. $\frac{1}{20,000}$. 1904.—Lohest, M., 4.

—. —. Limburg. Campine. $\frac{1}{100,000}$. 1904.—Harzé, E.

—. —. Luxemburg (S.). $\frac{1}{200,000}$. 1904.—Greindl, Baron.

—. —. Namur. Meuse R. valleys. $\frac{1}{20,000}$. 1904.—Lohest, M., 6.

—. —. Palæozoic Folds, &c. $\frac{1}{800,000}$. 1904.—Lohest, M., 3.

—. —. Tectonic map. $\frac{1}{700,000}$. 1904.—Deladrier, E.; $\frac{1}{2,400,000}$. 1904.—Prinz, W., 2.

—. —. Westphalia, & English coalfields. $\frac{1}{4,000,000}$. 1904.—Lambert, G.

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FRANCE. Aude. $\frac{1}{125,000}$. 1904.—Doncieux, L.

—. —. Aveyron. Villefranche. $\frac{1}{200,000}$. 1903.—Thévenin, A.

—. —. Brittany. Huelgoat. 1 inch = about 2 miles. 1903.—Martonne, E. de, 4.

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—. —. Gard. Lussan. $\frac{1}{200,000}$. 1904.—Mazaauric, F.

—. —. Orléanais. Orléans, Bourges, &c. $\frac{1}{1,000,000}$. 1904.—Dollfus, G. F.

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41. Wiesloch. 1904.—Thuerach, H.

48. Eppingen. 1903.—Schnarrenberger, C.

120. Donaueschingen. 1904.—Schalch, F.

127. Müllheim. 1903.—Steinmann, G., 5.

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—Lang, I.
- BAVARIA. Wemding. 1 inch = 152 metres. 1903.—Knebel, W. von.
— (Rhenish-). Zweibrücken. $\frac{1}{50,000}$. 1903.—Ammon, L. von.
- HARZ DISTRICT. Lauterberg. 1 inch = 300 metres. 1904.—Ermisch, K.
- HESSE. Homberg a. d. Efze. $\frac{1}{50,000}$. 1904.—Reuber, O.
- PRUSSIA (E.). Königsberg. Tertiary amber-beds. $\frac{1}{600,000}$. 1903.—Jentzsch, A.
- SAXONY. $\frac{1}{250,000}$. 1904.—Pelz, A.
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Blatt 120. Fürstenwalde. 1903.—
Gæbert, C., 2.
Blatt 133. Plauen. 1904.—Weise, E.
— Altenburg. $\frac{1}{50,000}$. 1904.—
Dammer, B.
— Mittelgebirge granulite-laccolite. 1 inch = $2\frac{1}{2}$ miles. 1904.—
Kæstner, M.
- SCHLESWIG-HOLSTEIN. Lübeck. 3 inches = about 12 miles. 1904.—
Range, P.
- SILESIA. Militsch. $\frac{1}{120,000}$. 1903.—
Berendt, G.
— Zabrze coal-basin. $\frac{1}{25,000}$. 1903.—
Tornau, F.
- THURINGIA. Hainich Mts. (eastern flanks). $\frac{1}{100,000}$. 1903.—Kaiser, E., 2.
— Sormitz Valley. $\frac{1}{100,000}$. 1904.—
Hess von Wichdorf, H.
- WEIMAR. Apolda. $\frac{1}{25,000}$. 1904.—
Compter, G.
- WESTPHALIA. Paderborn & Egge Mts. $\frac{1}{75,000}$. 1903.—Stille, H., 2.
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Hind, W.
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— — — — — Bristol coalfield (N.). 1 inch = 1 mile. 1904.—Onions, J. T.
— Lancashire. Southport. 1 inch = 2 miles. 1903.—Brodrick, H., 3.
— Lincolnshire (S.). 1 inch = 4 miles. 1904.—Preston, H.
— London Basin. Depths to Chalk. 1 inch = 7 miles.—1904. I'Anson, J. C.
— Merioneth. Arenig. 6 inches = 1 mile. 1904.—Elles, G. L.
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— Shropshire. Pontesford Hill. 1 inch = 400 feet. 1904.—Boulton, W. S., 2.
— Somerset. Chard. 1 inch = 1 mile. 1903.—Jukes-Browne, A. J.
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— Lombardy. Brescia. Botticino-Serle. $\frac{1}{50,000}$. 1904.—Cacci-mali, G. B., 2.

— Naples. Phlegrean Fields. $\frac{1}{500,000}$ & $\frac{1}{100,000}$. 1904.—Lorenzo, G. de.

— Piedmont. Anthracite & graphite-districts. $\frac{1}{1,000,000}$. 1903.—Pellati, N.

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— Sesia Valley. $\frac{1}{25,000}$. 1904.—Franchi, S.

— — & Lago Maggiore District. $\frac{1}{100,000}$. 1903.—Rüetschi, G.

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— Perm. Kishtim. 1 inch = 5 versts. 1902.—Nikolaev, D.

— Taman Peninsula. $\frac{1}{180,000}$. 1904.—Andrussov, N.

— Ufa Gov. Zlatoust District. Bakal. $\frac{1}{21,000}$. 1903.—Konushovski, L., 2.

— Urals Mts. Magnet Mt. $\frac{1}{21,000}$. 1904.—Morozewicz, J., 3.

— Platinum-districts. 1 inch = 40 miles; & Mt. Kachkanar platinum-deposits. 1 inch = about $2\frac{1}{2}$ miles. 1903.—Vuisotzki, N.

— Volhynia. 1 inch = 10 versts. 1903.—Laskarev, V.

SWEDEN. Gothland glaciation. $\frac{1}{2,000,000}$ & $\frac{1}{600,000}$. 1904.—Holmström, L.

— Norrbotten. Gellivaara, $\frac{1}{15,000}$ & Koskullskulle, $\frac{1}{1,600}$; Käärunavaara & Luossavaara, $\frac{1}{27,500}$. 1904.—Hecker,

— Svealand. Transported Elfdal porphyry. 1 inch = $6\frac{1}{2}$ kms. 1904.—Aminov, G.

SWITZERLAND. Aar massif. Piz Giuf. $\frac{1}{25,000}$ & $\frac{1}{50,000}$. 1904.—Weber, F.

— Alps. $\frac{3}{4}$ inch = about 114 miles. 1904.—Suess, E., 3.

— —. $\frac{1}{2,500,000}$. 1904.—Termier, P., 3.

— Berne. Büren District. $\frac{1}{300,000}$. 1904.—Baumberger, E., 3.

— Launen. $\frac{1}{50,000}$. 1904.—Rössinger, G.

— Basel. Jura erratic blocks. 1 inch = $1\frac{1}{2}$ miles. 1904.—Struebin, K., 2.

EUROPE.

- SWITZERLAND. Grisons. Lower Engadine. Lischanna Alps. $\frac{1}{50,000}$ & $\frac{1}{15,000}$. 1904.—Schiller, W.; $\frac{1}{15,000}$. 1904.—Paulcke, W.
- , —, —. Rofna District. $\frac{1}{101,800}$. 1903.—Rüetschi, G.
- , —, —. Peat - bogs. $\frac{1}{30,000}$. 1904.—Frueh, J., 3.
- , —, —. Ticino. St. Gotthard. $\frac{3}{8}$ inch = about 4 miles. 1904.—Koenigsberger, J.
- , —, —. Thurgau drumlins. $\frac{1}{50,000}$. 1904.—Frueh, J.
- SPAIN. Huelva. Cala. 1 inch = 328 yards. 1904.—Schmidt, C., 4.
- , —, —. Seville. Castillo de las Guardas. 1 inch = 328 yards. 1904.—Schmidt, C., 4.
- TURKEY. Dardanelles, &c. (various). 1904.—English, T.
- GREENLAND (E.). 1 inch = 40 miles. 1904.—Bøggild, O. B., 2.
- ICELAND. Lava - flows & glaciation (various) 1897-1902.—Thoroddsen, T., 11, 13, & 21.
- PACIFIC. Fiji. 1 inch = 6 miles. 1903.—Woolnough, W. G.
- , —, —. Hawaii (part of). 1 inch = 5 $\frac{1}{2}$ miles. 1904.—Cross, W., 2.
- , —, —. New Caledonia. $\frac{1}{1,600,000}$. 1903.—Glasser, E.
- Marble, Carrara.—Manasse, E., 3.
- , —, —. Dinant black.—Frapont, J.
- , —, —. floor, Brussels Museum of Paintings, places of origin.—Dewalque, G., 3.
- , —, —. quarrying.—Brough, B. H.
- , —, —. structure of.—Lindemann, B.
- , —, —. Tennessee.—Keith, A.
- Marbela (Trinidad).—Guppy, R. J. L., 3.
- Marchais (Seine-et-Oise).—Bédé, P., 3.
- Marches (Italy).—Canavari, M.
- Maree, Loch (Ross-shire).—Murray, Sir John, 5; Peach, B. N., 4.
- Maretia.—Gagel, C.
- Margaret, Mount (W. Australia).—Jackson, C. F.
- Margate (Kent).—Kidner, H.
- Marginifera.—Girty, G. H.
- Marguarese massif (Liguria).—Rovereto, G., 3.
- Marianne Is. (Pacific).—Kaiser, E., 3.
- Marico (Transvaal).—Hatch, F. H., 4.
- Marignac (Gironde).—Daleau, F.
- Marine deposits.—Monckton, H. W., 6.
- Mariopteris.—Arber, E. A. N., 6.
- Marjalahti (Finland).—Borgström, L. H.
- Marl, Minsk Gov.—Missuna, A., 2.
- Marmolatella.—Picard, E.
- Marne (France).—Martel, E. A., 2.
- MARSH Collection, Peabody Museum, Yale.—Hay, O. P., 3; Wortman, J. L.
- Marsupials, origin of Australian.—Lydekker, R., 2.
- Marsupites-zone, Surrey.—Dibley, G. E.; Hinde, G. J.; Wright, W.
- Martesia.—Leriche, M., 4.
- Martin Mere (Lancs).—Brodrick, H.
- Martinique (W.I.).—Heilprin, A.; Hovey, E. O.; Lacroix, A., 2 & 5; Russell, I. C.
- See also Pelé, Mont, &c.
- Maryland (U.S.A.).—Clark, W. B.; Mathews, E. B.; Prosser, C. S., 2; Stevenson, J. J.
- Marysville (Mont.).—Weed, W. H.
- Massachusetts (U.S.A.).—Clapp, F. G.; Fuller, M. L., 2; Lane, A. C., 2 & 3.
- Mastodon.—Bortolotti, C.; Clarke, J. M.; Nordenskjöld, E.; Schafarzki, F., 2; Schlosser, M., 2.
- Matawan Formation.—Clark, W. B.
- Matheronia.—Pâquier, V.
- Matsista (Transcaucasus).—Martel, E. A., 7 & 9.
- Maumee River (U.S.A.).—Flynn, B. H.
- Mauna Loa. See Loa.
- Mayenne (France).—Michel, L.
- Mayo Co. (Ireland).—MacHenry, A.; Praeger, R. L., 2.
- Mayor I. (N.Z.).—Wolff, F. von.
- Mayurbhanj (Bengal).—Bose, P. N., 2.
- Mazzanti cave, Rome.—Stefani, C. de.
- Meandrella.—Perner, J.
- Medford dyke (Mass.).—Lane, A. C., 2 & 3.
- Mediterranean raised beaches.—Negris, P.
- Medlicottia.—Nøtling, F., 4.
- Medusæ, Devonian.—Kinkelin, F., 2.
- , —, —. Silurian.—Huene, F. von.
- Megaceros-marl, Lough Gur.—Reid, C., 3.
- Megalodon.—Tommasi, A.
- Megalohyrax.—Andrews, C. W.
- Megambonia.—Hind, W., 2.
- Megapezia.—Matthew, G. F., 4.
- Megistocrinus.—Wood, E., 2.
- Meguma Series, Nova Scotia.—Woodman, J. E.
- Mehedinite (Rumania).—Martonne, E. de.
- Melanopsis.—Kormos, T; Mayer-Eymar, C.
- Melanterite.—Hooper, D.
- Melaphyre, Tyrol.—Dœlter, C., 3; Proboscht, H.; Romberg, J., 3; Went, K.
- Meles.—Schlosser, M., 2.
- Melilitic pyroxenite.—Sabatini, V.
- Melocrinus.—Rowley, R. R.
- Melonites.—Klem, M. J.
- Melrose (Roxburgh).—Peach, B. N.
- Membranipora.—Cantu, F., 1 & 2.
- Menado (Celebes).—Koperberg, M.
- Menaspis.—Dean, B.
- Menez-Bré massif (Nord).—Barrois, C.
- Meniscophyllum.—Clarke, J. M., 11.

- Menominee (Mich.).—Bayley, W. S.
Menophyllum.—Girty, G. H.
 Mentone (Alpes-Maritimes).—Boule, M., 1-3.
 Merapi volcano (Java).—Van Bosse, P. M.
 Mercado, Cerro (Mex.).—Farrington, O. C., 2.
 Mercur (Utah).—Dean, G. H.
 Mercury. *See* Quicksilver.
 Merlimont (Pas-de-Calais).—Gosselet, J., 5.
 Mersey River.—Nares, Sir George S.
 Merstham (Surrey).—Holmes, W. M.
 Merthyr Tydfil (Glamorgan).—Strahan, A., 3.
Mesalia.—Dollfus, G. F., 5.
Mesocetus.—Fraas, E.; Telegd, L. R. von, 2.
Mesotrypa.—Ulrich, E. O.
 Messina (Sicily).—Seguenza, L.
 Metabolite.—Berwerth, F.
 Metamorphic gold-bearing series, Nova Scotia.—Woodman, J. E.
 — rocks, Algeria.—Ficheur, E.
 —, Nigeria.—Hubert, H.
 —, Rofna Valley.—Rüetschi, G.
 —, Rome.—Millosevich, F., 2.
 —, Sligo, &c.—MacHenry, A.
 —, Sweden.—Holmquist, P. J.
 — slates, Ticino.—Klemm, G.
 Metamorphism, Cumberland.—Walker, E. E.
 —, limestone.—Lindemann, B.
 —, pyrites &c.—Klockmann, F., 2.
Metastræa.—Rauff, H., 2.
Metengonoceras.—Hyatt, A.
 Meteoric iron. *See* Iron, meteoric.
 Meteorites, analyses of.—Clarke, F. W., 2.
 —, Arizona.—Moissan, H., 2.
 —, British Museum, Natural History.—Fletcher, L., 1-4.
 —, California.—Ward, H. A.
 —, Carolina (N.).—Glenn, L. C., 2; Tassin, W.
 —, FIELD Columbian Museum.—Farrington, O. C.
 —, Finland.—Borgström, L. H.
 —, Moravia.—Weiss, E.
 —, names of.—Klein, C., 5.
 —, New South Wales.—Liversidge, A.
 —, Oregon.—Ward, H. A., 2.
 —, Tennessee.—Glenn, L. C., 2.
 —, Tübingen University Museum.—Sommerfeldt, E., 2.
 —, University Museum collection, Berlin.—Klein, C., 1 & 4.
 —, Vaud.—Lugeon, M., &c.
 —, Vienna k.-k. naturh. Hof-Museum.—Brezina, A.
 —, WARD-COONLEY collection.—Ward, H. A., 3.
 —, Wisconsin.—Hobbs, W. H.
Metis.—Dall, W. H.
Metiooceras.—Hyatt, A.
Metoposaurus.—Lucas, F. A., 2.
Metopoxantho.—Man, J. G. de.
 Meudon (Paris).—Bédé, P., 4.
 Meurthe-et-Moselle (France).—Bailly, L.
 Meuse R. (Belgium).—Cornet, J., 3; Lespineux, G.; Lohest, M., 6.
 — (France).—Gosselet, J., 2.
 Mexico.—Alcala, M.; Angermann, E., 1-3; Arreola, J. M.; Boese, E., 1-5; Caballero, G. de J., 1 & 2; Farrington, O. C., 2; Finlay, G. I.; Hall, C. E.; Halse, E.; Lindgren, W., 4; Ordoñez, E., 1-4; Philippi, L.; Salazar, L.; Sapper, K., 2; Villarello, J. D., 1-4.
 Miami River (U.S.A.).—Flynn, B. H.
 Mica, Carolina (N.).—Pratt, J. H.
 —, Ceylon.—Coomáráswamy, A. K., 4.
 —, distribution of.—Brough, B. H.
 —, Ontario, &c.—Carter, W. E. H.; Miller, W. G.; Obalski, T., 2.
 —, United States.—Holmes, J. A.
Michaletia.—Cossmann, M., 2.
Michelinia.—Yakovlev, N.
 Michigan (U.S.A.).—Bayley, W. S.; Bowman, I.; Leith, C. K.
Microbrachius.—Traquair, R. H., 2.
 Microcline, iron-ore with.—Zemyatcenski, P.
Microcalia.—Hay, O. P., 2.
Microdiscus.—Delgado, J. F. N., 2.
Micromelissa.—Squinabol, S., 3.
 Microscope, petrographical.—Souza-Brandão, V. de, 2.
 —, for the study of melting-points.—Dulter, C., 1 & 2.
Microternodus.—Matthew, W. D.
 Middelburg (Transvaal).—Mellor, E. T.
 Middlesex.—Monckton, H. W., 7.
 —. *See also* London Basin, &c.
 Migration, faunal.—Williams, H. S.
 —, past & present.—Smith, J. P.
 Militsch (Silesia).—Berendt, G.; Maas, G.
 Millerite.—Palache, C.
 MILLS, J. E. *See* *Obit.*, Branner, J. C., 2.
 Millstone Grit, Halifax.—Simpson, W.
Miltha.—Cossmann, M., 4.
 Minetite.—Lovisato, D., 2.
 Minahassa (Celebes).—Man, J. G. de.
 Minas Geraes (Brazil).—Scott, H. K., 1 & 2.
 Mineral-disintegration.—Calderón, S.
 — paints, United States.—Struthers, J., 11.
 — systems.—Chapman, E. J.
 — waters, Bohemia.—Petrascheck, W.
 —, Budapest.—Hofmann, K.
 —, Madagascar.—Lemoine, G.
 —, origin of.—Delkeskamp, R.
 —, radioactivity of.—Strutt, R. J.
 —, Vacia-Madrid.—Puerta, G. de la.
 —, Westphalia.—Stille, H.

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- , Brazil.—Branner, J. C.
- , text-book of.—Hintze, C.
- Minerals, angle-variation of.—Miers, H. A.
- , artificial production of.—Schulten, A. de.
- , Belgian Carboniferous.—Stainier, X., 6.
- , Binnenthal.—Solly, R. H., 1 & 2.
- , Caucasus.—Tchernik, G. P., 1 & 3.
- , classification of.—Chapman, E. J.
- , cleavage of.—Friedel, G., 1 & 3.
- , Colombia.—Codazzi, R. L.
- , determination in thin rock-sections.—Wright, F. E.
- , Finistère limestone.—Brun, P. de.
- , Greenland.—Thomsen, J.
- , Ireland.—Seymour, H. J.
- , light - extinction scale.—Souza-Brandão, V. de.
- , mechanical separation of.—Clerici, E.
- , melting-points of.—Dœlter, C., 1 & 2; Vogt, J. H. L.; Vučnik, M.; Vukits, B.
- , Moonmera.—Dunstan, B., 2.
- , Moravia.—Slavik, F.
- , New York State Museum.—Whitlock, H. P.
- , Perth.—Kerr, W., 1-3.
- , polarized light &.—Hauswaldt, H.
- , radioactivity of.—Bardet, G.; Kolbeck, F.; Pisani, F.; Strutt, R. J.
- , reflection of.—Paniche, U.; Pantanelli, D.
- , Tasmanian.—Petterd, W. F.
- , United States economic non-metaliferous.—Hayes, C. W.
- Mines Department, Transvaal.—Swinburne, U. P.; Weldon, H.
- , Great Britain, &c.—Atkinson, J. B., 1-3; Foster, Sir Clement Le N.
- , India.—Grundy, J., 1-15.
- Minette, Hesse.—Harmann, P.
- Mining, &c., 1901.—Brown, M. W.
- , Ireland.—Kinahan, G. H., 2 & 3.
- , —. *See also* Mines, Great Britain.
- Minnesota (U.S.A.).—Clements, J. M., 2; Thomas, K., 1 & 2.
- Minsk Gov. (Russia).—Missuna, A., 1 & 2.
- Miocene, Burma.—Pilgrim, G. E., 2.
- , California.—Merriam, J. C., 2.
- , Egypt.—Barron, T.
- , Rennes.—Dollfus, G. F., 4.
- , Victoria.—Dennant, J., 2.
- , —. *See also* Tertiary.
- Mioegypsinia*.—Prever, P. L., 3.
- Miomaz Valley (Vaud).—Kissling, E.
- Mira, R. (N.S.).—Gilpin, E., Jun., 2.
- Mirabilite.—Katzer, F., 4.
- Mispickel, Sulitjelma cobaltiferous.—Fletcher, Rev. M.
- Mississaga R. (Ont.).—Graton, L. C.
- Mississippi R. (N. Am.).—Bowman, I., 2; Brown, R. M.; Eckel, E. C., 3.
- Missouri (U.S.A.).—Ball, S. H.; Broadhead, G. C., 2; Craue, W. R., 2; Crook, A. R.; Owen, L. A.
- River (U.S.A.).—Upham, W., 4.
- — — mud.—Reade, T. M., 2.
- Valley (U.S.A.).—Wright, G. F.
- Mitchell Co. (Iowa).—Calvin, S., 4; Hoen, A. B.
- Mitscherlichia*.—Lorenz, T.
- Mittelgebirge (Bohemia).—Hibsch, J. E.
- (Saxony).—Kastner, M.
- Mittenwalde (Brandenburg).—Schmieder, T.
- Mitterndorf (Styria).—Aigner, A.
- Modiola*.—Cossmann, M., 3 & 4; Etheridge, R., *fil.*; Hind, W., 2; Laskarev, V.; Reynolds, S. H.; Tommasi, A.
- Modiolaria*.—Cossmann, M., 4; Oppenheim, P.
- Modiolopsis*.—Delgado, J. F. N., 2.
- Modiomorpha*.—Clarke, J. M., 2.
- Mœritherium*.—Andrews, C. W., 1 & 4.
- Mohawk Valley (N.Y.).—Prosser, C. S.
- Mohawkite.—Kenig, G. A.
- Mohoeka Crater, Mauna Loa.—Hitchcock, C. H., 2.
- Mohrensternia*.—Laskarev, V.
- Moine gneiss, Perthshire, &c.—Barrow, G.
- Mojsisovicsia*.—Hyatt, A.
- Mokattam (Egypt).—Fraas, E.
- Molasse, Berne.—Baumberger, E., 3.
- Molasse coal, Vaud, &c.—Kissling, E.
- Moldavia (Rumania).—Simionescu, J.; Simionescu, J. T.
- Mollinedia*.—Deane, H.
- Mölln (Schleswig-Holstein).—Gagel, C., 2.
- Molucca Is. (D.E.I.).—Martin, K., 2.
- Molybdenite.—Cameron, W. E.; Moses, A. J.; Pratt, J. H., 4.
- Monadnock Mt. (New Hampshire).—Perry, J. H.
- Monazite, Brabant.—Prinz, W.
- , Carolina (N.).—Pratt, J. H., 1 & 11.
- sand, Caucasus.—Tchernik, G. P., 3.
- Monchiquite, Siebengebirge.—Busz, K.
- , Taganrog Gov.—Morozevich, I., 2.
- Mongo (Camerons).—Esch, E. von.
- Mongolia (Asia).—Woo, Y. T.
- Monkey's - Quarry Cave (Gibraltar).—Aceland, H. D.
- Monmouthshire.—Richardson, L., 3.
- Monocotyledons, Jurassic.—Seward, A. C.
- Monroe Co. (Iowa).—Beyer, S. W., 2.
- Montagne Noire (Languedoc).—Bergeon, J., 3.
- Montana (U.S.A.).—Iddings, J. P., 2; Lindgren, W., 2 & 5; Upham, W., 5; Weed, W. H., 1 & 3.

- Montenegro.—Nelli, B.; Vinassa de Regny, P. E., 3.
- Monterano Canal (Rome).—Zambonini, F., 4.
- Montgomery Co. (N.Y.).—Cumings, E. R.
- Montpellier (Languedoc).—Roman, F.
- Montroydite.—Gaubert, P., 6; Kœchlin, R., 2; Moses, A. J., 2.
- Monzie (Perth).—Kerr, W. 2.
- Monzoni, Mt. (Tyrol).—Dœlter, C., 3; Koleneç, F.; Romberg, J., 1 & 3.
- Monzonite.—Dœlter, C., 3; Lacroix, A., 7; Romberg, J., 1 & 2; Went, K.
- Moon, earth &.—Shaler, N. S.
- Moonmera (Queensland).—Dunstan, B., 2.
- Moorlort (Victoria).—Lindgren, W., 6.
- Moose Mt. (Ont.).—Leith, C. K., 2.
- Moracchino R. (Venetia).—Taramelli, T., 3.
- Moraines, Brandenburg.—Maas, G., 3.
- , New Hampshire.—Uplam, W.
- , Piedmont.—Capeder, G.
- , Svealand.—Aminov, G.
- , Thurgau.—Frueh, J.
- , *See also* Glacial Deposits.
- Morar, Loch (Scotland).—Murray, Sir John, 4.
- Moravia (Austria).—Kafka, J.; Remeš, M.; Rzehak, A., 1-5; Slavík, F.; Suess, F. E.; Wiesbaur, S.
- Morena, Sierra (Spain).—Schmidt, C.
- Morenci (Ariz.), & morencite.—Lindgren, W., 7.
- Mornington (Victoria).—Deane, H.
- Morocco (N. Africa).—Gentil, L., 2.
- Mosasaurus*.—Dollo, L., 1 & 2; Williston, S. W., 4.
- Mosbach (Nassau).—Behlen, H.; Reichenau, W. von; Schröder, H.
- Moscow Gov. (Russia).—Ilvoaïski, D.
- Mosor Mts. (Dalmatia).—Kerner, F.
- Mountains, origin of.—Uhlig, V.
- Mouscron (Flanders).—Rutot, A., 6.
- Mühlhausen (Thuringia).—Kaiser, E., 2.
- Mullerornis*.—Andrews, C. W., 5.
- Mulline (W. Austral.).—Gibson, C. G., 2.
- Mullion I. (Cornwall).—Prior, G. T.
- Mulwarrie (W. Austral.).—Gibson, C. G., 2.
- Münster (Westphalia).—Mueller, G., 2.
- Murat (Cantal).—Pagès-Allary, J.
- Murchison Goldfield (W. Austral.).—Gibson, C. G.
- Murchisonia*.—Clarke, J. M.; Gueric, G.; Perner, J.
- Murex*.—Bédé, P.; Esch, E. von; Laskarev, V.
- Muscovite.—Becke, F., 2.
- Museum, Albany (S.A.).—Schœnland, S.
- , Basel Natural History.—Sarasin, F., 3.
- , Berlin. University meteorite-collection.—Klein, C., 1 & 4.
- Museum, Bristol. STODDART Collection.—Vaughan, A.
- , British Natural History. *See* Arber, E. A. N., 4; Fletcher, L., 1-4; Lankester, E. R.; Newton, R. B., 2; Seward, A. C., 6; Woodward, A. S., 1; Woodward, B. B.
- , Brussels Art.—Dewalque, G., 4.
- , Elbeuf Natural History.—Coulon, L.
- , FIELD Columbian, Chicago.—Farrington, O. C.
- , Frankfort-on-Main Natural History Society.—Kinkelin, F., 1 & 3.
- , Hull.—Sheppard, T., 5.
- , Melbourne National.—Chapman, F., 3-5.
- , New York State Natural History, Albany.—Ellis, M.; Clarke, J. M., 4 & 9; Merrill, F. J. H., 2 & 3; Whitlock, H. P.
- , Oxford University.—Healey, M.
- , Paris Natural History.—Boule, M., 4; Stefano, G. di.
- , PEABODY MUSEUM, MARSH Collection, Yale.—Hay, O. P., 3; Wortman, J. L.
- , Perugia University.—Bortolotti, C.
- of Practical Geology, London.—Allen, H. A.; Teall, J. J. H.
- , SEDGWICK, Cambridge.—Anon., 21; Reed, F. R. C., 3.
- , South African.—Broom, R., 5.
- , Tübingen University, Geological & Mineralogical Institute.—Koken, E., 2; Sommerfeldt, E., 2.
- , Vienna k.-k. naturh. Hof-Museum.—Brezina, A.
- , WARD-COONLEY Collection of Meteorites, Chicago.—Ward, H. A., 3.
- , Washington National.—Merrill, G. P.
- Muskingum River (U.S.A.).—Flynn, B. H.
- Myalina*.—Drevermann, F., 2.
- Myalodon*.—Cordovez, M.
- Myoconcha*.—Broili, F., 3; Madsen, V. Tommasi, A.
- Myophoria*.—Tommasi, A.
- Myrtæa*.—Dall, W. H.
- Mysidioptera*.—Broili, F., 3.
- Mysore (India).—Grundy, J.; Primrose, A., 1 & 2; Sambasiva-Iyer, V. S., 1 & 2; Slater, H. K.; Smeeth, W. F., 1 & 2; Wetherell, E. W., 1-3.
- Mytilus*.—Bœhm, G.; Cossmann, M., 3; Ilvoaïski, D.; Merciaï, G.; Oppenheim, P.
- Náchod (Bohemia).—Petrascheck, W.
- Nagato (Japan).—Yokoyama, M., 2.
- Nagpur (India).—Grundy, J., 4.
- Nagy-Kapornak (Hungary).—Handmann, R.
- Nagyág-Tal (Hungary).—Posewitz, T.
- Naica (Mexico).—Salazar, L.
- Najas*.—Reid, C., 3.

- Namaqualand (Cape Colony).—Kuntz, J., 4.
 —, Great (German W. Africa).—Fletcher, L., 2; Voit, F. W.
 Namur (Belgium).—Dorlodot, L. de; Gosselet, J., 4; Lohest, M., 6; Malaise, C., 2.
 Naninne (Namur).—Dorlodot, L. de.
 Nantucket I. (Mass.).—Cushman, J. A., 3.
 Naples (Italy).—Sarnelli, P.
 —, Bay of.—Guenther, R. T.; Lorenzo, G. de.
 Narraburra (N.S.W.).—Liversidge, A.
 Nassau (Germany).—Brauns, R.; Kaiser, E., 4; Krahmman, K.; Krecke, F.
 Nastapoka Is. (Hudson Bay).—Low, A. P., 2.
 Natal (S. Africa).—Dunstan, W. R., 4; Gray, C. J.
Natica.—Archangel, A. D.; Cossmann, M., 2; Esch, E. von; Laskarev, V.; Loriol, P. de.
Naticella.—Picard, E.
Naticonema.—Perner, J.
 Nature & transport.—Haug, E., 3 & 5; Suess, E.
 Nauplia (Greece).—Cayeux, L.
Nautilus.—Archangel, A. D.; Diener, C.; Hamilton, A.; Ihering, H. von; Loriol, P. de.
 Neagh, Lough (Ireland).—Gough, G. C.
 Néand-Valley Cave (Belgium).—Kœnen, C., 2; Rauff, H.
 Nebraska (U.S.A.).—Darton, N. H.
 Nebular theory.—Mistockles, N.
 Neckar Valley (Germany).—Glueck, H.
 Nelson (N.Z.).—Marshall, P.
 Némét-Gladna (Hungary).—Schafarzik, F.
 Neocomian, Russian Poland.—Michalski, A.
 —. See also Cretaceous.
Neohipparion.—Gidley, J. W.
Neolobites.—Hyatt, A.
Neoptychites.—Esch, E. von.
 Nepheline-rocks, Greenland.—Bøggild, O. B.
 —, Mexico.—Finlay, G. I.
 —, Ontario.—Adams, F. D.
 —, Tahiti.—Lacroix, A., 6.
 —, Transvaal.—Molengraaff, G. A. F., 5.
 —, Tyrol.—Romberg, J.
Nephelospongia.—Clarke, J. M., 11.
Nephelites.—Deane, H.
Nephrotus.—Scupin, H.
 Neposet, glacial lake (Mass.).—Fuller, M. L., 2.
Nerinea - limestone, Dobrudscha. — Toula, F.
Nerinella.—Choffat, P.
Nerita.—Cossmann, M., 2.
Neritaria.—Picard, E.
Neritina.—Andrussov, N.; Dall, W. H.
Nesodon & *Nesohippus*.—Ameghino, F., 2.
 Ness, Loch (Scotland).—Johnson, T.
 Netherfield (Sussex).—Olyphant, F. H.
 Netherlands.—Calker, F. J. P. van.
 Nettuno (Prov. Rome).—Meli, R., 3.
 Neuwelt (Basel).—Leuthardt, F.
 Neufchâtel-en-Bray (Normandy).—Dubus, A., 2.
Neuropteris.—Arber, E. A. N., 1 & 6; Kidston, R.
 —, seeds of.—Grand'Eury, —, 3.
 Neustadt (Rh.-Bavaria).—Luczizky, W. von.
 Neuville-sur-Meuse (Liège).—Malaise, C., 3.
 Nevada (U.S.A.).—Adams, G. I., 5; Emmons, S. F., 4; Lakes, A., 4 & 6; Louderbeck, G. D.; Spurr, J. E., 1 & 2; Weeks, F. B.
 Nevada, Sierra (Cal.).—Gilbert, G. K., 2 & 4; Lindgren, W.
Neverita.—Dall, W. H.
 New Brunswick (Canada).—Bailey, L. W., 1 & 2; Ganong, W. F.; Kain, S. W.; Matthew, G. F., 1-5; Poole, H. S.
 New Caledonia (Pacific).—Glasser, E.
 New Hampshire (U.S.A.).—Perry, J. H.; Upham, W.
 New Jersey (U.S.A.).—Berry, E. W.; Clark, W. B.; Eyerman, J.; Harshberger, J. W.; Knapp, G. N.; Kuemmel, H. B.; Lane, A. C., 3; Salisbury, R. D.; Spencer, A. C., 5; Wieland, G. R.; Wolff, J. E.
 New Mexico (U.S.A.).—Adams, G. I., 5; Bagg, R. M.; Herrick, C. L., 1-4; Keyes, C. R., 1-3; Reagan, A. B., 1 & 2; Turner, H. W.; Yung, M. B.
 New South Wales.—Andrews, E. C.; Anon., 23; Atkinson, A. A.; Coghlan, T. A.; Etheridge, R., *fil.*; Herrmann, A.; Pittman, B. F.
 New York (U.S.A.).—Adams, G. I., 5; Campbell, M. R.; Clarke, J. M., 3-12; Cumings, E. R.; Dickinson, H. T.; Emmons, S. F., 4; Fairchild, H. Le R., 2; Glenn, L. C.; Kindle, E. M., 1 & 3; Matson, G. C.; Merrill, F. J. H., 1-3; Prosser, C. S.; Ries, H.; Tarr, R. S.; Williams, H. S., 2 & 3.
 New York City (U.S.A.).—Julien, A. A.; Tuttle, G. W. See also Manhattan I.
 New Zealand.—Coghlan, T. A.; Gordon, H. A.; Hamilton, A.; Lucas, K.; Macgowan, J.; Mackay, A.; Marshall, P.; Mulgan, E. K.; Park, J., 1-5; Seelye, F. T.; Speight, R.
 —. See also Birds, Otago, &c.
 Newland diamond-mines (Cape Colony).—Graichen, W.
 NEWTON'S (Sir ISAAC) theory of the earth's figure.—Puisieux, M.
 Niagara Formation, Indiana.—Kindle, E. M., 2.
 Nicaragua (C. Am.).—Sapper, K.
 Nice (Alpes-Maritimes).—Depéret, C., 2.
 NICHOLSON, Sir CHARLES. See *Obit.*, Geikie, Sir Archibald, 4.

- Nickel, Hungary.—Gesell, A.
 —, New Caledonia.—Glasser, E.
 —, Ontario.—Carter, W. E. H.; Coleman, A. P.; Miller, W. G.; Pratt, J. H., 3.
 —, Peru.—Habich, E. A. V. de.
 —, Saxony.—Beck, R., 3; Dieseldorff, A.
 —, United States, distribution of.—Pratt, J. H., 3.
- Nicklesia*.—Hyatt, A.
 Niger R. (Africa).—Hubert, H.
 Nigeria (W. Africa).—Dunstan, W. R., 3 & 5; Elliot, G. S. McD.; Henry, T. A., 6; Newton, R. B., 2.
 Nil-Saint-Vincent (Brabant).—Prinz, W.
 Nile-River mud.—Reade, T. M., 2.
Nileus.—Wiman, C.
Nipponites.—Yabe, H.
 Nizzeti (Catania).—Scalia, S.
 Nomenclature, geological, U.S. Geological Survey.—Gilbert, G. K.
Nomismoceras.—Diener, C.
 Nord (France).—Barrois, C.; Carpentier, A.; Dollé, L., 2; Ladrière, J., 1 & 2; Leriche, M., 5-7.
 Nordeck (Hesse).—Schwantke, A.
 Norfolk.—Harmer, F. W.
 Normandy (France).—Bigot, A.; Cossmann, M., 4; Douvillé, R.; Dubus, A., 1 & 2; Leprévost, E.
 Northampton (W. Austral.).—Maitland, A. G., 2.
 — Co. (Pa.).—Peck, F. B., 1 & 2.
 Northamptonshire. — Moore, J. R.; Thompson, B., 2 & 3.
 Northumberland.—Lewis, F. J.; Simpson, J. B.; Woodcote, D., 1 & 3.
 Norway.—Henriksen, G.; Klockmann, F., 2; Kolderup, C. F.; Monckton, H. W.; Vogt, J. H. L.
 Norwood (Surrey).—Hagg, A. J.; Robarts, N. F., 2.
Nothamusium.—Hind, W., 2.
Notidanus.—Chapman, F., 7; Koch, A., 2.
Notochampsia.—Broom, R., 9.
Notoprotogonia.—Ameghino, F., 2.
Notothyris.—Diener, C.
 Nottaway R. (Quebec).—Bell, R.
 Noumeite. See Garnierite.
 Nova Scotia (Canada).—Bell, R., 2; Faribault, E. R.; Gilpin, E., Jun., 1-4; Poole, H. S., 2.
 Novale (Venetia).—Squinabol, S.
 Novi-Genoa railway.—Taramelli, T., 4.
 Novi Ligure (Piedmont).—Sacco, F.
 Novogrudok (Minsk Gov.).—Missuna, A., 2.
 Nozelda (Nevada).—Lakes, A., 6.
Nucula.—Archangel, A. D.; Böhm, G.; Borisyak, A.; Clarke, J. M., 2; Dreger, J.; Esch, E. von; Oppenheim, P.
Nuculites.—Clarke, J. M., 2; Reed, F. R. C., 2.
 Nugget Point (N.Z.).—Speight, R.
 Nugsuak (Greenland).—Phalen, W. C.
- Nummulites*.—Fornasini, C., 2; Holland, R.; Prever, P. L., 2.
 Nummulitic limestone, Senegambia.—Mennier, S., 2.
 Nuneaton (Warwick).—Swallow, F. C.
 Nyasmi R. (Urals).—Vuisotzski, N.
Nyctosaurus.—Williston, S. W.
 Nýřan (Bohemia).—Ryba, F.
 Nyslott (Finland).—Berghell, H.
- Obi (D. E. I.).—Martin, K.
 Oboian (Kursk).—Armashevski, P.
 Ocean-basins, origin of.—Mackie, W.
 —, deposits.—Robson, H.
 — water, origin of mineral constituents.—Macallum, A. B.
 Oceanic rocks, Trinidad.—Guppy, R. J. L., 2.
 Oceanography.—Monaco, Prince of; Thoulet, J.
Ochetoceros.—Ilovaïski, D.
 Ochre, Georgia.—Hayes, C. W., 8.
 Odenwald (Hesse).—Harmann, P.; Salomon, W., 2 & 3.
Odontoptera.—Spriestersbach, J.
 Oeland I. (Baltic).—Huene, F. von, 1.
 Ötz Valley (Tyrol).—Ampferer, O., 3.
 Oeynhausen, Bad (Westphalia).—Muel-ler, G., 4.
 Ofoten Railway (Norway).—Hecker, —.
 Oglio R. (Lombardy).—Hess, H.
 Ohio (U.S.A.).—Adams, G. I., 5; Bow-nocker, J. A.; Flynn, B. H.; Føerste, A. F.; Griswold, W. T.; Stevenson, J. J.; Tight, W. G.; Williams, H. S., 2.
 Oignies (Namur).—Stainier, X.
 Oil shale, Natal.—Dunstan, W. R., 4.
 —, New South Wales.—Atkinson, A. A.; Pittman, E. F.
 —. See also Petroleum, &c.
Oioceros.—Schlosser, M., 3.
 Oklahoma (U.S.A.).—Adams, G. I., 4 & 5.
Olcostephanus.—Healey, M.; Yabe, H.
 Old Red Sandstone, Scotland.—Good-child, J. G.; Traquair, R. H., 2.
Oldfieldthomasia.—Ameghino, F.
 Olean (N. Y.).—Clarke, J. M., 6.
Olenellus.—Delgado, J. F. N., 2.
 Olgiasca (Lombardy).—Reposi, E.
Oligoporus.—Fraipont, J.; Klein, M. J.
Oliua.—Dall, W. H.
Olivella.—Dall, W. H.; Esch, E. von.
 Olivine, titaniferous.—Brugnatelli, L.
 Olomutschan (L. Austria).—Trauth, F.
 Olympia (Wash.).—Upham, W., 6.
Omomys.—Wortman, J. L.
Omphaloptycha.—Picard, A.
 Ontario (Canada).—Adams, F. D.; Bolton, L. L.; Carter, W. E. H., 1 & 2; Coleman, A. P.; Graton, L. C.; Leith, C. K., 2; Miller, W. G., 1 & 2; Parks, W. A.
 — Lake (N. Am.).—Wilson, A. W. G., 2.
 Oolite, Bedfordshire.—Woodward, H. B., 4.

- Oolite, Hanover.—Hoyer, W., 2.
 —, Northants.—Thompson, B., 2.
 —, type-fossils.—Allen, H. A.
 —, water, salinity of.—Fischer, W. W.
 —, Yorkshire.—Fox-Strangways, C.
 Opal, formation of.—Macdonald, R. M.
 —, Gippsland.—Ferguson, W. H.
 —, New South Wales.—Pittman, E. F.
 Ophite, Biarritz.—Stuart Menteath, P. W.
Ophthalmosaurus.—Fraas, E., 2.
Opis.—Cossmann, M., 3.
Oppelia.—Uhlig, V.; Yokoyama, M., 2.
Opsis.—Mercial, G.
 Orange R. Colony (S. A.).—Skinner, B.
Orbicella.—Felix, J., 2.
Orbiculoidea.—Clarke, J. M.; Reed, F. R. C.
Orbignyella.—Ulrich, E. O.
 ORBIGNY'S Nummulitida.—Forasini, C., 2.
Orbitoides.—Prever, P. L., 1 & 3.
 Ordovician, Gothland.—Tærnquist, S. L.
 —, Indiana.—Förste, A. F., 1 & 2.
 —, Pennsylvania.—Collie, G. L.
 Ore-deposition.—Emmons, S. F., 3.
 Ore-deposits, Abkhasia.—Zeitlin, A. G.
 —, Baden.—Lang, I.
 —, chemistry of.—Jenney, W. P., 2.
 —, contact-metamorphism &.—Hess von Wichdorf, H.; Klockmann, F.; Spurr, J. E., 3; Stevens, E. A.; Weed, W. H., 5.
 —, Germany.—Krahmann, M., 2.
 —, New Caledonia.—Glasser, E.
 —, New Zealand.—Gordon, H. A.
 —, origin of.—Frazer, P., 2; Kemp, J. F., 1 & 2; Sachs, A.; Wilson, E. B.
 —, Peru.—Loredo, J. A.
 —, phosphorus &.—Launay, L. de, 3.
 —, secondary enrichment.—Delkeskamp, R., 2; Weed, W. H., 6.
 —, Silesia.—Sachs, A.
 —, Tasmania.—Twelvetrees, W. H., 3 & 7-10; Wallace, W. H., 1 & 2.
 —, United States.—Emmons, S. F., 1-3; Jenney, W. P.
 —. See also Gold, Iron, &c.
 Ores, analysis of Austrian, &c.—John, C. von, 2.
 Oregon (U.S.A.).—Chamberlin, T. C.; Russell, I. C., 2.
 Orenburg Gov. (Russia).—Nikolaev, D., 2.
 Orkney Is., South (Atlantic).—Pirie, J. H. H.
 Orleans Basin (Cal.).—Hershey, O. H., 2.
 Orléanais (France).—Dollfus, G. F., 3.
 Orléansville (Algeria).—Sarhou, J., 2.
Ornithoides.—Matthew, G. F., 4.
Ornitholestes.—Osborn, H. F.
Ornithomimus, grasping power of manus.—Lambe, L. M., 2.
Oroacrodon.—Ameghino, F., 2.
 Orographical connection of Europe & Asia.—Kropotkin, Prince P., 2; Suess, E., 3.
 Orography, Alaska & British Columbia.—Spencer, A. C.
 —, Asia.—Hobbs, W. H., 3; Kropotkin, Prince P., 1 & 2; Suess, E., 3; Tronnier, R.
 —, Austria-Hungary.—Diener, C., 4.
 —, England & Wales.—Mill, H. R.
 —, New Mexico.—Herrick, C. L.
 —, Switzerland.—Salomon, W.
 —, Umbria.—Verri, A.
 —, world.—Golfier, J.
 Oron-la-Ville (Vaud).—Kissling, E.
 Orpiment.—Stevanovič, S., 2.
Orthis.—Clarke, J. M.; Drevermann, F., 2; Guericke, G.; Reed, F. R. C.
Orthoceras.—Clarke, J. M., 11; Kindle, E. M., 2.
 Orthoclase.—Duparc, L., 2; Zemyatčenski, P.
 Orthogonal system, earth &.—Golfier, J.
Orthonota.—Drevermann, F., 2.
Orthonychia.—Perner, J.
Orthophragmina.—Prever, P. L., 1 & 3.
Orthotichia.—Girty, G. H.
 Ortler Alps (Lombardy).—Hammer, W.; Termier, P., 5 & 7.
Orygoceras.—Lœrenthey, E.
 Orzechau, Gross- (Moravia).—Rzehak, A.
 Oscura, Sierra (New Mex.).—Turner, H. W.
Osmeroïdes.—Hay, O. P., 2.
 Ossiferous cavern, Grange Quarry.—Arnold-Bemrose, H. H., 3.
 Ossola (Piedmont).—Stella, A.
Osteopygis.—Wieland, G. R.
 Ostracoda, Cretaceous.—Chapman, F.
 —, Devonian.—Dollé, L.; Leriche, M., 6.
 —, Jurassic.—Chapman, F., 2.
 —, Silurian.—Chapman, F., 5; Clarke, J. M., 1, 3, & 12; Jones, T. R.; Ruedemann, R.
 —, Triassic.—Walther, J., 2.
Ostrea.—Esch, E. von; Ihering, H. von; Oppenheim, P.; Remeš, M.
 Ostroviza (Dalmatia).—Dainelli, G.
 Otago (N.Z.).—Hamilton, A.; Seelye, F. T.
 Otero, ancient lake (New Mex.).—Herrick, C. L., 3.
Otoceras-beds, Rimkin Pair. —Nœtling, F., 3.
 Otolites. See Fishes.
Otolithus.—Wolleman, A., 4.
Otonphepus.—Cushman, J. A.
Otospira.—Perner, J.
Otozamites.—Zeiller, R., 2.
 Ottawa (Canada).—Gordon, C. H., 2.
 Ottweil-Beds, Silesia.—Dathe, E.
 Otway Coast (Victoria).—Deane, H.
 Oucane de Chabrières (Hautes-Alpes).—Martel, E. A., 10.
 Ougrée (Liège).—Questienne, P., 3.

- Oupliz-Tsiké (Transcaucasus).—Martel, E. A., 8.
 Ouray (Colo.).—Purinton, C. W.
 Owen, Mount (Tasm.).—Gregory, J. W., 4.
 Ox Mts. (Sligo, &c.).—MacHenry, A.
 Oxfordian, Russia.—Ilovański, D.
 Oxfordshire.—Bell, A. M.; Foley, M. C.; Walford, E. A.; White, H. J. O.
Oxyrhina.—Chapman, F., 7.
 Ozark uplift, Missouri.—Ball, S. H.
- Pachucha (Mex.).—Halse, E.
Pachycardia.—Broili, F., 3.
 —beds, Seis Mt.—Waagen, L.
Pachyosteus.—Jækel, O., 3.
Pachyrhizodus.—Hay, O. P.
Pachytragus.—Schlosser, M., 3.
 Paderborn (Westphalia).—Stille, H., 1 & 2.
Pagodea.—Perner, J.
 Paiza (Peru).—Lopez, F. O.
Palæacmæa.—Perner, J.
Palæacodon.—Wortman, J. L.
Palæoascia.—Meunier, F.
Palæoblattina.—Agnus, —.
 Palæobotany, 1897-1900.—Zeiller, R.
 —. See also Plants.
Palæodiscus.—Spencer, W. K.
Palæolagus.—Matthew, W. D.
 Palæolithic floor, Prah Sands.—Reid, C., 4.
 — implements, Swanscombe.—Stopes, C.
 —. —. See also Implements.
Palæomastodon.—Andrews, C. W., 1 & 4.
Palæomeryx.—Schlosser, M.
Palæomeryx.—Pavlov, M., 2; Schlosser, M., 5.
Palæoneilo.—Borisyak, A.; Clarke, J. M., 2; Reed, F. R. C., 2.
 'Palæontologia Universalis.'—Ehlerl, D. P.
 Palæontology 1857-1904.—Suess, E., 2.
 —, 1864-1903.—Woodward, H., 2.
 —, 1903.—Gaudry, A.
 —, America (N.), 1902.—Weeks, F. B., 2.
 —, Brazil, 1800-1903.—Branner, J. C.
 —, British Museum.—Woodward, A. S., 8.
 —, Canada, 1902.—Ami, H. M.
 —, comparative.—Cossmann, M.
 —, first use of the term.—Eastman, C. R., 6.
 —, Italy, 1902.—Bonarelli, G.
 —, text-books of.—Steinmann, G.; Zittel, K. A., 2.
Palæoryx.—Schlosser, M., 3.
Palæoscurria.—Perner, J.
Palæosphæroma.—Remeš, M.
Palæosphægina.—Meunier, F.
Palæospondylus.—Sollas, W. J., 2.
 Palæozoic, America, Eastern N.—Ulrich, E. O., 2.
 —, Galician Podolia.—Teisseyre, W.
 Palæozoic, Mexico.—Angermann, E., 2.
 — fossils, catalogue of New York State Museum.—Clarke, J. M., 10.
 Palampur (Kashmir).—Holland, T. H.
 Palatino, Monte (Rome).—Meli, R.
 Palermo (Sicily).—Checchia-Rispoli, G.
 Palestine.—Bonney, T. G., 2; Hume, W. F.; Rauff, H., 2.
Palhyæna.—Schlosser, M., 2.
 Pallasite.—Klein, C., 5.
Palmorylon.—Stenzel, K. G.
 Palomas (Mexico).—Villarelo, J. D.
 Palwalli (Mysore).—Wetherell, E. W., 2.
Panacites.—Deane, H.
 Panama (C. Am.).—Cushman, J. A., 2; Williams, E. G.
Pandora.—Dall, W. H.
 Paniselian, Senne Valley.—Rutot, A., 9.
 —. See also Tertiary, &c.
Papyrotheca.—Rzehak, A., 2.
 Pará (Brazil).—Clarke, J. M.; Katzer, F.
Parabosephalus & *Paracamelus*.—Schlosser, M., 2.
Paradoxides.—Delgado, J. F. N., 2.
Paradoxorhyncha.—Chapman, F., 2.
Parallelodon.—Cossmann, M., 3; Hind, W., 2.
Paranylodon.—Brown, B., 2.
Paranauchenia.—Ameghino, F., 2.
Paratissotia.—Hyatt, A.
Pareiasaurus.—Broom, R.
 Parietal eye in fossil reptilia & fishes.—Jækel, O.
 Paris (France).—Elsden, J. V., 4.
 — Basin (France).—Bédé, P., 3 & 4; Boussinesq, J.; Dollfus, G. F., 7; Gosselet, J., 6; Grossouvre, A., 3; Leriche, M., 2; Meunier, S., 3; Péron, A.; Priem, F., 2; Raulin, V.
 — International Exhibition, 1900.—Gesell, A., 2.
 —, sub-soil of.—Durandière, — de la.
 Park City (Utah).—Boutwell, J. M.
 Parker's Reef, Gordon's (Victoria).—Howitt, A. M.
Paronea.—Prever, P. L., 2.
Paronipora.—Capeder, G., 2.
Paropsonema.—Clarke, J. M., 11.
 PARRAN, A. See *Obit.*, Aguilon, L.
 Paruschowitz (Silesia).—Henrich, F., 2.
 Pas-de-Calais (France).—Gosselet, J., 3 & 5.
 Patagonia (S. Am.).—Angelis d'Ossat, G. de; Brown, B.; Cordovez, M.; Fletcher, L., 4; Holdich, Sir T. H.; Ihering, H. von, 2; Lambert, J.; Tournouër, A.; Wilckens, O.
 Patton, Cape (Victoria).—Dennant, J.
 Paudex (Vaud).—Kissling, E.
 Pausen, Lake (Prussia, E.).—Braun, G.
 Pavagada Taluk (Mysore).—Wetherell, E. W., 2.
 Paz, La (Lr. Cal.).—Angermann, E.
 Pearl (Colo.).—Spencer, A. C., 3.
 Peat, Canada.—Carter, W. E. H., 2.
 —, origin of.—Frueh, J., 3; Grand'Eury, —, 2; Moss, C. E.

- Peat, Switzerland.—Frueh, J., 3.
 —, Yorkshire.—Moss, C. E., 2.
 Pebbles, Atlantic floor.—Cole, G. A. J., 3.
 —, Ault.—Bardou, —.
 —, faceted. See Windworn stones.
 —, Stavelot Gedinian.—Lohest, M., 2.
 Pebbly marls, Minsk.—Missuna, A., 2.
 Pechoraland (Russia).—Pavlov, A. P.
Pecopteris.—Arber, E. A. N.; Zeiller, R., 2.
Pecten.—Kittl, E.; Michaelovski, G. P.; Philipp, H.; Remeš, M.; Tommasi, A.; Vinassa de Regny, P. E., 3.
Pectunculus.—Oppenheim, P.
 Peebles (Scotland).—Goodchild, J. G., 3.
 Pegmatite, Como (Lake of).—Reposi, E.
 —, Erythraea.—Aloisi, P., 2.
 —, Sweden.—Elsden, J. V., 3.
 —, Tyrol.—Hammer, W.
 Pelé, Mont (Martinique).—Gilbert, G. K., 3; Heilprin, A.; Jaggar, T. A.; Lacroix, A., 5; Russell, I. C., 3.
 Peléoliths.—Winchell, N. H., 4.
Pelomedusa.—Reinach, A. von.
 Pelvoux massif (France).—Jacob, C.
 Pembrokehire.—Reed, F. R. C., 3.
 Pennine Moors.—Moss, C. E., 1 & 2.
 Pennsylvania (U.S.A.).—Campbell, M. R., 1 & 2; Dale, T. N.; Emmons, S. F., 4; Fluck, F.; Glenn, L. C.; Grant, U. S.; Lyman, B. S.; Peck, F. B.; Stevenson, J. J.; Stose, G. W.; White, D., 2; Williams, H. S., 2.
Pentacrinus.—Loriol, P. de, 2; Schuchert, C., 3; Wollemani, A., 4.
 Penzance (Cornwall).—Davison, C., 6.
 Peperini, Rome.—Portis, A.
Peratherium.—Matthew, W. D.
Perhippidion, *Peviaerodon*, & *Peripantostylops*.—Ameghino, F., 2.
Pericyclus.—Crick, G. C., 5.
 Peridotite, Valais.—Preiswerk, H.
Periploma.—Dall, W. H.
Perisphinctes.—Campana, D. del; Healey, M.; Ilovański, D.; Loriol, P. de; Yokoyama, M., 2.
 Permian, Ariège.—Caralp, J., 4.
 —, Carniola.—Kossmat, F., 2.
 —, Eurasia.—Tchernyshev, T.
 —, Hesse.—Chelius, C., 3.
 —, Himalayas.—Diener, C.
 —, Kashmir.—Oldham, R. D., 2.
 —, Odenwald.—Salomon, W., 2 & 3.
 —, Prussia.—Zimmermann, E.
 —, Salt Range.—Noetling, F., 2.
 —, sandstone-deserts. — Kœnen, A. von.
 —, Saxony.—Dammer, B.
 —, Texas.—Neumayer, L.
 Permo-Carboniferous, Otago.—Park, J., 5.
 —, Tongking.—Zeiller, R., 2.
Perna.—Cossmann, M., 4; Yokoyama, M.
 Pernes (Pas-de-Calais). — Dollé, L.
 Leriche, M., 6.
Peronosporites.—Clarke, J. M., 11.
 Perry district, Queensland.—Ball, L. C.
 Persia.—Pilgrim, G. E.; Stahl, A. F.
 Persimmon Creek (N. Car.).—Klein, C., 2; Tassin, W.
 Perthshire (Scotland).—Barrow, G.; Coates, H.; Kerr, W., 1-3.
 Peru (S. Am.).—Anon., 16 & 17; Benrath, A.; Bernard, C.; Braun, J. M.; Cole, G. A. J., 2; Denegri, A.; Duval, A.; Elmore, T.; Guillet, E. A.; Habich, E. A. V. de; Hadley, W. M.; López, F. O.; Loredó, J. A.; Ochoa, N. G.; Pinzás, E. J., 1 & 2; Robledo, L. M.; Steinmann, G., 2; Tamayo, A.; Tristan, A.; Ugarteche, M. de; Umlauff, A. F.; Ventura, P. C.; Zumaita, W.
 Pest (Hungary).—Lœrenthey, E., 2.
 Peter's Valley (Grisons).—Goldschmidt, V.
 Petris (Hungary).—Papp, K.
 Petrographical microscope. — Souza-Brandão, V. de, 2; Wright, F. E.
 Petrography & other sciences.—Zirkel, F.
 —, text-books.—Reinisch, R.; Rosenbusch, H.
 Petroleum, Alaska & Pennsylvania.—Emmons, S. F., 4.
 —, Borneo.—Schmidt, C.
 —, Bukovina.—Olszewski, S.
 —, California.—Eldridge, G. H., 2; Simmersbach, B.
 —, Canada.—Henry, T. A., 2 & 8.
 —, Caucasus.—Thiess, F.; Yushkin, F.
 —, Colorado.—Emmons, S. F., 4; Fenneman, N. M.
 —, composition of.—Mabery, C. F.
 —, Galicia.—John, C. von, 2; Schmidt, C., 3; Zuber, R., 3.
 —, Idaho.—Russell, I. C., 2.
 —, India.—Evans, J. W.
 —, Indiana.—Fuller, M. L.
 —, Kansas.—Heydrick, W. H.
 —, Louisiana.—Hayes, C. W., 4 & 9.
 —, Mexico.—Alcala, M.; Villarello, J. D., 3.
 —, New Caledonia.—Glasser, E.
 —, occurrence of.—Brough, B. H. Dvorkovitz, P.
 —, Ohio.—Bownocker, J. A.; Griswold, W. T.
 —, origin of.—Adams, G. I., 3; Broadhead, G. C.
 —, Peru.—López, F. O.; Pinzás, E. J., 2.
 —, radioactivity of.—Himstedt, F.
 —, Rumania.—Poni, P.
 —, Texas.—Hayes, C. W., 4 & 9; Hill, R. T.
 —, text-book on.—Redwood, B.
 —, Tiflis Gov.—Riabini, A.
 —, Trinidad.—Henry, T. A., 3 & 5.

- Petroleum, Turkestan.—Weber, V.
 —, United States production of.—Oli-
 phant, F. H.
 —, Westphalia.—Mueller, G., 3.
 —. *See also* Asphalt, Bitumen,
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Phenodesmia.—Borisjak, A.
Phanophilus.—Ameghino, F., 2.
 Philippine Is. (Pacific).—Stamier, X.,
 5.
 Phillips River (W. Austral.).—Blatch-
 ford, T.
Phillipsia.—Schumacher, R.
 Phlegrean Fields (Naples).—Lorenzo,
 G. de.
 Phlogopite. — Coomárswámy, A. K.,
 6.
Phonixauchenia.—Ameghino, F., 2.
Pholadomya.—Dollfus, G. F., 5.
Pholidops.—Clarke, J. M.
Pholidostrophia.—Kindle, E. M., 2.
 Phonolites, Sudan.—Gentil, L.
Phormocyrtis.—Squinabol, S., 3.
 Phosphates, Australia.—Chewings, C.
 —, determination of, in soils.—Ibáñez,
 J.
 —, Florida & N. & S. Carolina.—
 Struthers, J., 8.
 —, Queensland.—Dunstan, B.
 —, Tennessee. — Eckel, E. C., 2;
 Hayes, C. W., 6.
 Phosphatic chalk, Somme.—Rabelle, —.
 Phosphorus, ore-deposits &.—Launay,
 L. de, 3.
 Photographs, geological. *See* Geological.
 Photography, earthquake-records by.—
 Agamennone, G.
Phragmostoma.—Perner, J.
Phyllites.—Deane, H.
Phyllo-Tetragnostus Beds, Gothland.—
 Törnquist, S. L.
 Phyllocarida, Silurian.—Chapman, F.,
 5.
Phylloceras.—Campana, D. del; Uhlig,
 V.
Phyllocenia.—Felix, J.
 Physiography.—Russell, I. C., 5.
 Pichucalco (Mex.).—Alcala, M.
 Picrite, Dillenburg.—Brauns, R.
 Pictou (Nova Scotia).—Poole, H. S., 2.
 Pidh (Salt Range).—Grundy, J., 7.
 Piedmont (Italy).—Kæch, M.; Pampa-
 loni, L.; Pellati, N.; Roccati, A.;
 Sacco, F., 1 & 2; Zaccagna, D.
 Piedmont Plateau (Eastern States,
 U.S.A.).—Mathews, E. B.
 Pienaars R. (Transvaal).—Hall, A. L.,
 2; Kynaston, H.
 Pietrasanta (Tuscany).—Pantaneli, D.,
 2.
 'Pietre verdi,' Mesozoic age of, in
 Western Alps.—Franchi, S., 2.
 Pike Co. (Ark.).—Hayes, C. W., 5.
 Pillow-lava, Cornwall.—Prior, G. T.
 Pilsen (Bohemia).—Ryba, F.
 Pine-cones, Neckar Valley Quaternary.—
 Glueck, H.
 Pine I. (Tasmania).—Legge, W. V.
Pinna.—Tommasi, A., 2.
Pinus.—Clerici, E., 2.
 Pipestone Springs (Mont.).—Matthew,
 W. D.
 Piquetberg (Cape Colony).—Rogers, A.
 W., 3.
 Pisa (Tuscany).—Sestini, F.
 Pisanite.—Schaller, W. T.
 Pisano, Monte (Tuscany).—Aloisi, P.
 Piscetulj (Montenegro).—Nelli, B.
Pisocrinus.—Rowley, R. R.
Pitaria.—Dall, W. H.
 Pitchblende. *See* Uraninite.
 Pitfield (Victoria).—Deane, H.
Pittosporum.—Deane, H.
 Pittsburg (Pa.).—Grant, U. S.
 Pizmeda (Tyrol).—Proboscht, H.
Placenticerias.—Hyatt, A.
Placerias.—Lucas, F. A., 2.
 Placers, Alaska.—Brooks, A. H.
 —, British Columbia.—Atkin, A. J.
 R.
 —, California.—Lindgren, W.
 —, Rhine R.—Neumann, B.
Placotrochus.—Dennant, J., 3.
Placunopsis.—Remeš, M.
 Plagioclase.—Tertsch, H.
 —. *See also* Felspars.
 Plains, America (N.).—Upham, W., 3.
 —, Germany (N.).—Hoyer, W., 3.
 —, New Mexico enclosed ('Bolson').—
 Keyes, C. R., 2.
Planitrochus.—Perner, J.
Planorbis.—Kormos, T.; Roman, F.
 Plant-seeds. *See* Seeds.
 — types, refigured.—Potonié, H.
 Plants, Antarctic fossil.—Nathorst, A.
 G.
 —, Arctic fossil.—Solms-Laubach, H.
 Graf zu.
 —, British-Museum fossil.—Arber, E.
 A. N., 4.
 —, Carboniferous.—Arber, E. A. N.,
 1 & 6; Barsanti, L.; Berry, E. W.,
 2; Dathe, E.; Etheridge, R., *fil.*, 3;
 Gerrard, J., 2; Grand'Eury, —; Her-
 rick, C. L.; Hovey, E. O., 2; Kidston,
 R.; Oliver, F. W., 1 & 2; Pellati, N.;
 Potonié, H.; Renault, B., 1 & 2;
 Scott, D. H.; Zalesski, M. D.
 —, coal-forming.—Grand'Eury, —, 2.
 —, Cretaceous.—Bureau, E.; Ward,
 L. F.
 —, Devonian.—Potonié, H.
 —, distribution in geological time.—
 Seward, A. C., 5.
 —, homœomorphy of fossil.—Arber,
 E. A. N., 7.
 —, Jura-Triassic.—Etheridge, R., *fil.*,
 2.
 —, Jurassic.—Seward, A. C., 1-6;
 Solms-Laubach, H. Graf zu; Wie-
 land, G. R., 3; Zeiller, R., 4.

- Plants, peat-forming.—Frueh, J., 3;
Grand'Eury, —, 2.
—, Permian.—Rýba, F.; White, D., 2.
—, Permo-Carboniferous.—Chapman,
F., 3; Leslie, T. N.; Seward, A. C.,
3 & 4; Zeiller, R., 2.
—, Quaternary.—Glueck, H.; Range,
P.; Reid, C.
—, Rhætic.—Seward, A. C., 4.
—, Silurian.—Arber, E. A., 5; Hau-
thall, R.
—, soils &.—Lewis, F. J.
—, structure of fossil.—Penhallow, D.
P.
—, Tertiary.—Arber, E. A. N., 2;
Clerici, E., 2; Deane, H.; Engel-
hardt, H.; Johnson, J. P., 2; Laurent,
L.; Pampaloui, L.; Penhallow, D. P.;
Peola, P.; Squinabol, S.; Stenzel, K.
G.
—, Triassic.—Leuthardt, F.
—, *See also* Palæobotany.
Platinum, California, &.—Struthers, J.,
2.
—, Sumatra.—Hundeshagen, L.
—, Urals.—Vuisotzki, N.
—, Wyoming.—Emmons, S. F., 2;
Kemp, J. F., 3.
Platyceras.—Clarke, J. M., 2; Perner,
J.
Platygonus.—Gidley, J. W., 2; Wagner,
G.
Plauen (Saxony).—Weise, E.
Plectambonites.—Clarke, J. M., 12.
Plectonotus.—Clarke, J. M., 2.
Plesiolampas.—Bather, F. A.
Plesiosaurus.—Brown, B., 3; Eastman,
W. F., 5; Gwinnell, W. F.; Yakovlev,
N., 2.
Pleurodesma.—Dall, W. H.
Pleuonautilus.—Crick, G. C., 3.
Pleurophorella.—Girty, G. H., 4.
Pleurotoma.—Archangel, A. D.; Esch,
E. von; Laskarev, V.; Pritchard, G. B.
Pleurotomaria.—Diener, C.; Guericke,
G.; Kindle, E. M., 2; Loriol, P. de;
Wollemann, A., 4.
Plicatula.—Cossmann, M., 3 & 4;
Mayer-Eymar, C.; Oppenheim, P.;
Remeš, M.; Reynolds, S. H.
Pliocene. *See* Tertiary, &.
Ploconema.—Perner, J.
Plumasite.—Lacroix, A.
Plumb-line variations. *See* Gravity.
Podocampe.—Squinabol, S., 3.
Podocnemis.—Reinach, A. von.
Podolia (Galician).—Teisseyre, W.
Pæcilonites.—Gulick, A.
Poitiers (France).—Cossmann, M., 3.
Poland (Russian).—Michalski, A.; Reh-
binder, B. von, 2.
Polarized light, minerals &.—Hauswaldt,
H.; Osthoff, A.; Souza-Brandão, V.
de.
Pölland (Carniola).—Kossmat, F., 3.
Pollicipes.—Ruedemann, R.
Poltava Gov. (Russia).—Armashevski,
P.; Morozovich, I.
Polyhalite.—Van't Hoff, J. H., 6.
Polypora.—Cumings, E. R., 2.
Polyptychodon.—Sauvage, H. E., 3.
Polystylops.—Ameghino, F., 2.
Polytropis & Porocella.—Perner, J.
Pomerania (Prussia).—Haldfass, W.;
Linstow, O. von; Maas, G., 2; Wahn-
schaffe, F.
Pondoland (S. Africa).—Chapman, F.
Ponte Molle (Rome).—Stefani, C. de.
Pontesford Hill (Shropshire).—Boulton,
W. S.
Pontian deposit, Croatia.—Gorjanović-
Kramberger, D.
—, Hungary.—Halaváts, G., 2.
Pontobdellopsis.—Ruedemann, R.
Porcupine Bank (Atlantic).—Cole, G. A.
J., 3.
Poricella.—Canu, F., 2.
Porkura (Hungary).—Mauritz, B.
Poromya.—Dall, W. H.
Poronai (Hokkaido).—Yonekra, K.
Porosphæra.—Hinde, G. J., 2.
Porphyrite, Dandenong.—Sutherland, I.
M.
Porphyroid slates, Taunus.—Buecking,
H.
Porphyry, Ecuador.—Reiss, W., 1 & 2.
—, Erythraea.—Aloisi, P., 2.
—, Grisons.—Rüetschi, G.
—, Hesse.—Harmann, P.
—, Meuse.—Gosselet, J., 2.
—, Philippine Is.—Stainier, X., 5.
—, Piedmont.—Käch, M.
—, Saxony.—Dammer, B.
—, Shantung.—Rinne, F., 3.
—, Texas.—Iddings, J. P., 3.
—, Tyrol.—Dæltler, C., 3; Romberg,
J., 2 & 4; Went, K.
—, Victoria.—Gregory, J. W.
Portland cement.—Eckel, E. C., 5; Kim-
ball, L. L.; Smith, E. A.
Portlandian, Boulonnais.—Zeiller, R.,
4.
Portugal.—Choffat, P., 1-4; Delgado,
J. F. N.; Dollfus, G. F.; Felix, J.
Portuguese E. Africa.—Johnson, J. P.,
5; Sawyer, A. R., 2.
'Posen flanning-clay,' Silesian so-called.
—Berendt, G.; Maas, G.
Posidomya.—Delgado, J. F. N., 2.
Posidoniella.—Hind, W., 3.
Postale, Monte (Venetia).—Eastman, C.
R., 3.
Potash-salts, Germany.—Brough, B. H.;
Galloway, W.; Ochsenius, C., 4 & 5;
Van't Hoff, J. H.; Zimmermann, E.
—, secondary mineralization of.—
Ochsenius, C., 4 & 5.
—, Wyoming.—Read, T. T.
—, *See also* Alkali-deposits, &.
Potenza (Basilicata).—Marani, M.
Potholes, Beaver R. (Pa.).—Hice, R. R.
—, Brenton R.—Squinabol, S., 4.
—, glacial.—Merrill, G. P.
Potrerillo (Chile).—Kämpfer, E.
Potsdam Sandstone, Lake Champlain.—
Van Ingen, G.

- Potzberg (Rhenish Bavaria).—Leppla, A.
- POWELL, J. W. *See* *Obit.*, Gilbert, G. K., 6; Walcott, C. D.
- Prah Sands (Cornwall).—Reid, C., 4.
- Prasinite, Tuscany.—Manasse, E.
- Prasopora*.—Ulrich, E. O.
- Pre-Cambrian volcanoes.—Callaway, C.
- Pre-Glacial deposits, Pomerania, &c.—Maas, G., 2.
- river, Gulf of St. Lawrence.—Poole, H. S., 3.
- Precious stones.—Brough, B. H.
- Predazzo (Tyrol).—Koleneč, F.; Philipp, H.; Slavik, F., 2.
- Prehnite.—Vredenburg, E.
- Prestwichia*.—Beecher, C. E.
- Pretoria (Transvaal).—Hall, A. L., 2; Hatch, F. H.; Mellor, E. T., 1 & 2.
- *See also* Transvaal.
- Primitia*.—Chapman, F., 5; Clarke, J. M., 12.
- Prince Albert (Cape Colony).—Schwarz, E. H. L.
- Prince, Grotte du (Mentone).—Boule, M., 2.
- Proboscina*, Jurassic.—Lang, W. D., 2.
- Prodomaliscus*.—Schlosser, M., 3.
- Productus*.—Etheridge, R., *fil.*, 3; Girty, G. H.
- limestone, Salt-Range.—Nøtling, F., 2.
- Proëtus*.—Lake, P.; Mailloux, E.; Reed, F. R. C., 4.
- Progaleopithecus* & *Promacrauchenia*.—Ameghino, F., 2.
- Promygalé*.—Fritsch, A., 2.
- Pronycticæbus*.—Grandidier, G., 2.
- Propleura*.—Wieland, G. R.
- Prosciurus*.—Matthew, W. D.
- Prosolarium*.—Perner, J.
- Prospondylus*.—Broili, F., 3.
- Proteria*.—Matthew, W. D., 2.
- Proterosuchus*.—Broom, R., 6.
- Protherotherium*.—Ameghino, F., 1 & 2.
- Protetraceros* & *Pseudobos*.—Schlosser, M., 2.
- Prothelyphonus*.—Fritsch, A.
- Protocardia*.—Dall, W. H.
- Protocetus*.—Fraas, E.
- Protocula*.—Kittl, E.
- Protohippus*.—Pavlov, M.
- Protolepidodendron*.—Potonié, H., 2.
- Protoma* & *Psanmobia*.—Döllfus, G. F., 5.
- Protorecula*.—Picard, A.
- Protoryx* & *Protragelaphus*.—Schlosser, M., 3.
- Protosphyæna*.—Hay, O. P.
- Provence (France).—Issel, A., 2.
- Prowarthia*.—Collie, G. L.
- Russia, 200 years mining in, &c.—Schmeisser, K.
- *See also* Glacial deposits, &c.
- (E.), amber deposits.—Jentsch, A.
- (—), lakes of.—Braun, G.
- Przemysł (Galicia).—Wójcik, K.
- Psammæchinus*.—Lambert, J.
- Pseudobradypus*.—Matthew, G. F., 4.
- Pseudocidaris*.—Tokunaga, S.
- Pseudocucullæa*.—Solger, F.
- Pseudoliva*.—Archangel, A. D.; Esch, E. von.
- Pseudomonotis*.—Philipp, H.
- Pseudomorophis*.—Cornu, F.; Duell, E.; Kuntz, J., 2; Rowe, J. P.; Schaller, W. T.
- Pseudoniscus*.—Clarke, J. M., 3.
- Pseudosalenia*.—Loriol, P. de, 2.
- Pseudosporochinus*.—Potonié, H., 2.
- Pseudotectus*.—Perner, J.
- Pseudotissotia*.—Esch, E. von.
- Pseudotragus*.—Schlosser, M., 3.
- Pseudotylostoma*.—Ihering, H. von.
- Pseudotyptotherium*.—Ameghino, F., 2.
- Psilophyton*.—Potonié, H., 2.
- Pteranodon*.—Eaton, G. F.
- Pteraspis*.—Leriche, M., 3.
- Pterichthys*.—Traquair, R. H., 2.
- Pterinea*.—Drevermann, F., 2.
- Pterinopecten*.—Hind, W., 2.
- Pterocorys*.—Squinabol, S., 3.
- Pterodactyl, fingers of.—Williston, S. W., 3.
- Pterodon*.—Andrews, C. W.
- Pterophyllum*.—Zeiller, R., 2.
- Pteropod-marl, Budapest.—Lœrenthey, E., 1 & 2.
- Pteropoda, Cambrian.—Delgado, J. F. N. 2.
- , Siluro-Devonian.—Chapman, F., 4.
- Pterorhytis*.—Dall, W. H.
- Ptomatis*.—Clarke, J. M., 2.
- Ptychocladia*.—Ulrich, E. O.
- Ptychocynodon*.—Seeley, H. G., 2.
- Ptychodus*.—Pantaneli, D., 3; Woodward, A. S., 2.
- Ptychogaster*.—Stefano, G. di.
- Ptychomphalina*.—Etheridge, R., *fil.*, 3.
- Ptychonema*.—Perner, J.
- Ptychospira*.—Greger, D. K.
- Puget Sound (Wash.).—Upham, W., 6.
- Pulacayo (Bolivia).—Toborvi, Z.
- Pulchellia*.—Hyatt, A.
- Pully (Vaud).—Kissling, E.
- Pumice, United States.—Pratt, J. H., 6.
- *See also* Volcanoes, &c.
- Punjab (India).—Simpson, R. R., 2.
- Putilla R. (Bukovina).—Olszewski, S.
- Putorius*.—Praeger, R. L., 4.
- Puy-Courny (Auvergne).—Capitan, L.
- Pycnodus*.—Koch, A., 4; Priem, F.
- Pycnosterinx*.—Hay, O. P., 2.
- Pycnotrochus*.—Perner, J.
- Pygæus*.—Eastman, C. R., 3.
- Pyhrn Pass (U. Austria).—Geyer, G., 2.
- Pyramidella*.—Crena, C.
- Pyrenees (Central).—Marchand, E.
- (French).—Briet, L.; Cahen, A.; Carez, L., 2 & 5; Depéret, C.; Gros-souvre, A. de; Roussel, J., 1 & 2.
- Pyrenees goldfields (Victoria).—Bradford, W.
- Pyrgulifera*.—Lœrenthey, E., 3.

- Pyrites.—Achiardi, G. d', 3; Dorlodot, L. de, 3; Eckel, E. C.; Ermisch, K.; Gaubert, P.; Goldschmidt, V., 3; Klockmann, F., 2; Mauritz, B.; Milch, L., 3; Schmidt, C., 4; Struthers, J., 10; Vogt, J. H. L., 2; Zimányi, K.
- Pyroxene-rocks, alteration of.—Duparc, L., 3; Gordon, C. H.
- Pyroxenite.—Sabatini, V.
- Pyrrhotite.—Bergt, W.
- Quang-Nam (Annam).—Hubert, H., 3.
- Quarries, Great Britain, &c.—Atkinson, J. B., 1-3; Foster, Sir Clement Le N.
- , Paris subterranean.—Elsden, J. V., 4.
- Quartz.—Becke, F., 2; Gaubert, P., 3; Kœchlin, R.; Königsberger, J.; Kunz, G. F.; Pantanelli, D.; Rinne, F.
- , Carboniferous Limestone with.—Brien, V.; Fournier, G., 2.
- , deformation of.—Holmquist, P. J.; Milch, L.
- dykes, I. of Man.—Lomas, J., 6.
- felspar-porphry, Texas.—Iddings, J. P., 3.
- geodes.—Billows, E.
- reef, Kromdraai.—Dørffel, D., 2.
- Quartzite-dykes, Snelston.—Arnold - Bemrose, H. H.
- Quaternary, Aude.—Doncieux, L.
- , Austria (Lower).—Fuchs, T.
- , Calabria.—Fucini, A., 3.
- , Clacton-on-Sea.—Webb, W. M.
- , Cornwall.—Whitley, D. G.
- , Croatia.—Gorjanović-Kramberger, D., 2.
- , Denmark.—Holst, N. O.
- , Durhan.—Woolacott, D.
- , Emilia.—Sangiorgi, D.
- , Germany (N.).—Frech, F., 2; Keilhack, K.; Krause, G.; Menzel, H.; Mueller, G., 4; Petersen, J.; Range, P.; Schmierer, T.
- , Gironde.—Daleau, F.
- , Gothland.—Munthe, H., 2.
- , Kolguev I.—Knepovich, N.
- , Lille.—Ladrière, J., 2.
- , Long I. (N.Y.).—Woodworth, J. B.
- , Moravia.—Rzehak, A.
- , Nantucket I.—Cushman, J. A., 3.
- , Nice.—Dépéret, C., 2.
- , Northumberland.—Woolacott, D., 3.
- , Paris Basin.—Bédé, P., 3 & 4.
- , Period, duration of the.—Rutot, A., 7.
- , Saxony.—Bergt, W., 3; Wuest, E.
- , Schelde R.—Gosselet, J.
- , Somme R.—Bédé, P., 5.
- , Thames Valley.—Hinton, M. A. C., 1, 2, & 3; Johnson, J. P., 1, 3, 4, & 8.
- , Tunis.—Bédé, P., 2.
- , Turkey in Europe.—English, T.; Newton, R. B., 4.
- Quaternary, Watford.—Lones, T. E.
- , Westphalia.—Stille, H., 2.
- , Würtemberg.—Bräuhäuser, M.
- , See also Glacial Deposits, &c.
- Quebec (Canada).—Bell, R.; Dresser, J. A., 1 & 2.
- Queensland.—Ball, L. C., 1-6; Cameron, W. E.; Chapman, F., 3; Dunstan, B., 1 & 2; Jensen, H. J.; Lewis, A. A.; Macdonald, R. M.; Thomson, J. P.
- Quenast (Brabant).—Simoëns, G.
- Quercinium.—Pampaloni, L.
- Querum (Brunswick).—Wollemann, A., 3.
- Quesnelle Forks (B.C.).—Brewer, W. M.
- Quetta (Baluchistan).—Grundy, J., 8 & 13.
- Quick-silver, British Columbia.—Kendall, J. D.; Monckton, G. F.
- , California.—Struthers, J., 3.
- , Mexico.—Villarello, J. D.
- , Peru.—Hadley W. M.; Tamayo, A.; Unlauff, A. F.
- , Texas.—Hill, B. F.; Moses, A. J., 2.
- Quillan (Aude).—Carez, L.
- Quinte Bay (Lake Ontario).—Wilson, A. W. G., 2.
- Quiriquina I. (Chile).—Steinmann, G., 3.
- Rabertshausen (Hesse).—Chelius, C., 3.
- Radioactivity, gas (natural).—Maclemann, J. C.
- , mineral waters.—Himstedt, F.; Mache, H., 2; Strutt, R. J.
- , minerals &c.—Bardet, G.; Kolbeck, F.; Pisani, F.
- Radiolaria, Cretaceous.—Squinabol, S., 2 & 3.
- Radium, carnotite with.—Phillips, A. H.
- minerals, Schlaggenwald.—Hoffmann, J., 1 & 2.
- Radnor (Wales).—Raw, F.
- Radula.—Nelli, B.
- Rafinesquina.—Clarke, J. M., 12.
- Ragusa (Sicily).—Lotz, H.
- Raibl (Carinthia).—Gobl, W.
- Railway, Ligurian-Apennine.—Sacco, F.
- Raindrop markings, Triassic.—Spicer, Rev. E. C., 2.
- Raised beaches, Clyde.—Hull, E.
- , Co. Cork.—Muff, H. B.
- , Courtmacsherry Bay. — Wright, W. B.
- , Georgian Bay.—Comstock, F. M.
- , Northern Hemisphere. — Geikie, Sir Archibald, 3 & 5.
- , St. Lawrence Valley, &c.—Chalmers, R.
- , Scotland.—Munro, R., 2.
- , Småland lakes.—Gustafsson, J. P.
- Raja.—Hay, O. P., 2.
- Ramphodus.—Jækel, O., 2.
- Rangifer.—Studer, T.
- Raniganj (Bengal).—Saise, W.
- Rapana.—Wollemann, A., 4.

- Raphispira*.—Perner, J.
 Rapi (Peru).—Habich, E. A. V. de.
 Rare earths.—Schilling, J.
 Ratzeburg (Schleswig-Holstein).—Gagel, C., 2.
 Rautenkranz (Saxony).—Hermann, P.
 Raywood (Vict.).—Whitelaw, H. S.
 Realgar.—Goldschmidt, V., 2; Stevanović, S., 3.
 Recoaro (Venetia).—Tommasi, A., 2.
 Red Bank, Manchester.—Hobson, B.
 'Red earth,' Apulia.—Vinassa de Regny, P. E., 2.
 Red ochre, Sweden.—Moberg, J. C.
 Red rain.—Flett, J. S., 2; Mill, H. R., 2.
 Redding (Cal.).—Diller, J. S., 1-3.
 Reefs. See Coral, Gold, Stone.
Remopleurides.—Clarke, J. M., 12.
 Remscheid (Rh.-Pruss.).—Spriestersbach, J.
 Renaix (Flanders).—Halet, F., 2.
 RENARD, A. F. See *Obit.*, Geikie, Sir Archibald, 4.
 Rennes (Britanny).—Dollfus, G. F., 4.
Rensselaeria.—Fritsch, A.; Reed, F. R. C.
 Reptilia, Cretaceous.—Broom, R., 8; Dollo, L., 1 & 2; Eaton, G. F.; Inkey, B. von; Lambé, L. M., 1 & 3; Loomis, F. B.; Lucas, F. A., 4 & 5; Lull, R. S.; Marr, J. E., 2; Sauvage, H. E., 3; Williston, S. W., 1 & 4.
 —, Jurassic.—Broom, R., 9; Fraas, E., 2; Jäkel, O., 6; Marr, J. E., 2; Osborn, H. F., 1 & 3; Sauvage, H. E., 2; Woodward, A. S., 7; Yakovlev, N., 2.
 —, parietal eye in fossil.—Jäkel, O.
 —, Permian.—Broili, F., 2; Case, E. C.; Osborn, H. F., 4.
 —, Permo-Triassic.—Broom, R., 1-7 & 10; Seeley, H. G., 1-3.
 —, Quaternary, dispersal of.—Brown, A. E.
 —, Rhætic.—Sauvage, H. E.
 —, stomach-stones of.—Brown, B., 3; Eastman, C. R., 5.
 —, Tertiary.—Stefano, G. di; Stromer, E. von.
 —, Triassic.—Boulenger, G. A., 2 & 3; Broom, R., 1-7 & 10; Emerson, B. K., 2; Huene, F. von, 2; Lucas, F. A., 2; Merriam, J. C., 3; Osborn, H. F., 4; Woodward, A. S., 1 & 5; Yakovlev, N., 3.
 —. See also *Chelonia*, *Dinosauria*, &c.
Requienia.—Pâquier, V.
 Ressaix (Hainault).—Rutot, A., 1 & 2.
Retzia.—Reed, F. R. C.
 Rewah Terr. (India).—Grundy, J., 5.
 Reynès (Pyrénées Orientales).—Roussel, J.
Rhabdoconcha.—Picard, A.
 Rhætian Alps.—Paulcke, W.
 —. See also *Alps*.
 Rhætian, Gloucestershire.—Reynolds, S. H.; Richardson, L.
 Rhætian, Northants.—Thompson, B., 3.
 —, Somerset.—Short, A. R.
 —, Worcestershire.—Richardson, L., 4 & 6.
Rhannacium.—Penhallow, D. P.
Rhapalonia.—Ulrich, E. O.
 Rhenish Bavaria.—Ammon, L. von; Kaiser, E., 4; Leppla, A.; Luczizky, W. von.
 Rhine glacier-moraines.—Frueh, J.
 Rhine R.—Neumann, B.
Rhinellus.—Hay, O. P., 1 & 2.
Rhinobates.—Hay, O. P., 2.
Rhinoceros.—Bortolotti, C.; Gorjanović-Kramberger, D., 2; Hinton, M. A. C., 2; Rausenberger, J.; Schlosser, M., 1 & 2; Schræder, H.; Weber, M.
Rhodesia.—Potonié, H., 2.
 Rhodesia (S.A.).—Broad, W.; Brown, H.; Dowie, R. C.; Ferguson, D.; Mennell, F. P.
 Rhodonite.—Colomba, L.
Rhombotrypa.—Ulrich, E. O.
Rhopalastrum.—Squinabol, S., 3.
Rhynchoonella.—Dall, W. H.; Ihering, H. von, 2; Ilovaïski, D.; Kittl, E.; Philipp, H.; Reed, F. R. C.; Rzehak, A., 5.
Rhynchopora.—Greger, D. K., 2.
Rhynchospira.—Reed, F. R. C.
 Rhyolite, Bihar.—Szadeczek, J.
 —, Lake-District.—Harker, A.
 —, Shropshire.—Boulton, W. S., 2.
 —, Sudan.—Gentil, L.
 Riazan Gov. (Russia).—Ilovaïski, D.
 Ribble Estuary (Lancs.).—Dickson, E.
Ribeiria.—Collie, G. L.
Ricardolydekkeria.—Ameghino, F., 2.
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 Ries, Franconian (Bavaria).—Knebel, W. von.
 Rikuzen (Japan).—Yokoyama, M.
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 Rimkin Pair (Himalayas).—Nøtting, F., 3.
 Ringe Valley (Saxony).—Credner, H., 2.
Ringicula.—Dall, W. H.
 Rio Grande, State of (Brazil).—Scott, H. K., 2.
 Ripafratta (Tuscany).—Aloisi, P.
 Ripple-marks.—Cuthbertson, G.; Hunt, A. R., 2 & 3; Martin, D., 1 & 2.
Rissoa.—Seguenza, L.
 River-robbing.—Bowman, I.; Carter, W. L.
 —, submerged Canadian pre-Glacial.—Poole, E. S., 3.
 — -terraces, Rumania.—Martonne, E. de, 2.
 — -variations.—Bowman, I., 2.
 Rivers, Belgium.—Cornet, J.
 Rivoli (Piedmont).—Capeder, G.
 Road-metal, Wisconsin.—Buckley, E. R.
 Roads, Glen Roy parallel.—Dukes, T. A.
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 Roche du Breuillet, La (Seine-et-Oise).—Janet, L.

- Rock-classification.—Grabau, A. W., 2; Iddings, J. P.
- decay.—Calderón, S.; Dupare, L., 3; Lakes, A., 7; Schwarz, E. H. L., 4; Upham, W., 2.
- discoloration in deserts.—Blake, W. P., 5.
- elasticity.—Kusakabe, S.
- erosion, Corsica.—Bonney, T. G.; Lake, P., 2; Tuckett, F. F.
- flow.—Cope, T. H.
- folding, Mexico.—Blake, W. P., 4.
- pressure at great depths.—Martin, G.; Parsons, C. A.
- —, veins &.—Lakes, A., 7.
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- —, plasticity of.—Rinne, F., 2.
- sections, microscopic.—Wright, F. E.
- Rocks, analysis of.—Kaiser, E.; Washington, H. S., 1-3.
- , average composition of.—Clarke, F. W., 2.
- , origin of.—Ford, L. P.; Lenarčič, J.
- , radioactivity of.—Martinelli, G.
- , volumetric composition.—Moore, C. C.
- Rocky Mts. (N. Am.).—Suess, E., 3.
- Ræmoceræ*.—Hyatt, A.
- Rofna district (Grisons).—Rüetschi, G.
- Roker (Durham).—Abbott, G.
- Rombolo, Monte (Tuscany).—Ristori, G.
- Rome (Italy).—Agamennone, G., 2; Angelis d'Ossat, G. de, 3; Martinelli, G.; Meli, R., 1, 3, & 4; Millosevich, F., 2; Moderni, P.; Portis, A.; Sabatini, V.; Stefani, C.; Trabucco, G.
- Romney Formation, Maryland.—Prosser, C. S., 2.
- Rosebery (Tasm.).—Waller, G. A., 2.
- Rossano (Calabria).—Stefano, G. di, 2 & 3.
- Rosserg massif (Vosges).—Schumacher, R.
- Rosslund (B.C.).—Barber, W. B.; Macbride, R.
- Ross-shire (Scotland).—Murray, Sir John, 5; Peach, B. N., 3.
- Rostellaria*.—Ihering, H. von.
- Rothamsted (Herts).—Woodward, H. B., 6.
- Rothembach (Bohemia).—Liebus, A.
- Rothenkamp (Brunswick).—Wollemann, A.
- Rotuna I. (Pacific).—Gardiner, J. S.
- Roudaireia*.—Grossouvre, A. de.
- Round Lake (Ont.).—Bolton, L. L.
- Roy, Glen. See Glen Roy.
- Rübeland (Harz).—Blasius, W., 1 & 3.
- Rubislaw (Aberdeen).—Anon., 24.
- Rudista*, Cretaceous.—Pâquier, V.; Parona, C. F.
- Rugosa, morphology of the.—Bernard, H. M.; Yakovlev, N., 4.
- Rumania.—Bergeron, J., 2; Martonne, E. de, 1-3; Montessus de Ballore, F. de, 4; Poni, P.; Sevastos, R.; Simionescu, J., 1 & 2; Simionescu, J. T.; Teisseyre, W., 3; Toula, F.
- Rupshu (Himalayas).—Hayden, H. H.
- Russia (S.).—Bogachev, V., 1 & 2.
- See also Donetz, Gold, &c.
- Russian Polar Expedition.—Anon., 11; Schmidt, F., 1 & 2.
- Rustenburg (Transvaal).—Jorissen, E.
- Rutile.—Lincio, G.
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- Rysedorph Hill (N.Y.).—Clarke, J. M., 12.
- Saarbrücken (Rh.-Pruss.).—Van Werveke, L.
- Sabanea*.—Seguenza, L.
- Saccocoma*.—Walther, J., 3.
- Sagrine*.—Schubert, R. J., 2.
- Sahara (N. Africa).—Foureaux, F., 1 & 2; Haug, E., 4; Sarthou, J.
- St. Abbs' Head (Berwick).—Goodchild, J. G., 4.
- Canzian (Trieste).—Marinitzsch, J.
- Gaudens (Hautes-Pyrénées). — Carez, L., 3.
- Gotthard Massif.—Delebecque, A., 2; Königsberger, J.
- Joachim Valley (Bohemia).—Andrimont, R. d., 2; Stép, J.
- John Group, New Brunswick.—Matthew, G. F.
- Joseph (Mo.).—Owen, L. A.
- Lawrence, pre-Glacial river in Gulf of.—Poole, H. S., 3.
- Lawrence Valley (N. Am.). — Chalmers, R.
- Louis Exhibition.—Bauerman, H.
- Louis (Senegambia).—Meunier, S., 2.
- Minver (Cornwall).—Fox, H.
- Pierre (Martinique) ruins. — Lacroix, A., 3.
- Saturnin (Maine-et-Loire).—Bigot, A., 2.
- Sol-Belcastel (Lot).—Viré, A.
- Vincent (W. I.).—Dunstan, W. R., 2; Hovey, E. O.; Russell, I. C.; Sapper, K., 3.
- Sal R. (S. Russia).—Bogachev, V., 2.
- Salcombe (Devon).—Ussher, W. A. E., 2.
- Salicinium*.—Pampaloni, L.
- Salina Epoch.—Kraus, E. H.
- Salinas Valley (Cal.).—Hamlin, H.
- Salinity, Oolitic water.—Fischer, W. W.
- , well-water.—Stella, A., 2; Taramelli, T., 3.
- Salisbury (Wilts).—Hughes, T. McK., 2.
- Salmian (Liège).—Lohest, M., 4.
- Salt-basins, Germany.—Chelius, C., 3; Ochsenius, C., 5; Van't Hoff, J. H., 1-6; Zimmermann, E.
- —, plants &.—Ochsenius, C., 3.
- — crystals.—Sommerfeldt, E.

- Salt, Dax.—Stuart-Menteath, P. W., 2.
 — deposits, origin of.—Fairchild, H. Le R., 3.
 —, Kansas.—Crane, W. R.
 Salt Lake (Utah).—Talmage, J. E.
 Salt, Meurthe-et-Moselle.—Bailly, L.
 —, Mexico.—Philippe, L.
 —, minerals in.—Hornung, F.
 — mining.—Brough, B. H.
 —, Nigeria.—Henry, T. A., 6.
 —, oceanic deposits &.—Van't Hoff, J. H., 1-6.
 Salt Range (Punjab).—Blake, G. S., 2; Grundy, J., 7 & 10; Koken, E.; Nœtling, F., 2 & 4.
 Salt, Rumania.—Teisseyre, W., 3.
 —, Sicily.—Andr e, K.
 —, United States.—Eckel, E. C., 4; Emmons, S. F., 4; Struthers, J., 9.
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 Saltness, cause of Dead Sea.—Ackroyd, W.
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 — Jos e, Tamaulipas (Mex.).—Finlay, G. I.
 — Juan Mts. (Colo.).—Howe, E.
 — Marcel (Piedmont).—Colomba, L.
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 — Pedro (New Mex.).—Yung, M. B.
 — Piero in Campo (Elba).—Achiardi, G. d', 3 & 4.
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 —, Orl anais granitic.—Dollfus, G. F., 3.
 —, Ougr e.—Questienne, P., 3.
 —, size-scale for.—Atterberg, A.
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 Sandstones, analyses of United States.—Clarke, F. W., 2.
 —, Condroz Devonian.—Destinez, P., 2.
 —, N.Y. Devonian.—Dickinson, H. T.
 —, quarrying.—Brough, B. H.
 —, saccharoidal.—Broadhead, G. C., 3.
 —, Vosges Mts.—No el, C.
 —, Yorkshire Triassic.—Kaye, J. R.
 Sandusky River (U.S.A.).—Flynn, B. H.
 Sangir (D. E. I.).—Buecking, H., 3.
 Sangregrande (Trinidad).—Guppy, R. J. L., 2.
Sanguinolites.—Hind, W., 2.
 Sankaty Head (Nantucket).—Cushman, J. A., 3.
 Santa Cruz (Patagonia).—Brown, B.
 — Cruz Mts., Mateo Co. (Cal.).—H ehl, H. L.
 — Maria volcano (Guatemala).—B ese, E., 4.
 Santerno R. (Emilia).—Sangiorgi, D.
 Sapphire-rock, Madras Pres.—Middlemiss, C. S.
 Sarajevo (Bosnia).—Katzner, F.; Kittl, E.
 Saratoga Co. (N.Y.).—Prosser, C. S.
 Saratov Gov. (Russia).—Archangel, A. D.; Pavlov, A. P., 2.
 Sardinia, I.—Lovisato, D., 1 & 2; Pelloux, A.; Rimatori, C.; Tornquist, A., 2.
Sardinius.—Hay, O. P.
 Sarsen-stones.—Holmes, T. V., 2 & 3; Monckton, H. W., 8; Spicer, Rev. E. C.
 Sashalom (Hungary).—L erenthey, E., 4.
 Saskatchewan District (Canada). — Dowling, D. B.; Tyrrell, J. B.
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 —. *See also* Silesia.
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Scaphiocrinus.—Fraipont, J.
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 Scaphopoda, Jurassic.—Allen, H. A.
 Scarborough (Yorks).—Fox-Strangways, C.; R echling, H. A.
 Schauinsland (Baden).—Lang, I.
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 Schelde R. (Netherlands).—Gosselet, J.
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 Schists, crystalline.—Grubermann, U., 2.
 —, Loch - Lomond. — Cunningham - Craig, E. H.
 —, Madras.—Wetherell, E. W.
 —, Mysore.—Slater, H. K.
 —, New York City.—Julien, A. A.
 —, Tuscany.—Aloisi, P.
Schizaster.—Lambert, J.; Tokunaga, S.; Tornquist, A., 1 & 3.
Schizoblattina.—Sellards, E. H.
Schizograptus.—Ternquist, S. L.

- Schizolite.—Bøggild, O. B.
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Sciurus.—Matthew, W. D.
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—, coast-changes.—Parkinson, J.
—, gold.—Maclaren, J. M.
—, lochs of.—Johnson, T. N., &c.; Murray, Sir John, 1-5.
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Screes, Monte Avane.—Ugolini, R.
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—, classification of.—Grabau, A. W., 2.
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Seismological Congress, 1903.—Rudolph, E.
—, Investigations Committee.—Milne, J.
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—, Hornung Valley.—Zeleny, V.
—, Manhattan I.—Julien, A. A.
—, New Caledonia.—Glasser, E.
—, Tuscany.—Panichi, U., 2.
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Shell-reefs, Brazil.—Brauner, J. C., 3.
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- Shropshire.—Arber, E. A. N., 5; Blake, Rev. J. F., 2; Boulton, W. S., 2; Buckman, S. S., 5; Clarke, W.; Cobbold, E. S.; Elsdon, J. V., 2; Hinde, G. J., 3; Jevons, H. S.; Woodward, A. S., 4.
- Siao (D. E. I.).—Buecking, H., 3.
- Siberia.—Bogdanovich, K.; Hobbs, W. H., 3; Ilvovski, D., 2; Makeev, P. de; Peetz, H. de; Tanfelev, G.; Tolmashev, J. P.; Vuisotzki, N.; Yakovlev, N., 2.
- Siderophyre.—Klein, C., 5.
- Siccar Point (Berwick).—Goodchild, J. G., 2.
- Sicily.—Franco, S. di; Platania, G.; Scalia, S., 1-3; Seguenza, L., 1 & 2; Silvestri, A.
- Siebengebirge (Rh.-Pruss.).—Busz, K.
- Siena (Tuscany).—Fucini, A.
- Sighenakh (Tiflis Gov.).—Riabinin, A.
- Sigillaria*.—Zaleski, M. D.
- Sikhim (Himalayas).—Garwood, E. J.
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- Silix-Beds, Tampa.—Dall, W. H.
- Silica in igneous rocks.—Harker, A.
- Silicates, melting-points of.—Døelter, C.; 1 & 2; Vogt, J. H. L.; Vučnik, M.; Vukits, B.
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- — —, Tasmania.—Arber, E. A. N., 2.
- Silistria (Bulgaria).—Toula, F.
- Sillimanite.—Coomaraswamy, A. K., 6.
- Siluraster*.—Jækel, O., 5.
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- , Carniola.—Kossmat, F., 3.
- , Cornwall.—Green, U.
- , Indiana.—Fuerste, A. F.; Kindle, E. M., 2.
- , Ludlow.—Buckman, S. S., 5; Woodward, A. S., 4.
- , New York.—Clarke, J. M., 9; Cumings, E. R.; Ruedemann, R.
- , Ontario.—Parks, W. A.
- , Pennsylvania.—Collie, G. L.
- , Podolia.—Teisseyre, W.
- , Venezuela.—Drevermann, F.
- , Victoria.—Chapman, F., 5.
- Silver, Arizona.—Blake, W. P.; Church, J. A.
- , British Columbia.—Macbride, R.; Vicaire, A.
- , Carolina (N.).—Pratt, J. H.
- , Colorado.—Lakes, A., 5.
- , Cornwall, &c.—Collins, J. H.
- , Ireland.—Kinahan, G. H., 2.
- , Mexico.—Halse, E.; Ordoñez, E., 2; Salazar, L.
- , Mongolia.—Woo, Y. T.
- , Montana.—Weed, W. H., 3.
- Silver, Nevada.—Emmons, S. F., 4; Spurr, J. E., 2.
- , New South Wales.—Pittman, E. F.
- , Norway.—Klockmann, F., 2.
- , Ontario.—Miller, W. G.
- , Peru.—Anon., 17; Denegri, A.; Tristan, A.
- , Queensland.—Ball, L. C., 5.
- , Tasmania.—Twelvetrees, W. H., 7-10; Waller, G. A., 2 & 5.
- , Tomsk Gov.—Peetz, H. de.
- , Tyrol.—Isser Gaudenthurm, M. von.
- , United States production of.—Roberts, G. E.
- , Utah.—Boutwell, J. M.
- Silvestrina*.—Prever, P. L., 3.
- Simbirsk Gov. (Russia).—Pavlov, A. P., 2.
- Simplon Massif (Pennine Alps).—Schardt, H.; Stella, A.
- Sinai (Palestine).—Hume, W. F.; Newton, R. B., 2.
- Sind Valley (Kashmir).—Oldham, R. D., 3.
- Sinemurian, Portugal.—Choffat, P.
- Sinj (Dalmatia).—Faidiga, A.
- Sinuites*.—Perner, J.
- Sioux Falls (S. Dak.).—Todd, J. E., 2.
- Sivatherium*.—Abel, O., 3.
- Skenidium*.—Rowley, R. R.
- Skye, I. of (Scotland).—Harker, A., 2.
- Slags.—Døelter, C., 1 & 2; Vogt, J. H. L.; Vučnik, M.; Vukits, B.
- Slates, Arkansas.—Emmons, S. F.
- , California.—Eckel, E. C., 6.
- , chemical composition of American.—Eckel, E. C., 7.
- , Ireland.—Kinahan, G. H.
- , Loch Lomond.—Cunningham-Craig, E. H.
- , Nassau.—Kaiser, E., 4.
- , Pennsylvania.—Dale, T. N.
- , Silesia.—Schwantke, A., 2.
- , Tuscany.—Aloisi, P.
- Slavonia.—Gorjanović-Kramberger, K., 1 & 2.
- Sligo (Ireland).—Cole, G. A. J.; Evelyn, A. d'; MacHenry, A.; Praeger, R. L., 4.
- Slocan (B. C.).—Macbride, R.
- Småland lakes (Sweden).—Gustafsson, J. P.
- Smerdis*.—Koch, A., 4.
- Smithsonite.—Bergt, W.
- Snelston (Derby).—Arnold-Bemrose, H. H.
- Soapstone, United States.—Pratt, J. H., 5.
- Socnopæa*.—Stromer, E. von, 4.
- Socorro (N. Mex.).—Bagg, R. M.; Herrick, C. L.
- Sodbury (Gloucester).—Reynolds, S. H.; Strahan, A., 2.
- Sohland a. d. Spree (Saxony).—Beck, R., 3; Dieseldorff, A.
- Soil-analysis.—Clarke, F. W., 2; Hall, A. D.; Ibañez, J. A.

- Soils, Apulia.—Vinassa de Regny, P. E.
 —, Carboniferous plant.—Grand'Eury, —; Renault, B., 2.
 —, Chalk.—Davies, A. M., 2.
 —, England (N.).—Lewis, F. J.
 —, France.—Delage, A.
 —, German East Africa.—Kœrt, W.
 —, Herts.—Woodward, H. B., 6.
 —, Hungary.—Horusitzky, H.; Inkey, B. von, 2; Liffa, A.; Timkó, E.; Treitz, P.
 —, investigation of.—Cameron, F. K.; Hopkins, C. G.
 —, plants &.—Lewis, F. J.
 —, Tuscany.—Sestini, F.
 —, Wisconsin.—Weidman, S.
 Sokoto (Central Africa).—Bather, F. A.; Lelean, P. S.
 Solagna (Venetia).—Campana, D. del.
Solecortus.—Archangel, A. D.
Solenastræa.—Felix, J., 2.
 Solenhofen (Bavaria).—Walther, J., 3.
Solenosteira.—Dall, W. H.
 Somaliland (N.E. Africa).—Dacqué, E.; Newton, R. B.
 Somerset.—Boulton, W. S.; Davies, H. N.; Jukes-Browne, A. J.; Martel, E. A., 12; Morgan, C. L.; Short, A. R.; Vaughan, A., 2.
 Somme R. (Picardy).—Bédé, P., 5.
Sonnerata.—Lasswitz, R.
Sonninia.—Struebin, K.
 Sonora (Mex.).—Angermann, E., 2.
 Sor Hills (Baluchistan).—Grundy, J., 13.
 Soretite.—Duparc, L., 4.
 Sormitz Valley (Thuringia).—Hess von Wichdorf, H.
 Sorrel, Mount (Leicester).—Rastall, R. H.
 South Australia. See Australia (S.).
 Southport (Lancs.).—Brodrick, H., 3; Lomas, J., 4.
 Southwick (Durham).—Abbott, G.
 Spain.—Douvillé, R., 2; Klockmann, F., 2.
 —. See also Earthquakes, Huelva, Seville, &c.
 Spalato (Dalmatia).—Kerner, F., 1 & 2; Martelli, A.
 Spangolite.—Lindgren, W., 7.
Spaniodon.—Hay, O. P.
 Sparth Bottoms (Lancs.).—Baldwin, W., 1 & 2.
Spatangus.—Gagel, C.
Spathella.—Hind, W., 2.
 Speeton (Yorks).—Rowe, A. W.
 Speleological Society, 1901-1904.—Martel, E. A., 6.
Sphaeraster.—Schuetze, E.
Sphaeroma.—Remeš, M.
Sphaerulites.—Toula, F.
 Sphaerulitic rock-structure.—Boris, P.
 — structure.—Popov, B.
Spheginascia.—Meunier, F.
Spheniopsis.—Dall, W. H.
Sphenodiscus.—Hyatt, A.
Sphenophyllum.—Scott, D. H.
Sphenotus.—Clarke, J. M., 2.
Sphyrænodus.—Koch, A., 4.
 Spinosa, Monte (Tuscany).—Ristori, G.
Spirialis.—Andrussov, N.
Spirifer.—Diener, C.; Drevermann, F., 2; Guericke, G., 1 & 3; Kindle, E. M., 2; Reed, F. R. C.
Spirigera.—Philipp, H.
Spiropteris.—Potonié, H., 2.
 Spiti (Himalayas).—Diener, C., 1 & 3; Hayden, H. H.; Uhlig, V.
 Spitsbergen (Arctic).—Yakovlev, N., 2.
 Spodumene.—Kunz, G. F.; Pratt, J. H., 2.
Spondylus.—Newton, R. B., 4; Oppenheim, P.
 Sponges, Carboniferous.—Girty, G. H.
 —, Cretaceous.—Hinde, G. J., 2.
 —, Devonian.—Clarke, J. M., 12.
 —, Jurassic.—Walther, J., 3.
 —, Silurian.—Clarke, J. M.
 —, Tertiary.—Schuetze, E.
 —, Triassic.—Eck, H.
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 Spring Cove (Somerset).—Boulton, W. S.
 Spring Hill (Victoria).—Gregory, J. W.
 Springs, intermittent.—Latham, B.
 —, temperature of.—Diener, F.
 —. See also Thermal, &c.
 Staffordshire.—Stobbs, J. T., 2; Thompson, B.; Woodward, A. S.
 Stalagmites, Durham bird-nest.—Teasdale, T.
 STANFORD'S geological atlas.—Woodward, H. B., 8.
 Stanley R. (Tasm.).—Waller, G. A., 4.
 Stanner (Radnor).—Raw, F.
 Stannern (Moravia).—Weiss, E.
 Stanthorpe (Queensl.).—Ball, L. C., 5.
 Start Bay (Devon).—Worth, R. H.
 Stassfurt (Prussia).—Brough, B. H.; Ochsnius, C., 5; Zimmermann, E.
Stavrosphæra.—Squinabol, S., 3.
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Stegomus.—Emerson, B. K., 2; Lull, R. S., 2.
Stenometopon.—Boulenger, G. A., 2.
Stenoprotome.—Hay, O. P., 2.
Stephanocænia.—Raufl, H., 2.
Stephanospermum.—Oliver, F. W.
Sterculia.—Deane, H.
Stereogenys & *Sternothærus*.—Reinach, A. von.
Stereotoxodon.—Ameghino, F., 2.
 Stev'n's Klint (Zealand).—Hill, Rev. E.; Ravn, J. P. J.
Stibarus.—Matthew, W. D.
Stichocapsa, *Stichomitra*, & *Stichophormis*.—Squinabol, S., 3.
Stigmatella.—Ulrich, E. O.
 Stilbite.—Achiardi, G. d., 3.
Stilhippus.—Ameghino, F., 2.

- Stirechinus*.—Schuetze, E.
 STODDART Collection, Bristol Museum.
 —Vaughan, A.
 Stoke Gifford (Gloucester).—Reynolds, S. H.
 Stolzite.—Lovisato, D., 2.
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 Stone-quarries under Paris.—Elsden, J. V., 4.
 —reefs, Brazil.—Brammer, J. C., 3.
 —rivers, Falkland Is.—Vallentin, R.
 Storeton (Cheshire).—Lomas, J., 3.
 Stormberg Mts. (Cape Colony).—Seward, A. C., 4.
 Stour-Valley drift (East Anglia).—Whitaker, W.
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 Stramberg (Moravia).—Remeš, M.
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 —, consolidation of.—Lamplugh, G. W., 3.
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Strepsiceros.—Schlosser, M., 2.
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Strigocephalus.—Gosselet, J., 4.
Stromatopora, Jurassic.—Lang, W. D., 2.
Stromatoporella.—Guerich, G., 2.
 Strontian (Argyll).—Davison, C., 7.
 Strontianite.—Strandmark, J. E.
 Strontium.—Pratt, J. H.
Strophonella.—Kindle, E. M., 2; Reed, F. R. C.
Strophostoma.—Roman, F.
 STUBBEL's theory of volcanoes.—Bergeon, J.; Lapparent, A. de.
Stylotrachus.—Squinabol, S., 3.
 Styria (Austria).—Aigner, A.; Canaval, R.; Redlich, K. A.; Reibenschub, A. F.; Wessely, C.
Submarginula.—Dall, W. H.
Subpulchellia.—Hyatt, A.
 Subsidences, Fontainebleau Sands.—Bédé, P., 3.
 Sudan (N. Africa).—Arsandaux, H., 1-3; Foureau, F.; Gentil, L.; Hubert, H., 4; Lacoïn, L.
 Sudbury (Ont.).—Coleman, A. P.
 Suffolk.—Harmer, F. W.; Spiller, J.
 Sula Is. (D.E.I.).—Boelm, G.
 'Sulgranees' (India).—Blanford, W. T.
 Sulitjelma Mt. (Norway).—Fletcher, Rev. M.; Klockmann, F., 2.
 Sulphates, decomposition of acid.—Spring, W.
 Sulphur, Carrara marble with.—Manasse, E., 3.
 — deposit from mine-water.—Krusch, P.
 —, Nevada.—Emmons, S. F., 4.
 —, United States.—Struthers, J., 10.
 Sulphurous springs, Matsesta.—Martel, E. A., 7 & 9.
 Sumatra (D.E.I.).—Bruhns, W.; Buecking, H., 4; Hundeshagen, L.; Jansen, P.; Milch, L., 2 & 3; Tobler, A.; Volz, W.
 Sun, liquid absorption of heat of.—Kalecsinszky, A. von, 2.
 Sundgau knolls (Alsace).—Klöhn, G.
 Superior, Lake (N. Am.).—Clements, J. M.; Leith, C. K.; Macco, A.; Willmott, A. B.
 Surface-warping, Pennsylvanian Tertiary.—Campbell, M. I.
 Surrey.—Dibley, G. E.; Gower, H. D.; Herries, R. S.; Hinde, G. J.; Hogg, A. J.; Holmes, W. M.; Latham, B.; Monckton, H. W., 7; Robarts, N. F., 1 & 2; Whitaker, W.; Wright, W.
 Surveys. See Geological Surveys.
 Sus.—Schlosser, M., 2.
 Sussex.—Abbott, W. J.; Oliphant, F. H.; Pearson, R.; Woodward, H. B., 7.
 Sutherland (Cape Colony).—Rogers, A. W., 4 & 5.
 Sutherland.—Murray, Sir John, 3; Peach, B. N., 3.
Sutneria.—Loriot, P. de.
 Swanscombe (Kent).—Stopes, C.
 Sweden, ochre-deposits.—Moberg, J. C.
 —, pegmatite.—Elsden, J. V., 3.
 —. See also Glaciation, Scania, &c.
 Swedish Antarctic Expedition.—Nordenskjöld, O.
 Switzerland, geology, 1901.—Scharldt, H., 2.
 —, —, 1902 & 1903.—Sarasin, C., 1 & 2.
 —, glacial periods.—Pilgrim, L.; Schulz, A.
 —, glaciers.—Forel, F. A., 1 & 2.
 —, lake-basins.—Preller, C. S. DuR., 1 & 2.
 —, later upheavals.—Salomon, W.
 —, peat-bogs.—Frueh, J., 3.
 Sydney (N.S.W.).—Andrews, E. C.
 Syenite, Aar massif.—Weber, F.
 —, Cameroons.—Esch, E. von.
 —, corundum in.—Lacroix, A.
 —, Kishengarh.—Vredenburg, E.
 —, Madagascar.—Lacroix, A., 7.
 —, Transvaal.—Molengraaff, G. A. F., 5.
 Sylvanite, plasticity of.—Rinne, F., 2.
 Synapsida.—Osborn, H. F., 4.
Syndesmya.—Laskarev, W.
Synechodus.—Leriche, M.
Synek.—Delgado, J. F. N., 2.
 Syria.—Hay, O. P., 2.
Syringodendron.—Zaleski, M. D.
Syrnola.—Esch, E. von.
Syrphus.—Meunier, F.
 Szászváros (Hungary).—Halaváts, J.
 Taaibosch Spruit (Transvaal).—Johnson, J. P., 7.
 Ta-pa-shan Plateau (China).—Vogelsang, K.

- Tacana volcano (Mexico).—Bæse, E., 1 & 3.
 Tacoma (Wash.).—Upham, W., 6.
Teniaster.—Frapont, J.
Teniopteris.—Zeiller, R., 2.
 Taganrog Gov. (Russia).—Morozevich, I., 2.
 Tagliacozzo (Abruzzi).—Lupi, A.
Tagonia.—Oppenheim, P.
 Tahiti (Pacific).—Lacroix, A., 6.
 Taillfer (Namur).—Dorlodot, L. de.
 Takatea, Cape Colville Penins. (N.Z.).—Mackay, A.
 Talaur (D.E.I.).—Buecking, H., 3.
 Talc, Carolina (N.).—Keith, A., 3.
 —, United States.—Pratt, J. H., 5.
 Taliabu (D.E.I.).—Bøhm, G.
 Taman Peninsula (Russia).—Andrussov, N.
 Tambo Grande (Peru).—Duval, A.; Ventura, P. C.
 Tambov Gov. (Russia).—Derjavin, A.
 Tampa (Florida).—Dall, W. H.
 Tanganyika, Lake (Equat. Africa).—Hudleston, W. H.
Tapes.—Laskarev, V.
Tapirus.—Schlosser, M.
 Tara Valley (Montenegro).—Vinassa de Regny, P. E., 3.
Taramellia.—Seguenza, L.
 Tarbes (Hautes-Pyrénées).—Carez, L.
 Tarija (Bolivia).—Nordenskjöld, E.
 Tarkastad (Cape Colony).—Broom, R., 6.
 Tarnopol (Galicia).—Teisseyre, W.
 Tasmania.—Arber, E. A. N., 2; Coghill, T. A.; Dennant, J., 4; Gregory, J. W., 4; Legge, W. V.; Pettard, W. F.; Twelvetrees, W. H., 1-10; Wallace, W. H., 1 & 2; Waller, G. A., 1-5.
 Tatra Mts. (Hungary).—Limanovski, M.
 Tauern, Hohe (Tyrol).—Termier, P., 7.
 — Tunnel (Styria).—Becke, F.
 Taunus (Hesse).—Buecking, H.; Reinach, A. von, 2.
 Tay Basin (Scotland).—Coates, H.; Murray, Sir John, 2; Peach, B. N., 2.
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 Teallite.—Prior, G., 2.
Technophorus.—Ruedemann, R.
Tectospira.—Picard, E.
 Tees Basin.—Lewis, F. J.
 Teeth, mammalian.—Ameghino, F.; Lydekker, R.; Osborn, H. F., 5.
Tegeotherium.—Ameghino, F., 2.
 Teign Valley (Devon).—Jukes-Browne, A. J., 2; Lowe, H. J.; Somervail, A., 2.
Teinostoma.—Dall, W. H.
 Tektite.—Brezina, A., 2.
Telerpeton.—Boulenger, G. A., 3.
Tellina.—Archangel, A. D.; Dall, W. H.; Dollfus, G. F., 5; Dreger, J.; Jensen, A. S., 2; Oppenheim, P.
Tellinomya.—Clarke, J. M.
 Temerest (Hungary).—Schafarzik, F.
 Témir-Khan-Choura (Turkestan).—Kalitski, K.
Temnotropis.—Picard, E.
 Temperature, mineral refraction &—Pauchich, U.
 —, underground.—Barker, J.; Heinrich, F., 2; Hoefler, H.; Jaczewski, L.
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 Templeux-la-Fosse (Somme).—Dollfus, G. F., 2.
 Ten-Mile Creek (N.Y.).—Matson, G. C.
 Tennessee (U.S.A.).—Eckel, E. C., 2 & 3; Hayes, C. W., 6; Keith, A., 2 & 3.
Tentaculites.—Chapman, F., 4; Clarke, J. M., 1 & 2.
 Teolo (Venetia).—Squamabol, S., 2 & 3.
 Teplitz (Bohemia).—Schlosser, M.
Teraspis.—Clarke, J. M., 12.
Terebra.—Dall, W. H.
Terebratella.—Ihering, H. von.
Terebratula.—Buckman, S. S., 2; Chof-fat, P., 2; Cossmann, M., 3; Dall, W. H.
 Terlingua (Texas).—Moses, A. J., 2.
 Terlinguaite.—Gaubert, P., 6; Moses, A. J., 2.
 Terrace-plains, New Mexico.—Herrick, C. L., 2.
 Terraces, Danube, Lower Austria.—Depéret, C.
 —, Inn Valley.—Ampferer, O., 2.
 —, Orleans Basin (Cal.).—Hershey, O. H., 2.
 —, Rumanian river.—Martonne, E. de, 2; Sevastos, R.
 —, Tay Basin.—Coates, H.
 Tertiary, Abruzzi.—Lupi, A.
 —, Alaska.—Emerson, B. K., 3.
 —, Algeria.—Ficheur, E.; Lamothe, L. de.
 —, Apulia.—Cecchia-Rispoli, G., 3-5.
 —, Aude.—Doncieux, L.
 —, Austria (Lr.).—Fuchs, T., 2.
 —, Baden.—Thuerach, H., 2.
 —, Bavaria.—Walthner, J., 3.
 —, Belgium.—Leriche, M., 2; Rutot, A., 9.
 —, Brittany.—Dollfus, G. F., 4.
 —, Burma.—Pilgrim, G. E., 2.
 —, California.—Merriam, J. C., 2.
 —, Cameroons.—Esch, E. von.
 —, Cornwall.—Reid, C., 2.
 —, Croatia.—Gorjanović-Kramberger, D., 1 & 2.
 —, Dalmatia.—Dainelli, G.
 —, Egypt.—Barron, T.; Oppenheim, P.
 —, Florida.—Dall, W. H.; Schuchert, C.
 —, Galicia.—Wójcik, K.
 —, Galician Podolia.—Teisseyre, W.
 —, Greenland.—Ravn, J. P. J., 2.
 —, Hesse.—Reinach, A. von, 2.
 —, Hungary.—Halaváts, G., 2; Lørenthey, E., 1-4.
 —, Languedoc.—Roman, F.
 —, Limerick.—Reid, C., 3.

- Tertiary, Madagascar.—Lemoine, P.; Tornquist, A.
 —, Maine-et-Loire.—Bigot, A., 2.
 —, Mexico.—Hall, C. E.
 —, Montenegro.—Nelli, B.
 —, Nice.—Depéret, C., 2.
 —, Nigeria.—Newton, R. B., 2.
 —, Nord.—Leriche, M., 5.
 —, Normandy.—Cossmann, M., 4.
 —, Paris Basin.—Leriche, M., 2.
 —, Rome.—Trabucco, G.
 —, Russia.—Archangel, A. D.; Faas, A.; Laskarev, V.; Michaelovski, G. P.
 —, Senegambia.—Meunier, S., 1 & 2.
 —, Sicily.—Checchia-Rispoli, G., 2; Scalia, S., 1 & 3.
 —, Silesia.—Berendt, G.; Maas, G.
 —, Sinai.—Hume, W. F.
 —, Sokoto.—Bather, F. A.; Lelean, P. S.
 —, Somaliland.—Dacqué, E.; Newton, R. B.
 —, Switzerland.—Kissling, E.; Schalech, F., 2; Stehlin, H.
 —, Texas.—Gidley, J. W., 3.
 —, Turkestan.—Kalitska, K.
 —, Turkey in Europe.—English, T.; Newton, R. B., 4.
 —, Victoria.—Dennant, J., 1-4; Pritchard, G. B.
 —, Vienna Basin.—Handmann, R., 2; Mayer-Eymar, C.
 —, Württemberg.—Kranz, W.
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Testudo.—Andrews, C. W., 3.
 'Tethys Ocean.'—Suess, E., 2.
Tetracanthellipsis.—Squinabol, S., 3.
Tetraraptus.—Törnquist, S. L.
 Teutoberg Forest (Germany).—Mueller, G.
 Texas (U.S.A.).—Adams, G. I.; Broili, F., 2; Gidley, J. W., 3; Hayes, C. W., 4 & 9; Hill, B. F.; Hill, R. T.; Iddings, J. P., 3; Lasswitz, R.; Moses, A. J., 2; Neumayer, L.; Weed, W. H., 2.
Textularia.—Chapman, F., 2; Fornasini, C.
 Thale (Harz).—Brandes, G.
Thalattosaurus.—Merriam, J. C., 3.
 Thames Valley.—Hinton, M. A. C., 1-3; I'Anson, J. C.; Johnson, J. P., 1-4, & 8; Treacher, L.
 —, gravels on the north side of.—Irving, Rev. A., 3.
Thamnocladus.—White, D.
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 Thenardite.—Vredenburg, E., 2.
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 —, Gastein.—Mache, H., 1 & 2.
 —, Nassau.—Henrich, F.
 —, ore-deposits &.—Kemp, J. F., 1 & 2; Weed, W. H., 6.
 —, origin of.—Delkeskamp, R.
 —, Styria.—Aigner, A.
 —, temperatures of.—Dienert, F.
 —, Transcaucasus.—Martel, E. A., 7 & 9.
 —, Tuscany.—Stefani, C. de, 3.
 —, Zambesi Valley.—Ferguson, D.
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Thoracoceras.—Clarke, J. M., 12.
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 Thorite.—Coomáráswamy, A. K., 8.
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Thracia.—Esch, E. von.
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 Tian-Shan (Turkestan).—Davis, W. M., 2.
 Tibidabo Mt. (Barcelona).—Almera, J.
 Tichorietzkaya (Ekaterinoslav Gov.).—Sokolov, N. A.
 Ticino (Switzerland).—Klemm, G.; Königsberger, J.
 Tiflis Gov. (Russia).—Riabini, A.
 Tilt, Glen (Perth).—Barrow, G.
 Timassanine (Sahara).—Foureaux, F., 2.
 Tin, Alaska.—Brooks, A. H., 2; Collier, A. J., 3; Emmons, S. F., 4.
 —, Australia (W.).—Cameron, W. E., 2.
 —, Burma & Palanpur.—Holland, T. H.
 —, Cornwall.—Macalister, D. A.
 —, Lozère.—Guédras, M.
 —, New South Wales.—Pittman, E. F.
 —, Nigeria (N.).—Dunstan, W. R., 3.
 —, Queensland.—Ball, L. C., 5.
 —, Tasmania.—Twelvetrees, W. H., 7-10; Waller, G. A., 4.
 —, Texas.—Weed, W. H., 2.
 —, Transvaal.—Anon., 18.
 —, Victoria.—Herman, H., 2.
 Tinguaita, Madagascar.—Lacroix, A., 7.
 Tippecanoe Valley (Ind.).—Breeze, F. J.
Tissotia.—Esch, E. von.
 Titaniferous olivine.—Brugnatelli, L., 1 & 2.
 Titanite.—Slavík, F.
Titanosuchus.—Broom, R., 3 & 4.
 Titanotheres-Beds.—Loomis, F. B.
Tivela.—Dall, W. H.
Tmetoceras.—Beck, H.

- Toarcian, Worcestershire.—Buckman, S. S., 3.
- Tobago (W.I.).—Guppy, R. J. L.
- Tobolsk Gov. (Siberia).—Ilovaiski, D., 2.
- Tochi R. (N.W. India).—Crick, G. C., 8.
- Tödi Mts. (Switzerland).—Weber, F.
- Tœchomya*.—Clarke, J. M., 2.
- Tokyo (Japan).—Imamura, A., 1 & 3.
- Tolfa (Rome).—Millosevich, F., 2.
- TOLL, Baron E. von, Polar Expedition. —Anon., 11; Schmidt, F., 1 & 2.
- Tomakovka (Ekaterinoslav Gov.). —Michaelovski, G. P.
- Tombstone (Ariz.).—Blake, W. P.; Church, J. A.
- TOMES, R. F. *See Obit.*, Richardson, L., 2.
- Tomsk Gov. (Siberia). —Peetz, H. de; Tanfelev, G.
- Tonalite-gneiss, Brixen.—Petrascheck, W., 2.
- Tongking (Indo-China).—Hubert, H., 2; Zeiller, R., 2.
- Tonopah (Nev.).—Emmons, S. F., 4; Lakes, A., 4; Spurr, J. E., 2.
- Topaz.—Kunz, G. F.
- Toqueville (Utah).—Huntington, E.
- Torbay (Devon).—Hunt, A. R.
- Tornatina*.—Dall, W. H.
- Torpedo*.—Esch, E. von.
- Torre Valley (Piedmont).—Piolti, G.
- Torrite hot-springs, Garfagnana (Tuscany).—Stefani, C. de, 3.
- Tortilla*.—Perner, J.
- Tortoises, Quaternary.—Fournier, G.
- , Tertiary land.—Andrews, C. W., 3.
- Totland Bay (I. of Wight).—Kennard, A. S., 2.
- Toucasia*.—Pâquier, V.
- , limestone, I. of Capri.—Parona, C. F., 3.
- Toura R. (Urals).—Vuisotzki, N.
- Touraine (France).—Dollfus, G. F., 3.
- Tourmaline.—Hamberg, A.; Kunz, G. F.; Schaller, W. T.; Sterrett, D. B.
- Tourmaliniferous veins, Elba.—Achiardi, G. d', 3.
- Toxodon*.—Ameghino, F.
- Trachodon*.—Lucas, F. A., 5.
- Trachyaspis*.—Reinach, A. von.
- Trachyte, Cameroons.—Esch, E. von.
- , Cornwall.—Pearce, R.
- , Hawaii Is.—Cross, W., 2.
- , Sudan.—Arsandaux, H., 2.
- , Tuscany.—Lotti, B.
- Trachytrotherium*.—Ameghino, F., 2.
- Tracks, Carboniferous crustacean (?).—Etheridge, R., *fil.*, 3.
- Tragocerus*.—Schlosser, M., 2 & 3.
- Tragoreas*.—Schlosser, M., 3.
- Transcaucasia (Asia Minor).—Nicou, P.
- Transennella*.—Dall, W. H.
- Transvaal (S. A.).—Anon., 18; Bleloch, W.; Corstorphine, G. S., 1 & 3; Dœrfel, D., 1-4; Draper, D., 1 & 2; Fourmarier, P., 3; Hall, A. L., 1-3; Hatch, F. H., 1-6; Higgs, M. S., 1 & 2; Holmes, G. G.; Horwood, C. B., 1 & 2; Johnson, J. P., 6 & 7; Jorissen, E.; Kuntz, J., 1 & 3; Kynaston, H., 1 & 2; Leslie, T. N., 7; Liebenam, W. A.; Marriott, H. F.; Mellor, E. T., 1-3; Molengraaff, G. A. F., 1-5; Rathbone, E. P.; Sawyer, A. R., 2-4; Swinburne, U. P.; Weldon, H.; Wilkinson, D.; Zimmermann, J.
- Transylvania (Hungary).—Pálffy, M. von, 1 & 2; Telegl, L. R. von.
- Trapezium*.—Cossmann, M., 3.
- Traun, Lake (Upper Austria).—Fugger, E.
- Tredwell (Alaska).—Kinzie, R. A.
- Tree, silicified.—Arber, E. A. N., 2.
- , trunks, Namur coalfield.—Stainier, X.
- Trélaze (Maine-et-Loire).—Bigot, A.
- Trélon (Nord).—Leriche, M., 5.
- Tremanotus*.—Perner, J.
- Tremataspis*.—Jækel, O., 4.
- Trépail (Marne).—Martel, E. A., 2.
- Trepodomata.—Urich, E. O.
- Trienaspis*.—Hay, O. P.
- Trias, Arizona.—Lucas, F. A., 2.
- , Baluchistan.—Vredenburg, E., 4.
- , Bosnia.—Katzner, F., 4; Kittl, E.
- , Carniola.—Kossmat, F., 2.
- , classification of.—Eck, H.
- , Devon.—Irving, Rev. A.; Somervail, A., 1 & 3.
- , Germany.—Brandes, G.; Brombach, F.; Eck, H.; Henkel, L., 2; Picard, E.; Walther, J.
- , Greece.—Renz, C., 3.
- , Himalayas.—Nœtling, F., 3.
- , New Mexico.—Keyes, C. R., 3.
- , Piedmont.—Franchi, S.
- , rauidrop markings in.—Spicer, Rev. E. C., 2.
- , Salt Range.—Nœtling, F., 2.
- , Sardinia.—Torquist, A., 2.
- , Spitsbergen.—Yakovlev, N., 2.
- , Staffordshire.—Thompson, B.
- , Texas.—Adams, G. I.
- , Tyrol.—Philipp, H.; Waagen, L.
- , Victoria.—Etheridge, R., *fil.*, 2.
- , Yorkshire.—Kaye, J. R.
- , *See also* Keuper, &c.
- Triassic conglomerate, Nelson.—Marshall, P.
- , pebbles, in Pomeranian gravel.—Linstow, O. von.
- Triceratops*.—Lull, R. S.
- Tricolocaspia*.—Squinabol, S., 3.
- Tridymite.—Schwantke, A., 2.
- Trieste (Austria).—Marinitsch, J.; Mäzelle, E., 2.
- Trigeria*.—Drevermann, F., 2; Reed, F. R. C.
- Trigonia*.—Yokoyama, M.
- Trigonocarpus*.—Pellati, N.
- Trigonostylops*.—Ameghino, F.
- Trilobites, Cambrian.—Delgado, J. F. N., 2; Matthew, G. F., 2.
- , Carboniferous.—Schumacher, R.

- Trilobites, Devonian.—Harbort, E.; Lake, P.; Mailleux, E.
 —, Ordovician.—Collie, G. L.
 —, Silurian.—Agnus, —; Clarke, J. M., 12; Drevermann, F.; Hitchcock, C. H.; Kindle, E. M.; Reed, F. R. C., 3 & 4; Wiman, C.
Trimoeras.—Kindle, E. M., 2.
 Trinidad (W.I.).—Blake, G. S.; Dunstan, W. R.; Guppy, R. J. L., 2-4; Henry, T. A., 1 & 5; Louis, H.; Struthers, J. C.
Trionyx.—Reinach, A. von.
Triolepis.—Zeiller, R., 2.
Tripilidium.—Squinabol, S., 3.
Tripleurocrinus.—Wood, E., 2.
 Triplite.—Hamberg, A.
 Tripoli, Arizona.—Blake, W. P., 2.
 —, Cantal.—Pagès-Allary, J.
 Tripoli (N. Africa).—Vinassa de Regny, P.
Trirachodon.—Broom, R., 10.
Tristanites.—Deane, H.
Tristylotus.—Parks, W. A., 2.
Triticites.—Girty, G. H., 3.
Trochoyathus.—Dennant, J., 3.
Trochodiscus.—Squinabol, S., 3.
Trochus.—Cossinann, M., 2; Laskarev, W.
 Trombetas R. (Brazil).—Clarke, J. M.
 Trong-Loc (Annam).—Hubert, H., 3.
 'Trou de l'Abime' (Couvin).—Mailleux, E., 2.
 Trou-de-Souci (Côte-d'Or).—Martel, E. A., 11.
 Trumbull (Conn.).—Hobbs, W. H., 2.
Tryblidium.—Perner, J.
Trypanostylus.—Picard, A.
 Tübingen (Würt.) Geological Institute.
 —Koken, E., 2.
 —University Museum.—Sommerfeldt, E., 2.
 Tufa, calcareous. See Calcareous.
 Tufaceous deposits, Totland Bay.—Kennard, A. S., 2.
 Tuff, Weston-super-Mare.—Boulton, W. S.
 Tullstorp (Scania).—Holst, N. O., 2.
 Tumbes (Peru).—Braun, J. M.; Ugar-teche, M. de.
 Tunkur (Mysore).—Wetherell, E. W.
 Tundra, America (N.).—Tyrrell, J. B., 2.
 Tungsten, Connecticut.—Hobbs, W. H., 2.
 —, United States occurrence.—Pratt, J. H., 4.
 —. See also Scheelite.
 Tunis (Africa).—Bédé, P., 2; Camu, F., 2; Priem, F.
 Tunnel, Bosrück.—Geyer, G.
 —, Simplon.—Schardt, H.
 —, Tauern.—Becke, F.
 —, Wochein.—Kosmat, F.
Turbo.—Pritchard, G. B.
 Turkestan (Asia).—Bronyaikov, M.; Davis, W. M., 2 & 3; Kalitska, K.; Weber, V.
 Turkey in Europe.—Cvijič, J.; English, T.; Flett, J. S.; Holland, R.; Newton, R. B., 4.
 Turquoise.—Kunz, G. F.
Turrilepas.—Ruedemann, R.
Turrilites.—Lasswitz, R.; Yabe, H.
Turritella.—Crema, C.; Dollfus, G. F., 5; Esch, E. von; Ihering, H. von; Illovaiki, D.; Michaelovski, G. P.; Picard, E.
 Turtles, Cretaceous.—Hay, O. P., 3; Wieland, G. R., 1 & 2.
 —, Tertiary.—Hay, O. P., 3.
 Tuscany (Italy).—Aloisi, P.; Fucini, A.; Manasse, E., 1 & 3; Ristori, G.; Sestini, F.; Stefani, C. de., 2.
 Tver Gov. (Russia).—Sinzov, I.
Tylocrinus.—Wood, E., 2.
 Tyne R. (N. England).—Woolacott, D., 2.
 Types, GRAY'S (J. E.).—Blanford, W. T.
 —, Museum of Practical Geology.—Allen, H. A.
 —, New York State Museum.—Clarke, J. M., 10.
 —, of plants, refigured.—Potonié, H.
Typpotherium.—Ameghino, F., 2.
 Tyrol (Austria).—Ampferer, O., 1-3; Broili, F., 3; Diener, C., 4; Døelter, C., 3; Dreger, J.; Ippen, J. A.; Kolenc, F.; Neugebauer, F.; Ohnesorge, T.; Petrascheck, W., 2; Philipp, H.; Proboscht, H.; Romberg, J., 1-4; Skeats, E. W.; Slavik, F., 2; Termier, P., 3, 4, 7, & 8; Waagen, L.; Zeiske, F.
 Tzaritzin (Saratov).—Sokolov, N. A.
Uintacrinus.—Schuchert, C., 3.
 Uitenhage (Cape Colony).—Broom, R., 8; Seward, A. C., 4.
 Ularring (W. Austral.).—Gibson, C. G., 2.
 Ulm a. D. (Würt.).—Dietrich, W.; Kranz, W.
Ulodendron.—Potonié, H., 2.
 Ulu Rawas (Sumatra).—Milch, L., 2.
 Um-Rileng (Assam).—Bose, P. N.
Umbotrochus.—Perner, J.
 Umbria (Italy).—Verri, A.
 Unakite.—Phalen, W. C., 2.
Uncinulus.—Drevermann, F., 2.
 Underground temperature, coal-mines.—Hoefel, H.
 —. See also Temperature.
Undularia.—Picard, A.
 Ungava (Canada).—Low, A. P.
 Ungulata, upper molars of.—Ameghino, F.
Unio.—Newton, R. B., 4; Whitfield, R. P.
 Uniondale (Cape Colony).—Schwarz, E. H. L.
 United States, geological atlas.—Walcott, C. D., 3.
 — — —, great plains of.—Upham, W., 3.

- United States, mineral-resources.—Day, D. T.; Emmons, S. F., 1, 2, & 4.
 ———. *See also* Devonian, Geological Survey, Gold, Iron, &c.
Unitrypa.—Cumings, E. R., 2.
 Unstrut R. (Saxony).—Wuest, E.
 Ural Mts. (Russia).—Duparc, L., 1 & 3; Konushevski, L., 1 & 2; Morozovich, I., 3; Mrazec, L.; Nikolaev, D.; Revostzki, E. D.; Vuisotzki, N.
 Uralitization.—Duparc, L., 3.
 Uraninite. — Andrimont, R. d', 2; Coomáráswamy, A. K., 6; Step, J.
 Uranium-minerals.—Hoffmann, J., 1 & 2; Pratt, J. H., 4.
 Uranocirite, dehydration of.—Gaubert, P., 4.
 Urdos (Basses-Pyrénées).—Carez, L., 5.
Urenchelys.—Hay, O. P., 2.
Ursus.—Praeger, R. L., 4; Reichenau, W. von; Schlosser, M., 2; Sheppard, T., 6.
 Urubamba R. (Peru).—Robledo, L. M.
 Usingen (Nassau).—Buecking, H.
 Utah (U.S.A.).—Adams, G. I., 5; Boutwell, J. M., 2; Dean, G. H.; Dyar, W. W.; Emmons, S. F.; Huntington, E.; Jenney, W. P.; Talmage, J. E.
 Vacia-Madrid (New Castile).—Puerta, G. de la.
 VACOSSIN, A. *See* *Obit.*, Beaugrand, C.
 Vag R. (Hungary).—Horusitzky, H., 3.
 Valais (Switzerland).—Preiswerk, H.
 Valentinite.—Pelloux, A.
 Valerio, Monte (Tuscany).—Ristori, G.
 VALLÉE-POUSSIN, C. L. J. X. de la. *See* *Obit.*, Malaise, C.
 Valley, Teign.—Jukes-Browne, A. J., 2.
 Valleys, Atlantic submarine.—Spencer, J. W., 1 & 3.
 ———, BAER'S law &.—Fabre, L. A., 2.
 ———, Brandenburg.—Maas, G., 3.
 ———, Calvados.—Bigot, A.
 ———, Durham, &c., pre-Glacial.—Woolcott, D., 3.
 ———, fracture.—Iddings, J. P., 2.
 ———, hanging.—Tarr, R. S.
Valvata.—Menzel, H.
 Van Rhy'n's Dorp (Cape Colony).—Rogers, A. W., 3.
 Vanadinite.—Caballero, G. de J., 2; Lovisato, D., 2; Sigmund, A.
 Vanadium-minerals.—Pratt, J. H., 4.
 Vancouver I. (B. C.).—Macbride, R.; Sutton, W. J.
 Varanger Fjord (Norway).—Henriksen, G.
Varanosaurus.—Broili, F., 2.
 Vareš (Bosnia).—Beck, H.
 Varese (Lombardy).—Taramelli, T., 2.
 Värhegy (Hungary).—Koch, A., 3.
Vascoceras.—Hyatt, A.
 Vascogadas (Spain).—Dufau, C.
 Vaucluse (France).—Putzeys, E.
 Vaud (Switzerland).—Kissling, E.
 Vecchio, Monte (Sardinia).—Lovisato, D.
 Vegetation, river-boulder deposits &.—Mueller, C. A., 4.
 Veglia, Monte (Piedmont).—Lincio, G.
 Veins, igneous rocks, water &.—Kemp, J. F., 1 & 2.
 ———, origin of.—Elsden, J. V., 3.
 ———, rock-pressure &.—Lakes, A., 7.
 Vellone Torrent (Lombardy).—Taramelli, T., 2.
 Vendée (France).—Cossmann, M., 3.
Venericardia.—Dall, W. H.
 Venetia (Italy).—Airaghi, C.; Ochsenius, C.; Parona, C. F.; Squinabol, S., 1-4; Taramelli, T., 3.
 Venezuela (S. Am.).—Drevermann, F.
 Ventersdorp (Transvaal).—Hatch, F. H., 3.
Venus.—Laskarev, V.; Michaelovski, G. P.
 Vereeniging (Transvaal).—Leslie, T. N.; Seward, A. C., 4.
Vermetus.—Rovereto, G., 4.
 Vermilion (Minn.).—Clements, J. M., 2; Thomas, K.
 Vermont (U.S.A.).—Dale, T. N., 2; Daly, R. A.
 Verra Valley (Piedmont).—Zambonini, F.
Versispira.—Perner, J.
 Vertebrates, evolution in time.—Woodward, H., 7.
Fertigo.—Gulick, A.
 Vesdre R. (Liège).—Renier, A.
 Vesuvian lava-domes.—Mercalli, G.
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 Vézère R. (France).—Cahen, A.
 Viale, Monte (Venetia).—Billows, E., 2.
 Viareggio (Tuscany).—Pantanelli, D., 2.
 VICARY, W. *See* *Obit.*, Geikie, Sir Archibald, 4; Monckton, H. W., 5; Woodward, H., 3.
 Vicenza (Venetia).—Taramelli, T., 3.
 Victoria (Austral.).—Anderson, W. R.; Bradford, W., 1-10; Chapman, F., 1-7; Coghlan, T. A.; Deane, H.; Dennant, J., 1-4; Etheridge, R., *fl.*, 2; Ferguson, W. H.; Gregory, J. W., 1-3; Herman, H., 1-3; Howitt, A. M.; Howitt, A. W.; Hunter, S. B., 1 & 2; Kitson, A. E., 1-5; Mapleston, C. M., 1 & 2; Pritchard, G. B.; Sutherland, I. M.; Whitelaw, H. S.
 ———. *See also* Gold, &c.
 Victoria, Mount (Tasm.).—Twelvetrees, W. H., 5.
 Vielsalm (Liège).—Lohest, M., 4.
 Vienna (Austria).—Depéret, C.; Hørnes, R.; Schaffer, F. X.
 ——— Basin (Austria).—Abel, O.; Fuchs, T.; Handmann, R., 2; Mayer-Eymar, C.; Troll, O. von.
 Vihl (Kashmir).—Oldham, R. D., 2.
 Villefort (Lozère).—Guédras, M., 2.
 Villefranche (Aveyron).—Thévenin, A.
 Villers-aux-Tours (Liège).—Questienne, P., 2.

- Villers-sur-Mer (Normandy).—Douvillé, R., 1.
- Vinella*.—Ulrich, E. O.
- Virginia (U.S.A.).—Eckel, E. C., 4; Phalen, W. C., 2.
- , West (U.S.A.).—Dale, T. N.; Stevenson, J. J.; Tight, W. G.
- Vitrella*.—Geyer, —.
- Vitulina*.—Reed, F. R. C.
- Vivianite.—Egglesstone, W. M., 2; Gaubert, P., 2 & 7.
- Vizagapatam (Madras).—Middlemiss, C. S.
- Vlegyásza Mts. (Hungary).—Szadeczki, J.
- Vogelsberg (Hesse).—Chelius, C., 3.
- Vogtland (Saxony).—Bergt, W., 2.
- Vola*.—Dacqué, E.
- Volborthella*.—Karpinski, A., 2.
- Volcanic activity, 1902.—Ambayrac, —.
- cones, artificial.—Tabary, P.
- craters, Hawaii Is.—Hitchcock, C. H., 2; Wood, E.
- dust, Mexico.—Bøse, E., 4.
- eruption, Arabia, 1256.—Houdas, —.
- eruptions, origin of.—Russell, I. C., 4.
- , —, West Indies.—Anderson, T.; Heilprin, A.; Hovey, E. O.; Lacroix, A., 5; Russell, I. C., 1, 3, & 4; Sapper, K., 3.
- pipes, Africa (S.).—Rogers, A. W., 5.
- plugs.—Gilbert, G. K., 3; Jaggard, T. A.; Russell, I. C., 3 & 4; Winchell, N. H., 4.
- rocks, Borrowdale.—Walker, E. E.
- —. See also Andesite, Igneous, &c.
- series, Witwatersrand. — Corstorphine, G. S., 2.
- upheaval, Franconian Ries.—Knebel, W. von.
- Volcano, Quenast.—Simoëns, G.
- Volcanoes, America (Central).—Sapper, K., 1-4.
- , earthquakes &.—Lallemand, C.
- , experiments with mud and air-bubbles.—Martin, D., 2.
- , Guatemala.—Sapper, K., 4.
- , Hawaii.—Cross, W., 2; Hitchcock, C. H., 2; Wood, E.
- , Iceland.—Pjetursson, H.; Thorrodsen, T., 2 & 24.
- , Italy (Central).—Sabatini, V., 2.
- , Java.—Van Bosse, P.; Volz, W., 2; Wichmann, A.
- , Mexico.—Arreola, J. M.; Bøse, E., 1 & 3; Ordoñez, E., 1 & 4.
- , origin of.—Bergeron, J.; Gautier, A.; Lapparent, A. de; Lohest, M.
- , Phlegrean.—Lorenzo, G. de.
- , pre-Cambrian.—Callaway, C.
- , Rome.—Moderni, P.
- , Sumatra.—Volz, W.
- , water &.—Brun, A.
- Volcanoes, West Indies. See Volcanic eruptions.
- —. See also Vulcanism, &c.
- Volga-Black Sea Ry. & Volga-Donetz Basin Ry.—Sokolov, N. A.
- Volhynia (Russia).—Laskarev, V.; Tutkovski, P.
- Vorarlberg (Austria).—Fiedler, O.; Stitzenberger, J.
- Voronetz Gov. (Russia).—Derjavin, A.
- Vosges Mts. (France).—Noël, C.; Schumacher, R.
- Vöslau (Lower Austria).—Fuchs, T.
- Vreddefort Mts. (Transvaal).—Hatch, F. H., 2; Higgs, M. S.; Molengraaff, G. A. F., 2.
- Vucskenező (Hungary).—Pošewitz, T.
- Vui R. (Urals).—Vuisotzki, N.
- Vulcanism, physics of.—Dæltzer, C., 4.
- Vulcanology.—Wachter, —.
- Vulpes*.—Schlosser, M., 2.
- Vulsella*.—Oppenheim, P.; Remeš, M.
- Vulsinian volcanoes (Rome).—Moderni, P.; Sabatini, V., 1 & 2.
- Wabash Valley (Ind.).—Fuller, M. L., 4.
- Waddon Marsh (Surrey).—Gower, H. D.
- Waikouaiti (N.Z.).—Park, J., 3.
- Wairoa (N.Z.).—Mulgan, E. K.
- Waitaki R. (Otago).—Hamilton, A.
- Walderslade (Kent).—Johnson, J. P., 4.
- Waldheimia*.—Buckman, S. S., 2.
- Wales, coast-changes in.—Parkinson, J.
- , mines.—Atkinson, J. B., 1-3; Foster, Sir Clement Le N.
- , orography of.—Mill, H. R.
- (N.).—Jevons, H. S.; Maclaren, J. M.
- (S.).—Howard, F. T.; Roberts, J.
- (—). See also Coalfields, &c.
- Wallingford (Berks).—White, H. J. O.
- Walser Valley (Vorarlberg).—Fiedler, O.
- Walthamstow (Essex).—Kennard, A. S., 3; Reid, C.
- Walton-on-the-Naze (Essex).—Johnson, J. P., 2.
- WARD-COONLEY collection of meteorites, Chicago.—Ward, H. A., 3.
- Warwickshire.—Swallow, F. C.
- Washington (U.S.A.).—Smith, G. O., 1 & 2; Upham, W., 5 & 6.
- Water, Alsace.—Klähn, G.
- , Alzate.—Taramelli, T.
- , Amozoc.—Ordoñez, E., 3.
- , Antwerp & Flanders.—Putzeys, E., 2.
- , Arizona.—Lee, W. T.
- -biscuit, Squaw I., Canandaigua Lake (N.Y.).—Clarke, J. M., 11.
- , Brunswick.—Kloos, H.
- , California.—Hamlin, H.; Lippincott, J. B.
- , Campine.—Rutot, A., 8.
- , carbonic acid in natural.—Krogh, A.
- , Chalk-soils &.—Davies, A. M., 2.
- , Dakota (S.).—Todd, J. E., 3.

- Water, Doubs.—Fournier, E., 3.
 —, Florence.—Stefani, C. de, 2.
 —, India.—Wilson, H. M.
 —, level, Belgium.—Andrimont, R. d',
 4, 5, & 6.
 —, —, Paris Basin.—Boussinesq, J.
 —, Liège.—Questienne, P., 1 & 2.
 —, limestones &.—Martel, E. A., 3;
 Van den Broeck, E.
 —, Lincolnshire.—Preston, H.
 —, London Basin.—Anson, J. C.
 —, Louisiana.—Harris, G. D.
 —, Madagascar.—Lemoine, G.
 —, Molucca Is.—Martin, K., 2.
 —, Nebraska.—Darton, N. H.
 —, Ohio.—Flynn, B. H., &c.
 —, Orléansville.—Sarhou, J., 2.
 —, outburst, Duncrue salt mine. —
 Rigby, J.
 —, Peru.—Elmore, T.; Guillet, E. A.
 —, pipes, ancient tree.—Holmes, T.
 V.
 —, Provence.—Putzeys, E.
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