BIBLIOGRAPHY OF NORTH AMERICAN GEOLOGY FOR 1909 WITH SUBJECT INDEX

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INTRODUCTION.

The bibliography of North American geology, including paleontology, petrology, and mineralogy, for the year 1909 follows the plan and arrangement of its immediate predecessors, the bibliographies for 1906-7 and 1908 (Bulletins 372 and 409 of the U. S. Geological Survey). It includes publications bearing on the geology of the continent of North America and adjoining islands, also Panama and the Hawaiian Islands. Papers by American writers on the geology of other parts of the world are not included. Text-books and papers general in character by American authors are included; those by foreign authors are excluded unless they appear in American publications.

As heretofore, the papers, with full title and medium of publication and explanatory note when the title is not fully self-explanatory, are listed under the authors arranged in alphabetic order. The author list is followed by an index to the literature listed. In this index the entries, in one alphabet, are of three kinds—first, subject, with various subdivisions, to enable the specialist to ascertain readily all the papers bearing on a particular subject or area; second, titles of papers, many of them abbreviated or inverted, under their leading words; and third, cross references, which have been freely used to avoid too much repetition. The subjects have been printed in black-faced type, the titles of papers and cross references in ordinary type. As it may not be always obvious which subject headings have been adopted, a classified scheme of those used immediately precedes the index.

The bibliography of North American geology is comprised in the following bulletins of the U. S. Geological Survey: No. 127 (1732-1892); Nos. 188 and 189 (1892-1900); No. 301 (1901-1905); No. 372 (1906-7); and No. 409 (1908).
SERIALS EXAMINED.

American Mining Congress: Papers and Addresses, 11th Annual Session; 12th Annual Session.
California State Mining Bureau: Bulletin, nos. 54-56. San Francisco, Cal.
California, University of, Department of Geology: Bulletin, vol. 5, nos. 18-23. Berkeley, Cal.
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Canadian Institute: Transactions, vol. 8, pt. 3. Toronto, Ont.
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Centralblatt für Mineralogie, Geologie und Paläontologie, Jahrgang 1909. Stuttgart, Germany.
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Indiana Academy of Science: Proceedings for 1908. Indianapolis, Ind.
Indiana, Department of Geology and Natural Resources: 33d Annual Report. Indianapolis, Ind.
Mexico, Instituto geológico: Parergones, t. 2, nos. 8-10, t. 3, nos. 1-3. Mexico, D. F.
Mining Science, vols. 57-60. Denver, Colo.
Neues Jahrbuch für Mineralogie, etc., 1909: Beilage Band, 27, 28. Stuttgart, Germany.
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Ontario, Bureau of Mines: Report, vol. 18, pts. 1, 2; General Index to Vols. I–XVI. Toronto, Ont.
Paleontographica, Bd. 55, Lief. 5–6; Bd. 56. Stuttgart, Germany.
St. Louis Academy of Science: Transactions, vol. 18, nos. 2–5. St. Louis, Mo.
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Sociedad geológica mexicana: Boletín, t. 5, 6, pt. 1. Mexico, D. F.
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Techemaks Mineralogische und petrographische Mitteilungen, N. F., Bd. 27, 28. Vienna, Austria.


Zeitschrift für Krystallographie, Bd. 46, 47, H. 1–2. Leipzig, Germany.

Zeitschrift für praktische Geologie, Jg. 17. Berlin, Germany.
BIBLIOGRAPHY.

Adams, Frank Dawson.

Adams, Frank D., and Barlow, Alfred E.

Adams, W. J.

Agraz, Juan S.

Aguilera, José G.
10. The carboniferous deposits of northern Coahuila.—Eng. and Min. Jour., vol. 88, pp. 730-733, October 9, 1909. Describes the general geology of the coal fields of Coahuila, Mexico, the occurrence, character, and relations of Cretaceous coal-bearing strata, and the character and occurrence of the coal beds.
Alden, William C.
   The discussion is based upon the character of the drift in southern Wisconsin and northern Illinois.


Alderson, Matt. W.
   Describes ore deposits produced by thermal waters.

Aldrich, Thomas H., jr.

Allen, R. C.
   Describes the geology and structure of the range and the occurrence, character, and relations of the iron ores, the igneous origin of which is discussed.

Allen, Roy Hutchins.
   Includes notes on the geology and the occurrence of the copper ores.
   Includes notes on the local geology and the occurrence and character of the copper ores.

Allen, Eugene T., and White, W. P.

Ames, Mary Lesley.

Ami, Henry M.

Anderson, Glenn.

Anderson, Robert.
Anderson, Robert—Continued.
Describes the general geology, the volcanic rocks, the occurrence, character, relations, and origin of Tertiary sedimentary rocks, and prospecting for oil.
Includes notes upon the geology.

Anderson, Tempest.

Anonymous papers. See page 111.

Anrep, S. A.
Investigation of the peat bogs and peat industry of Canada during the season 1908-9.—See Nyström and Anrep, no. 903.

Arkansas Diamond Company.
29. A brief account of the discovery and investigation and the official reports of geologist and mining engineer on the occurrence of diamonds in Pike County, Arkansas. Little Rock, 1908. 38 pp.
Includes reports by John T. Fuller and Henry S. Washington.

Arnold, Ralph.
Describes the general geology and the characters of sedimentary, metamorphosed sedimentary, and igneous rocks.

Describes the stratigraphy of the region, comprising Mesozoic and Cenozoic formations, with lists of fossils showing distribution, and gives systematic descriptions of species.

Discusses the correlation of Tertiary formations of the Pacific coast States.
Description of the Santa Cruz quadrangle, California.—See Branner and others, no. 138.

Arnold, Ralph, and Johnson, H. R.

Ashley, George Hall.
Ashley, Harrison Everett.

Aston, James.

Atwood, Wallace W.

Babb, Percy Andrus.
44. The Magistral copper district, Mexico.—Eng. and Min. Jour., vol. 88, pp. 1215–1216, 2 figs., December 18, 1909. Includes notes on the local geology and occurrence of copper ores near Ameco, State of Jalisco, Mexico.

Bagg, Rufus Mather, jr.

Bain, Harry Foster.

Bain, Harry Foster, and others.

Baker, F. C.

Baker, M. B.
Balarezo, Manuel.
   Gives a summarized account of the silver and copper deposits of Mexico, with regard to geographic distribution, geologic occurrence, and types of deposits.

   Gives a brief account of ore-bearing deposits at El Dorado, Territory of Tepic, Mexico.

Ball, Max W.
   Describes the geography, stratigraphy, and structure of the field and the physical properties and composition of the coals.

Ball, S. Mays.

Ball, W. G.
The lead-silver deposits at Newburyport, Massachusetts, and their accompanying contact zones.—See Clapp and Ball, no. 229.

Bancroft, George J.

Barbour, Percy E.
   Includes notes on the occurrence of petroleum in the Los Angeles field, California.

Barlow, Alfred E.
   Describes the geology of the district and the occurrence of the silver ores.
   The nepheline and associated alkali syenites of eastern Ontario.—See Adams and Barlow, no. 4.

Barnett, V. H.
The stratigraphic and faunal relations of the Waldron fauna in southern Indiana.—See Kindle and Barnett, no. 670.

Baron, H. J.
   Includes notes on the occurrence of the silver ores.
   Includes notes on the local geology and the occurrence and character of the copper ores,
Barrell, Joseph.

Barry, John G.
Describes the occurrence of natural gas in Bottineau County and prospecting in the field.

Barry, John G., and Melsted, V. J.

Bartow, Edward.
71. Classification of waters according to physical and chemical properties.—Illinois State Geol. Survey, Bull. no. 10, pp. 22-55, 8 figs., 1909.

Bartow, Edward, and others.

Bascom, Florence.
Describes the occurrence and relations of the several pre-Cambrian gneisses.

Bascom, Florence, and others.
Describes the general physical features, the general geology and geologic structure, the distribution, character, and relations of pre-Cambrian, Cambrian, Ordovician, Triassic, Cretaceous, Tertiary, and Quaternary formations, and pre-Cambrian and Triassic igneous rocks, the geologic and physiographic history, and the mineral resources.

Describes the geography and topography, the occurrence, character, and relations of pre-Cambrian, Cambrian, Triassic, Cretaceous, Tertiary, and Quaternary formations, and of igneous rocks, the structural features, the geologic history, and the economic resources.

Baskerville, Charles.
Describes the characters and occurrence of minerals containing the rare metals titanium, tungsten, uranium, vanadium, zirconium.

Includes notes on the geology of oil-bearing shales of New Brunswick.

Bassler, Ray S.
78. The cement resources of Virginia west of the Blue Ridge.—Virginia Geol. Survey, Bull. no. 2A, 309 pp., 30 pls., 30 figs., 1909.
Describes the general geology of northwestern, western, and southwestern Virginia, the distribution, characters, and relations of Cambrian, Ordovician, and later Paleozoic formations with particular reference to cement materials, and the geology and cement materials of individual counties. Includes illustrations of characteristic fossils.
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Bassler, Ray S.—Continued.
   Includes notes on the stratigraphy of Louisville, Ky., and vicinity, a brief biography of Henry Nettleroth (with portrait), and a list of the types obtained from the Nettleroth collection.
   Describes a slab containing Uintacrinus socialis from Kansas and other paleontologic accessions.

Bastin, Edson S.
   Mineral resources of the United States, 1908: Graphite; quartz and feldspar.—See no. 1170.

Bastin, Edson S., and Davis, Charles A.

Bather, F. A.
   Describes the Miocene beds at Florissant, Colo., and the conditions under which they were deposited, and gives a list of papers relating to the Florissant fossils, published after 1905.

Baumhauer, H.
   Describes measurements of the crystals of benitoite.

Bayley, William Shirley.
   Describes the occurrence and relations of pre-Cambrian sedimentary and gneissic rocks, structural features of the Highland area, and the magnetite deposits.

Becke, F.
   A note upon uranium ore and associated minerals from Bald Mountain, Colorado.

Becker, George F.
89. Relations between local magnetic disturbances and the genesis of petroleum.—U. S. Geol. Survey, Bull. 401, 24 pp., 1 pl., 1909.

Beede, Joshua W.
   Describes the occurrence, characters, and relations of the formations in Kansas and adjacent parts of Oklahoma.
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Beede, Joshua W.—Continued.

91. The bearing of the stratigraphic history and invertebrate fossils on the age of the anthracolithic rocks of Kansas and Oklahoma.—Jour. Geology, vol. 17, no. 8, pp. 710–729, 1 fig., 1909.


Beede, Joshua W., and Rogers, Austin F.


Discusses the nomenclature, the correlation value of species, the faunal distribution by horizons, including a chart, and the faunal characteristics of the various stages into which the coal measures are divided.

Bennett, John.

96. History of geological fieldwork in Kansas.—See Haworth and Bennett, no. 517.

97. General stratigraphy of Kansas.—See Haworth and Bennett, no. 518.

Berg, G.


Describes crystalline slates in Las Animas Canyon south of Silverton, Colo.

Bergeat, Alfred.


Describes the geologic relations and the petrographic-chemical properties of a granodiorite mass in the State of Zacatecas, Mexico, and the contact phenomena.


Describes nontronite from Concepcion del Oro, Mexico, produced by the action of iron sulphate in solution upon wollastonite.

Berkey, Charles P.


The paper in full has been published in the American Geologist, vol. 29, pp. 171–177, 1902.


Gives characters by which the formations can be discriminated and notes upon their distribution.
Berry, Edward W.
Describes and renames Cretaceous plants from the Raritan formation of New Jersey.
Gives notes upon the distribution, in Pleistocene times and later, of various plants, and upon the occurrence of Pleistocene swamp deposits, and remarks upon several additions to the known Pleistocene flora of Virginia.
Beyer, Samuel Walker.
Bibbins, Arthur Barneveld.
Bigot, Raoul.
Describes prospecting for copper in the State of Michoacan, Mexico.
Birge, E. A.
An administrative report.
Blackwelder, Eliot.
Describes the physical characteristics of the formation and the character and distribution of the sediments of which it is formed.
Blake, William P.
Blake, William P.—Continued.


Blatchley, Raymond S.


Includes data in regard to the Illinois oil pools.

Bogdanovich, K.

123. Earthquakes of Messina and San Francisco. [In Russian]. St. Petersburg, 1909. 160 pp.; 84 figs.

Böggild, O. B.


Describes the occurrence and crystallographic characters.

Bordeaux, Albert F. J.


A review of the silver deposits of Mexico in their geologic relations.


Böse, Emilio.


A preliminary notice of a Pliocene fauna from Tuxtepec, Oaxaca, Mexico, describing occurrence and character of fauna and giving a list of species identified.


Discusses the origin and structure of the so-called central plateau of Mexico.


Discusses the origin of fault-zones through volcanic forces with particular reference to the valley of Mexico.

Botsford, C. W.


Gives a general account of the geology and notes on the ore deposits.


Gives an account of the geology of the district and its relations to that of Guanajuato and other localities in Mexico.

Bowles, O.


Bownocker, John Adams.

132. Geology as applied to the formations in which natural gas is found in the Appalachian regions.—Progressive Age, vol. 27, pp. 541–544, July 1, 1909.
Bradford, A. H., and Curtis, Roy P.
   Includes notes on the local geology and the occurrence of placer gold.

Bradford, Robert H.

Bradley, W. M.

Branner, John C.

Branner, John C., and others.
   Describes the geography, the general character of the rocks, the distribution, character, and relations of Jurassic, Cretaceous, Tertiary, and Quaternary formations, and of igneous rocks, the geologic structure, the geologic history, and the mineral resources.

Branson, E. B.
   Describes new species of Pelecypoda, Gastropoda, and Trilobita from early Ordovician strata.

Brigham, William T.
141. The volcanoes of Kilauea and Mauna Loa.—Bernice Pauahi Bishop Mus., Mem., vol. 2, no. 4, 222 pp., 28 pls., 143 figs., 1909.
   Gives the recorded history of these volcanoes to 1909.

Brinsmade, Robert B.

British Columbia.
Annual report of the minister of mines for the year ending 31st December, 1908, being an account of mining operations for gold, coal, etc., in the Province of British Columbia. Victoria, B. C., 1909.—See Robertson, no. 1007.

Brock, Reginald Walter.
   Outlines the administrative work and field investigations carried on in 1908. Includes brief reports by various members of the staff.
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Brock, Reginald Walter—Continued.
Gives a sketch of his life and a list of his writings on geology.

Brooks, Alfred Hulse.

Brooks, Alfred H., and others.

Brooks, E. W.
Describes the occurrence and character of copper ores in the Banner mining district, Gila County, Ariz.

Brooks, William Keith.
Includes a list of his writings.

Brown, E. Percy.
Gives notes on the local geology of the Upper Seal Harbour gold district, Guysborough County, Nova Scotia.

Brown, Robert M.
Gives a brief account of the ninth annual intercollegiate geologic excursion. Includes notes upon various geologic features of the region traversed.

Brown, Thomas Clachar.

Brumell, H. P. H.

Buckley, Ernest Robertson.
BIBLIOGRAPHY OF NORTH AMERICAN GEOLOGY; 1909.

Buckley, Ernest Robertson—Continued.


160. Lead and zinc mining in the Central States in 1907.—Econ. Geology, vol. 4, no. 2, pp. 175-177, 1909.

Discusses the occurrence of lead and zinc ores in Missouri.


Buehler, H. A.


An administrative report, but includes a chapter on the mineral resources of Missouri.

Burchard, Ernest F.


Mineral resources of the United States, 1908: Fluorspar and cryolite; gypsum; barytes and strontium; mineral paints.—See no. 1170.

Burckhardt, Carlos, and Villarello, J. D.

166. Estudio geológico de los alrededores de una parte del Río Nazas en relación con el proyecto de una presa en el cañón de Fernández.—Mexico, Inst. Geol., Parerg., t. 3, no. 2, pp. 117, 135, 9 pls., 1909.

Describes the geology along the river Nazas, in the State of Durango, Mexico.

Burgess, J. A.


Burling, Leander D.


Burrows, A. G.


Describes the geology of the area and the mining operations.


Burrows, R. H.


Bustamante, Miguel.

172. Climas de los tiempos geológicos y la división en eras (trabajo leído el 19 de octubre de 1906 en la Sociedad Geológica Mexicana).—Mexico, 1906. 28 pp.

Discusses climate in geologic time and the division into eras.

173. Crítica y teorías nuevas sobre el periodo carbonífero.—Mexico, 1909. 39 pp.
Butler, Bert S.
Reviews occurrences previously reported, describes an occurrence in Shasta County, Cal., and the evidence for its primary origin.

Mineral resources of the United States, 1908: Copper.—See no. 1170.
The Yakutat Bay region, Alaska.—See Tarr and Butler, no. 1137.
The Yakutat Bay region, Alaska; areal geology.—See Tarr and Butler, no. 1138.

Butler, G. Montague.

Butts, Charles.
Describes the geologic occurrence and relations, methods of exploitation and manufacture, and qualities of the products.

Caine, Thomas A., and others.

Cairnes, D. D.
Includes notes on the general geology and the occurrence and character of coal deposits and copper and other ores.

Caldwell, M. M.

Calkins, Frank Cathcart.
Describes the physiographic features of the region, the occurrence, character, and relations of Algonkian and igneous rocks, and the geologic structure.

Calvert, W. R.
Describes the topography, stratigraphy, and structure of the field, the occurrence and character of the coal beds, the character of the coal, and the mining development.
Describes the geography and geologic structure of the field, the occurrence, character, and relations of Carboniferous, Jurassic, Cretaceous, and Quaternary formations, the distribution and character of the coal beds, and the quality of the coal.
Calvin, Samuel.
186. Geology and revelation. An address delivered before the members of the Okoboji Lakeside Laboratory on Sunday, the Fourth of July, 1909. Privately printed for the students of the Lakeside Laboratory, 1909. 27 pp., 1 pl. (port. of the author).


Campbell, Marius R.

Campbell, Marius R., and Parker, Edward W.

Campbell, William.

Camsell, Charles.

Canada, Department of Mines, Mines Branch.

Canada, Geological Survey.

Capps, Stephen R., jr.


Carman, J. Ernest.

Gives an account of the bed-rock geology with particular reference to the development of existing physiographic features, and describes these features and their origin.
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Carney, Frank.
199. State geological survey reports on limited areas.—School Science and Mathematics, vol. 8, pp. 475-482, June, 1908.


An historical review of contributions to the subject of glacial erosion made by various writers.


Carpenter, M. H.

Carpenter, Philip P.

Carr, Henry C.

Includes notes on the local geology and the character and occurrence of the ores in the Salmon River Mountains, Lemhi County, Idaho.

Carter, Oscar C. S.


Case, Ermine C.

Discusses the stratigraphy and mode of deposition of the red beds.


Castro, Carlos.

Describes an analysis of kaolin in coal from Villafuente, State of Coahuila, Mexico, and explains its origin.

Chamberlin, Rollin Thomas.
Chamberlin, Thomas Chrowder.
214. The former rates of the earth’s rotation and their bearings on its deformation. In The tidal and other problems, published by the Carnegie Institution of Washington, pp. 3-59, 6 figs., 1909.

Chamberlin, T. C., and others.

Chambers, R. E., and Chambers, A. R.
Includes notes on the geologic occurrence of the iron ores and a geological section of the ore-bearing strata of Wabana, Newfoundland.

Chance, H. M.

Chase, Edwin E.

Chase, Thorington.
Includes notes on the geology of the district and the occurrence of the ores.

Cirkel, Fritz.
223. Report on the iron-ore deposits along the Ottawa (Quebec side) and Gatineau rivers.—Canada, Dept. Mines, Mines Branch, 147 pp., 5 pls., 15 figs., 2 maps, 1909.
Discusses the geologic occurrence of the mineral in Canada and other countries, the shape and structure of the ore bodies, the composition of the ores, and their properties and metallurgy.
225. The Opasatika Lake district, Province of Quebec.—Eng. and Min. Jour., vol. 87, pp. 455-456, 2 figs., February 27, 1909.
Gives notes upon the geology of the district and the occurrence of copper ores.
Cist, Jacob.
   “From Silliman’s American Journal of Science, vol. 4, 1832,” pp. 1-16. Includes sections showing the position and relations of anthracite coal seams.

Clapp, Charles H.
Describes the general geology and the mineral occurrences.

Clapp, Charles H., and Ball, W. G.
Describes the history of the discovery and development, the general geology, and the mineralogy of the deposits.

Clapp, Frederick G.
A preliminary report on the geology of Florida with special reference to the stratigraphy.—See Matson and Clapp, no. 829.

Clark, B. W.
Laboratory manual in physical geography.—See Hopkins and Clark, no. 590.

Clark, George Archibald.
The Bogoslofs.—See Jordan and Clark, no. 639.

Clark, William Bullock.
An administrative report.
An administrative report.
An administrative report.
Description of the Philadelphia district.—See Bascom and others, no. 74.
Description of the Trenton quadrangle, New Jersey-Pennsylvania.—See Bascom and others, no. 75.

Clark, Wm. Bullock, and Twitchell, M. W.
Clarke, Frank Wigglesworth.

Clarke, John Mason.
240. Fifth report of the Director of the science division, including the 62d report of the State Museum, the 28th report of the State geologist, and the report of the State paleontologist for 1908. Director's report for 1908.—New York State Mus., Bull. 133, pp. 5-114, 17 pls., 2 figs., 1909.
Outlines the progress of geologic and paleontologic investigation in New York. Includes various data upon the geology and paleontology of the State.

Cleland, Herdman F.
Includes a short account of the geology of the island.


Cockerell, Theodore Dru Alison.
Includes a description of Protomelecta brevipennis n. sp. from the Miocene shales of Florissant, Colo.

Describes insects from the Miocene shales of Florissant, Colo.

Describes Hirmeoneura occulta n. sp. from the Miocene shales of Florissant, Colo.

Describes Philorites johannseni n. gen. and n. sp. from the Eocene near Rifle, Colo.

Describes new Diptera from the Miocene shales of Florissant, Colo., and the Eocene near Rifle, Colo.


Describes new genera and species of Orthoptera and Diptera from the Miocene shales of Florissant, Colo.


Describes briefly Glossina osborni n. sp. from the Miocene shales of Florissant, Colo.


Describes Pelandrena n. gen., P. reducta n. sp., and Halictus miocenicus n. sp., from the Miocene shales of Florissant, Colo.
Cockerell, Theodore Dru Alison—Continued.
Describes insects from Eocene shales near Rifle, Colo., and from the Miocene shales of Florissant, Colo.

Describes fossil insects, *Palaeochrysa concinnula* n. sp., and *P. ferruginea* n. sp., from the Miocene shales of Florissant, Colo.

Includes a description of *Melitta willardi* n. sp., from the Miocene shales of Florissant, Colo.


Describes a fruit *Firmianites aterrimus* new gen. and sp., and an insect *Sytomostylus? fortis* new sp.


262. Fossil Euphorbiaceae, with a note on Saururaceae.—Torreya, vol. 9, no. 6, pp. 117-119, 2 figs., June, 1909.
Describes *Acalypha myricina* n. sp. and *Croton furcatulum* n. sp. from the Miocene shales of Florissant, Colo., and *Tithymalus willistoni* n. sp. from the Loup Fork beds of Kansas.

Gives notes upon fossil plants from the Cretaceous of Marshall, Boulder County, Colo., and the occurrence of amber and describes *Phragmites laramianus* n. sp.

264. Two new fossil plants from Florissant, Colorado.—Torreya, vol. 9, no. 9, pp. 184-185, 2 figs., September, 1909.
Describes *Hypolepis coloradensis* n. sp. and *Bauhinia pseudocotyledon* n. sp. from the Miocene shales of Florissant, Colo.

Coffey, George N.

Describes the formation of clay dunes in southern Texas.

Coleman, Arthur P.

Gives notes upon the geology of the district, and the occurrence and character of iron deposits.

Gives an account of the geology of the district, and the occurrence and character of iron deposits.


Coleman, Arthur P.—Continued.

   Discusses the nomenclature and source of the clays of Ontario.

271. The bearing of pre-Cambrian geology on uniformitarianism.—Abstract: Cana­

   November 15, 1909.
   Discusses the evidence for the glacial origin of the Lower Huronian conglomerate.

Collier, Arthur J.

273. Classification of low grade coal. Discussion of paper by M. R. Campbell.—Econ.

Collier, Arthur J., and Smith, Carl D.

274. The Miles City coal field, Montana.—U. S. Geol. Survey, Bull. 341, pp. 36–61,
   1 pl., 1909.
   Describes the stratigraphy and structure of the field, the occurrence, character, and
   relations of the coal beds, the character of the coal, and the mining developments.

Collins, W. F.

275. Occurrence of gold in placers.—Min. and Sci. Press, vol. 98, p. 850, June 19,
   1909.

Collins, W. H.

276. Preliminary report on Gowganda mining division, district of Nipissing,
   Ontario.—Canada, Geol. Survey Branch, Publ. no. 1075, 1909. 47 pp.,
   7 figs., 1 map. Abstract: Canadian Min. Jour., vol. 30, pp. 369–371,
   392–394, 3 figs., 1909.
   Describes the general features of the region, the occurrence and relations of pre-Cainbrian
   formations and glacial deposits, and the mineral deposits, particularly silver.

277. A geological reconnaissance of the region traversed by the National Trans­
   continental Railway between Lake Nipigon and Clay Lake, Ontario.—Canada, Geol.
   Survey Branch, 67 pp., 2 pls., 1 fig., 2 maps, 1909.

278. Report on the region lying north of Lake Superior between the Pic and Nipi­
   gong rivers, Ontario.—Canada, Geol. Survey, 24 pp., 1 map, 1909.

   Describes the general geology, the areal distribution of formations, and the occurrence of
   silver, iron ore, and asbestos.

Condit, D. Dale.

280. The Conemaugh formation in southern Ohio.—Ohio Naturalist, vol. 9, no. 6,
   pp. 482–488, April, 1909.
   Describes the stratigraphy of the formation and gives lists of fossils from the Ames and
   Cambridge limestones and notes on their occurrence.

Conrad, Timothy A.

Fossil shells from Tertiary deposits on the Columbia River, near Astoria

Notes on shells, with descriptions of new species (reprinted from Acad. Nat.

Descriptions of new fossil shells of the United States (reprinted from Acad.
Conrad, Timothy A.—Continued.
Notes on shells, with descriptions of three recent and one fossil species
Description of fossil shells from the Eocene and Miocene formations of Cali-
ifornia (reprinted from Description of the fossils and shells collected in
California by William P. Blake [H. Doc. 129], Washington, 1855. Appen-
dix to the preliminary geological report of William P. Blake, Palaeontol-
Note on the Miocene and post-Pliocene deposits of California, with descrip-
tions of two new fossil corals (reprinted from Acad. Nat. Sci. Philadelphia,
Proc., vol. 7, p. 441, 1855).—U. S. Geol. Survey, Prof. Paper 59, p. 172,
1909.
Descriptions of three new genera, twenty-three new species middle Tertiary
fossils from California, and one from Texas (reprinted from Acad Nat.
Description of the Tertiary fossils collected on the survey (reprinted from
Report on the paleontology of the survey (reprinted from Pacific R. R. repts.,
185, 1909.

Cook, C. W.
Iodirite from Tonopah, Nevada, and Broken Hill, New South Wales.—See
Kraus and Cook, no. 681.

Cook, Harold James.
281. Notice of a new camel from the lower Miocene of Nebraska.—Am. Naturalist,
vol. 43, pp. 188–189, March, 1909.
Describes briefly a specimen from the lower Harrison beds, near Agate, Sioux County,
Nebr., for which the name Oxydactylus campestris n. sp. is proposed.
282. A new proboscidean from the lower Miocene of Nebraska.—Am. Jour. Sci.,
Describes Gomphotherium conodon n. sp.

A Pliocene fauna from western Nebraska.—See Matthew and Cook, no. 840.

Cook, John H.
283. Some preglacial valleys in eastern New York and their relation to existing

Cooledge, C. W., and Overspeck, L. S.
284. The iron deposits of the Black Hills, South Dakota.—Min. Science, vol. 60,

Cooper, W. F.
285. Paleozoic geology of Tuscola County, Michigan. With notes on the Marshall-
and Grand Rapids formations by Alfred C. Lane and Chas. A. Davis.—
Michigan Miner, vol. 11, no. 6, pp. 9–20, 1 fig., May, 1909.
Describes the character, occurrence, and relations of Carboniferous formations, and the
geologic relations and character of the coal seams.

Coss, Frederic.
286. A study of the glacial rock on Shawnee Mountain [Pennsylvania].—Wyoming
Describes a rock showing glacial strie.
Coste, Eugene.


Cox, G. H.

Crawford, R. D.

The Hahns Peak region, Routt County, Colorado.—See George and Crawford, no. 446.

Croasdale, Stuart.
Arranges in tabular form the characteristics of igneous rocks to aid in their determination.

Crosby, William O.
293. A study of the geology of the Charles River estuary and the formation of Boston Harbor.—Massachusetts, Report of the Committee on Charles River dam, Boston, 1903; Appendix no. 7, pp. 345-369, 2 pls., 1903.

Cross, Whitman.
Discusses the application of the term Laramie group and proposes the term Shoshone group for the deposits resting unconformably upon the Laramie as restricted.


Curtis, Roy P.
Dredging at Breckenridge, Colorado.—See Bradford and Curtis, no. 133.

Dale, T. Nelson.

Dall, William Healey.
Includes a list of his writings.


56693°—Bull. 444—10—3
Dall, William Healey—Continued.


Discusses the stratigraphic position of the beds and gives systematic descriptions of the invertebrates. Appendixes contain reprints of rare papers by Conrad, Dana, Shumard, and Carpenter pertaining to the investigation.


Dalton, Leonard V.


Daly, Reginald A.


Discusses the calcium and magnesium content of the ocean in pre-Cambrian and later time and presents data from analyses of river waters for determining this.

Dana, Edward S., and Ford, William E.


Dana, James D.


Daneš, Jiří V.


Notes the absence of evidences of glacial action in the Coast Ranges and Sierra Nevada of southern California.

Darton, Nelson Horatio.


Gives an account of the general geology and the occurrence and quality of various structural materials.


Discusses briefly the stratigraphic position of the Whitewood limestone in which the fossils were found.


Description of the Philadelphia district.—See Bascom and others, no. 74.

Description of the Trenton quadrangle, New Jersey–Pennsylvania.—See Bascom and others, no. 75.
Darton, N. H., and O’Harra, C. C.

Describes the geography, the stratigraphy, including Carboniferous, Triassic, Jurassic, Cretaceous, and Quaternary formations, the geologic structure, the geologic history, the mineral resources, and the underground water conditions.

Darton, N. H., and Siebenthal, C. E.

Describes the geography and general geology, the occurrence, character, and relations of Carboniferous, Triassic, Jurassic, Cretaceous, and Tertiary formations, the geologic structure, the mineral resources, including coal, gypsum, bentonite, and others, and the underground waters.

Davis, Charles A.

Peat deposits of Maine.—See Bastin and Davis, no. 83.
Material resources of the United States, 1908: Peat.—See no. 1170.

Davis, William Morris.

Includes essays on physiographic subjects reprinted from various journals.

Describes the physiographic features and history of the great canyon of the Colorado River in northern Arizona.

Describes the history of the canyon.

Day, Arthur L.
Day, David T.


Mineral resources of the United States, 1908: Platinum; petroleum.—See no. 1170.

Dean, Bashford.


Gives notes upon a restoration of the jaws of *Carcharodon megalodon* on exhibition in the American Museum of Natural History.

De Kalb, Courtenay.


Includes notes on the geology and the occurrence of the copper ores.


Includes notes on the occurrence of the copper ores in Bingham Canyon, Utah.


Includes notes on the occurrence of copper ores in Bingham Canyon, Utah.


DeWolf, Frank W.


Dickinson, H. P.


Diller, Joseph Silas.


Mineral resources of the United States, 1908: Asbestos; talc and soapstone.—See no. 1170.

Diller, Joseph Silas, and Kay, G. F.


Describes the general geology, the occurrence, character, and relations of Paleozoic, Jurassic, Cretaceous, Tertiary, and igneous rocks, the geologic structure, the mineral resources, chiefly quartz- and placer-gold and copper, and the mining developments.
Dinsmore, Chas. A.
   Includes notes on the local geology and the occurrence and character of the copper ores.
   Includes notes on the geology of the region and the occurrence of tin ore on Mount Franklin, near El Paso, Tex.

Dole, Richard B., and Stabler, H.
   Presents estimates as to the rate of denudation.

Douglass, Earl.

Dowling, D. B.
350. The coal fields of Manitoba, Saskatchewan, Alberta, and eastern British Columbia.—Canada, Geol. Survey, 111 pp., 11 pls., 2 figs., 1 map, 1909.

Dresser, John A.
357. A geological reconnaissance along the National Transcontinental Railway from the St. Lawrence River to the interprovincial boundary between Quebec and New Brunswick.—Canada, Geol. Survey, Summ. Rept., 1908, pp. 124–128, 1909.
359. On the asbestos deposits of the eastern townships of Quebec.—Econ. Geology, vol. 4, no. 2, pp. 130–140, 4 figs., 1909.
Dresser, John A.—Continued.

360. The asbestos industry of eastern Quebec.—Min. World, vol. 30, pp. 593–595, 4 figs., March 27, 1909.
Describes the geology of the district, the character, relations, and origin of the veins, and the character and occurrence of the asbestos.

Describes the general geology and the occurrence of asbestos, chromite, talc, copper, antimony, and nickel deposits.

Dulieux, E.

Includes an account of the geology and the mineral resources of the region.

Dumble, E. T.

Discusses the stratigraphic position of certain beds.

Duncanson, H. B.


Eastman, Charles R.

Describes Helodus comptus n. sp. from the Meadville upper limestone (base of the Waverly) at Meadville, Pa.


Discusses the position of the palatal dental plates in the Mylostomatidae.

Eaton, H. N.


Eberle, Frank.


Eckel, Edwin C.

Mineral resources of the United States, 1908: Cement industry in the United States in 1908.—See no. 1170.

Ekeley, John B.


Ells, E. E.


Ells, R. W.

Ells, R. W.—Continued.
   Discusses the age and correlation of various beds in the vicinity of St. John, New Brunswick.


Emmons, Newton W.
   Includes notes on the occurrence of ores.

Emmons, Samuel Franklin.
   Reviews the progress in the geological investigation of the mineral resources of the United States.


Emmons, William H.
   Discusses the occurrence and genesis of copper deposits of the "segregated vein" type in eastern North America from Quebec to Georgia and Tennessee, and more particularly in Maine and New Hampshire.


Estes, A. W.

Evans, A. W.
   Includes a short account of the geology of the field and the occurrence and character of the coal.

Evans, Horace F.

Eyerly, T. L.
383. The geology of Hemphill County [Texas]. With a brief description of its topography, water supply, and soils. [1907.] 16 pp., 2 pls. [Private publication?]

Fairbanks, Harold W.

Fairchild, Herman Le Roy.

Fairchild, Herman Le Roy—Continued.


Paribault, E. Rodolphe.


Describes the geologic structure of the area, and the occurrence and relations of gold-bearing rocks and tungsten deposits.

Fay, Albert H.


Includes notes on the occurrence of copper ores in Orange County, Vt.

Fenneman, N. M.


Ferguson, Edw. G. W.


Discusses the definition of the terms vein, apex, vein matter, and ore.

Fisher, Cassius A.


Describes the topography, the occurrence, relations, and character of Carboniferous, Jurassic, Cretaceous, and Tertiary formations, the occurrence and character of coal beds, and the character of the coal.


Describes the topography and structure of the field, the geologic occurrence of the coal, the distribution, relations, and character of the coal beds, and the quality and composition of the coals.

Fleck, Herman.


Includes notes on the occurrence of uranium and vanadium.


Fleming, W. L.

Includes notes on the occurrence of the gold ores.

Fletcher, Hugh.


Gives various notes on the geology of the area examined.

Flores, Teodoro.

Describes the physiographic features and general geology of the vicinity of Tetecala, State of Morelos, and explains a sinking of the earth which took place suddenly at the locality.

Gives data regarding the physiographic features and geology of the State of Oaxaca, Mexico.

408. Los yacimientos de tecali de los alrededores de Tequisistlan, municipalidad del mismo nombre, distrito de Tehuantepec, Estado de Oaxaca.—Soc. Geol. Mexicana, Bol., t. 6, pp. vii-viii, 67-78, 3 pls., 1909.
Gives a brief account of deposits of Mexican onyx near Tequisistlan in the State of Oaxaca, Mexico.

Geologic study of the Sierra of Guanajuato.—See Villarello, Flores, and Robles, no. 1192.

Foerste, August F.


Gives notes upon the stratigraphy of lower Mississippian formations in Kentucky and Ohio, and the faunas, and descriptions of fossils from the Bedford-Berea rocks of Kentucky.


The systematic descriptions of fossils are preceded by a discussion upon the correlation and distribution of upper Ordvician formations and horizons.

The Waverly formations of east central Kentucky.—See Morse and Foerste, no. 887.
42. BIBLIOGRAPHY OF NORTH AMERICAN GEOLOGY, 1909.

Fohs, F. Julius.

Ford, William E.

Ford, W. E., and Pogue, J. L.

Ford, W. E., and Tillotson, E. W.


Forstner, William.

Fraas, Eberhard.
Describes a footprint supposed to have been made by a small dinosaur and a vertebra of Ophthalamosaurus (Baptanodon) from the Jurassic of Jameson Land, Greenland.

424. In den Bad Lands von Süd-Dakota.—Aus der Natur, Jg. 2, Heft 17, pp. 513-521, Heft 18, pp. 552-559, 10 figs., 1906.
A general account of the Bad Lands of South Dakota and the noteworthy fossils found in them.

Compares the Jurassic deposits of Württemberg, Germany, with those of the Great Plains.

Frecheville, William, and Marriott, Hugh F.
Free, E. E.
Calls attention to eolian action in transporting material to the sea.


Freeman, John R.
429. Report on subsidence of land and harbor bottom.—Massachusetts, Report of the committee on Charles River dam; Boston, 1903; Appendix no. 20, pp. 529-572.
Presents various data to show that Boston, Mass., is slowly sinking into the sea and the harbor bottom tends to slowly become deeper.

Freudenberg, Wilhelm.
Gives observations upon the physiography and geology of the Sierra Nevada Mountains of Mexico.

Fuller, John T.

Fuller, Myron L.

Gale, Hoyt S.
Describes the general stratigraphy and structure of the region, the occurrence, character, and relations of the coal-bearing formations, and the distribution and character of the coals.

Gannett, Henry.

Ganong, W. F.

Gardner, James H.
436. The coal field between Gallina and Raton Spring, New Mexico, in the San Juan coal region.—U. S. Geol. Survey, Bull. 341, pp. 335-351, 1 pl. (map), 1909.
Describes the geography, topography, and stratigraphy of the field and the occurrence relations, and character of the coal beds.

Describes the stratigraphy and structure of the field, the occurrence, character, and relations of the coal beds, and the composition of the coals.

Describes the topography and geology of the field and the occurrence, character, and relations of the coal beds.
BIBLIOGRAPHY OF NORTH AMERICAN GEOLOGY, 1909.

Garrison, F. Lynwood.

Geddes, Charles Walter.
Includes a brief account of the local geology and of the occurrence of the gold ores.

Gehrmann, Charles A.

George, R. D.
Describes the general geology of the region, the lithology, the character and occurrence of tungsten ores, and the relations and origin of the ore bodies.
445. The main tungsten area of Boulder County, Colorado, with notes on the intrusive rocks by R. D. Crawford.—Colorado Geol. Survey, 1st Rept., 1908, pp. 7-103, 11 pls., 1909.
Describes the general geology and character of the rocks of the area, the occurrence and characters of tungsten minerals, and the occurrence, relations, and mining of tungsten ores in Boulder County, Colo.

George, R. D., and Crawford, R. D.
Describes the general features of the region, the occurrence, character, and relations of pre-Cambrian, Carboniferous, Triassic, Cretaceous, and Tertiary formations, and igneous rocks, and the economic geology.

Gibson, Thomas W.

Gidley, James Williams.

Gilbert, Grove Karl.
Explains the convexity of hilltops as due to the action of creep.

Gill, H. V.
Gilmore, Charles W.


Describes *Opisthasurus* n. gen. and n. sp. from Como Bluff, Albany County, Wyo., and gives a list of vertebrate fossils from the same locality and notes upon some of them.

Girty, George H.


Discusses the relations of upper Carboniferous faunas and the correlations of Carboniferous and so-called Permian formations.


Discusses the correlation and stratigraphic position of the beds containing the Guadalupian fauna.


Discusses the stratigraphic relations of the Caney shale and gives systematic descriptions and figures of the invertebrate fauna.


Goldschmidt, V., and Mauritz, B.


Describes the crystallography of calomel from Terlingua, Tex.

Goldthwait, James Walter.

460. Intercision, a peculiar kind of modification of drainage.—School Science and Mathematics, vol. 8, no. 2, pp. 129-139, 3 figs., February, 1908.


Goldthwait, J. W., and Jacobson, R. C.


Gordon, C. E.


Discusses the age, relations, and occurrence of metamorphosed pre-Cambrian and Cambrian sediments in New York and adjoining States.

Gordon, Charles H.


Discusses the occurrence of chalk beds, to which the formation name Annona chalk has been given, in northeast Texas, and considers them to be the equivalent of the upper part of the Austin chalk of central Texas.

Gould, Charles N.


Grabau, Amadeus W.


Discusses the age and mode of formation of Ordovician and Silurian formations in Pennsylvania.

Nomenclature and subdivision of the upper Siluric strata of Michigan, Ohio, and western New York.—See Lane and others, no. 733.

New upper Siluric fauna from southern Michigan.—See Sherzer and Grabau, no. 1068.

Grabau, Amadeus W., and Shimer, Hervey Woodburn.


Gives brief descriptions, usually with figures, and geologic horizon and distribution of characteristic fossils. Includes keys to the genera and species and references to the more important literature.

Graham, Richard P. D.


Describes the occurrence, crystallography and optical properties, and the composition.


Grandin, M. V.


Describes the general geology of the South Cheticamp mining district and the occurrence, relations, and character of copper and other ores.
Granger, Walter.


Gives an historical review of previous work on the Washakie formations and the views entertained as to its age, relations, and deposition, describes the topography and geology with sections, and indicates the faunal horizons.

Grant, Ulysses Sherman.


Grasty, J. S.

The character and structural relations of the limestones of the Piedmont in Maryland and Virginia.—See Mathews and Grasty, no. 825.

Gratacap, Louis P.


Gray, F. W.


Includes notes on the geologic relations and occurrence of the coal deposits of Cape Breton Island, Nova Scotia.

Greene, F. C.


Greger, Darling K.


Describes the distribution and gives lists of fossils from the two formations represented.

Gregory, Herbert E.


A sketch of his life and a list of his writings.

Gives a general account of the physiographic features and descriptive geology and, in more detail, of the occurrence, character, and recovery of the underground waters.

Gregory, J. W.


Includes notes and figures of American forms from various horizons and descriptions of some species from the Cretaceous of New Jersey.
Griggs, Robert F.  
Explains the formation by ice action of narrow ridges dividing lakes.

Grimsley, G. P.  

Grosspietsch, Oskar.  
Describes the crystallography of albite from Greenland.

Grout, Frank F.  

Gulliver, F. P.  
Gives an account of the meeting at Baltimore, December, 1908, and abstracts of papers presented.

Gunter, Herman.  
The fuller's earth deposits of Gadsden County, Florida.—See Sellards and Gunter, no. 1050.

Guppy, R. J. Lechmere.  
Discusses evidence for the pre-Miocene distribution of land in the Caribbean sea.

Haley, D. F.  
Includes notes on the local geology and the occurrence of the ores.

Hall, Edward Hagaman.  

Hamilton, S. Harbert.  
Includes notes on the geology and the occurrence of iron, copper, and other ores and minerals.

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Hannibal, Harold.

Hantzsch, Bernhard.
A description of northeastern Labrador. Includes notes on the geology and physiographic features.

Harder, Edmund Cecil.
Describes the local geology and the structure of the ore deposits.
Describes the character, composition, geographic distribution, and geologic relations of the various types of iron ore found in Virginia.

Harris, Gilbert Dennison.
Mineral resources of the United States, 1908: Iron ores, pig iron, and steel; manganese ores; chromic iron ore.—See no. 1170.

Harris, G. D., Perrine, I., and Hopper, W. E.
512. The geological occurrence of rock salt in Louisiana and east Texas.—Econ. Geology, vol. 4, no. 1, pp. 12-34, 2 pls., 7 figs., 1909.
Calls attention to the fact that the peridotite eruptives about Murfreesboro, Ark., are magnetic, and to the practical bearing of this fact.

Harrison, Alfred C., and others.
514. Oil and gas in northwestern Louisiana with special reference to the Caddo field.—Louisiana Geol. Survey, Bull. no. 8, 52 pp., 6 figs., 1909.

Hastings, John B.
A sketch of his life.

Haworth, Erasmus, and Bennett, John.
Haworth, Erasmus, and others.

519. Special report on oil and gas.—Kansas, Univ. Geol. Survey, vol. 9, 586 pp., 107 pls., 2 maps, 8 figs., 1908.

Includes chapters on discoveries of oil and gas, geographical and historical, detailed geology of oil and gas, life of oil wells and gas wells, commercial conditions of oil and gas, chemical composition of gas, and chemical composition of petroleum.

Hay, Oliver Perry.


Gives various notes upon fossil turtles.


Hayes, Charles Willard.


The first edition bearing title, Handbook for field geologists in the United States Geological Survey, 159 pp., 11 figs., was issued by the Survey in 1908 for official use.


Contributions to economic geology, 1908. Part I. Metals and nonmetals, except fuels.—See no. 1169.


Outlines the progress of investigations by the United States Geological Survey during the year 1908 and gives a list of publications issued in 1908 on nonmetallic mineral resources and iron ores.


Hayes, C. W., and Lindgren, Waldemar.


Hayford, John F.


Headden, William P.


Gives analyses and descriptive notes upon springs in Platte Canyon and in Delta County, Colo.

Hedburg, Edward.


Includes notes on the local geology and the occurrence of gold ores.

Henderson, Junius.


Describes the general geologic structure and the distribution and relations of pre-Carboniferous, Carboniferous, Permo-Triassic?, Jurassic, and Cretaceous formations.

Hennen, Ray V.


Describes the history, physiography, and geology of the Marshall-Wetzel-Tyler area of West Virginia, and the mineral resources, including petroleum, natural gas, coal, clays, road materials, and building stones.

Henning, Karl L.

538. Streifzüge in den Rocky Mountains.—Globus, Bd. 92, pp. 25-29, 46-49, 101-107, 10 figs.; 1907; Bd. 93, pp. 312-318, 5 figs., 1908.

Describes excursions in the Rocky Mountains in Colorado. Includes notes on physiographic features and the geology.

539. Streifzüge in den Rocky Mountains. IV. Morrison und die Morrisonformation.—Globus, Bd. 96, Nr. 22, pp. 344-349, 5 figs., December 16, 1909.

Describes the region around Morrison, Colo., the red beds and the Morrison formation.

Henshaw, Fred F.


Describes gold deposits and the occurrence of coal.

Hermann, A.


Herrick, R. L.


Includes notes upon the geology of the ore body.


Includes an account of the local geology and the occurrence and character of the gold and silver ores.


Includes notes on the geology, character, and occurrence of the ores.
Herrick, R. L.—Continued.


Includes an account of the geology of the vicinity of Globe, Ariz., and the occurrence and character of the copper deposits.

Hershey, Oscar H.


Includes notes on the local geology of a prospect in Del Norte County, Cal.

Herzig, C. S.


Hess, Frank L.


Describes the occurrence and character.


Describes the general geology and the occurrence, character, and origin of the graphite.


Mineral resources of the United States, 1908: Antimony; bismuth; selenium, tellurium; tungsten, nickel, cobalt, vanadium, etc.; tin; arsenic.—See no. 1170.

Hice, Richard R.


Higgins, D. E., jr.

Copper mining and prospecting on Prince William Sound, Alaska.—See Grant and Higgins, no. 485.

Notes on the geology and mineral prospects in the vicinity of Seward, Kenai Peninsula, Alaska.—See Grant and Higgins, no. 486.

Higgins, Edwin.


Includes notes on the geology and the occurrence and character of the iron ores.


Includes a brief account of the geology of the district and of the occurrence and character of the silver deposits.

Higgins, Will C.


Includes a short account of the local geology and the character and occurrence of the gold ores.
Higgins, Will C.—Continued.
Includes notes on the local geology and the ore deposits producing copper, gold, and silver.
Includes notes on the local geology and the occurrence of the gold ore.

Hijar y Haro, Luis.
Describes pyritiferous deposits yielding chiefly iron, with small amounts of lead, copper, silver, and gold.

Hill, J. M.
Describes the general features, the stratigraphy and geologic structure, and the mineral resources, chiefly gold and silver, and mining developments.

Hill, Robert T.

Hille, F.

Hillebrand, W. F., and Schaller, W. T.
Describes the occurrence and associations of the minerals and their physical properties, composition, and crystallography.

Hills, B. W.

Hills, Victor G.
Discusses the definition of this term.
Includes notes on the occurrence of tungsten ores in Colorado.

Hind, Henry Youle.

Hindry, W. E.
Includes notes on the geology and occurrence of the gold ores.
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Hinds, Henry.

Hitchcock, Charles H.
   Describes briefly the history of the volcano Kilauea and its recent activity.

Hixon, Hiram W.

Hixson, A. W.
Analyses of Iowa coals.—See Lees and Hixson, no. 754.

Hlawatsch, C.
   Gives observations upon benitoite.
   Describes the crystallography of benitoite from California.
   Observations upon the class of crystals to which benitoite belongs.
   Gives notes upon natrolite and neptunite from San Benito, Cal.

Hobbs, William Herbert.
   Discusses the causes of earthquakes and the possibilities of prognostication.
583. Apparatus for instruction in geography and structural geology.—School Science and Mathematics, vol. 8, pp. 566-570, 662-668, 10 figs., 1908;
   vol. 9, pp. 644-653, 8 figs., 1909.

Holland, W. J.
Hollick, Arthur.
Proposes the new generic name *Fagopsis* for the *Planera longifolia* Lesq., from the Miocene shales of Florissant, Colo.

Hollick, Arthur, and Jeffrey, Edward Charles.

Holway, R. S., and Linsley, Earle G.

Hopkins, T. C., and Clark, B. W.

Hopper, W. E.
Oil and gas in northwestern Louisiana with special reference to the Caddo field.—See Harris, Perrine, and Hopper, no. 514.

Hore, R. E.
Includes notes on the occurrence of the copper ores.

Hovey, Edmund Otis.
The discussion and illustrations relate to effects produced by the eruptions of Mont Pelée in Martinique and the Soufrière in St. Vincent in 1902 and 1903.


595. Proceedings of the twentieth annual meeting of the Geological Society of America, held at Albuquerque, New Mexico, December 30 and 31, including the proceedings of the ninth annual meeting of the Cordilleran section, held at the same place and time.—Geol. Soc. America, Bull., vol. 19, pp. 513-617, 9 pls., 1909.
Includes abstracts of papers and obituary notices.

Gives an account of the twenty-first annual meeting at Baltimore, December, 1908, and abstracts of papers presented.


Records the discovery and describes the surface features and composition of this siderite to which the name Guffey is given.

Hovey, Edmund Otis—Continued.
Includes notes on the physiographic features of the island.

Howe, Ernest.
603. Landslides in the San Juan Mountains, Colorado, including a consideration of their causes and their classification.—U. S. Geol. Survey, Prof. Paper 67, 58 pp., 20 pls., 4 figs., 1909.

Howley, James P.
605. Geology and mineral resources of Newfoundland.—Min. World, vol. 31, pp. 701-704, 1 fig. [geol. map], October 2, 1909.

Hudson, George H.
606. Some items concerning a new and an old coast line of Lake Champlain.—New York State Mus., Bull. 133, pp. 159-163, 8 pls., 1909.
Proposes the term cup holes for shore-line excavations and discusses the position of shore lines of Lake Champlain.

Huene, F. v.
Gives a classification and phylogeny of the Dinosauria. Includes American forms.

Humphreys, Edwin W.

Hussakof, L.

Iddings, Joseph P.

Ingall, E. D.

Illinois State Geological Survey.
The several papers in this report have been listed under the individual authors.
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Ingalls, A. O.

Ingalls, W. R.
The mineral wealth of the Cordilleræ.—See Raymond and Ingalls, no. 986.
The mineral wealth of America.—See Raymond and Ingalls, no. 987.

Inkey, B. de.
Describes some of the volcanoes of Mexico.

Jacobson, R. C.
Preliminary report on measurements of altitude of the Algonquin and Nipissing shorelines in Ontario.—See Goldthwait and Jacobson, no. 463.

Jaggar, Thomas A., jr.

Jeffrey, Edward Charles.
Describes Araucariopitys americana from Cretaceous deposits of Staten Island, New York.
Studies of Cretaceous coniferous remains from Kreisherville, New York.—See Hollick and Jeffrey, no. 588.

Jellum, S. P.

Jenks, William.

Jenney, Walter P.
Describes the location where found, the general characters, and the fall.
Describes the Quinn Canyon, Nevada, meteorite, and a meteor from which the fall may have been derived.
Discusses the geology of the district and the deposition of the ores.
Describes the geology of the district and the character and geologic relations of the ore bodies.
Jennings, E. P.

Jensen, Adolf Severin.
Discusses climatic changes in Greenland in Quaternary time as evidenced by the distribution of certain mollusks.

Johnson, Alexander T.
Includes a brief account of the geology and occurrence of the ores.

Johnson, Douglas Wilson.
Describes physiographic features and faulting in the Grand Canyon region.
Discusses the origin of hanging valleys with reference to glacial erosion.

Johnson, H. R.
Describes the stratigraphic formations and the geologic structure of the area.
The earthquake rift in eastern San Luis Obispo County, California.—See Arnold and Johnson, no. 33.
Sodium sulphate in Soda Lake, Carriso Plain, San Luis Obispo County, California.—See Arnold and Johnson, no. 34.

Johnston, Robt. A. A.

Johnston, W. A.
Discusses the correlation of the Ordovician formations of the area.

Jones, Charles Colcock.
634. An iron deposit in the California desert region.—Eng. and Min. Jour., vol. 87, pp. 785-788, 6 figs., April 17, 1909.
Includes notes on the geology of the district and the occurrence and character of the ore deposits and placer gravels.

Jones, Fayette A.
Describes the geology and physiography of the Little Hatchet Mountains in Grant County, N. Mex., and the character and occurrence of the gold ores.
Describes the occurrence of turquoise in New Mexico.
Jones, S. P.

Jordan, David Starr, and Clark, George Archibald.

Judson, John N.
Includes notes on the character and composition of the ores.

Katz, F. J.
The Fairbanks gold placer region, Alaska.—See Prindle and Katz, no. 970.

Kay, G. F.

Keele, Joseph.

Keith, Arthur.
Discusses the nomenclature of geologic formations and the work of the committee on geologic names of the U. S. Geological Survey in systematizing existing chaotic conditions.

Kelly, William.

Kemp, James Furman.
Presents and discusses various definitions of the term "ore."
646. Our knowledge of the filled channel of the Hudson in the Highlands and the submerged gorge on the continental shelf.—Abstract: Science, new ser., vol. 29, p. 279, February 12, 1909.

Kempton, C. W.
Includes notes on the geology of the island and the occurrence of ores.
Gives notes on the occurrence and character of various ore deposits.

Keyes, Charles Rollin.
Keyes, Charles Rollin—Continued.


The paper is devoted chiefly to a description of the occurrence and origin of the deposits of borax in the desert regions of southeastern California. The geologic structure of the region is discussed.


Discusses the occurrence of the lead and zinc deposits of the Ozark region of Missouri.


Describes the occurrence of borate minerals in the Tertiary clays of southern California and the lithology of the Tertiary terranes.


Kindle, Edward M.


Discusses the stratigraphic relations of the Ouray limestone of Colorado and New Mexico and the faunas contained therein and gives systematic descriptions and figures of the Devonian forms.


Kindle, Edward M.—Continued.
Describes the general geologic relations of the rocks in the vicinity of Cape Thompson, the occurrence and character of Carboniferous and Mesozoic strata. Includes lists of fossils identified and remarks upon their age by David White, G. H. Girty, and T. W. Stanton.
Description of the Watkins Glen-Catatonk district, New York.—See Williams, Tarr, and Kindle, no. 1255.

Kindle, E. M., and Barnett, V. H.

Kirk, Morris P.
Includes notes on the occurrence and nature of the ore.

Klautzsch, A.
Describes the San Francisco earthquake with particular reference to its cause in the geologic structure of California.

Knapp, G. N.
Description of the Philadelphia district.—See Bascom and others, no. 74.

Knight, Cyril W.
Includes abstracts of papers relating to the geology of North America.
Discusses the evidences for the glacial origin of the Lower Huronian conglomerate.
Grenville-Hastings unconformity.—See Miller and Knight, no. 866.

Kirk, Carl F.

Knopf, Adolph.
Describes the occurrence, character, geology, and mineralogic associations of tin deposits in Seward Peninsula.
Mineral resources of the Nabesna-White River district, Alaska.—See Moffit and Knopf, no. 874.

Knowlton, Frank Hall.
Concludes that the beds named should be referred to the Fort Union formation and are Eocene in age.
Koeberlin, F. R.


Kolderup, C. F.


An account of the San Francisco earthquake extracted from the report of the California State Earthquake Commission report.

Kraus, E. H., and Cook, C. W.


Describes the occurrence, composition, and crystallography.

Kümmel, Henry B.


Includes notes on the occurrence of the ores.


Description of the Philadelphia district.—See Bascom and others, no. 74.

Description of the Trenton quadrangle, New Jersey-Pennsylvania.—See Bascom and others, no. 75.

Kunz, George F., and Washington, Henry S.


Laflamme, C.


Gives a general account of the physiography, geology, and mineral deposits of the Notre Dame and Shickshock Mountains, Quebec.


Gives a general account of the physiography and geology of the Laurentian Highlands.

La Forge, Laurence


Notes on the crystallography of leadhillite.—See Palache and La Forge, no. 930.

Laguerenne, Teodoro L.


Describes the general geology of the mining district of Pregones, State of Guerrero, Mexico, the vein system, the deposits of lead and silver, and the mines.
Lahee, Fred. H.


Lakes, Arthur.


695. The general geology of Summit County, Colorado, with special reference to Breckenridge and vicinity.—Min. Science, vol. 57, pp. 243-244, 289-291, 6 figs., March 5 and 12, 1908.


697. Evolution of knowledge of veins and ore deposits.—Min. Science, vol. 58, pp. 5-6, 3 figs., July 2, 1908.


Lakes, Arthur—Continued.


Lambe, Lawrence M.


Includes a description of *Elomichthys elli* n. sp.


Lane, Alfred C.


Discusses the application to magmas of facts and conclusions in the paper cited.


729. The decomposition of a boulder in the Calumet and Hecla conglomerate, and its bearing on the distribution of copper in the Lake Superior copper lodes as indicating the trend and characters of the waters forming the chute.—Écon. Geology, vol. 4, no. 2, pp. 158-173, 1 fig., 1909.


Gives a general account of the geology of the iron regions of Michigan and discusses the origin of the iron ores and analyses of waters from the mines.


Lane, A. C., and others.


Lane, Louis.


Includes notes on the local geology.
Laney, Francis Baker.
Gives a general description of the rocks and structure of the district, and of the occurrence, character, and relations of the gold-copper ores.

Laney, Francis Baker, and Wood, Katharine Hill.
736. Bibliography of North Carolina geology, mineralogy, and geography, with a list of maps.—North Carolina Geol. and Econ. Survey, Bull. no. 18, 428 pp., 1909.

Langford, D. B.
Includes various notes upon the economic geology of Nova Scotia, New Brunswick Quebec, Ontario, Alberta, and British Columbia.

Larsen, Esper S.
Quartz as a geologic thermometer.—See Wright and Larsen, no. 1292.

Larsh, W. S.
Describes the local geology and the occurrence and relations of silver, copper, and lead deposits.

Lawson, Andrew C.

Lawton, N. Oliver.
Describes the location, extent, and character of sulphur deposits on Unalaska Island.

Leach, W. W.
Includes an account of the geology and occurrence of coal and other mineral resources.

Lee, Willis Thomas.
Describes the general surface features, stratigraphy and structure of the field, the geographic distribution and character of the coal beds, and the composition of the coals.

Describes the rock formations of the region and presents and discusses the evidences of an unconformity previously unknown, the extent of the erosion interval, and the correlations of the formations between which the unconformity exists.

Lee, Willis Thomas—Continued.


Presents evidence bearing upon the correlation of coal-bearing rocks in the Grand Mesa coal field of Colorado and the Raton coal field of New Mexico.


Lee, Willis T., and Nickles, John M.


Lees, James H.


Lees, James H., and Hixson, A. W.


Leighton, Henry.


Reviews the progress in geological mapping and gives a chronologic list of geologic maps of the State of New York.

Leith, Charles Kenneth.

756. Some observations on the tellurides.—Econ. Geology, vol. 4, no. 6, pp. 544-564, 1909.

Leonard, A. G.


Leonard, A. G., and others.


Leonard, A. G., and Smith, Carl D.


Describes the stratigraphy and structure of the field; the occurrence, character, and relations of the lignite beds; the character and uses of the lignite; and the mining operations.
LeRoy, Osmond E.
   Describes the general geology and the occurrence, character, and relations of the gold-silver-copper ores, and the mining developments.

Leverett, Frank.
   Discusses the erosion and weathering to which the drift sheets have been subjected as criteria for distinguishing them and determining their chronology and correlation with the drift sheets of Europe.

Levison, Wallace Goold.

Lewington, Guy A. R.

Lewis, J. Volney.
   Describes the characters and occurrence of alunite.

Lincoln, Francis Church.
   Describes the general geology, the character of the ore deposit, and the paragenesis of the minerals.

Lindgren, Waldemar.
769. The localization of values in ore bodies and the occurrence of shoots in metalliferous deposits.—Econ. Geology, vol. 4, no. 1, pp. 56-61, 1909.
   Gives a list of publications relating to deposits of metalliferous ores in the United States, issued by the United States Geological Survey in 1908, and outlines briefly the progress of investigation and the preparation of reports.
   Describes the general features and geology, and the occurrence, character, and relations of the zinc and lead ores.
   Summarizes the facts known regarding the distribution of ore deposits in the various geological ages in the continent of North America.
Lindgren, Waldemar—Continued.


Mineral resources of the United States, 1908: Gold and silver.—See no. 1170.
Contributions to economic geology, 1908. Part I. Metals and nonmetals, except fuels.—See no. 1169.

Linsley, Earle G.

A syllabus for the study of the physiographic provinces of California.—See Holway and Linsley, no. 589.

Linton, Robert.


Loftus, J. P.

Includes notes on the local geology and the occurrence of the gold ores.

Logan, William E.


Logan, William N.

778. The pottery clays of Mississippi.—Mississippi State Geol. Survey, Bull. no. 6, 228 pp., 45 pls. and figs., 1909.

Loomis, F. B.

Describes Testudo arenivaga, Hay, Testudo brevisterna n. sp., and Testudo undabuna n. sp.


Louderback, George Davis.

Describes the general geologic surroundings and mode of occurrence in San Benito County, Cal., the conditions under which the mineral was formed, the general relations of the minerals in the veins, and the crystallography and other features of benitoite, neptunite, natrolite, and other associated minerals.


Loughlin, G. F.


Ludlow, Edwin.

784. The coal industry in Mexico.—Eng. and Min. Jour., vol. 88, pp. 661-664, 1 fig., October 2, 1909.
Includes notes on the occurrence and composition of coals in the State of Coahuila, Mexico.
BIBLIOGRAPHY OF NORTH AMERICAN GEOLOGY, 1909.

Lull, Richard Swan.
Reprinted, after author’s revision, from the American Journal of Science, vol. 25, March, 1908.

Luther, D. Dana.
Describes the occurrence, character, relations, and fossil content of Silurian and Devonian formations.

Lyman, Benjamin Smith.

Lyon, Edward West.
Includes notes on the geologic occurrence and mineralogic character of the ore bodies.

MacAlister, D. A.
The geology of ore deposits.—See Thomas and MacAlister, no. 1144.

McCallie, S. W.
Gives a description, with analysis, of a stone-iron meteorite from Pickens County, Ga.

McCaskey, H. D.
Mineral resources of the United States, 1908: Gold and silver; quicksilver.—See no. 1170.

McConnell, R. G.
A report on the geology and mineral resources of the Whitehorse district.
Describes the general geology and the mineral deposits, producing chiefly copper, gold, and iron.

McCormick, Clinton P.
Includes notes on the occurrence and character of copper ores.

McCourt, W. E.

McDermott, Walter.
Describes the occurrence and geologic relations of silver ore mined on Silver Islet, Lake Superior.
McDermott, Walter—Continued.

Describes the character and occurrence of the ore deposits.

MacDonald, Bernard.


MacDonald, Donald Francis.

Gives notes upon the geology, the character, relations, and mineralization of the veins, and the gold mines.


Macdougal, D. T.


McEvoy, James.


MacFarland, Ira.


MacFarlane, James.

Includes notes on the local geology and the occurrence of the copper ores.

MacFarren, H. W.

Includes notes on the geology and occurrence of the ores.


McInnes, William.

Includes notes on the geology of the region examined.

Maddren, A. G.


Mineral resources of the Kotsina-Chitina region, Alaska.—See Moffit and Maddren, no. 875.
Maine State Survey Commission.
An administrative report upon the progress of topographic, geologic, and hydrographic work.

Malloch, G.
Describes the general geology and occurrence and character of the coal.

Mansfield, George Rogers.

Marbut, Curtis F.

Marriott, Hugh E.
815. A visit to the mineral districts of Canada.—See Frecheville and Marriott, no. 426.

Marrs, G. O.

Martin, Al. H.
Includes notes on the occurrence of gold ores.
Includes notes on the local geology, and the occurrence and character of the gold deposits.
Includes notes on the local geology and the occurrence of gold ores.

Martin, George Curtis.
Describes the general geology of the foothills belt of northern Colorado, and the occurrence, character, and composition of limestones and shales.

Martin, Lawrence.
Apparatus for topographic field work on models in the laboratory.—See Mead and Martin, no. 843.

Marvin, C. F.
Discusses the Kingston earthquake as recorded in Washington, D. C.

Mather, Kirtley F.
Discusses the time and cause of drainage changes in this region.
Matthes, Edward B., and Grasty, J. S.

Mathez, Auguste.
Includes notes on the geologic relations of the ore deposits.

Matson, George Charlton.
Includes an account of the stratigraphy of the region.
Describes the location, geologic horizon, and composition.

Matson, George Charlton, and Clapp, Frederick G.

Matthew, George F.
Outlines the geologic history of the region known as Acadia, citing the various evidences from which this has been determined and discussing the stratigraphic position and correlation of the geologic formations.
Gives some account of reptilian remains collected in the Permian of Texas.
Gives an account of the meeting and abstracts of the papers read.
Matthew, W. D., and Cook, Harold J.
Describes mammalian fossils from Sioux County, Nebr., and discusses their stratigraphic position.

Mauritz, B.
Ueber Kalomel.—See Goldschmidt and Mauritz, no. 459.

Maury, Carlotta J.
Describes Levifusus fulguriparens n. sp., from the Eocene at Montgomery, La.

Mead, Walter J.
842. Relation of density to the specific volume of ore. A graphic method for the determination of the specific volume of ore from its porosity and included moisture.—Min. Science, vol. 58, pp. 89-91, 1 fig., July 30, 1908.

Mead, W. J., and Martin, Lawrence.

Melsted, V. J.
The geology of northeastern North Dakota with special reference to cement materials.—See Barry and Melsted, no. 70.

Mendenhall, Walter Curran.
844. A phase of ground water problems in the West.—Econ. Geology, vol. 4, no. 1, pp. 35-45, 2 figs., 1909.
Describes physical features and water supply of the region.

Describes the geography, the general geologic features, the character of the deposits, and the water resources.

Describes the occurrence, character, and value of the coal.

Merriam, John C.
Describes Felis atrox var. bebbi from the Quaternary of Rancho La Brea, near Los Angeles, Cal.

Describes Ilingoceros alexander n. gen. and n. sp., and Sphenophalos nevadanus n. gen. and n. sp., from late Tertiary beds near Thousand Creek in northern Humboldt County, Nev.
Merrill, F. J. H.


Includes notes on the local geology and the occurrence of the silver ores.


Merrill, George P.


Merwin, H. E.

Alamosite, a new lead silicate from Mexico.—See Palache and Merwin, no. 931.

On connellite and chalcophyllite from Bisbee, Arizona.—See Palache and Merwin, no. 932.

Mexico, Instituto Geologico.


A list of earthquakes and seismic shocks registered at the seismological station at Tacuba, D. F., Mexico, during the first half of 1909.

Catalogo de los temblores (macroseismos) sentidos en la Republica Mexicana durante los años de 1904 a 1908.—See Aguilera, no. 7.

Millar, Austin Q.


Miller, Arthur M.

859. Evidence that the Appalachian and central coal fields were once connected across central Kentucky.—Abstract: Science, new ser., vol. 29, p. 624, April 16, 1909.

Describes the occurrence of coal measure conglomerate in central Kentucky.

Miller, Benjamin L.


Description of the Philadelphia district.—See Bascom and others, no. 74.

Description of the Trenton quadrangle, New Jersey-Pennsylvania.—See Bascom and others, no. 75.

Miller, G. W.


Describes the character and occurrence of the gold deposits and the local geology.
Miller, Loye Holmes.


Describes *Teratornis merriami* n. gen. and n. sp., from the Quaternary asphalt beds of Rancho La Brea in southern California.

Miller, Willet G.


Miller, Willet G., and Knight, Cyril W.


Miller, William J.

867. Geology of the Remsen quadrangle, including Trenton Falls and vicinity in Oneida and Herkimer counties.—New York State Mus., Mus. Bull. 126, 51 pp., 11 pls., 4 figs., 1 geol. map (in pocket), 1909.

Describes the general geologic features, the occurrence, character, and relations of pre-Cambrian and Ordovician strata, the structural features, and the glacial geology.


Millward, William.


Gives lists of Paleozoic fossils found in limestone and chert pebbles of the Wisconsin drift and in bedded rocks of Carboniferous age and discusses the correlation of the formations of the latter.

Mining and Scientific Press.


Moffit, Fred H.


Includes an account of the general geology.

Moffit, Fred H., and Maddren, A. G.


Describes the general geology, the occurrence and relations of Triassic and other rocks of undetermined or doubtful age, and the mineral resources, chiefly copper and placer gold.
Moodie, Roy L.

876. Vertebrate paleontology: The Lysorophidae; Stegocephala; The Cotylosauria; The oldest known reptile; The age of the Gaskohle; Bison occidentalis; Nectosaurus; Callibrachion.—Am. Naturalist, vol. 43, pp. 116-124, February, 1909.

Gives various notes upon the forms mentioned.


Discusses the occurrence, characters, and classification of Carboniferous Amphibia.


Moore, Elwood S.


Gives an account of the geology of the region and the occurrence and character of iron deposits.


Gives an account of the geology and physiographic features of the region and of the distribution and character of bog iron deposits.


Describes the geology of the area, the petrography of the rocks, and the occurrence, character, relations, and origin of the iron deposits.


Moore, Phil. H.


Includes notes on the local geology and the occurrence and character of the gold ores.

Moore, Richard B.

Radioactivity of the thermal waters of Yellowstone National Park.—See Schlundt and Moore, no. 1033.

Morsack, Cajetan.


Includes notes on the character and occurrence of the deposits.

Morse, William Clifford, and Foerste, August F.

Munn, Malcolm J.


The discussion is based mainly upon structural and stratigraphic features of oil pools in the Sewickley quadrangle, Pennsylvania.

889. The anticlinal and hydraulic theories of oil and gas accumulation.—Econ. Geology, vol. 4, no. 6, pp. 509-529, 3 figs., 1909.

Nason, Frank L.


Describes folds in the Sierra Madre Oriental Mountains in Nuevo Leon, Mexico, and explains their production and relations to ore-bearing fissures.

Nelson, Gaylord.


Newland, David H.


Describes the distribution of the Clinton formation, the general structure of the beds, the occurrence of the iron ores, and their origin.


Newsom, J. F.

Description of the Santa Cruz quadrangle, California.—See Branner and others, no. 138.

Nicholas, Francis C.


Nickles, John M.


Classified list of papers dealing with coal, coke, lignite, and peat contained in publications of the U. S. Geological Survey, except those on Alaska.—See Lee and Nickles, no. 749.

Nicol, John M.


Includes notes on the local geology and the occurrence of placer gold.

Nicolas, Frank J.


Nordenskjöld, Otto.


Describes the occurrence, character, and relations of Archean and post-Archean eruptive rocks and of Paleozoic, Triassic, Jurassic, and Tertiary deposits.
Northwest Mining Journal.

Nylander, Olof O.

Nyström, Erik, and Anrep, S. A.

Obalski, J.
904. Mining operations in the Province of Quebec for the year 1908.—Quebec, Dept. of Colonization, Mines and Fisheries, 85 pp., 19 pls., 1909.

Includes notes on the occurrence of various mineral deposits.

Odendall, Leonhard.

Describes the occurrence and characters of the principal copper deposits of the United States, Mexico, and Canada, and discusses the various types of deposits.

O'Harra, Cleophas C.
Description of the Belle Fourche quadrangle, South Dakota.—See Darton and O'Harra, no. 312.

Ohio Geological Survey.
906. A geological map of Ohio. J. A. Bownocker, state geologist. Based on preceding maps by Newberry and Orton. Richmond-Lorraine boundary by Foerste and Morse; glacial boundary and shore of glacial Lake Erie (Lake Maumee) after Leverett. Scale, 8 miles to 1 inch, 1909.

Olcott, Theodore F.

Oldham, Richard Dixon.

Ontario, Bureau of Mines.
909. Visit [of the British Association for the Advancement of Science, Winnipeg Meeting, 1909] to Cobalt and Sudbury, August 17th to August 20th, Toronto, 1909. 31 pp., illus.

Describes the Cobalt and Sudbury (Ontario) mineral areas, giving data upon the geology, and the occurrence, relations, and genesis of the ores.


Ordóñez, Ezequiel.

 Gives a general account of the physiography and geology of Mexico and the general mode of occurrence of ore deposits.


Describes the physiographic features and the kinds and disposition of volcanic rocks forming its surface.
Orton, Edward, jr.

Osborn, Henry Fairfield.
Describes the general geology and climatic history of the Tertiary and Pleistocene of western North America and the character, origin, distribution, and relations of the various mammalian faunas and discusses their homotaxial relations and correlation.

Describes a specimen of Trachodon annectens from Converse County, Wyo., preserving part of the epidermal covering.


Discusses the habits and restorations.

Osborn, Henry Fairfield, and Matthew, W. D.
Explains the organization of the committee, the method of procedure, and the progress of correlation work.

Osgood, Samuel W.
Includes notes on the occurrence of the zinc ores.

O'Sullivan, Owen.
Includes notes on geologic features of the country traversed.

Outerbridge, Alexander E., jr.


Overspeck, L. S.
The iron deposits of the Black Hills, South Dakota.—See Cooledge and Overspeck, no. 284.

Pack, R. W.
Packard, George A.
   Includes notes on the local geology.
925. Copper mines and smelters of Shasta County, California.—Eng. and Min. Jour., vol. 88, pp. 393-399, 9 figs., August 28, 1909.
   Includes notes on the geology, occurrence, character, and genesis of the copper ores of Shasta County, Cal.

Paige, Sidney.
   Describes the geography and topography of the Hanover iron-ore district, the general geology, the occurrence, character, and relations of sedimentary and igneous rocks, the metamorphism produced by intrusions, and the distribution, character, and genesis of iron ores.
   Describes the general geology, the stratigraphy, and the geologic structure, metamorphism in the region, and the occurrence and character of marble.
   Describes sandstone dikes at this locality and discusses their origin.

Palache, Charles.
   Describes the occurrence, crystallographic characters, and chemical composition.
   Describes the characters, crystallography, and composition of the mineral obtained from a pegmatite dike near Hackberry, Ariz.
   Describes Psephophorus calvertensis n. sp.
Pardee, J. T.  
Describes the general features, the stratigraphy, the geologic structure, and the vein system, particularly its faulting.

Paredes, Trinidad.  
Describes the geology, occurrence, and relations of a copper deposit at Cerro Seco, in the State of Guerrero, Mexico.

Describes the hydrology of the region stated. Includes an account of the geology.

Describes the physiographic features, general geology, the Cretaceous and Tertiary formations, the geologic history, and the hydrology of the Valley of Ixmiquilpan, State of Hidalgo, Mexico.

Parker, Edward W.  
Coal fields of the United States.—See Campbell and Parker, no. 191.

Parks, William Arthur.  
Discusses the characters of the genus, and the generic position of various species referred to it and describes Protaster whiteaviesiavus n. sp., from the Trenton of Ontario.


Patton, Horace B.  
943. The Montezuma mining district of Summit County, Colorado.—Colorado Geol. Survey, 1st Report, 1908, pp. 105-144, 4 pls., 1 fig., 1909.  
Describes the general geology and the rocks of the area, the vein systems, and the occurrence and relations of gold, silver, lead, zinc, and iron ores.

Peale, A. C.  

Peet, C. A.  
945. Green River oil fields in Wayne County, Utah.—Salt Lake Min. Rev., vol. 11, no. 18, pp. 19-21, 6 figs., December 30, 1909.

Penck, Albrecht F. K.  
Jour. Geog., vol. 8, no. 4, pp. 73-83, December, 1909.  

Pepperberg, Leon J.


Describes the geology of the district and the occurrence and composition of limestone and shale.


Describes the topography and geology, the stratigraphy and structure of the field, the character and distribution of the coal beds, and the properties and composition of the coal.

Peragallo, Oreste.


Includes notes on the local geology and the occurrence, character, and origin of the silver-lead-zinc ores.

Perrine, I.

Oil and gas in northwestern Louisiana, with special reference to the Caddo field.—See Harris, Perrine, and Hopper, no. 514.

Peterson, O. A.


Includes an account of the Agate Spring fossil quarries in western Nebraska.


Proposes the name Daphniodon for the material described as Amphicyon superbus.

Phalen, William Clifton.

Mineral resources of the United States, 1908: Bauxite and aluminum; abrasive materials; salt and bromine; sulphur and pyrite.—See no. 1170.

Phillips, William B.


Includes a brief account of the geology of the district and the occurrence of the silver ore.


Includes notes on the occurrence of the ore.


Platt, James M.


Includes notes on the occurrence and character of the silver ores of the Zacualpan district, State of Mexico, Mexico.

Pogue, Joseph E.


Pogue, Joseph E.—Continued.


Describes the general geology of the region, the lithology, structural features, and geologic history.

Pogue, J. L.

Calcite crystals from Kellys Island, Lake Erie.—See Ford and Pogue, no. 417.

Crystals of datolite from Bergen Hill, New Jersey.—See Ford and Pogue, no. 418.

Poole, Henry S.


Pratt, Joseph Hyde.


964. The mining industry in North Carolina during 1907, with special report on the mineral waters.—North Carolina Geol. and Econ. Survey, Econ. Paper no. 15, 176 pp., 13 pls., 4 figs., 1908.


Pratt, Joseph Hyde, and Sterrett, Douglas B.


Prindle, Louis M.


Describes the general physical and geologic features, the occurrence, character, and relations of pre-Ordovician, Devonian, Carboniferous, Tertiary, and Quaternary formations, and the gold deposits.

Prindle, L. M., and Katz, F. J.


Prosser, Charles S.

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Ramsay, J. D.

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Rankin, G. S.

The binary systems of alumina with silica, lime, and magnesia.—See Shepherd and Rankin, no. 1056.

Ransome, Frederick Leslie.

Describes the occurrence and relations of pre-Tertiary sedimentary rocks and Tertiary igneous rocks and sedimentary deposits, the geologic structure and history, the mineralogy, and the distribution, geologic relations, and genesis of the ore bodies, and gives a detailed account of the mines.
Gives notes upon the local geology and the gold and silver ores.
Describes briefly the general geology, the occurrence and character of the ores, yielding principally gold, and the mining developments.
Describes the general geology, the occurrence, character, and relations of pre-Tertiary and Tertiary rocks, the mines and prospects, and the character of the copper deposits.
Describes the mining developments of the Humboldt region, the general geology and petrology of the mining districts, the occurrence, relations, and character of the ore deposits, mainly gold, silver, copper, antimony, nickel, and cobalt, and the mineralogy of the ore deposits.
[Petrography of the Newark group in the Trenton quadrangle.]—See Bascom and others, no. 74.

Raymond, Percy E.

Raymond, Rossiter W.

Raymond, R. W., and Ingalls, W. R.

Reagan, Albert B.

Reed, W. J.
The Madill oil pool, Oklahoma.—See Taff and Reed, no. 1132.

Reid, Harty Fielding.
Discusses the nomenclature and classification of faults, the nature of the observations necessary to determine completely the movement at a fault, and how this movement can be worked out from the observations.

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Reynoso, José J.
Gives notes upon the geology and the lead and iron deposits of Naica, State of Chihuahua, Mexico.

Richards, Ralph W.
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Richardson, George Burr.
Describes the geography, the occurrence, character, and relations of pre-Cambrian, Cambrian, Ordovician, Silurian, Carboniferous, Cretaceous, and Quaternary formations, and of igneous rocks, the geologic structure, the geologic history, and the mineral resources.

Describes the location and topography, the stratigraphy and structure of the field, the occurrence and character of the coal beds, and the quality and composition of the coals.

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Bickard, Forbes.
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Bickard, T. A.
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Robertson, William Fleet.
Includes notes on the geology and occurrence of various ores in British Columbia.

Robles, R.
Geologic study of the Sierra of Guanajuato.—See Villarello, Flores, and Robles, no. 1192.
Roddy, H. Justin.
Notes the discovery of lower Cambrian fossils.

Roe, A. D.

Rogers, Austin F.
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Rogers, A. P.

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Rohwer, S. A.

Root, W. A.
Includes notes on the occurrence and character of the ore deposits.

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   Description of the Trenton quadrangle, New Jersey-Pennsylvania.—See Bascom and others, no. 75.

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   Mineral resources of the United States, 1908: Mineral waters.—See no. 1170.

Sargent, R. H.
   Describes physiographic features of Alaska.

Savage, T. E.

Sayles, Robert W.
   Notes the discovery of ophiuroids in the “upper clay” near Rockland, Me.

Schaller, Waldemar T.
   The mercury minerals from Terlingua, Texas.—See Hillebrand and Schaller, no. 565.

Scharff, R. F.

Scheffel, E. R.
   Considers that drainage changes may have been caused by tilting of the land in preglacial time rather than by the advance of glaciers.

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Squire, George Hull.


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Stabler, H.

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Stanton, Timothy W.

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Describes the stratigraphy and geologic structure of the region, and the occurrence, altitude, and character of the coal beds.

Ulrich, Johannes.
Describes rocks collected in northeastern Labrador (see Hantzsch, no. 508).

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Discusses the criteria to be used in paleogeography.
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United States Geological Survey.
The papers in this bulletin have been entered under the individual authors. Interspersed are lists of the Survey publications on various economic products.
Contains the following papers, mainly statistical in character, relating to the production, condition of the industry, etc., but also in some cases including notes on the geology and occurrence of the products treated:

PART I.

Summary of mineral production in the United States in 1908, compiled by W. T. Thom, pp. 7–69.
Iron ores, pig iron, and steel, by E. C. Harder, pp. 61–134.
Manganese ores, by E. C. Harder, pp. 135–150.
Copper, by B. S. Butler, pp. 185–226.
United States Geological Survey—Continued.

Zinc, by C. E. Siebenthal, pp. 245-273.
Gold, silver, copper, lead, and zinc in the United States, pp. 275-276.
Gold, silver, copper, lead, and zinc in the Western States, pp. 277-386.
Silver, copper, lead, and zinc in the Central States, pp. 387-443.
Antimony, by Frank L. Hess, pp. 709-711.
Bismuth, by Frank L. Hess, pp. 713-714.
Tungsten, nickel, cobalt, vanadium, etc., by Frank L. Hess, pp. 721-749.
Chromic iron ore, by E. C. Harder, pp. 751-770.
Tin, by Frank L. Hess, pp. 771-779.
Cadmium, by C. E. Siebenthal, pp. 793-803.

PART II.

FUELS.
Coal, by E. W. Parker, pp. 5-211.
Coke, briquetting, by E. W. Parker, pp. 213-221.
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Natural gas, by J. Hill, pp. 317-344.

STRUCTURAL MATERIALS.
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Walker, T. L.


Ward, Freeman.


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Calamine crystals from the Organ Mountains, Donna Anna County, New Mexico.—See Ford and Ward, no. 419.

Waring, Gerald A.


Warren, C. H.


Washburne, Chester W.


Describes the general features of the field, the stratigraphy of the coal beds, and the distribution, relations, and character of the coals.


Describes the general geology, stratigraphy, and structure of the field, the mode of occurrence and character of the oil, and the development and production of the field.


Washington, Henry S.


Diamonds in Arkansas.—See Kunz and Washington.

Watson, C. B.


Watson, Thomas Leonard.

Watson, Thomas Leonard—Continued.


Weaver, Charles E.


Reviews previous work on the San Pablo formation, describes its geographic distribution, stratigraphic relations, and correlation, and gives a list of species occurring in it by horizons. Considers the San Pablo to be lower Pliocene.

Weeks, Fred B., and Nickles, John M.


Wegemann, Carroll H.


Gives a detailed account of geologic and physiographic features of the vicinity of Danville, Ill., and discusses the development of the drainage of the area.


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Welch, R. Kemp.


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Weld, C. M.


Weller, Stuart.


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West, H. E.


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Wheeler, Joseph T.

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Whitlock, H. P.


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- Alabama, Butler County, pp. 437-465.
- Marion County, pp. 381-400.
- Talladega County, pp. 401-436.
- Arkansas, Conway County, pp. 753-771.
- California, Colusa area, pp. 927-972.
- Redding area, pp. 973-999.
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CLASSIFIED SCHEME OF SUBJECT HEADINGS.

1. GENERAL.

Associations, meetings; Addresses; History; Philosophy; Biography; Bibliography; Educational; Text-books.
Classification; Nomenclature; Cartography; Technique; Fieldwork; Surveys; Borings.
Geochemistry; Chemical analyses (list); Atmosphere.
Miscellaneous.

2. REGIONAL.

The States of the Union, Alabama, etc.; the Provinces of Canada, Alberta, etc.; Greenland; Mexico; the countries of Central America; the West Indies, and the single islands; the Hawaiian Islands.

3. ECONOMIC.

Ore deposits, origin; Contact phenomena.
Gold; Placers; Black sands; Silver; Quicksilver; Nickel; Cobalt; Copper; Lead; Zinc; Iron; Magnetite; Manganese; Tin; Aluminum; Bauxite; Antimony; Bismuth; Tungsten; Wolframite; Vanadium; Uranium; Carnotite ores; Molybdenum; Molybdenite; Titanium; Rutile; Platinum; Monazite; Rare earths; Tantalum; Selenium; Tellurium; Zircon.
Coal; Anthracite; Coke; Peat; Lignite; Bituminous rock; Natural gas; Petroleum; Oil shales; Asphalt; Albertite; Gilsonite; Grahamite; Ozokerite.
Stone; Building stone; Granite; Bluestone; Limestone; Lime; Marble; Onyx; Sandstone; Clay; Kaolin; Bentonite; Fire clay; Ganister; Slate; Shale; Marl; Sand; Glass sand; Sand-lime brick; Gravel; Cement and cement materials; Concrete materials; Road materials; Trap; Steatite; Soapstone; Talc.
Precious stones; Diamonds; Sapphires; Turquoise; Tourmaline.
Abrasive materials; Corundum; Emery; Garnet; Diatomaceous earth; Tripoli; Volcanic ash; Millstones; Novaculite.
Asbestos; Feldspar; Mica; Quartz; Gypsum; Graphite; Fuller's earth; Infusorial earth; Magnesite; Mineral paint; Chromium; Chromite; Chromic iron ore; Fluorspar; Barite; Barytes; Strontium; Arsenic; Pyrite; Sulphur; Sulphate of soda; Cryolite; Phosphorus; Phosphate; Apatite; Glaucnite; Borax; Bromine; Salt; Natron deposits.

4. DYNAMIC AND STRUCTURAL.

Earth, genesis of; Earth, age of; Earth, interior of; Earth, temperature of.
Volcanoes; Earthquakes; Seismographs.
Isostasy; Orogeny; Changes of level.
Magmas; Intrusions; Dikes; Laccoliths; Metamorphism; Contact phenomena.
Deformation; Folding; Faulting; Unconformities.
Conglomerates; Concretions; Stalactites; Jointing; Cleavage.
Sedimentation; Denudation; Erosion; Caves; Sink holes; Erratic boulders; Weathering; Wind work; Dunes; Loess; Landslides.
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5. PHYSIOGRAPHIC.

Geomorphology; Relief maps.
Valleys; Cirques; Deserts; Dunes; Deltas; Alluvial fans; Eskers; Kames; Mounds, natural; Natural bridges; Sink holes; Karsts.
Lakes; Swamps; Marshes; Everglades; Terraces; Shore lines; Rivers; Meanders; Falls; Springs.

6. HISTORICAL OR STRATIGRAPHIC.

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Geologic maps; Geologic formations described (list).
Pre-Cambrian, Cambrian; Ordovician; Silurian; Devonian; Carboniferous; Triassic; Jurassic; Cretaceous; Tertiary; Quaternary; Recent; Glacial geology; Glaciation; Glacial lakes; Ice ages.

7. PALEONTOLOGY.

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8. PETROLOGY.

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9. MINERALOGY.

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