BIBLIOGRAPHY OF NORTH AMERICAN GEOLOGY FOR 1906 AND 1907 WITH SUBJECT INDEX

BY

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Abbott, James W.
   Includes notes on the local geology and occurrence of the ores.

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   Describes under the name Alabamornis gigantea bird remains from the upper Eocene of Choctaw County, Alabama, originally described as the pelvic girdle of Zeuglodon.

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Adams, Frank D., and others.


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Aguilera, Jose G.


Gives notes on the geology of the country between these places.


Describes the geology of the country between these places.


Describes the geology of the region.


Gives an outline of the stratigraphy of Mexico.


20. Los volcanes de México en sus relaciones con el relieve y la tectónica general del país.—México, Secretaría de Fomento, Bol., 2ª época, año 6, VI, no. 8, pp. 121-129, 131-139, 1 pl., 1907.

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Includes a discussion of the formation of meteorites.

Allorge, Maurice.
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Althouse, Harry W.
Describes the geologic horizon, vein structure, thickness, and quality of these coals.
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Amador, Manuel G.
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40. On some fossils from northern Canada, collected by Commander Low, during the expedition of 1903–4, together with notes on the geological horizons to which they belong.—Abstract: Science, new ser., vol. 23, p. 973, June 29, 1906.

41. Preliminary lists of organic remains from the Chazy, Black River, Trenton, and Pleistocene formations comprised within the area of the Pembroke sheet (no. 122).—Geol. Survey of Canada, Appendix to Ellis’s Report on the Geology and Natural Resources of the northwest quarter-sheet, no. 122, pp. 47–71, 1907.


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Anderson, G. E.


Anderson, Robert.


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Preliminary report on the Santa Maria oil district, Santa Barbara County, Cal.—See Arnold and Anderson, no. 66.

Anderson, Tempest.


Andersson, J. G.


Defines the term solifuction and describes the process of denudation so designated.

Angermann, Ernesto.


Describes the topography, and the occurrence, character, and relations of Jurassic, Cretaceous, and Tertiary strata,
Angermann, Ernesto—Continued.
   Describes the geologic structure, and the occurrence and relations of Cretaceous, Tertiary, and Quaternary deposits.
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Anonymous papers. See page 208.
Arey, Melvin E.
   Describes the topography and drainage, the stratigraphy, including Devonian rocks and glacial deposits, and the economic products.
Argall, Philip.
   Includes notes on the character, occurrence, and geologic horizon of the zinc ores.
Armington, Howard C., and Stotesbury, Harold W.
   Includes an account of the local geology.
Arnold, Ralph.
   Notes briefly the literature bearing on the region and describes its physical features, the character, occurrence, and relations of Tertiary and older formations, and the general geologic structure.
   Gives an account—nomenclature, definition, localities, and faunal lists—of the Tertiary and Pleistocene formations of California and systematic descriptions of the pectens.
   Describes the geologic structure of the range, the relations of the coal bed, and the properties of the coal.
   Describes the geologic formations and structure of the area, and the economic developments.
61. Dome structure in conglomerate.—Jour. Geology, vol. 15, no. 6, pp. 560–570, 8 figs., 1907.
   Describes the structure of domes in conglomerate near Pasadena, Cal., and discusses the origin of dome structure.
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Arnold, Ralph—Continued.

63. Geology and oil resources of the Summerland district, Santa Barbara County, Cal.—U. S. Geol. Survey, Bull. no. 321, 93 pp., 17 pls., 3 figs., 1907.

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76. Were the Appalachian and eastern interior coal fields ever connected?—Econ. Geology, vol. 2, no. 7, pp. 659-666, 1907.
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Correlation of coals.—See White and Ashley, no. 2549.

Ashley, George Hall, and Glenn, Leonidas Chalmers.

77. Geology and mineral resources of part of the Cumberland Gap coal field, Kentucky.—U. S. Geol. Survey, Prof. Paper no. 49, 239 pp., 40 pls., 13 figs., 1906.
Describes the physiography, stratigraphy, and geological structure of the region, and in detail the occurrence, character, geological relations, and correlations of the coal seams.
Ashworth, James.

Gives notes upon the character of the coal field and upon the rock slide at Frank, Alberta.

Atkin, Austin J. R.

Discusses briefly the character, occurrence, and origin of these deposits.

Atwood, Wallace W.

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81. The glaciation of the Uinta Mountains.—Jour. Geology, vol. 15, no. 8, pp. 790-804, 4 figs., 1907.

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82. Report of the State mineralogist [California].—California State Min. Bur., Rept. of Board of Trustees, pp. 13-17, 1902.

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83. Report of the State mineralogist [California].—California State Min. Bur., Rept. of Board of Trustees, pp. 9-14, 1904.

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85. The copper resources of California.—California State Min. Bur., Bull. no. 23, 282 pp., pls., figs., maps, 1902.
86. The quicksilver resources of California.—California State Min. Bur., Bull. no. 27, 273 pp., 50 pls., 94 figs., 8 maps, 1903.

Ayres, W. S.

Describes the location, the character of the rocks in which it has been cut, the mode of its formation, and various features of the cave.

Babcock, E. J.

Clay and its properties, with special reference to North Dakota clays.—See Clapp and Babcock, no. 471.

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Babcock, E. J., and Clapp, C. H.

Bagg, Rufus M., jr.
Gives notes on the geology of the region, and the occurrence and character of selenite, fluorite, and calcite crystals.
Discusses the origin of these mineral-bearing lodes.

Bailey, Gilbert E.
95. The saline deposits of California.—California State Min. Bur., Bull. no. 24, 216 pp., pls., figs., maps, 1902.
Describes the physical features of the desert region of southern California, Nevada, and Arizona.

Bailey, L. W.
Describes the geologic occurrence and relations of the gypsum beds of New Brunswick, particularly those in the vicinity of Hillsborough, and discusses the origin of the gypsum deposits.

Bain, H. Foster.
Gives a historical sketch of the development of the field, describes the topography, stratigraphy, and geologic structure, the character, occurrence, and relations of the ore deposits, and the mining developments, and discusses the origin of the ores.

Gives various data regarding the coal fields of Illinois. Includes a geologic map showing the distribution of the coal measures.

Describes the geologic structure of Spring Mountains, and the character and occurrence of the ore bodies, and discusses the origin of the ores.

Describes the occurrence and character of oil in this area.

Calls attention to the misuse of the terms "Des Moines" and "Missourian" applied to coal measures of the western interior States.

Presents a classification of the metal production of the United States according to the mode of concentration of the ores, with a discussion of the data used.
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Bain, H. Foster.—Continued.


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110. Administrative report for 1906.—Illinois State Geol. Survey, Bull. no. 4, pp. 9–35, 1 pl., 1907. [Also issued separately.]

Includes notes on economic resources.

111. Analysis of certain silica deposits.—Illinois State Geol. Survey, Bull. no. 4, pp. 185–186, 1907.


The production in the United States in 1905 of zinc and lead ores.—See no. 2418.

Baker, H. P.


Describes the origin of dunes.

Baker, J. Willard.


Baker, M. B.


Baldacci, L.


Baldwin, A. L.

The earth movements in the California earthquake of 1906.—See Hayford and Baldwin, no. 1114.

Ball, Sydney H.


Describes the topography and general geology, and the occurrence, character, and relations of the pre-Cambrian formations.
Ball, Sydney H.—Continued.


Describes the general geology, the occurrence and character of gold and silver ores, and the mining developments.

120. A geologic reconnaissance in southwestern Nevada and eastern California.—U. S. Geol. Survey, Bull. no. 308, 218 pp., 3 pls., 17 figs., 1907.

Describes the general stratigraphy of the area examined, the topography, structure, and stratified and igneous rocks of the various ranges, with notes on the character and occurrence of the economic minerals.


Describes the stratigraphy and geologic structure of the area, and the occurrence and origin of the iron ores.


Bancroft, George J.


Barbour, Erwin Hinckley.


Describes Syndyoceras cooki n. gen. and n. sp. from the Loup Fork beds at Agate, Nebraska.


Describes Diceratherium arikarense from the Loup Fork beds.


Barbour, Erwin Hinckley—Continued.


Notes the discovery of workable coal near Peru, Nebr., its character, and other occurrences of coal in Nebraska.


Announces the discovery of human remains in undisturbed loess, detailing the circumstances and conditions of preservation.


Describes the finding of human remains in undisturbed loess deposits.

Barbour, Erwin Hinckley, and Ward, Henry Baldwin.


Barker, F. L.


Describes the geological relations and occurrence of the ore deposits.

Barlow, Alfred Ernest.


Includes notes on the geology of the area examined.


Gives an account of the geology of the region.

146. On the nickel deposits of Webster, western North Carolina.—Canadian Min. Inst., Jour., vol. 9, pp. 303-316, 1 pl. (map), 1906.

Describes the occurrence of the ores and their geological relations and origin.

147. On the origin and relations of the nickel and copper deposits of Sudbury, Ontario, Canada.—Econ. Geology, vol. 1, no. 5, pp. 454-468; no. 6, pp. 545-553, 1906.

Gives a historical résumé of the literature, and describes the character of the nickel-bearing eruptive rock, and the composition and mode of occurrence of the ore bodies.

Report of a special committee on the correlation of the pre-Cambrian rocks of the Adirondack Mountains, the "original Laurentian area" of Canada, and eastern Ontario.—See Adams and others, no. 13.

Barrell, Joseph.


Discusses the conditions under which continental, littoral, and marine deposits are formed and the criteria by which they may be discriminated, and applies these considerations to geologic history, particularly of pre-Paleozoic and Paleozoic sedimentation.
Barrell, Joseph—Continued.

Description: Algonkian and Tertiary deposits and igneous rocks and the geologic structure of the region, and discusses the contact and intrusive phenomena.

Describes the distribution and character of the Mauch Chunk formation and discusses the mode of formation of the shale.


Barringer, Daniel Moreau.

Discusses the origin of this “crater.”

Barringer, Daniel Moreau, and Tilghman, B. C.


Barus, Carl.

Discusses the bearing of certain physical facts upon theories of vulcanism.


Bassler, Ray S.

Includes a short account of the classification of Ordovician strata in the vicinity of Cincinnati, Ohio.

Discusses the distribution and correlation of Niagaran bryozoan faunas and gives systematic descriptions of the Bryozoa of the Rochester shales of New York and Ontario.

158. Cement and cement materials [of Virginia].—In Watson, T. L., Mineral Resources of Virginia, pp. 86-167, 10 pls., 14 figs., 1907.
New American Paleozoic Ostracoda. Notes and descriptions of upper Carboniferous genera and species.—See Ulrich and Bassler, no. 2412.

Bastin, Edson S.

Describes the occurrence and petrographic characters of prowersose, albite-pyroxene syenite, cortlandite, and porphyritic granite.

Describes the distribution, utilization, general character, and mode of occurrence of the limestones of Knox County, Me.

Describes the distribution, age, origin, utilization, and composition.
Bastin, Edson S.—Continued.
Description of the Penobscot Bay quadrangle.—See Smith and others, no. 2241.
The production in the United States in 1906 of quartz (flint) and feldspar.—See no. 2419.

Bateson, Charles E. W.
Describes the topography of the region, the rocks and their origin, and the vein system.

Bather, F. A.
A brief account of his scientific work.

Bauer, L. A.

Bauer, L. A., and Burbank, J. E.
169. The San Francisco earthquake of April 18, 1906, as recorded by the Coast and Geodetic Survey magnetic observatories.—Nat. Geog. Mag., vol. 17, no. 5, pp. 298-300, May, 1906.

Bawden, H. Heath.

Becker, George Ferdinand.

Beede, Joshua W.
Beede, Joshua W.—Continued.


Calls attention to a misstatement in his paper on the Foraminifera and Anthozoa printed in the 30th Annual Report of the Department of Geology and Natural Resources of Indiana.


Reviews the literature upon the Red Beds of Oklahoma, discusses their age and correlation, and gives descriptions of the fossils collected.

Fauna of the Salem limestone: Introduction.—See Cumings and Beede, no. 301.

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


Gives lists of fossils from the various formations of the coal measures of Kansas.

Beede, J. W., and Shannon, Charles W.


Beeler, Henry C.


Gives an account of the geology, copper-ore deposits, and mining developments.


Includes a brief account of the geology of the district.

185. Mining in the Grand Encampment copper district, Carbon and Albany counties, Wyoming. Cheyenne, September 1, 1905. 32 pp., 1 fig.

Includes a brief account of the geology, and of the occurrence and character of the ore deposits.


Includes notes on the occurrence of various ores.

Behr, Ernest E.

187. The mines of Bolanos, old Mexico.—California Jour. Tech., vol. 10, no. 4, pp. 11–14, November, 1907.

Bell, J. J.


Bell, J. M.


Describes the occurrence, character, and relations of the rocks, and discusses the origin of granitic pebbles in Huronian conglomerate through granitization of schists.

Bell, Robert.


Outlines the work of the survey during the year 1905. Includes various data relating to the geology of Canada. [The reports by various members of the staff have been listed under the individual authors.]
Bell, Robert—Continued.


Gives an account of the general geology of the area, the occurrence, and character of the silver ores, and the mining operations.


Gives notes on the occurrence of the ores containing silver, nickel, and cobalt.


Discusses the possible sources of the diamonds found in drift and the movement of the drift.


Describes the geology of the Cobalt district, Ontario, and the character and occurrence of the ore deposits.

Bell, Robert N.

195. Seventh annual report of the mining industry of Idaho for the year 1905.—Idaho, Rept. State Inspector of Mines, 1905, 149 pp., illus. [1906].

Contains notes on the character, occurrence, and geologic relations of ore deposits.

196. Eighth annual report of the mining industry of Idaho for the year 1906. 175 pp., illus., 1907.

Includes notes on the occurrence of ores.


Describes the geologic structure and the occurrence of the ore deposits.


Bement, A.


Discusses the occurrence and mining of the workable coal seams of Illinois.


Contains data regarding the coal fields of the United States, and the occurrence, character, and composition of the coals.

Benge, Elmer, and Wherry, Edgar T.


Bensley, B. Arthur.

204. The homologies of the stylar cusps in the upper molars of the Didelphidae.—Toronto Univ., Studies, Biological Series no. 5, pp. 1–13, [147–159], 1906.
Berkey, Charles P.

Discusses the general character, distribution, and stratigraphic position of the Saint Peter sandstone, the textural structure and origin of the material, and the paleogeography of Saint Peter time.


207. Structural and stratigraphic features of the basal gneisses of the Highlands.—New York State Mus., Bull. 107, pp. 361-378, 1 pl., 1 fig., 1907.


The geology and petrography of the Goldfield mining district, Nevada.—See Hastings and Berkey, no. 1091.

Berry, Edward W.

Includes notes on the distribution of Cretaceous plants.


Describes a locality in Delaware from which Cretaceous fossil plants have been collected.


Discusses the occurrence, character, and relations of the Magothy formation in which the flora considered is found, gives lists of species from different localities and descriptions of new species.

Discusses the geologic succession of forms of Comptonia and its characters, and gives descriptions of the species with critical notes upon them.


218. Leaf-rafts and fossil leaves.—Torreya, vol. 6, no. 12, pp. 246-248, 1 fig., December, 1906.

Gives notes on the occurrence of amber; more particularly in Cretaceous beds.

220. A Tilia from the New Jersey Pleistocene.—Torreya, vol. 7, no. 4, pp. 80-81, April, 1907.

Berry, Edward W.—Continued.
Enumerates the species occurring, with notes upon their distribution, relations, etc., and gives descriptions of new species.
Berry, Edward W., and Gregory, William K.
Berté, E.
228. Les éruptions de la Montagne Pelée. Recit et observations d'un témoin.—La Géographie, t. 6, no. 3, pp. 133-141, 1 fig., 1902.
Beyer, S. W.
Includes data regarding the geological formations which yield raw materials for cement manufacture and gives sections of strata shown in exposures.
Beyer, S. W., and Williams, Ira A.
234. The geology of the Iowa quarry products.—Iowa Geol. Survey, vol. 17, pp. 201-525, 26 pls., 38 figs., 1907.
Bibbins, Arthur Barneveld.
Description of the Patuxent quadrangle.—See Shattuck, and others, no. 2193.
Birge, E. A.
Describes the work carried on by the survey, 1904-1906.
Birkinbine, John.
The production in the United States in 1905 of iron ores and manganese ores.—See no. 2418.
Blackwelder, Eliot.

238. On the probable glacial origin of certain folded slates in southern Alaska.—Jour. Geology, vol. 15, no. 1, pp. 11-14, 1 fig., 1907.

Describes the position and lithologic characters of a shale or slate conglomerate near Yakutat Bay and discusses its age and mode of formation.


Describes the geologic formations and physiography.

Blake, William P.


Describes the character of these slopes in the Great Basin of Nevada and the Piedmont region of Arizona and discusses their origin.

Blatchley, Raymond S.


Describes the geologic history of Indiana.


Gives a general account of the oil and gas developments of Illinois, discusses their origin and mode of occurrence, and describes in detail the oil fields in the southeastern part of the State. E. E. Grout contributes (p. 74) data regarding Randolph County and T. E. Savage (pp. 77-87) concerning the Pike County gas field.


Describes the origin and occurrence of gravel deposits and the occurrence and geologic horizon of limestones suitable for road-making materials.

247. The natural resources of Indiana.—In Dryer's Studies in Indiana Geography, pp. 61-71, 1907.—See no. 745.


Includes a general discussion on the occurrence and origin of petroleum and conditions of accumulation.

Blatchley, W. S., and assistants.


Includes notes on the geologic occurrence of road-making materials.
Böggild, O. B.
251. On some minerals from Narsarsuk at Julianehaab, Greenland.—Meddelelser om Grønland, Hefte 33, pp. 97-120, 10 figs., 1907; Mineral. and Geol. Mus., Copenhagen, Contr. to Mineral., no. 7, 1906.
Describes physical, crystallographic, and optical characters.

Bohm, C. Richard.
Describes the occurrence in North Carolina and South Carolina.

[Boileau, John W.]
Includes a description of the geologic structure of the area.

Bonsteel, Jay A.
254. The soils of St. Mary's County [Maryland].—Maryland Geol. Survey, St. Mary's County, pp. 125-146, 1907.

255. The soils of Calvert County [Maryland].—Maryland Geol. Survey, Calvert County, pp. 135-167, 1907.

Bordeaux, Albert.
Includes an account of the occurrence of the ores.

Bose, Emilio.
Describes Mollusca from Tertiary beds of Mexico.

Discusses stratigraphic position and correlation of the beds from which the fauna described was derived, and gives systematic descriptions of the Mollusca.

Describes the geology of the country along the route traveled.

260. Excursiones aux mines de soufre de la Sierra de Banderas [México].—Xe Congr. géol. intern., Guide des Excursions, Mexico, no. XIX, 8 pp. 2 figs., 1906.
Describes the occurrence of sulphur deposits.

261. Excursión au Cerro de Muleros près ciudad Juarez (Chihuahua).—Xe Congr. géol. intern., Guide des Excursions, Mexico, no. XX, 24 pp., 6 pls. (incl. geol. map and sections), 1906.

262. Excursion dans les environs de Parras [México].—Xe Congr. géol. intern., Guide des Excursions, Mexico, no. XXIII, 16 pp., 6 pls. (incl. geol. map and sections).

Describes the geology of the region.
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Böse, Emilio—Continued.

Describes the geology along the route of travel.

265. Excursion à l'Isthme de Tehuantepec.—X° Congr. géol. intern., Guide des Excursions, Mexico, no. XXXI, 40 pp., 1 pl., 1906.
An account of the geology of the region.

Gives an account of a Pliocene fauna from Santa María Tatetla, State of Vera Cruz, Mexico.

267. Sobre algunos fósiles pleistocénicos recogidos por el Sr. Dr. E. Angermann en la Baja California.—Mexico, Inst. Geol., Parergones, t. 2, no. 2, pp. 41–45, 1907.
Describes Pleistocene mollusks from Lower California referred to the genera Pecten and Fasciolaria.

Describes a method for the photographic reproduction of the sutures of ammonites and similar structures.

Böse, Emilio, and Vigier, Victor von.

269. Sobre la aplicacion de la potasa caustica a la preparacion de fosiles.—Mexico, Inst. Geol., Parergones, t. 2, no. 2, pp. 49–59, 1907.
Describes the method of cleaning fossils by caustic potash and the chemical reactions of the process.

Boule, Marcellin, and Thevenin, A.

Includes figures of and remarks upon the types of fossils described by D'Orbigny from Cincinnati, Ohio, and from the Falls of the Ohio.

Boutwell, John M.

Describes the general geology, the character, occurrence, and relations of Carboniferous, Triassic, and Jurassic strata, and the geologic structure.
The production in the United States in 1906 of lead and zinc, and of quicksilver.—See no. 2419.

Bovard, John F.


Bowers, Stephen.

Describes the geology of the region and the oil developments.
Bowman, H. L.

Bowman, Isaiah.
The discussion has especial reference to underground waters.
Well records on Long Island.—See Veatch and Bowman, no. 2441.

Bowman, Isaiah, and Reeds, Chester Albert.
277. Water resources of the East St. Louis district.—Illinois State Geol. Survey, Bull. no. 5, 128 pp., 4 pls. (incl. 1 map), 11 figs., 1907.
Describes physiographic features, the stratigraphy, and the water resources.

Bownocker, John Adams.
278. Salt deposits and the salt industry in Ohio.—Ohio Geol. Survey, 4th ser., Bull. no. 8, 42 pp., 6 figs., 1906.
Reviews the salt industry in Ohio and describes present operations. Includes notes on the composition of the brines, the geological horizon of the salt beds, and well records.

Bowron, William M.

Boyle, O. M., Jr.

Boynton, C. H.
Describes the general geology and the occurrence and character of the gold ores.

Branner, John C.
281. Geology in its relation to topography.—In Beahan, Willard, The Field Practice of Railway Location, Chapter 5, pp. 115-141, 19 figs., 1904.
Discusses the movements along the fault lines which produced the California earthquake.
BIBLIOGRAPHY OF NORTH AMERICAN GEOLOGY, 1906-1907.

Branner, John C.—Continued.
   Discusses various data regarding the physiographic features of the region and changes in elevation in explanation of the present distribution of fresh-water faunas.
   Geology and the earthquake.—See Jordan, no. 1325.

Branson, E. B.

Breger, C. L.

Brewer, William M.
292. Some observations relative to the occurrence of deposits of copper ore on Vancouver Island, and other portions of the Pacific coast.—Canadian Min. Inst., Jour., vol. 9, pp. 39-48, 1906.
   Describes the mode of occurrence of the copper ores.

Brinsmade, Robert B.
   Describes the occurrence, character, and origin of talc deposits.
   Includes a brief account of the geology, occurrence, and origin of the ores.
295. Kelly, New Mexico. A zinc camp whose ores have been made available by modern metallurgical methods.—Mines and Minerals, vol. 27, no. 2, pp. 49-53, 5 figs., September, 1906.
   Describes the local geology and the occurrence of the ores.
   Includes a short account of the local geology.
   Describes the geology and the occurrence of the ores.
   Includes notes on the geology of the region and the occurrence of the ores.
British Columbia.
Annual report of the minister of mines for the year ending 31st December, 1904, being an account of mining operations for gold, coal, etc., in the Province of British Columbia. Victoria, B. C., 1905.—See Robertson, no. 2072.
Annual report of the minister of mines for the year ending 31st December, 1905, being an account of mining operations for gold, coal, etc., in the Province of British Columbia. Victoria, B. C., 1906.—See Robertson, no. 2073.
Annual report of the minister of mines for the year ending 31st December, 1906, being an account of mining operations for gold, coal, etc., in the Province of British Columbia. Victoria, B. C., 1907.—See Robertson, no. 2077.

Brittain, Doss.
303. The new sheet ground of the Joplin district.—Min. World, vol. 27, pp. 841-844, 6 figs., November 9, 1907.


Broadhead, Garland C.
Discusses the occurrence and origin of cone in cone structure.

Brock, R. W.
Gives a general description of the area, an outline of its geologic history, and an account of the occurrence, relations, and mining of the ores.
Includes notes on the occurrence of gold, silver, and copper ores.
Describes the geology of the region and the occurrence of gold ores.

Brooks, Alfred H.
Reviews the progress of geologic investigation in Alaska.
312. Recent publications on Alaska and Yukon Territory.—Econ. Geology, vol. 1, no. 4, pp. 340-359, 1 fig., 1906.
Summarizes recent publications bearing upon the economic geology of Alaska and Yukon Territory.
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Describes the physiographic features, the general geologic structure and stratigraphy, the geologic history, and the geomorphology.


Contains notes on the occurrence of mineral resources.


Gives an outline of geologic work in Alaska in 1906 and a list of publications by the U. S. Geological Survey on Alaska issued in 1906.


Describes the general geology and the distribution of auriferous gravels.


Describes the general geologic features, the distribution of gold-bearing gravels, and an occurrence of coal.


Gives an outline of the stratigraphy and geologic structure.

Production of gold and silver in 1905 in Alaska.—See no. 2418.
The production in Alaska in 1906 of gold and silver.—See no. 2419.

Brooks, Alfred H., and Kindle, E. M.


Brooks, Alfred H., and others.

The papers in this report have been listed under the individual authors.

The papers in this report have been listed under the individual authors.

Brown, Barnum.


Discusses the occurrence of pebbles which have been entitled "gastroliths."


Brown, Calvin S.

326. Lignite of Mississippi.—Mississippi State Geol. Survey, Bull. no. 3, 71 pp., 1907.
Brown, Charles W.
Description of the Penobscot Bay quadrangle.—See Smith and others, no. 2241.

Brown, F. A.
Gives a general section of the Missourian of Madison County, Iowa, with notes, and a list of fossils identified.

Brown, Harriet Connor.

Brown, R. Gilrnan.

Brown, Richard H.
Contains records of the strata passed through in drilling.


Brown, Thomas C.
Describes the itinerary of a field trip in New York. Includes notes upon Ordovician, Silurian, and Devonian formations of New York.

Brown, David H.
Presents evidence to show the magmatic segregation origin of the Sudbury nickel and copper ores.

Brues, Charles T.

Brunton, D. W.
Brumell, H. P. H.

338. Canadian graphite.—Canadian Min. Jour., vol. 28, no. 8 (new ser., vol. 1, no. 6), pp. 163–171, 7 figs., June 1, 1907.

Includes notes on the occurrence and origin of graphite.

Bucke, Horace W.


Discusses the occurrence of ores.

Buckley, Ernest Robertson.


An administrative report. Reviews the work of the bureau for the years 1905 and 1906.


342. The genesis of the lead and zinc ores of the Mississippi Valley.—Econ. Geology, vol. 2, no. 4, pp. 427–433, June, 1907.


345. Public roads, their improvement and maintenance.—Missouri Bur. Geol. and Mines, 2d ser., vol. 5, 124 pp., 30 pls. [1907].

Includes an account of the occurrence and character of the road-making materials.

Buckley, Ernest Robertson, and Buehler, H. A.


Gives a history of the lead and zinc mining and of the geologic investigation of the area, particularly with reference to the origin of the ores; describes the topography and general geology, the occurrence and character of the minerals, rocks, and ore bodies, and the mining operations; and discusses the origin of the lead and zinc and the chemistry of the ore deposits.

Buckman, S. S.


Discusses the nomenclature and genotypes of some genera of brachiopods.

Buehler, H. A.

The geology of the Granby area.—See Buckley and Buehler, no. 346.

Bullock, William Starr.


Burbank, J. E.

The San Francisco earthquake of April 18, 1906, as recorded by the Coast and Geodetic Survey magnetic observations.—See Bauer and Burbank, no. 169.

Burchard, Ernest F.


Describes the chemical and physical properties of sand and lime rock suitable for glass making.
Burchard, Ernest F.—Continued.

Describes the glass-making industry of the region, the methods of preparation of the sand and its composition and physical properties, glass-sand deposits in use in Illinois and in Missouri, and undeveloped deposits in Missouri, Arkansas, Kansas, and Wisconsin.


Discusses the occurrence and geologic relations of hematite ores in Georgia and Tennessee.

357. Description of the Lancaster and Mineral Point quadrangles.—See Grant and Burchard, no. 1021.

358. The production in the United States in 1906 of bauxite and aluminum; of glass sand, sand, and gravel; and of fluor spar and cryolite, gypsum, and gypsum products and barytes.—See no. 2419.

Burckhardt, Carlos.


360. La faune jurassique de Mazapil avec un appendice sur les fossiles du cretacique inferieur.—Mexico, Inst. Geol., Bol. no. 23, 216 pp., 43 pls., 1906.

Describes the occurrence and composition of phosphatic rock in the State of Zacatecas, Mexico.


Burckhardt, Carlos, and Scalia, S.


Burrows, A. G.

Burrows, R. H.


Gives notes upon the geology and the character and occurrence of the gold ores.

Bustamante, M.


Describes the occurrence of the petroleum at Ebano, in the State of San Luis Potosi, Mexico.

Butts, Charles.


Describes the occurrence, relations, and lithologic characters of Devonian formations near Altoona, Pa.


Describes the topography, geologic structure, occurrence, character, and relations of Carboniferous strata and Quaternary deposits, and the mineral resources, chiefly coal, petroleum, natural gas, and clays.


Describes the stratigraphy and structure of the field; the occurrence, character, and relations of the coal seams; and the character and composition of the coal.


Byers, Charles Alma.


Includes data upon the physiographic features of southern California.

Caballero, Gustavo de J.


Describes a geysier region in the northern part of the State of Michoacan, Mexico.


Describes the occurrence of iron deposits.


Includes notes upon the geology and mineralogy of the area.

Cadell, Henry M.

378. Some old Mexican volcanoes.—Scottish Geog. Mag., vol. 22, no. 6, pp. 281–312, 26 figs., June, 1907.

Cairnes, D. D.


Gives notes upon the geology of the region examined.

Includes notes on the general geology and on the occurrence of mineral deposits.

381. Moose Mountain district of southern Alberta.—Canada, Geol. Survey, 55 pp., 3 pls., 2 maps, 1907.
Describes the occurrence of coal, oil, and natural gas, and the general geology of the region.

Includes notes on the occurrence of ores.

Calderón, Salvador.

Discusses contact phenomena.

Calhoun, Fred. H. H.

Describes briefly the physiography and general geology of northern Montana, and in detail the character and occurrence of the surface formations, with discussion of the distribution of mountain glaciers and the Keewatin ice sheet and their inter-relations as shown by the drift deposits, and of the drainage with changes produced by the ice.

California State Earthquake Investigation Commission.—See Lawson and others, no. 1381.

California State Mining Bureau.

385. Register of mines and minerals, with map [of each of the following counties, issued separately]:
Amador County, by John B. Tregloan, 17 pp., 1903.
Butte County, by W. E. Thorne, 13 pp., 1903.
Calaveras County, by W. H. H. Penniman, 50 pp., 1900.
El Dorado County, by J. E. Armstrong, 32 pp., 1902.
Inyo County, by A. V. Davidson, 24 pp., 1902.
Kern County, by Marion Aubury, 37 pp., 1904.
Lake County, by George Madeira, 14 pp., 1901.
Mariposa County, by E. M. Wilkinson, 19 pp., 1903.
Nevada County, by Charles E. Uren, 18 pp.
Placer County, by Ivan H. Parker, 21 pp., 1902.
Plumas County, by J. A. Edman, 36 pp., 1900.
San Bernardino County, by G. E. Bailey, 35 pp., 1902.
San Diego County, by I. A. Hubon, 15 pp., 1902.
Santa Barbara County, by Lew B. Harris, 12 pp., 1906.
Shasta County, by M. E. Dittmar, 27 pp., 1902.
Sierra County, by George F. Taylor, 24 pp., 1903.
Siskiyou County, by J. M. Davidson, 50 pp., 1900.
Siskiyou County, by W. S. Lowden, 46 pp., 1900.
Tuolumne County, by R. P. McLaughlin, 24 pp., 1903.
Yuba County, by Lew B. Harris, 20 pp., 1905.

386. Register of oil wells in Los Angeles County, with map, by Charles A. Blackmar, 13 pp., 1903.
The structural and industrial materials of California.—See Aubury, no 87.
Gold dredging in California.—See Doolittle, no. 728.
Reports.—See Aubury, nos. 82–84.
Calkins, Frank Cathcart.

Description of the Snoqualmie quadrangle.—See Smith and Calkins, no. 1156.

Calvin, Samuel.


Describes briefly the occurrence, character, relations, and nomenclature of the formations comprised in the geological scale of Iowa.


Describes the topographic features and drainage, the stratigraphy, including Cambrian, Ordovician, Silurian, and Devonian strata and glacial deposits, and the economic products.


Discusses drainage changes in Iowa and the Mississippi Valley.


Administrative report.

Campbell, Donald F.


Campbell, Marius R.


Describes the occurrence in Arizona and discusses the origin of the phenomena.


Notes the form, size, and occurrence of these mounds and discusses the various hypotheses advanced to explain their origin.


Describes shallow folding in Arkansas, which is explained to be due to weathering.


Campbell, Marius R.—Continued.


A summary account of the work of the U. S. Geological Survey in examining coal deposits and testing the fuel value of the coals.


Describes the chemical composition, classification, and utilization. Discusses briefly the classification of coals.


Contains notes on the distribution and extent of the coal fields and the character of the coals.


Gives an outline of the work of the U. S. Geological Survey in 1906 upon coal, lignite, and peat.


Report on the operations of the coal-testing plant of the United States Geological Survey at the Louisiana Purchase Exposition, St. Louis, Mo., 1904.—See Parker, Holmes, Campbell, no. 1870.

Mineral resources of the United States in 1905: peat.—See no. 2418.


Campbell, William.

406. The microscopic examination of opaque minerals.—Econ. Geology, vol. 1, no. 8, pp. 751-766, 7 figs., 1906.


Campbell, William, and Knight, C. W.


An investigation of the order in which the minerals occurring in the ores have been deposited and the relations which the gangue (calcite) bears to them.

409. Microscopic examination of nickeliferous pyrrhotites. Results of a study to settle a much-discussed question in ore deposition.—Eng. and Min. Jour., vol. 82, pp. 909-912, 6 figs., November 17, 1906.


Describes the structure shown by microscopic examination and the order of origin of the principal constituents.


Camsell, Charles.


Describes the exploration of the region. Includes various data upon its geology.
Camsell, Charles—Continued.


Gives notes upon the physiography and glaciation, and upon the occurrence and character of Tertiary, Mesozoic, and Paleozoic rocks and of gold and copper ores.


Includes notes on the geology of the region.

Canada, Department of the Interior.

415. Canada's fertile northland. A glimpse of the enormous resources of part of the unexplored regions of the Dominion. Evidence before a select committee of the senate of Canada during the parliamentary session of 1906-7, and the report based thereon. Ottawa, 1907. 139 pp., illus.

The evidence given by A. P. Low and other geologists of the Geological Survey of Canada contains notes on the mineral resources.

Canada, Department of the Interior.


Contains reports on economic resources by Eugene Haanel, Fritz Cirkel, F. Hille, J. E. Woodman, and Einar Lindeman. See under these authors.

Canada, Department of the Interior, Mines Branch.

416. Report of the Commission appointed to investigate the zinc resources of British Columbia and the conditions affecting their exploitation. Ottawa, Canada, 1906. 300 pp., illus.

Contains data regarding the occurrence of zinc ores in British Columbia.

Canada, Geological Survey.


Canadian Mining Journal.

418. The Ontario meeting of American Institute of Mining Engineers and their tour through the districts of Cobalt, Sudbury, and Moose Mountain. Published by the Canadian Mining Journal, Toronto, Ont., [1907]. 89 pp., illus.

Includes an historical sketch of the discovery of ore and mining developments at Cobalt, Ontario, and notes on the occurrence of nickel and cobalt ores.

Canfield, F. A.


Includes brief notes upon willemite from New Jersey.

Cannon, George L.


Notes the discovery of these pebbles with the remains of *Atlantosaurus immanis* Marsh at Morrison, Colorado.


Gives notes upon the occurrence and characters of fossil vertebrate remains found in the vicinity of Denver, Colo.

Capps, S. R., jr.

Carden, A. D., and Goldney, G. F. B.
423. Notes on the Jamaica earthquake, 14th January, 1907.—The Royal Engineers Jour., vol. 6, no. 4, pp. 213–217, 4 pls., October; 1907.

Carey, Everett P.
  Discusses the faulting which produced the San Francisco earthquake and displacements along the line of fracture.

Carey, Everett P., and Miller, W. J.
425. The crystalline rocks of the Oak Hill area, near San José, California.—Jour. Geology, vol. 15, no. 2, pp. 152–169, 2 figs., 1907.

Carmichael, Alfred.
  Includes notes on the geology, and on the occurrence of the placer gold.

Carney, Frank.
  Describes the stratigraphy, topography, glaciation, and drainage of the area.


  Describes folds and glaciated surfaces in Owasco Lake Valley, New York, produced by glacial action.


  Describes a deposit of outwash drift in the Penn Yan quadrangle, New York, and proposes the term inter-lobule fan for such deposits.


Carpenter, Franklin R.

Case, Ermine C.
  Describes an unusual formation of shore ice on the shore of Lake Michigan and explains how it was formed.


Case, Ermine C.—Continued.


Describes amphibian remains from the Permian of Texas.

Catlett, Charles.


Cayeux, L.


Discusses the structure, classification and origin of sandstone and quartzites.

Ceipek, L.

Analyse des Albit von Amelia.—See Erben and Ceipek, no. 811.

Chalmers, Robert.


Chamberlin, P. W.


Chamberlin, Thomas C.

Chamberlin, Thomas C.—Continued.


Discusses variations of climate upon the earth in geologic time, some of the controlling factors and more particularly the agencies that affect oceanic circulation.


Discusses the application of the planetesimal hypothesis in the explanation of deformation of the earth and of climatic oscillations.


456. On the growth of the earth by accretion under the planetesimal hypothesis.—Abstract: Carnegie Inst. of Washington, Yearb. no. 5, p. 169, 1907.


Chamberlin, Thomas C., and Salisbury, Rollin D.


Chapman, Robert H.


Includes notes upon the physical features and rocks of the region.

Chrysler, M. A.

The lignites of Brandon, Vt.—See Jeffrey and Chrysler, no. 1291.

On Cretaceous Pityoxyla.—See Jeffrey and Chrysler, no. 1292.

Church, John A.


Describes the geology and the ore deposits.

466. Proano, a famous mine of Fresnillo, Mexico.—Eng. and Min. Jour., vol. 84, pp. 53-56, 4 figs., July 13, 1907.

Includes a short account of the local geology and the vein system.

467. The mines of La Luz, Guanajuato, Mexico.—Eng. and Min. Jour., vol. 84, pp. 105-110, 153-156, 6 figs., 1907.

Describes the geology, the vein system, and the occurrence of the ores.
Cirkel, Fritz.
469. Graphite, its properties, occurrence, refining, and uses.—Canada, Dept. of Mines, Mines Branch, 307 pp., 20 pls., 8 maps, 52 figs., 1907.

Clapp, C. H.
470. The clays of North Dakota.—Econ. Geology, vol. 2, no. 6, pp. 551-564, 1907.
Economic geology of North Dakota clays.—See Babcock and Clapp, no. 92.

Clapp, C. H., and Babcock, E. J.

Clapp, Frederick G.
Discusses the correlation of the oil sands in this area.
Describes the occurrence and character of white clay encountered in borings at Boston, Massachusetts, which, for reasons stated, is considered as probably Cretaceous in age.
Describes the topography, the occurrence, character, and relations of Carboniferous and Devonian strata, and of Pleistocene deposits, the geologic structure and history, and the mineral resources, coal, petroleum, and natural gas.
Describes the topography, the occurrence, character, and relations of Carboniferous and Devonian strata, and Pleistocene deposits, the geologic structure and history, and the mineral resources, chiefly petroleum, natural gas, and coal.
Describes the occurrence, character, and relations of Carboniferous strata, the geologic structure, and the occurrence of mineral resources: petroleum, natural gas, coal, and limestone.
Oil and gas fields of Greene County, Pennsylvania.—See Stone and Clapp, no. 2314.

Clark, W. C.

Clark, William Bullock.
Clark, William Bullock—Continued.


Discusses the value of the fossil contents of the Pleistocene deposits of Maryland for correlating the beds with those of other areas. Includes observations and tables showing the geographic distribution and geologic range of species.


486. Maryland Geol. Survey, St. Mary's County, Baltimore, 1907. 209 pp., 16 pls., 12 figs. With atlas of 3 folded maps.


Clark, William Bullock, and Mathews, Edward B.

488. Report on the physical features of Maryland, together with an account of the exhibits of Maryland mineral resources made by the Maryland Geological Survey.—Maryland Geol. Survey (Special Publication, vol. 6, pts. 1 and 2), 284 pp., 30 pls., 19 figs., geol. map (in pocket), 1906.

A general account of the physiography, geology, and mineral resources of the State.

Clark, William Bullock, and Miller, Benjamin Le Roy.


Gives a summary of the stratigraphy of the coastal plain in Virginia, embracing formations of Jurassic (?), Cretaceous, Tertiary, and Quaternary age.

Clarke, Frank W.


Determines the approximate average chemical composition of the earth's crust and discusses the methods employed and the validity of the results obtained.


Clarke, John M.


Clarke, John M.—Continued.


Outlines the work under progress during 1905. Includes various data relating to the stratigraphic, surficial, and economic geology of New York.


497. Some new Devonian fossils.—New York State Mus., Bull. 107, pp. 153-291, illus., 1907.

Describes invertebrate fossils from lower Devonian deposits of the Province of Quebec, New Brunswick, and Maine.

498. An interesting style of sand-filled vein.—New York State Mus., Bull. 107, pp. 293-294, 1 pl., 1907.


Discusses their correlation and describes their crustacean fauna.

500. Third report of the director of the Science Division 1906, including the 60th report of the State Museum, the 26th report of the state geologist, and the report of the state paleontologist for 1906.—(Reprinted from the 60th Ann. Rept. N. Y. State Mus.). Albany, 1907, 182 pp., 40 pls.

Includes various geologic and paleontologic data: Earthquake records, pp. 29-32; an account of limestone caverns of eastern New York, pp. 32-51; Appendix B is a supplement to the catalogue of type specimens of Paleozoic fossils.


Discusses the origin of the Lake Champlain Valley.

Clarke, John M., and Luther, D. Dana.


Clarke, W. C.


Cleland, H. F.


Clement, J. K.

Minerals of the composition MgSiO₃; a case of tetramorphism.—See Allen, Wright, and Clement, no. 28.
Clerc, F. L.

States and discusses the various explanations which have been given of the genesis of the zinc and lead ore deposits of the Joplin district, Missouri.

Discusses the origin and form of the lead and zinc deposits of the Joplin district.

Cobb, Collier.


Defines the term and records occurrences.

Notes the occurrence of fossil plants in North Carolina.

Describes the shifting of sand on the islands along the coast of North Carolina.


Cockerell, Theodore Dru Alison.

513. The publication of rejected names.—Science, new ser., vol. 17, p. 189, 1903.
Discusses the nomenclature of a fossil fruit from Vermont.


515. The snails of New Mexico and Arizona.—Nautilus, vol. 19, no. 6, pp. 68-71, October, 1905.
Gives notes upon shells from Pleistocene beds of New Mexico.

Describes Panera hendersoni n. sp. from Tertiary beds near Florissant, Colo.


Gives a description of Carixa florissantella n. sp.

Gives an account of the character and occurrence of the fauna, discusses the evidence of the fossils as to the age of the deposits, and gives a classified, annotated summary of the fauna and flora. The plate contains figures of new species of plants described in the Bulletin of the Torrey Botanical Club, 1906.

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Cockerell, Theodore Dru Alston—Continued.


Gives a list of Coleoptera and Arachnida identified from Florissant, Colorado, including those found fossil in the shales.


Describes Chlorippa wilmattw n. sp. from the Miocene shales of Florissant, Colorado.


Describes Tortrix florissantana n. sp. from the Miocene shales of Florissant, Colorado.


Describes Vitrea fagalis n. sp.

Coker, Ernest G.

An investigation into the elastic constants of rocks, more especially with reference to cubic compressibility.—See Adams and Coker, nos. 10, 11.

Experimental investigation of the compressibility and plastic deformation of certain rocks.—See Adams and Coker, no. 12.

Cole, A., D.


Coleman, Arthur P.


Describes the general geology, the occurrence, character, and relations of the ore deposits, and the character and distribution of eruptive rocks, of Huronian sediments, and of Pleistocene deposits, and gives an account of the petrography of the nickel eruptive, of the economic developments of the field, and of the minerals found in the Sudbury nickel district of Ontario.
Coleman, Arthur P.—Continued.


Discusses, with regard to the report of the special committee of American and Canadian geologists on the nomenclature of the formations of the Lake Superior region, the relationships of various pre-Cambrian formations in the upper lakes region of Canada and their nomenclature.

541. The Helen iron mine, Michipicoten.—Econ. Geology, vol. 1, no. 6, pp. 521–529, 4 figs., 1906.

Describes the local geology, the rocks of the iron formation, the character of the ore body, and the origin of the ore.


Describes the general features of the area, the occurrence and character of the iron deposits, and the Pleistocene geology.


After referring briefly to evidence for ice ages prior to the glacial period, describes the Huronian “slate conglomerate” of Ontario, and striated bowlders taken therefrom, and discusses the evidence for a lower Huronian ice age.


Describes the geology and the occurrence and character of the iron ores.

549. Die Sudbury-Nickelerze.—Zeitschr. f. prak. Geol., Jg. 15, p. 221, 1907.

Discusses the origin of the Sudbury, Ontario, nickel ores.

Report of a special committee on the correlation of the pre-Cambrian rocks of the Adirondack Mountains, the “original Laurentian area” of Canada, and eastern Ontario.—See Adams and others, no. 13.

Collen, M.

550. Copper deposits in the Belt formation in Montana.—Econ. Geol., vol. 2, no. 6, pp. 572–575, 1907.

Colles, George Wetmore.


Collier, Arthur J.

552. Geology and coal resources of the Cape Lisburne region, Alaska.—U. S. Geol. Survey, Bull. no. 278, 54 pp., 9 pls., 8 figs., 1906.

Describes the geography, the stratigraphy, embracing Devonian, Carboniferous, and Mesozoic formations and Quaternary deposits, and in detail the coal resources of Jurassic and Carboniferous age.


Describes the geography, drainage, and geology of the area, and the occurrence and character of the mineral resources.
Collier, Arthur J.—Continued.

Describes the general geology and geologic history of the region, the occurrence of gold-bearing placers, and their relation to the terraces.


Describes the stratigraphy and structure, and the occurrence and character of the coals of western Arkansas.

The production in the United States in 1906 of chromite or chromic iron ore; and of talc and soapstone.—See no. 2419.

Collins, Edgar A.

Describes the local geology and occurrence and character of ores in the Goldfield mining district, Esmeralda County, Nevada.

Describes the geology and occurrence of the ore bodies.

Collins, Henry F.


Collius, W. H.

Gives notes upon the physical features and general geology of the area examined.

Includes a brief account of the region and its mineral deposits.

Colorado, State Bureau of Mines.

562. Report of the State Bureau of Mines for the years 1905-6. 127 pp., illus., 1907.
Contains notes on the occurrence of mineral resources. Includes a paper by Fleck and Haldane on uranium and vanadium deposits. See no. 878.

Comstock, Theodore B.

Discusses the subject of subsidence and elevation in California and the inter geological history of the southern portion of the State.


Condon, Thomas.

Condra, George Evart.


569. Geography of Nebraska. Lincoln, Nebraska, The University Publishing Co., 1906. 192 pp., 118 figs.

Describes physiographic features.


Includes a general account of the physiography, geology, and mineral resources.

Congrès géologique international.


Contains discussions of papers relating to the geology of North America.

Connecticut, State Geological and Natural History Survey.


An administrative report.

Cook, C. W.

574. Datolite from Westfield, Massachusetts.—See Kraus and Cook, no. 1426.

Cook, Edward H.

575. La mina Santa Francisca.—México, Secretaría de Fomento, Bol., 2ª época, año 6, no. 6, II, pp. 562-569, 2 pls., 1907.

Gives notes upon the local geology and the occurrence and character of the silver ores at the Santa Francisca mine in the state of Aguascalientes, Mexico.

Cooper, W. F.


Discusses various physiographic features of Michigan: origin and tilting of the Great Lake basins, pre-Glacial drainage, terraces, etc.

Corey, G. W.


Describes the character of the copper ore in the Nonesuch mine, Porcupine district, Michigan.

Corkill, E. T.


Includes notes on the occurrence and geology of ore bodies.

Cornforth, J. T.

Includes notes on the mineral resources.

Coste, Eugene.

Includes records of borings.


583. The Tilbury oil field, Ontario.—Eng. and Min. Jour., vol. 84, p. 779, October 26, 1907.

Courtis, William M.

584. The Cobalt mining district.—Eng. and Min. Jour., vol. 82, pp. 5–6, 5 figs., July 7, 1906.
Includes notes on the geology, and the occurrence and character of the ores of Cobalt, Ontario.

Contains notes on the general geology and the character of the ore deposits.

Courtis, W. M.


Crafts, H. A.


Craig, E. H. Cunningham.


Crandall, Albert R.

589. The coals of the Big Sandy Valley, south of Louisa and between Tug Fork and the headwaters of the north fork of Kentucky River.—Kentucky Geol. Survey, Bull. no. 4, 141 pp., 30 pls., 1905.
Describes the general geology and topography of the area, the occurrence, character, thickness, and relations of the coal seams, giving numerous sections, and the character and composition of the coals.

Crandall, Roderic.

Describes the occurrence of Cretaceous formations and gives lists of the fossils found in different exposures.

Describes the geologic formations and the petrography of their rocks, the geologic structure and physiographic features, and the earth movements in the San Francisco earthquake of April 18, 1906.

Crane, W. R.

Describes the distribution, relations, and character of the coal deposits.
Crane, W. R.—Continued.

593. Lead and zinc mining in the Quapaw district, Oklahoma.—Mines and Minerals, vol. 27, no. 9, pp. 445-446, 1 fig., May, 1907.

describes the character and occurrence of the ores.

Crespi, R. A.


Crider, A. F.


describes the occurrence, character, and relations of Devonian, Mississippian, Cretaceous, Tertiary, and Quaternary formations, and the mineral resources, mainly clays and cement materials.


describes the general geology and the distribution and character of the Cretaceous and Tertiary clays.


Crider, A. F., and Johnson, L. C.


describes the topography, the general geology, the character and distribution of Devonian, Carboniferous, Cretaceous, Tertiary, and Quaternary formations, and the underground-water resources.

Crook, Alja Robinson.


Crosby, William O.


describes the general geology, the genetic and structural relations of the gold-bearing formations, and mining developments.


Cross, Whitman.


describes the occurrence, the macroscopic and microscopic characters, and the chemical composition, and compares it with similar rocks.


discusses the correlation of Cretaceous, Jurassic, Triassic, and Carboniferous formations.
Cross, Whitman—Continued.

Gives also a list of his publications.

Glacial phenomena of the San Juan Mountains, Colorado.—See Howe and Cross, no. 1247.

Cross, Whitman, Howe, Ernest, and Irving, J. D.

Describes the topography, the character, occurrence, and relations of Algonkian, Devonian, Carboniferous, Triassic, Cretaceous, Tertiary, and Quarternary deposits, and of igneous surface and intrusive rocks, geologic structure and history, and the economic resources, chiefly gold, silver, and coal.


Discusses the description of the texture of igneous rocks and sets forth a nomenclature for this purpose.

Cumings, Edgar R.


Cumings, Edgar R., and Beede, Joshua W.

Describes the localities from which collections were made, and gives general notes in regard to the fauna.

Curtis, George Carroll.


Cushing, H. P.

Describes the occurrence, character, and relations of pre-Cambrian sedimentary and igneous intrusive rocks and the petrographic characters of the latter, the topography and the glaciation.

615. How faults should be named and classified.—Econ. Geology, vol. 2, no. 4, pp. 433–435, 1 fig., June, 1907.


Cushing, H. P.—Continued.
Report of a special committee on the correlation of the pre-Cambrian rocks of the Adirondack Mountains, the "original Laurentian area" of Canada, and eastern Ontario.—See Adams and others, no. 13.

Cushman, Joseph A.

Daggett, Ellsworth.

Dale, T. Nelson.
620. The geological history of Mount Greylock [Massachusetts]. Pittsfield, Massachusetts, 1906. 17 pp., 5 figs.
Describes the origin, composition, and structure of slate, the methods of quarrying, and the occurrence of slates in various States of the Union.
Describes the occurrence and character.

Dale, T. Nelson, and Eckel, Edwin C.
Describes the occurrence of slates in various States.

Dall, William Healey.
Includes a list of his publications.
627. Note on the genus *Psilocochlis* Dall.—Nautilus, vol. 20, no. 11, p. 128, March, 1907.

Daly, Reginald.
The discussion is largely based upon a study of the Moyie sill in the Purcell Mountain Range along the international boundary between Port Hill, Idaho, and Gateway, Montana.
Daly, Reginald—Continued.


Describes the occurrence, relations, and petrographic features of igneous rocks along the international boundary in the Cascade Mountains.


Includes notes on the geologic structure and stratigraphy. Discusses the occurrence of oil in Alberta.


Proposes and discusses the hypothesis of lack of lime salts in the ocean in pre-Cambrian time to explain the nonfossiliferous character of Algonkian deposits.


Includes notes on the geology of the country examined.


Danes, Ivic V.


Describes briefly a study of the karsts of Jamaica.


Describes the San Jacinto earthquake of December 25, 1899, of southern California and gives notes upon the geology of the region.

Dappert, J. W.


Darton, Nelson Horatio.

642. Geology of the Owl Creek Mountains, with notes on resources of adjoining regions in the ceded portion of the Shoshone Indian Reservation, Wyoming.—59th Congress, 1st session, Senate Document no. 219, 1906. 48 pp., 19 pls., 1 fig.

Describes the topographic features, the character, occurrence, and relations of pre-Cambrian, Cambrian, Ordovician, Carboniferous, Triassic, Jurassic, Cretaceous, and Tertiary rocks, the geologic structure and history, and the mineral and water resources of the area.


Describes the geologic structure and hot-spring deposits at this place, and the character and source of the water and the origin of its heat.
Darton, Nelson Horatio—Continued.


Describes the general geology of the Bighorn uplift and more particularly the occurrence, character, relations, and faunal content of the Ordovician deposits of Wyoming, Montana, and Colorado.


Describes the physiographic features, the occurrence, character, and relations of pre-Cambrian igneous rocks and of Cambrian, Ordovician, Carboniferous, Triassic (?), Jurassic, Cretaceous, Tertiary, and Quaternary formations, the geologic structure and history, and the economic geology.


Describes the physiographic features, the occurrence, character, and relations of pre-Cambrian igneous rocks and of Cambrian, Ordovician, Carboniferous, Triassic (?), Jurassic, Cretaceous, Tertiary, and Quaternary formations, the geologic structure and history, and the economic geology.


Describes the topographic features, the occurrence, character, relations, and fauna of pre-Cambrian, Cambrian, Ordovician, Carboniferous, Triassic, Jurassic, Cretaceous, Tertiary, and Quaternary formations, the glaciation, the geological structure and history, and the economic resources.


Describes the configuration and general geology, the occurrence, character, and relations of Cambrian, Ordovician, Carboniferous, Triassic (?), Cretaceous, Tertiary, and Quaternary formations and of igneous rocks, the geologic history, and the underground waters.


Describes the occurrence and economic value of coal, gold, and other mineral deposits.


655. Mexico, the treasure house of the world.—Nat. Geog. Mag., vol. 18, no. 8, pp. 493-519, 23 figs., August, 1907.

Darton, N. H., and O’Harra, C. C.


Describes the geography, the occurrence, character, and relations of Triassic, Jurassic, Cretaceous, and Tertiary strata, and igneous rocks, the geologic structure and history, the mineral resources, and water supply.
David, T. W. Edgeworth.


Davidson, George.


Davis, Charles A.


Davis, Ralph E.


Describes the geology and the occurrence of the ores in the Wisconsin-Iowa-Illinois field.

Davis, William Morris.


Discusses the formation of scarps in the Adirondacks.


Describes the work of Professor Shaler at Harvard University.

672. Symposium on general geography: the physical factor.—The Educational Bi-Monthly (published by the Chicago Normal School), vol. 1, no. 2, pp. 112–123, December, 1906.

Discusses the use of physiographic data in the teaching of geography.

673. The place of coastal plains in systematic physiography.—Jour. Geog., vol. 6, no. 1, pp. 8–15, January, 1907.


Davis, William Morris—Continued.

676. The systematic study of mountains.—Science, new ser., vol. 25, p. 396, March 8, 1907.


Davison, Charles.


Davison, John M.


The Estacado aerolite.—See Howard and Davison, no. 1242.

Dawson, George M.


Day, Arthur L.


Details methods and progress of experimentation upon certain groups of minerals.

688. Investigation of mineral solution and fusion under high temperatures and pressures.—Carnegie Inst. of Washington, Yearb. no. 5, pp. 177–185, 1907.


Describes experiments upon the melting points of the lime-silica series of minerals.

Day, Arthur L., and Shepherd, E. S.


Day, David T.


The production in the United States in 1906 of platinum.—See no. 2419.

Day, David T., and Richards, R. H.


Presents in tabular form the results of the examination of black sands from the Pacific slope and from various placer-mining districts, and describes concentration experiments.

Mineral resources of the United States, 1905: black sands.—See no. 2418.

Dean, Bashford.


Deckert, Emil.


Describes volcanic eruptions on the islands of Martinique and St. Vincent.

De Kalb, Courtenay.


Describes an instance of secondary enrichment in copper deposits north of Lake Huron.

701. Do the geological relations of ore deposits justify the retention of the law of the apex?—Econ. Geology, vol. 1, no. 8, pp. 801-809, 1906.


Describes the lithology, the geologic structure, the periods of faulting, and the formation of the ores.

De Lury, Justin S.


Describes the occurrence and characters of the crystals.

Demming, Henry C.


Gives notes on mineral resources of Pennsylvania.


Includes notes upon the geology and mineral resources of Pennsylvania.


Gives notes upon mineral resources of Pennsylvania.


Includes notes upon the economic resources of Pennsylvania.
Demming, Henry C.—Continued.

Gives notes upon the mineral resources of Pennsylvania.

Includes notes upon the economic resources of Pennsylvania.

Denis, Theo.

Gives notes on the occurrence of oil, natural gas, and coal in Ontario, Alberta, and British Columbia.

Dennis, Clifford G.

711. Rare mercury ores.—Min. and Sci. Press, vol. 95, p. 92, 2 figs., July 20, 1907.
Describes the occurrence of quicksilver ores at Terlingua, Brewster County, Texas.

Derby, Alice Greenwood.


Derleth, Charles, Jr.


Discusses movement along the fault line, producing the earthquake.

Dern, John.


Deussen, Alexander.

716. Cement resources and industry of Texas.—The Tradesman, Chattanooga, Tenn., vol. 56, no. 6, pp. 46-49, November 15, 1906.

DeWolf, Frank W.


DeWolfe, Loran A.

Describes the occurrence, character, and relations of the Carboniferous strata of the region, including many detailed sections, and gives a summary of the geologic history.

Diaz, Severo.

A daily record of observations made on the volcano Colima.
Dickson, Charles W.


Diller, Joseph Silas.


Describes the physiographic features, the occurrence, character, and relations of Devonian, Carboniferous, Triassic, Jurassic, Cretaceous, Tertiary, and Quaternary formations, and of igneous rocks, the geologic structure and history, and the economic resources, chiefly gold, silver, and copper.


Discusses the age of the auriferous gravels of the Sierra Nevada in California in the light of evidence offered by fossil plants and marine shells occurring in Oregon.


Describes the occurrence and characters of Jurassic and Cretaceous formations in southwestern Oregon and discusses their relations.

The production in the United States in 1906 of asbestos.—See no. 2419.

Dobbs, W. Stewart.


Gives various data in regard to the character of the region visited and the exposed rocks.

Dodge, Charles Richards.


Dole, Richard B.


D’Ooge, Martin L.

Israel Cook Russell.—See Lombard and D’Ooge, no. 1611.

Doolittle, J. E.


Douglass, Earl S.


Includes also some discussion of the succession and relations of Tertiary beds of the West.


Bowling, D. B.

Includes data upon the geology of the region.

Includes notes on the geology and on the occurrence of coal-bearing beds.

Describes the character, occurrence, relations, and geologic horizon of Cretaceous formations in Alberta, Canada.

Describes the geology of the region, the relations and distribution of the coal seams, and the character of the coal.


Dresser, John A.

Gives notes on the general geology and the rocks of the area.

Discusses the character, occurrence, and relations of metamorphic, igneous, and clastic rocks in this region.

Describes their physiographic characters and history.

Describes the classification and distribution of the deposits, their relation to the enclosing rocks, and the origin and value of the ores.

Reviews previous work upon the area and describes the occurrence, lithologic character, and relations of igneous and metamorphosed sedimentary rocks.

Describes the occurrence and petrographic and chemical characters of the igneous rocks.

Dryer, Charles Redway.


Duerden, James E.


DryS36—Bull. 372—09—5
Duerden, James E.—Continued.

The discussion is based in part upon American material.


Duffield, M. S.

Contains notes on the physiography and geology of Alaska.

Dumais, P. H.

Dumble, Edwin T.

From fossils identified by Dr. W. E. Dall the age is held to be upper Miocene.

Dutton, Clarence Edward.

Explains the phenomena of volcanism as due to radioactivity generated in the earth.

Eakle, Arthur S.

Discusses the occurrence, composition, and crystallographic and other characters of these minerals.

754. Weathered pyrite.—Min. and Sci. Press, vol. 95, p. 492, October 19, 1907.

Eames, Richard, Jr.

Eastman, Charles R.


Discusses the relations of the dental parts in Mylostomid fishes.

Eastman, Charles R.—Continued.


Eberle, Frank.


Eckel, Edwin C.


Describes the occurrence and character of limestones suitable for cement manufacture.


Outlines the work in progress of the U. S. Geological Survey upon iron ores, fuels, structural materials, and miscellaneous nonmetals.


Discusses the origin of the Clinton ores and describes the geology, occurrence, and chemical characters of the ore bodies, and the mining developments in northern Alabama.


Describes the general geology of the iron district, and the occurrence, character, and origin of the ores.


Describes the geology of the district, and the character and occurrence of limestones and shales available for cement manufacture.


Describes the occurrence and character of the deposits, and the composition of the clays.


Summarizes the investigations of iron ores, structural materials, etc., of the U. S. Geological Survey during the year 1906.


Gives a geologic section in the Lehigh Gap district, Pennsylvania.

Slate deposits of the United States.—See Dale and Eckel, no. 625.

The production in the United States in 1905 of gypsum and gypsum products.—See no. 2418.

Contributions to economic geology, 1905.—See U. S. Geological Survey.


Advances in cement technology, 1906.—See no. 2419.

The production in the United States in 1906 of iron ores, pig iron, and steel; and of lime and sand-lime brick.—See no. 2419.

Eddy, J. A.


Describes briefly the character of the water and the deposit it has formed.
Edman, J. A.
772. The auriferous black sands of California.—California State Min. Bur., Bull. no. 45, pp. 5-10, 1907.

Edson, G. E.
   Gives an historical outline of geologic work upon the Cambrian deposits of Vermont.
   Describes the occurrence, character, relations, and fossil contents, with lists of fossils, of Cambrian and Ordovician strata in the vicinity of St. Albans, Vt.

Edwards, George E.
775. The lead and zinc fields of southwestern Wisconsin.—Min. World, vol. 27, pp. 279-280, August 17, 1907.

Edwards, W. H.

Edwards, Clarence E.

Eldridge, George Homans.
   Describes the distribution of asphalt veins, the nature and origin of the fissures, the dimensions of the veins and their relation to inclosing rocks, and discusses their origin.

Eldridge, George Homans, and Arnold, Ralph.

Ellis, E. E.

Eills, R. W.
   Gives an account of the examination of the coal deposits in this island.
   Discusses the stratigraphy of the region and the occurrence of economic minerals.
   Describes the physical features, the general geology, the character and occurrence of post-Tertiary, Tertiary, and Cretaceous sedimentary and pre-Cretaceous and Tertiary igneous rocks, and the occurrence, character, and mining of Cretaceous coals.
   Discusses the occurrence and inter-relations of stratified and volcanic rocks, and the stratigraphic position, age, and relations of various metamorphosed rocks of New Brunswick.
Ells, R. W.—Continued.


Describes the occurrence, character, and extent of coal and other mineral fuel resources of Canada.


787. Notes on the geology and mineral resources of Trinidad and Barbados, B. W. Islands.—Ottawa Naturalist, vol. 23, no. 5, pp. 73-79, August, 1907.

788. Report on the geology and natural resources of the area included in the northwest quarter sheet, number 122 of the Ontario and Quebec series, comprising portions of the counties of Pontiac, Carleton, and Renfrew.—Geol. Survey of Canada, Ottawa, 1907. 71 pp., 1 map.

Elton, H. L.

Mines of the Taviche district, Oaxaca, Mexico.—See Place and Elton, no. 1936.

Emerson, Benjamin K.


790. The green schists and associated granites and porphyries of Rhode Island.—U. S. Geol. Survey, Bull. no. 311, 74 pp., 2 pls., 6 figs., 1907.

Describes the occurrence, character, and relations of the pre-Cambrian and Carboniferous stratified rocks and associated igneous rocks.

Emmens, Newton W.


Includes a brief account of the geology and occurrence of this iron-ore deposit.

Emmons, Samuel Franklin.


Adds a list of his published papers.

793. What is a fissure vein?—Econ. Geology, vol. 1, no. 4, pp. 385-387, 1906.


Gives definitions of various terms employed in economic geology.


Describes the local geology, the character and distribution of the copper ores, and the geologic history of the deposits.


Outlines the work of the U. S. Geological Survey in progress and in course of publication pertaining to metalliferous ores.


Reviews previous geologic work in the region, describes the general structure and stratigraphic succession of the Uintas, and discusses the origin of the Green River.
Emmons, Samuel Franklin—Continued.


Summarizes the investigations of the U. S. Geological Survey upon metalliferous ores during the year 1906.

801. Suggestions for field observations of ore deposits.—Min. and Sci. Press, vol. 95, pp. 18-20, July 6, 1907.

Includes a list of his principal published works.

Emmons, Samuel Franklin, and Irving, John Duer.

803. The Downtown district of Leadville, Colorado.—U. S. Geol. Survey, Bull. no. 320, 75 pp., 7 pls., 5 figs., 1907.
Describes the geologic structure of the district, and the distribution, relations, and origin of the ores.

Emmons, William H.

Describes briefly the general geology and the occurrence and character of the gold and silver telluride ores.

Describes the geology of the vicinity of the mine and the character and origin of the copper ore.

Describes the geology, the distribution and character of the ores yielding silver, gold, and copper, and the mining developments.


Emmons, William H., and Garrey, G. H.

Gives notes on the general geology of the region and the occurrence and character of the ore deposits.

Engineering and Mining Journal.

Describes the geology and the occurrence and character of the ores.

Engineering News.


Erben, Franz, and Ceipek, L.

Escobar, E.
Describes artesian wells in the State of Chihuahua, Mexico.

Evans, Horace F.
Includes notes on the geology of the region.
Gives notes upon the geology of the region.
Gives a general account of the geology.
Describes the geology of the region.
Discusses the occurrence of ore deposits. Includes notes upon the geology of the Similkameen district of British Columbia.
Includes notes on the geology of the region examined.

Evans, John W.
72 BIBLIOGRAPHY OF NORTH AMERICAN GEOLOGY, 1906–1907.

Everette, Willis Eugene.

Fairbanks, Harold Wellman.

Fairchild, Herman L.
A brief account of the glacial geology of the region.
Discusses drainage in northern United States, particularly New York, during the retreat of the glacial ice sheet.
836. Glacial waters in the Lake Erie basin.—New York State Mus., Bull. 106, 86 pp., 23 pls., 4 figs., 1907.
Discusses the drainage of glacial waters in northern New York.
Describes "Coon Butte" and discusses its origin.

Faribault, E. Rodolphe.
Gives a brief account of the work done in surveying the gold fields of Nova Scotia.
Describes the stratigraphy and geologic structure of the area, and the occurrence and relations of the gold-bearing rocks.

Farish, John B.
Includes a brief account of the geology and of the occurrence of the ores.

Farnsworth, P. J.
Gives an explanation of the origin of these mounds.
Farrington, Oliver Cummings.
848. The Shelburne and South Bend meteorites.—Field Columbian Mus., Geol. Ser., vol. 3, no. 2, pp. 7–23, 14 pls., 2 figs., 1906.

Describes the occurrence, character, and composition.
A brief sketch of his work in collecting meteorites.

Describes the Bath Furnace, Chupaderos, Iron Creek, Lampa, Mejillones, Modoc, Ponca, Creek, Saline, and Weston meteorites.

Fawns, Sidney.
Includes an account of the tin deposits of the United States (pp. 157–164) [Alaska, pp. 159–164, 1 pl.].

Fay, Albert Hill.

Fels, G.
Describes the crystallographic features and composition of anorthite of volcanic origin, collected on the island of St. Christopher, West Indies.

Fenneman, N. M.
Describes the general geology, and in detail the geologic structure, sediments, oil horizons, and development of the individual oil fields in Texas and Louisiana, and discusses the origin, properties, and utilization of the petroleum.

Fenneman, N. M., and Gale, Hoyt S.
Describes the geologic structure and stratigraphy of the field, the occurrence and relations of the coal seams, and the character and composition of the coals.
Fenneman, N. M., and Gale, Hoyt S.—Continued.

863. The Yampa coal field, Routt County, Colorado.—U. S. Geol. Survey, Bull. no. 297, pp. 7-81, 9 pls., 2 figs., 1906.

Describes the geologic structure, the occurrence, character, and relations of Archean, Cretaceous, and Tertiary deposits, the character of the coal field, and the occurrence, thickness, and character of the coal seams.

Fernekes, Gustave.

864. The formation of Lake Superior copper.—Science, new ser., vol. 25, p. 589, April 12, 1907.


Ferrier, W. F.

Phosphate deposits in western United States.—See Weeks and Ferrier, no. 2507.

Finch, Grant E.


Finlay, George I.


Fisher, Cassius A.


Describes the topography and drainage, the occurrence, character, and relations of Cretaceous, Tertiary, and Quaternary formations, the geologic history, and the soils, water, and mineral resources.


Describes the general geology of the region and the artesian water resources.


Describes the occurrence and character of the coal beds, and the mining operations.


Describes the occurrence of coal, bentonite, gypsum, and other mineral deposits in this part of Wyoming.


Describes the topography and drainage, the occurrence, character, and relations of pre-Cambrian, Cambrian, Ordovician, Carboniferous, Triassic, Jurassic, Cretaceous, and Tertiary strata and Quaternary deposits, the geologic structure and history, and the water and mineral resources.

Fisher, E. F.


Discusses the production of terraces in river valleys by the meandering of the stream controlled by rock ledges, basing the study upon the terraces of the West River in the vicinity of Brattleboro, Vt.

Fisher, O.


Finds the cause in convection currents in a liquid substratum beneath the cooled crust.

Flammarion, Camille.


Fleck, Herman, and Haldane, Wm. G.


Fletcher, Hugh.


Gives notes on the geology of the area and the occurrence of coal.

Flores, T.


Describes the occurrence and character of the ore deposits.

Étude de la Sierra de Guanajuato.—See Villarello, Flores, and Robles, no. 2460.

Foerste, August F.


Gives chemical analyses, describes the geological position, and discusses possible uses of the various clays.

884. The Silurian, Devonian, and Irvine formations of east-central Kentucky, with an account of their clays and limestones.—Kentucky Geol. Survey, Bull. no. 7, 369 pp., 33 pls. (incl. 7 maps), 1906.

Discusses the occurrence and classification of Silurian and Devonian rocks and the properties and economic value of their limestones and clays. Also describes and figures characteristic fossils of the Silurian formations of east central Kentucky, chiefly from the Waco limestone horizon.

Fohs, F. Julius.


Describes the occurrence, kinds, origin, and geologic relations.


Includes notes on faulting in western Kentucky.
Ford, James.

Ford, W. E.
On stibiotantalite.—See Penfield and Ford, no. 1892.

Forstner, William.
889. Copper in Shasta County, California.—Min. and Sci. Press, vol. 94, pp. 625-626, 4 figs., May 18, 1907.
Discusses the geology of the Shasta copper belt and the occurrence and character of the ores.

Fowke, Gerard.
Discusses the occurrence of glacial deposits in southern Illinois and Missouri and their explanation.
Discusses the occurrence of the human remains and the geologic environment, and discusses the age of the deposits.

Fraleck, E. L.

Frank, Fritz J.

Fraprie, Frank Roy.

Fraser, Lee.
897. Mining the coal measures of Michigan.—Eng. and Min. Jour., vol. 84, pp. 1024-1027, 9 figs., November 30, 1907.
Includes notes on the occurrence, character, and composition of the coals.

Frazer, Persifor.

Frech, Fritz.
Discusses geologic changes of climate.
Frech, Fritz—Continued.

Discusses climatic conditions prevailing during the Triassic, and describes Aviculidae from the Triassic deposits of Zacatecas, Mexico.

Frost, Max, and Walter, Paul A. F.

Gives a general account of the physiographic features and general geology of New Mexico.

Fuller, Myron L.


Discusses the various ways in which the term "artesian" has been used and gives definitions.

Proposes a system of symbols for representing on maps wells and springs of different character.


Describes the composition of the waters and discusses the geologic conditions and the sources of their mineralization.


Gives an account of the New Madrid, Mo., earthquake, and compares the New Madrid, Charleston, and San Francisco earthquakes.

Describes the development of hydrologic investigations in the United States, the character of hydrologic problems and methods of investigation, and the problems awaiting study.

Describes the general geology, and the occurrence, character, and structure of the clay beds. Includes a geologic section of the Cape Cod region.


Fuller, Myron L.—Continued.


The production in the United States in 1905 of carbon dioxide and of mineral waters.—See no. 2418.

The production in the United States in 1906 of phosphate rock.—See no. 2419.

Fuller, Myron L., and others.


Contains the following papers:

Work of the eastern section of hydrology in 1905, and publications relating to underground waters, by Myron L. Fuller, pp. 1-8.

Significance of the term “artesian,” by Myron L. Fuller, pp. 9-15.

Representation of wells and springs on maps, by Myron L. Fuller, pp. 16-18.


Flowing-well districts in the eastern part of the northern peninsula of Michigan, by Frank Leverett, pp. 29-53.

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Describes a certain type of rock sculpturing and explains how it was produced by the moulin work of a glacier.
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Describes the local geology and the character and occurrence of the lead-silver ores.

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Defines the various kinds of overlap in sedimentation and in the application of, the principles laid down discusses the deposits of the basal Paleozoic series, of the basal Mesozoic series, the Saint Peter and Dakota sandstones, and upper Devonian and lower Carboniferous formations of the Appalachian region.


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Granberry, J. H.


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Grant, C. C.


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Guerra, Manuel Fernández.

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Gives notes on the occurrence of placer gold.

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Idaho.
[Seventh annual] report of the state inspector of mines, 1905.—See Bell, no. 195.

Iddings, Joseph P.
The texture of igneous rocks.—See Cross, Iddings, Pirsson, Washington, no. 608.

Ingall, Elfric Drew.
Gives various data relating to the mineral industries and products of Canada.
Includes notes on the occurrence of various ores.

Ingalls, A. O.
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Irving, John Duer.


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Description of the Ouray quadrangle, Colorado.—See Cross, Howe, and Irving, no. 607.

Issel, Arturo.


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Jaccaci, August F.

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James, F. Wilton.


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Jefferson, Mark S. W.


Jeffrey, Edward C.


Recent identification of Cretaceous gymnosperms from Kreicherville, N. Y.—See Hollick and Jeffrey, no. 1213.
Jeffrey, Edward C., and Chrysler, M. A.
Describes the method of examination employed and the characters of woody material found in the lignite.
Describes the occurrence, state of preservation, and in detail the structure of the wood of Pityoxyla from Staten Island, New York, and from Massachusetts, characterizes two species, and discusses the relations of living and fossil pines.

Jenney, Walter P.
Describes the stratigraphy and the relations of the ore-bearing veins.
Discusses the conditions under which block-faulting took place, its characteristics, and connection with ore deposition.
Discusses the occurrence and origin of ore deposits.

Jennings, E. P.

Johnson, B. L.

Johnson, Douglas Wilson,
Includes notes on physiographic features of the region examined.
Reviews previous work, describes the general geology and physiography of the region, the rock types and structural relations in the Tallulah district, and its topographic features, considers the principles governing river capture, and applies these to explain drainage changes in the Tallulah district, South Carolina-Georgia.


Johnson, L. C.
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Johnson, R. D. O.

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Johnston, W. A.


Jones, Charles Colecock.


Jones, F. O.

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Gives a brief account of the geology and of the ores.

Jones, James O.


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Julien, Alexis A.


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Jumeau, L. P.


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Kay, G. F.


Keele, Joseph.


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Keele, Joseph—Continued.

Keffer, Frederic.
Includes notes on the occurrence of the copper ores.
Includes a classification of the copper ores.

Keilhack, K.
Describes an occurrence of marble at Etla, in the State of Oaxaca, and discusses its origin.

Keith, Arthur.
Describes the geography, the general geology, the occurrence, character, and relations of the geologic structure and the mineral resources, marble, talc, kaolin, mica, corundum, iron, and gold.
Describes the topography, the general geologic record, the occurrence, character, and relations of Archean, Cambrian, and intrusive rocks, the geologic structure, and the mineral resources.
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1357. What is a fissure vein?—Econ. Geology, vol. 1, no. 5, p. 484, 1906.

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Kemp, James Furman.
1359. Earthquakes and volcanoes: the great natural cataclysms.—The Century Magazine, vol. 64, no. 4, pp. 593-600, 17 figs., August, 1902.
110 BIBLIOGRAPHY OF NORTH AMERICAN GEOLOGY, 1906–1907.

Kemp, James Furman—Continued.


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A humorous paper read at the dinner of the Journal Club of the Geological Department, Columbia University, on the evening of May 18, 1905.


1366. Ore deposits at the contacts of intrusive rocks and limestones; and their significance as regards the general formation of veins.—Congr. géol. intern., C. R. 10e sess., Mexico, 1906, pp. 519–531, 1907; Econ. Geology, vol. 2, no. 1, pp. 1–13, 1907.


Includes notes on the local geology.

Report of a special committee on the correlation of the pre-Cambrian rocks of the Adirondack Mountains, the "original Laurentian area" of Canada, and eastern Ontario.—See Adams and others, no. 13.

Kemp, J. F., and Gunther, C. G.


Describes the geological relations of the mineralized area, the character and occurrence of the rocks, the contact phenomena, and the mode of formation of the ores.

Kemp, J. F., and Ross, J. G.

Kennedy, Stewart.

Kerr, H. L.
Includes an account of the economic resources, the geology and petrology, and evidences of glaciation.

Keyes, Charles Rollin.

Describes the extent, character, and occurrence of the Carboniferous deposits of New Mexico and discusses their correlation with those of the Mississippi Valley and of the Appalachian region.

This discussion is based mainly upon the stratigraphic succession exhibited in New Mexico.


Calls attention to coals of Carboniferous age in New Mexico and describes briefly the geology of these deposits.

1383. Physiography of New Mexico.—Jour. Geography, vol. 5, no. 6, pp. 251–256, 1 fig., 1906.
Describes the physiographic provinces of New Mexico, the location of various topographic features, and the drainage system.

Describes the occurrence of a Devonian fauna at Lake Valley, New Mexico, and gives a list of the forms identified.

Describes instances of alternations of fossil faunas and discusses their bearing upon questions of correlation of strata.

Describes the geology of the coal beds, and the character of the coal.


Describes physiographic changes that have taken place in the area along the southern boundary of Colorado.
112 BIBLIOGRAPHY OF NORTH AMERICAN GEOLOGY, 1906-1907.

Keyes, Charles Rollin—Continued.

Describes the distribution, relations and correlation of Tertiary formations in New Mexico.

Gives notes upon the geology of these Mexican volcanoes.


Kimble, George W.

Includes notes on the geology of Mt. Thompson, Eldorado County, Cal.


Kindle, Edward M.


Gives notes upon the paleontologic character of Devonian formations present in the Altoona section and lists of the fossils identified.

Describes the geologic relations and character of the ores, and their development.

Reports the discovery of Tertiary strata on the Porcupine River.

Reviews briefly previous literature on the region, outlines the stratigraphy of the region, and describes the character, occurrence, and relations of Silurian, Devonian, and Carboniferous faunas, with lists of species.
The Paleozoic section of the upper Yukon.—See Brooks and Kindle, no. 321.

King, Francis Plaisted.

Describes the occurrence and geological relations of the corundum-bearing rocks of Georgia, and more particularly their petrographic characters and chemical composition, and discusses their origin.

Kinney, Bryce A.


Kip, H. Z.

Klotz, Otto.


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Knapp, G. N.

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Knapp, M. A.

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Describes the occurrence of analcite rocks in southwest Alberta and the results of microscopic and chemical examination, and discusses the primary origin of the analcite.


Describes the occurrence and characters of leucite rock from Yukon Territory and compares it with material from other sources.


A microscopic examination of the cobalt nickel arsenides and silver deposits of Temiskaming.—See Campbell and Knight, no. 410.

The paragenesis of the cobalt nickel arsenides and silver deposits of Temiskaming.—See Campbell and Knight, no. 408.

Microscopic examination of nickeliferous pyrrhotites.—See Campbell and Knight, no. 409.

The re-formation of soda-leucite.—See Read and Knight, no. 1997.

On the microstructure of nickeliferous pyrrhotites.—See Campbell and Knight, no. 411.

Greuville-Hastings unconformity and the probable identity in age of the Grenville limestone with the Keewatin iron formation of the Lake Superior region.—See Miller and Knight, no. 1759.

Knight, C. Y.

Notes on occurrence of bornite in serpentine near Shingle Springs, Eldorado County, California.

Knight, Nicholas.

Discusses methods and results of determination of silica in rocks.

Knight, Nicholas, and Wheeler, Ward H.

Discusses methods of determining the calcium and magnesium content of a mineral or rock.
Knopf, Adolph.


Gives a general account of the geology and describes the occurrence, character, and relations of the copper deposits.


Discusses the composition and the character of alteration that has taken place in the rock.

Stratigraphic succession in the region northeast of Cook Inlet, Alaska.—See Paige and Knopf, no. 1890.

Reconnaissance in the Matanuska and Talkeetna basins, with notes on the placers of the adjacent region.—See Paige and Knopf, no. 1861.

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Knowlton, Frank Hall.


Gives a list of plants identified and notes upon them.


Proposes the name of *Quercus hatcheri* to replace *Quercus montana* Knowlton, preoccupied.


Koch, Fred W.


Includes physiographic notes on the Salton sink region.

Koch, Walter E.


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1422. Bergfahrten in Mexiko und Colorado.—Schweizer Alpenclub, Jahrbuch, Jg. 42, pp. 210-223, 1 pl., 8 figs., 1907.

Includes notes on the volcanoes of Mexico, and on physiographic and geologic features of Colorado.

Kraus, Edward Henry.


Kraus, Edward Henry, and Cook, C. W.


Describes the crystallography and chemical composition.
Kraus, Edward H., and Hunt, W. F.

Kraus, Edward H., and Scott, I. D.

Describes the crystallographic characters and composition of pyrite crystals from Colorado and New Jersey.

Kreutz, Stefan.

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Kümmler, Henry B.

Includes various data relating to the geology of the State.


Includes notes on the iron, zinc, and copper mines and their production.

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Lacroix, A.


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Discusses the formation of quartz-bearing eruptive rocks.


Discusses the mode of formation of the "spine" of Mont Pelé.


Describes the occurrence and character of a deposit of redondite on the coast of Martinique.


Discusses the formation of certain volcanic rocks.


Describes the character and action of fumaroles following the eruption of Mont Pelé, and sulphate of soda produced in these fumaroles.


Discusses the formation of the "spine" of Mont Pelé, and the constitution of the rocks erupted.


Discusses the constitution of the recent "spine" of Mont Pelé.

Laflamme, J. C. K.


Gives a list of earthquakes, with notes, that have taken place in Quebec.
Lakes, Arthur.


1459. San Juan region and some of its peculiar mines.—Min. World, vol. 23, no. 2, pp. 34-35, 6 figs., July 15, 1905.


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1461. Coal resources along the line of the Moffat road (Colorado).—Min. World, vol. 23, no. 19, p. 520, 1 fig., November 11, 1905.

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Lamb, H. Mortimer.


Lambe, Lawrence M.


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Lammers, Theo. L.


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Landes, Henry.


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Gives notes upon the geology and the glaciers.
Lane, Alfred C.

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   Discusses size of grain with respect to distance from sides, particularly in the Medford, Mass., dike, and cites a practical application of the theory of the size of grains in cooled magmatic masses.


   Discusses the occurrence and source of waters in deep mines and their relation to the distribution of copper ores.


   Discusses the variation in the ratio of sodium to chlorine in the water of the ocean during geologic time. Includes analyses of waters from various sources, upon which the discussion is based.

   Discusses the problem of determining the contemporaneity in time of geologic formations and the criteria which may be used.


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   Describes the geologic structure of the Keweenawan region of the Upper Peninsula of Michigan, the occurrence and character of the copper-bearing beds, and the source of the copper.

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Lane, Alfred C.—Continued.
1516. Oil and gas prospects in Michigan.—Michigan Miner, vol. 9, no. 4, pp. 9-12; no. 5, pp. 9-12, 4 figs., 1907.
1517. Dr. Carl Ludwig Rominger.—Michigan Miner, vol. 9, no. 7, pp. 9-11, June, 1907.
A geological section from Bessemer down Black River.—See Gordon and Lane, no. 985.
Lane, A. C., and Seaman, A. E.
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Lang, Herbert.
Lang, S. S.
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Lapparent, A. de.
1521. La montagne Pelée et ses éruptions.—Annales de Géographie, no. 74, ann. 15, pp. 97-110, 1905.
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Gives an outline of the report of the California State Earthquake Investigation Committee. See no. 1531.
Law, E. Stanley.
Describes the occurrence and crystallographic characters of euxenite.
Lawrence, Benjamin B.
Includes notes on the occurrence of copper ores in Cuba.
Lawson, Andrew C.
Describes the geologic formations of Carboniferous and Devonian age of the region, their correlations with the Eureka section, and the occurrence, character, and relations of the eruptive rocks and contained copper ores and gives an annotated list of the minerals observed.
Lawson, Andrew C.—Continued.


Describes physiographic features of the region and considers their explanation.


Describes physical characters and drainage of valleys in the southern part of the Sierra Nevada, the geologic formations of the surrounding mountains, and the geologic history of the region.


Lawson, Andrew C., and others.


Includes various data relating to the geologic structure of the State of California and to the earthquake of April 18, 1906.

Lawson, Publius V[irgilius].


Leach, W. W.


Gives notes on the general geology and on the occurrence and character of coal and ore deposits.

1534. The Telkwa River and vicinity, B. C.—Canada, Geol. Survey, 1907, 23 pp. and addenda 8 pp., 1 map.

Includes an account of the geology and the occurrence of coal.


Gives an account of the geology and the occurrence of coal, gold, and other mineral resources.

Le Conte, Joseph N.


Describes the physiographic features of this section of the Sierra Nevada Mountains of California.


Describes the location, character, and rate of movement of the glacier.

Lee, Harry R.


Gives notes upon the occurrence of these minerals in eastern New Jersey and upon their characters.
Lee, Willis T.

    Describes the geologic structure of the region.

    Describes the geography, the stratigraphy, geologic structure and history of the valley, and the underground and surface water conditions.

    Describes the character of the detrital formations in the valley of the lower Colorado River, the physiographic history of the lower part of the Colorado River, and the recent geologic history of the area.

    Describes the occurrence and character of the coal deposits.


1544. The Iron County coal field, Utah.—U. S. Geol. Survey, Bull. no. 316, pp. 359–375, 1 pl., 1 fig., 1907.

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    Describes the occurrence and relations of red beds in central New Mexico of two different ages, the earlier of Carboniferous and the later of upper Cretaceous age.

    Describes the situation, character, and geologic relations of these depressions and discusses the mode of their formation.

    Presents the succession of geologic events in the region and discusses their correlation with those of other regions.

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


Lees, James H.

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1551. The skull of Paleorhinus, a Wyoming phytosaur.—Jour. Geology, vol. 15, no. 2, pp. 121–151, 8 figs., 1907.

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1555. The university training of engineers in economic geology.—Econ. Geology, vol. 1, no. 5, pp. 479–481, 1906.


1557. The geology of the Cuyuna iron range, Minnesota.—Econ. Geology, vol. 2, no. 2, pp. 145–152, 1907.

Describes the geologic formations and structure of the region and the occurrence and geologic relations of the iron ores.

1558. The metamorphic cycle.—Jour. Geology, vol. 15, no. 4, pp. 303–313 2 figs., 1907.

The pre-Cambrian volcanic and intrusive rocks of the Fox River Valley, Wisconsin.—See Hobbs and Leith, no. 1193.

Lenher, Victor.

Marignacite, a new variety of pyrochlore from Wausau, Wisconsin.—See Weldman and Lenher, no. 2513.

Leonard, Arthur Gray.


Describes the physiography, the stratigraphy, including Cambrian, Ordovician, and Silurian strata and glacial deposits, and the economic resources.


Describes the stratigraphy of the lignite region and the character and composition of the coals.


Describes the distribution and character of Cretaceous and Tertiary formations, and the occurrence and composition of their shales and clays.


LePrieur, Peyraud, and Rufz.

Eruption du volcan de la Montagne Pelée, 1851. Translated by T. A. Jaggar, Jr.—See no. 1280.
LeRoy, Osmond Edgar.

Gives notes on the geology and ore deposits.

Describes the general geology, and the occurrence, relations, and origin of copper deposits on Texada Island, British Columbia.

Leuschner, A. O.

Describes the earthquake shocks: time, character, etc.

Leverett, Frank.


A brief account of his work.


1572. The glacial deposits of Indiana.—In Dryer’s Studies in Indiana Geography, pp. 29–40, 2 pls., 1907. See no. 745.

Leverett, Frank, and others.


Levy, Louis Edward.


Lewis, J. Volney.

Describes the location and geology of a lead vein in Hastings County, Ontario, and discusses the origin of the ore.

Describes the physiographic features of the region, discusses briefly previous explanations, and explains more fully another hypothesis to account for the parallel crests.


Discusses the character and origin of the Newark sediments, the geologic relations and origin of the trap rocks, and subsequent deformation and erosion.
Lewis, J. Volney—Continued.


1583. Correlation of the Newark trap rocks of New Jersey.—Abstract; Science, new ser., vol. 26, pp. 177-178, August 9, 1907.

1584. Glance as an original copper ore.—Eng. and Min. Jour., vol. 84, p. 688, October 12, 1907.

Liebenam, W. A.


Describes the discovery, development, geology, and future of the Cripple Creek, Colorado, gold district.

Lincoln, Francis Church.


Discusses the kinds and nature of emanations from cooling igneous magmas.


Lindeman, Einar.


Lindgren, Waldemar.


Discusses the occurrence of ores.


Includes notes on the occurrence of pre-Cambrian strata.

1591. Metasomatic processes in the gold deposits of Western Australia.—Econ. Geology, vol. 1, no. 6, pp. 530-544, 1906.

After describing the gold deposits of Western Australia, compares their features with those of Colorado and California deposits.


Discusses the relations between gold and pyrite in mineral veins.


Describes the geology and the occurrence and character of the ore-deposits yielding gold and silver.


Describes the general geology and the occurrence and mining of the gold deposits.
Lindgren, Waldemar—Continued.


Discusses the character of ore deposits and the conditions by which these were produced.


Describes the local geology and the occurrence and character of the ores.


Production of gold and silver, 1905, in Colorado, New Mexico, South Dakota, southern Appalachian States, Texas, and Wyoming.—See no. 2418.

Lindgren, Waldemar, and others.

Production of gold and silver in the United States, 1905.—See no. 2418.

The production in the United States in 1906 of gold and silver.—See no. 2419.

Lindgren, Waldemar, and Graton, Louis Caryl.


Describes the general physiographic features, the occurrence and character of sedimentary and igneous rocks, the geologic structure, and the geographic and geologic distribution of ore deposits and their age.

Lindgren, Waldemar, and Ransome, Frederick Leslie.

1604. Geology and gold deposits of the Cripple Creek district, Colorado.—U. S. Geol. Survey, Prof. Paper no. 54, 516 pp., 29 pls., 64 figs., 1906.

Describes the general features of the area, the geological structures, the occurrence and character of the igneous and metamorphic rocks, the minerals, and the character, occurrence, relations, and genesis of the ore deposits, and gives detailed descriptions of the mines.

Lines, Edwin F.


Logan, William N.

1607. Circular on the underground waters of Mississippi.—Mississippi Agric. Exp. Station, 1905. 16 pp.


Logan, W. N., and Hand, W. F.

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1610. The underground waters of Mississippi.—Mississippi Agric. Exp. Station, Bull. no. 59, 112 pp., 23 figs., January, 1905.

Lombarc', Warren R., and D'Ooge, Martin L.
A sketch of his life.

Loomis, Frederic B.
Discusses characters and relationships, and gives descriptions of various species.


Characterizes several new species of Paramys and one new species of Sciuravus.

From a study of the character of the fauna and the lithologic characters of the geologic section concludes that the Wasatch beds of Wyoming are of flood-plain origin. Describes two new species of vertebrates from these beds.

Lord, Edwin C. E.
1616. Examination and classification of rocks for road building, including the physical properties of rocks with reference to their mineral composition and structure.—U. S. Dept. Agric., Office of Public Roads, Bull. no. 31, 29 pp., 10 pls., 1907.

Loring, Frank C.
Includes notes on the geology and the occurrence of the silver ores.

Louderback, George Davis.

Discusses the bearing of the radioactivity shown to be present in igneous rocks upon certain problems of geology, and more particularly its inadequacy to explain the phenomena of volcanism.

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A short note calling attention to a misstatement regarding the author’s work.
Describes the general geology of these districts, the occurrence, character, origin, and relations of the ore deposits, yielding principally gold, and the mining developments.
Ransome, Frederick Leslie—Continued.
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Smith, Eugene A.—Continued.


Describes the progress of geologic investigation of the Gulf coastal region since 1881, and particularly the stratigraphic position, relations, and genesis of the Grand Gulf formation.


Discusses particularly the stratigraphic position, character, and genesis of the Grand Gulf formation.

2229. The underground water resources of Alabama.—Alabama Geol. Survey [Bull. no. 9 (?)], 388 pp., 30 pls., 23 figs., 1907.

Describes the physical geography, geology, and climate of the State, the occurrence, character, and geologic horizon of the underground waters of each county, and discusses the classification and composition of the waters.

Smith, George Otis.


Describes the occurrence and character of two deposits of graphite in western Maine, and discusses their origin and economic value.


2233. The occurrence of granite in Maine.—U. S. Geol. Survey, Bull. no. 313, pp. 7–12, 1907.


2235. Twenty-eighth annual report of the Director of the United States Geological Survey to the Secretary of the Interior for the fiscal year ended June 30, 1907. Washington, 1907. 80 pp., 1 pl.

An administrative report outlining the operations of the U. S. Geological Survey during the fiscal year ended June 30, 1907.


The production in the United States, in 1905, of asbestos, of graphite, and of mica.—See no. 2418.

The production in the United States in 1906 of graphite.—See no. 2419.

Smith, George Otis, and Calkins, Frank Cathcart.


Describes the geographic and physical features, the occurrence, character, and relations of pre-Tertiary and Tertiary sedimentary and igneous rocks, the geologic structure and history, and the economic resources, chiefly coal.
Smith, George Otis, Bastin, Edson S., and Brown, Charles W.


Describes the topography, the occurrence, character, and relations of Cambrian and Silurian rocks, the geologic structure and history, and the economic resources.

Smith, James Perrin.


Describes the occurrence of glauconite-bearing rocks in California, their mineral constituents and the alteration which they have undergone in the process of metamorphism, and the petrographic characters and derivation of the glauconite-bearing rocks.


Discusses principles of stratigraphic correlation and the correlation of Triassic strata based upon paleontologic data, and gives a summary of the later stratigraphy of western North America.

Smith, Leonard S.


Includes a brief general account of the geology of Wisconsin.

Smith, Philip S.


2247. The gray iron ores of Talladega County, Ala.—U. S. Geol. Survey, Bull. no. 315, pp. 161-184, 1907.

Smith, T. Elliott.


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

Smith, W. S. Tangier.


Smith, W. S. Tangier, and Siebenthal, C. E.


Describes the topography, the occurrence and character of Carboniferous strata and Quaternary deposits, the geologic structure and history, and the occurrence and genesis of the lead and zinc ores.

Smith, Warren D.

2252. Discussion of paper by Marius R. Campbell: Hypothesis to account for the transformation of vegetable matter into different grades of coal.—Econ. Geology, vol. 1, no. 6, pp. 581-583, 1906.

Smith, William S.

Smyth, Henry Lloyd.


Discusses the relations between pyrite and gold in ore-bearing veins.


Snedaker, J. A.


Sovereign, L. Douglas.


Spandel, Erich.


Spencer, Arthur Coe.


Describes the geography, the general geology and geologic structure, the occurrence, character, relations, and origin of the ore deposits, the associated minerals, and the economic developments.


Discusses more particularly the occurrence and origin of the iron ores.

Spencer, Joseph William Winthrop.


Gives various data in regard to Niagara Falls.


2265. Recession of the Niagara Falls.—Geol. Mag. dec. 5, vol. 4, no. 10, pp. 440-441, October, 1907.

2266. The Falls of Niagara, their evolution and varying relations to the Great Lakes; characteristics of the power and the effect of its diversion.—Canada, Geol. Survey, 1907. 400 pp., 43 pls., 30 figs., 1 map.
Springer, Frank.


Describes the ventral structure of *Onychocrinus* and discusses the relation of various members of the *Flexibilia* and the evolution of certain structural features. Gives a synoptic arrangement of the genera.

Springer, Frank, and Slocom, Arthur Ware.


Spurr, Josiah Edward.


2270. The southern Klondike district, Esmeralda County, Nev. A study in metalliferous quartz veins of magmatic origin.—Econ. Geology, vol. 1, no. 4, pp. 369-382, 1 fig., 1906.

Describes the general geology, the character of the igneous rocks, and the occurrence and origin of the gold and silver ores.


Describes the character, occurrence, and relations of Cambro-Ordovician, Tertiary, and Quaternary sediments, of pre-Tertiary igneous rocks, of Tertiary and Quaternary lavas, and of the gold and silver ores and other economic minerals, and the mining operations, and discusses the genetic relations of ore deposits and the theory of metalliferous veins of magmatic quartz.


Describes the geology and the character, occurrence, and origin of the ores.

Spurr, Josiah Edward, and Garrey, George H.


Describes the general geology, the placer deposits, the character and occurrence of the ores, and the types of veins.

Stafford, O. F.


Stanley, F. C.

On the chemical composition of amphibole.—See Penfield and Stanley, no. 1893.

Stauffer, Clinton R.

2277. The Hamilton in Ohio.—Jour. Geology, vol. 15, no. 6, pp. 599-596, 1907.

Describes the occurrence, character, and relations of various Devonian formations of the State of Ohio, more particularly those considered to be of Hamilton age.

2278. The Devonian limestones of central Ohio and southern Indiana.—Ohio Naturalist, vol. 7, no. 8, pp. 184-186, June, 1907.

Discusses the correlation of Devonian formations on the opposite sides of the Cincinnati anticline.
Stead, Geoffrey.
Describes briefly the position of the rock and the strain found in it, when quarried.

Stearns, Robert E. C.

Stephenson, L. W.

Sterki, V.
Gives a list of the species identified from deposits supposed to be loess.

Sternberg, Charles H.
Gives notes upon the physical character of and the occurrence of vertebrate fossils in these beds.
Gives notes upon vertebrate fossils from western Kansas and states in what museums they are now preserved.

Sterrett, Douglas B.
Describes the geologic occurrence and relations of monazite deposits.
The production in the United States in 1906 of mica; of monazite and zircon; and of precious stones.—See no. 2419.

Stevens, Horace J.
Contains a chapter on the geology of copper, pp. 21–26.
Contains notes on the geology of the Lake Superior copper district of Michigan.

Stevenson, John J.
Stevenson, John J.—Continued.


Discusses the distribution, character, nomenclature, and correlation of Carboniferous formations in the Appalachian region.


Describes the distribution and correlation of the members of the Monongahela and Dunkard formations in Pennsylvania, West Virginia, and Ohio.


Describes a small area in northwestern Vermont.

Stewart, John L.


Stieglitz, J.

2298. On the relations of equilibrium between the carbon dioxide of the atmosphere and calcium sulphate and calcium carbonate and bicarbonate in solutions in water in contact with it.—Abstract: Carnegie Inst. of Washington, Yearb. no. 5, pp. 171-172, 1907.

Stines, Norman S.


Stokes, H. N.


Describes chemical experiments made to determine conditions and modes of ore deposition.


Stokes, Ralph.


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


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


2305. The asbestos industry of Quebec.—Min. World, vol. 27, pp. 637-639, 799-801, 9 figs., 1907.


Stone, Ralph W.


Gives a history of the coal mining in the region, and describes the general geology and in detail the occurrence and character of the coal deposits and the composition and fuel value of the coals.

66536—Bull. 372—09—12
Stone, Ralph W.—Continued.


Gives an account of the geography and geology of the region traversed.


2312. Coal mining in Dante, Va.—U. S. Geol. Survey, Bull. no. 316, pp. 68-75, 1 fig., 1907.

Describes the stratigraphy, and the occurrence, character, composition, and mining of the coals.


Stone, Ralph W., and Clapp, Frederick G.

2314. Oil and gas fields of Greene County, Pa.—U. S. Geol. Survey, Bull. no. 304, 110 pp., 3 pls., 7 figs., 1907.

Storms, W. H.


Describes the geologic structure to which the California earthquake of April 18, 1906, was due.


Gives a description of the geology of the Black Hills region and of its ore deposits.

Stose, George W.


Describes the topography, stratigraphy, and geologic structure of the region. Gives a table of the geologic formations, showing their thickness, character, and relations.


Describes the geologic relations, character, and occurrence of the sand rock of eastern West Virginia and the economic development.


The production in the United States in 1906 of phosphorus.—See no. 2419.

Stotesbury, Harold W.

The Yak mining, milling, and tunnelling company, Leadville, Colorado.—See Armington and Stotesbury, no. 55.

Stout, W. H.


Gives notes upon the geology of Pennsylvania.

Sullivan, E. C.

2325. The interaction between minerals and water solutions with special reference to geologic phenomena.—U. S. Geol. Survey, Bull. no. 312, 69 pp., 1907.

Surface, G. T.

Describes the geologic history and the physiographic evolution of the State of Virginia.


Includes an account of the topographic features and of the mineral resources.

Swartz, Charles K.


Taber, C. A. M.

Taber, Stephen.

Describes the faulting which produced the earthquake and its movements, as shown by various local displacements.

Taff, Joseph A.

Describes the physiographic features, the occurrence, character, and relations of pre-Cambrian, pre-Carboniferous, and Carboniferous formations, the geologic structure and history, and the economic resources.


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


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


The production in the United States in 1906 of asphalt and bituminous rock.—See no. 2419.

Taff, Joseph A., and Smith, Carl D.

Describes the geologic relations of the deposits, the character of the mineral, and the economic developments.
Taft, H. H.

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

Contains notes on the geology and physiography of the area and on the occurrence of borax deposits.

Includes notes on the geology of the region.


Talmage, J. E.

Includes notes on the geology in the vicinity of Salt Lake City.

Tarr, R. P.

Includes notes on the occurrence, character, and composition of coals.

Tarr, Ralph S.

Describes the geography, stratigraphy, and the economic resources—petroleum, coal, and gold.

Presents further evidence that the Finger Lake valleys are due to glacial erosion.

Describes the topography of the region and explains the formation of the gorges.

Describes changes in the condition of the glacier due to its advance.

Describes the glaciers in this region.

Discusses the origin of various physiographic features.


2355. Earthquakes and their causes. In San Francisco's Great Disaster, by Sydney Tyler, pp. 17-43, 1906,
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Tarr, Ralph S., and Martin, Lawrence.


Presents physiographic, biological, and other evidences of changes of level in the vicinity of Yakutat Bay, Alaska, produced by an earthquake in 1899.


Tassin, Wirt.


Contributions to the study of the Canyon Diablo meteorites.—See Merrill and Tassin, no. 1744.

Taylor, Arthur E.


Taylor, Frank Bursley.


Describes the glacial lakes antecedent to Lake Michigan and the occurrence and relations of the beaches by which their existence has been determined.


Taylor, Thomas U.


Teller, Edgar E.


Tertsch, H.


Describes the optical characters of hornblende and titanite in essexite from Montreal, Quebec.

Thevenin, A.

Types du Prodrome de Paléontologie stratigraphique universelle de D’Orbigny.—See Boule and Thevenin, no. 270.

Thomas, Kirby.

Thompson, Phillips.
   Gives notes upon the occurrence and character of the iron ores.
2370. The Sudbury nickel region.—Eng. and Min. Jour., vol. 82, pp. 3-4,
   2 figs., July 7, 1906.
   Describes the geology and occurrence of the nickel ores of the Sudbury region, Ontario.
   Describes the occurrence of coal beds in Alberta, Canada.

Thomson, Elihu.
2372. The nature and origin of volcanic heat.—Science, new ser., vol. 24,
   pp. 161-166, August 10, 1906.

Tiffany, J. E.
2373. Virginia anthracite field. A region showing coal formations, the values
   of which have not yet been thoroughly proved by prospecting.—Mines and

Tight, W. G.
2374. Pleistocene phenomena in the Mississippi basin; a working hypothesis.—
2375. Preglacial drainage in the Mississippi Valley; a working hypothesis.—

Tilghman, Benjamin Chew.
   pp. 887-914, 1906.
   Discusses the origin of the "crater" at this locality.
   The geology of Coon Butte, Arizona.—See Barringer and Tilghman, no. 153.

Todd, James E.
2377. Some variant conclusions in Iowa geology.—Iowa Acad. Sci., Proc.,
   Discusses certain geologic features in Iowa upon which the writer has reached different
   conclusions from those previously recorded by others.
2378. More light on the origin of the Missouri River loess.—Iowa Acad.
   Describes a deposit in South Dakota formed in Lake Dakota in late glacial time and
   discusses the bearing of the evidence it offers and that of similar deposits upon the origin
   of the loess.
2379. Recent alluvial changes in southwestern Iowa.—Iowa Acad. Sci., Proc.,
   vol. 14, pp. 257-266, 3 figs., 1907.
2380. Effects of certain characteristics of rocks on their erosion.—Iowa Acad.

Tolman, Cyrus F., jr.
2381. Methods of investigating problems in faulting.—Min. Mag., vol. 13, no.
2382. How should faults be named and classified?—Econ. Geology, vol. 2,
   no. 5, pp. 506-511, 1907.

Tomlinson, W. H.
2383. Determination of minerals by petrographical methods.—Mineral Col­
   lector, vol. 13, no. 6, pp. 89-90, August, 1906.
Tovote, W.
Describes the local geology and the occurrence of pitchblende in Gilpin County, Colorado.

Gives notes on the local geology and on the occurrence of the wolfram ores.

Describes the occurrence of gold and the mining operations at Gold Road, Arizona.

Tower, Walter Sheldon.
Describes the structure of the anthracite and bituminous coal fields.


Travis, Charles.
Describes crystallographic features of two varieties of Cornwall pyrite.

True, Frederick W.
Proposes the name Pontolis in place of Pontoleon, preoccupied, given to a fossil sea lion from Oregon.


2393. Remarks on the type of the fossil cetacean Agarophius pygmaeus (Müller).—City of Washington, Smithsonian Inst., Publ. no. 1094, 1907. 8 pp., 1 pl.


Trumbull, L. W.
Includes notes on the occurrence and origin of the sulphur.


Turner, H. H.
Turner, H. W.
Describes the general geology, the geologic occurrence of the ore deposits, the character and extent of the lodes, the origin of the ores, and the associated minerals.

2399. The ore deposits of Copperopolis, California.—Econ. Geology, vol. 2, no. 8, pp. 797-799, 1907.


Includes notes on the occurrence of the lead-silver ores.

Turner, Scott.

Tyler, Sydney.
Includes a chapter by R. S. Tarr on earthquakes and their causes. See no. 2355.

Tyrrell, J. Burr.

Udden, Johan August.
2407. The origin of the small sand mounds in the Gulf coast country.—Science, new ser., vol. 29, pp. 849-851, June 1, 1906.
Describes occurrence and character of these mounds and suggests hypotheses for their explanation.


2409. A sketch of the geology of the Chisos country, Brewster County, Texas.—Univ. of Texas, Bull. no. 93 (Sci. ser. no. 11), 101 pp., April 15, 1907.
Describes the physiography of the region, the occurrence, character, relations, and economic value of Ordovician, Carboniferous, Cretaceous, and Tertiary strata, and of igneous rocks, the geologic structure and history, and the mineral resources, particularly quicksilver and coal.

Udden, Jon A.
2410. The Delafield drill core [Illinois].—Illinois State Geol. Survey, Bull. no. 4, pp. 203-211, 1907.
Gives notes upon the strata (coal measures) passed through in the drilling.

Ulrich, Edward Oscar.
Ulrich, Edward Oscar, and Bassler, Ray S.  

Underhill, B. M.  

Underhill, James.  

Describes the topography, the general geology, and the occurrence, characters, and relations of the metamorphosed igneous rocks occupying the area.  

Upham, Warren.  

U. S. Department of Agriculture, Bureau of Soils.  
Contains a classification of soils.  
Field operations of the Bureau of Soils. — See Whitney, nos. 2570, 2571.  

2417. The San Francisco earthquake and fire of April 18, 1906, and their effects on structures and structural materials. — U. S. Geol. Survey, Bull. no. 324, 170 pp., 57 pls., 2 figs., 1907.  
Contains the following papers:  
Preface, by Joseph A. Holmes, pp. xl-xii.  
The effects of the earthquake and fire on various structures and structural materials, by Richard L. Humphrey, pp. 14-61.  
The earthquake and fire on buildings, engineering structures, and structural materials, by John S. Sewell, pp. 62-130.  
The earthquake and fire and their effects on structural steel and steel-frame buildings, by Frank Soule, pp. 131-158.  
List of papers relating to the earthquake and fire, pp. 159-161.  
2418. Mineral resources of the United States, calendar year 1905, 1403 pp., 1906.  
Contains the following papers, largely statistical in character, relating to the production, condition of the industry, etc., but also in some cases containing notes on the geology and occurrence of the products treated:  
Mineral products of the United States in 1904 and 1905, pp. 23-41.  
(Metals.)  
Bismuth, by C. C. Schnatterbeck, pp. 441-443.  
Copper, by Charles Kirchoff, pp. 343-362.  
Gold and silver, by Waldemar Lindgren and others, pp. 113-341.  
Alaska, by Alfred H. Brooks, pp. 127-134.  
Arizona, by V. C. Heikes, pp. 134-162.  
California, by Charles G. Yale, pp. 162-185.  
Montana, by Alexander N. Winchell, pp. 242-259.  

Gold and silver—Continued.

New Mexico, by Waldemar Lindgren, pp. 275-284.
Oregon, by Charles G. Yale, pp. 284-293.
Southern Appalachian States, including Alabama, Georgia, Maryland, North Carolina, South Carolina, and Tennessee, by Waldemar Lindgren, pp. 297-304.
Texas, by Waldemar Lindgren, pp. 304-305.
Utah, by V. C. Heikes, pp. 305-331.
Quicksilver, by F. W. Horton, pp. 395-397.
Silver. See Gold and silver.
Steel-hardening metals, by Joseph Hyde Pratt, pp. 405-421.
Zinc and lead ores, by H. Foster Bain, pp. 379-392.

(Fuels.)

Coal, by Edward W. Parker, pp. 453-714.
Coke, by Edward W. Parker, pp. 715-766.
Gas, coke, tar, and ammonia at gas works and in retort coke ovens, by Edward W. Parker, pp. 767-797.

(Structural materials.)

Cement:
Clay-working industries, by Jefferson Middleton, pp. 945-1002.
Lime and sand-lime brick, by Edwin C. Eckel, pp. 1003-1006.
Slate, pp. 1011-1020.

(Abrasive materials.)


(Chemical materials.)

Arsenious oxide, by C. C. Schnatterbeck, pp. 1087-1089.
Borax, by Charles G. Yale, pp. 1091-1096.
Bromine, by Frederick J. H. Merrill, pp. 1097-1098.
Fluorspar and cryolite, by Edmund Otis Hovey, pp. 1099-1103.
Gypsum and gypsum products, by Edwin C. Eckel, pp. 1105-1115.
Phosphate rock, by Edmund Otis Hovey, pp. 1117-1126.
Salt, by Edmund Otis Hovey, pp. 1127-1135.
Sulphur and pyrite, pp. 1137-1143.
Barytes, pp. 1145-1146.
Mineral paints, pp. 1147-1154.

(Miscellaneous.)

Asbestos, by George Otis Smith, pp. 1155-1159.
Asphaltum and bituminous rock, by Edmund Otis Hovey, pp. 1161-1169.
Bauxite and alumina, pp. 1171-1174.
Carbon dioxide, by Myron L. Fuller, pp. 1259-1263.
Graphite, by George Otis Smith, pp. 1265-1269.
Lithium minerals, by Edmund Otis Hovey, pp. 1271-1272.
Magnesite, by Charles G. Yale, pp. 1273-1278.
Mica, by George Otis Smith, pp. 1279-1283.
Mineral waters, by Myron L. Fuller, pp. 1285-1308.
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Precious stones, by George Frederick Kunz, pp. 1323–1358.

Quartz (flint) and feldspar, by Heinrich Ries, pp. 1359–1360.


Contains the following papers, largely statistical in character, relating to the production, condition of the industry, etc., but also in some cases containing notes on the geology and occurrence of the products treated:

Introduction, by David T. Day and E. W. Parker, pp. 9–12.


(Metals.)


Bismuth, by Frank L. Hess, p. 517.

Chromite or chromic iron ore, by Arthur J. Collier, pp. 541–542.

Copper, by L. C. Gratton, pp. 373–438.


Arizona, by V. C. Helkes, pp. 147–177.


New Mexico, by Chester Naramore, pp. 300–312.

Oregon, by Charles G. Yale, pp. 312–318.

South Dakota, by Chester Naramore, pp. 319–323.

Southern Appalachian States, including Alabama, Georgia, Maryland, North Carolina, South Carolina, Tennessee, Virginia, by H. D. McCaskey, pp. 323–333.


Nickel, cobalt, tungsten, vanadium, molybdenum, titanium, uranium, and tantalum, by Frank L. Hess, pp. 519–540.


Quicksilver, by J. M. Boutwell, pp. 491–499.

Silver. See Gold and silver.

Tin, by Frank L. Hess, pp. 543–549.


(Fuels.)

Coal, by E. W. Parker, pp. 563–753.

Coke, by E. W. Parker, pp. 755–809.

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(Structural materials.)

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(Chemical materials.)
Barytes, with a note on strontium, by Ernest F. Burchard, pp. 1109–1114.
Gypsum and gypsum products, by Ernest F. Burchard, pp. 1069–1078.
Phosphate rock and phosphorus:
Phosphate rock, by Myron L. Fuller, pp. 1079–1084.
Sulphur and pyrite, pp. 1103–1108.

(Miscellaneous.)
Graphite, by George Otis Smith, pp. 1139–1143.
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Mica, by Douglas B. Sterrett, pp. 1149–1163.
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Selenium, by Frank L. Hess, p. 1271.

The papers in this bulletin have been listed under the individual authors.
The papers in this bulletin have been listed under the individual authors.
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Report on progress of investigations of mineral resources of Alaska in 1906.—See Brooks, A. H., and others.

Vallat, B. W.

Van Hise, Charles Richard.
Discusses the origin of the silver-cobalt ores, and their geologic relations.
Report of a special committee on the correlation of the pre-Cambrian rocks of the Adirondack Mountains, the "original Laurentian area" of Canada, and eastern Ontario.—See Adams and others, no. 13.

Van Horn, F. B.
Van Wagenen, H. R.


Includes notes on the occurrence in Colorado of ores containing tungsten.

Vaux, George, and Vaux, William S.


Gives a short account of the condition in 1905 of the glaciers of British Columbia and Alberta.


Vaux, William S.


Veatch, Arthur C.


Describes character and occurrence of these mounds and states objections to considering them of human origin.

2431. Long Island water resources.—Supplement to the Taxpayer [Brooklyn, N. Y.], April 21, 1906. 15 pp., 6 figs.

An account of the geologic structure and history of Long Island and its underground water resources.


Describes the geologic structure, the occurrence, character, and relations of Cretaceous, Tertiary, and Quaternary deposits and the geologic history of Long Island.


2436. Geology and underground water resources of northern Louisiana and southern Arkansas.—U. S. Geol. Survey, Prof. Paper no. 46, 422 pp., 51 pls., 33 figs., 1906.

Describes the geologic history and structure, the occurrence, character, and relations of Cretaceous, Tertiary, and Quaternary formations, the general underground water conditions and principal water-bearing horizons, and the underground water prospects by counties.


Describes the stratigraphy and structure of the area and the occurrence, character, and geologic relations of coal beds and of petroleum.

2438. Geology and underground water resources of northern Louisiana with notes on adjoining districts.—Louisiana, Geol. Survey, Bull. no. 4, 209 pp., 26 pls., 18 figs., 1906.

This paper is made up of excerpts from Professional Paper no. 46 of the U. S. Geological Survey. See no. 2436.
Veatch, Arthur C.—Continued.
Veatch, Arthur C., and Bowman, Isaiah.
Veatch, Otto.
2442. The term "colluvial" as applied to clay deposits.—Science, new ser., vol. 24, p. 782, December 14, 1906.
 Defines the term and explains the origin of the material to which it is applied.
Verri, A.
 Describes phenomena attending the eruption of Mont Pelé in 1902.
Verrill, Addison E.
 Describes the geologic structure, the occurrence and relation of the Tertiary and later deposits, the geologic history of the islands, and invertebrate fossils.
Vicaire, A.
 An extended account of the petroleum industry and petroleum deposits of the United States.
Vigier, Victor von.
2447. Sobre la aplicación de la potasa cáustica á la preparación de fósiles.—See Böse and Vigier, no. 269.
VillafañA, Andrés.
2447. El volcán Jorullo.—México, Inst. Geol., Purergones, t. 2, no. 3, pp. 73-130, 8 pls., 1907.
 Describes situation, topography, geologic structure, and petrography of the volcano Jorullo, in Mexico.
Villarello, Juan D.
 Describes the geology, occurrence, and origin of the gold and silver ores.
 Describes the geology, the mines, and the occurrence and origin of the ore deposits.
 Describes the local geology, and the occurrence, character, and origin of the ore deposits.
Villarello, Juan D.—Continued.


Describes the local geology, and the occurrence, character, and origin of the mercury ores.


Discusses the use of fluorescein in the study of underground waters.


Describes a new fluoroscope for use in the study of underground waters.


Discusses underground waters in the environs of Jiutepec, State of Morelos, Mexico.


Describes the character, occurrence, relations, and genesis of the ore deposits.


Describes the local geology, and the occurrence, character, and origin of the copper ores, and the mines.


Discusses the underground water resources of Querétaro.


Discusses the origin of sulphur deposits.

Villarello, J. D., Flores, T., and Robles, R.


Includes an account of the ore deposits.

Vogdes, Anthony Wayne.


Gives a sketch of his life (1824–1879) and a list of his geological and paleontological publications.


Wade, William Rogers.


Waitz, Paul.

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Waitz, Paul—Continued.

2465. Les geysers d'Ixtlán, Michoacán.—X° Congr. géol. intern., Guide des Excursions, Mexico, no. XII, 22 pp., 4 pls., 1906.


2467. Esquisse géologique et pétrographique des environs de Hidalgo del Parral.—X° Congr. géol. intern., Guide des Excursions, Mexico, no. XXI, 21 pp., 5 pls. (incl. geol. map and sections), 1906.


Describes experiments with artificial geysers.

Walcott, Charles D.


Describes and correlates Algonkian sections in Montana.


Outlines the work of the U. S. Geological Survey during the fiscal year ending June 30, 1906.


Correspondence relating to the survey of the coal fields of Arkansas.—See Branner, no. 287.

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Walker, T. L.


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Walsh, George E.


Includes notes on the occurrence of rare earths.

Walter, Paul A. E.

[Physiography and geology of New Mexico].—See Frost and Walter, no. 902.

Ward, Henry Baldwin.

2476. Peculiarities of the "Nebraska man."—Putnam’s Monthly, pp. 410-413, 3 figs., January, 1907.

Preliminary report on the primitive man of Nebraska.—See Barbour and Ward, no. 142.

Warner, J. H.


Describes the occurrence and character of pre-Cambrian strata in southern Wisconsin.
Warren, Charles H.

Gives an account of the methods employed to examine sands for minerals and of the characters of the minerals found.


Warwick, A. W.

Includes data upon the geologic structure of the Sierra Madre and the occurrence and character of the rocks, mainly of volcanic origin.

Includes notes on the geology.

Washburne, Chester W.

Gives a brief account of his life (1822-1907) and a list of his writings.

Washington, Henry S.

The texture of igneous rocks.—See Cross, Iddings, Pirsson, Washington, no. 608.
Occurrence of diamonds in Arkansas.—See Kunz and Washington, no. 1444.
Note on the forms of Arkansas diamonds.—See Kunz and Washington, no. 1445.

Washington, University of.
The School of Mines series of rock specimens from the State of Washington.—See Roberts, Milnor, and others, no. 2071.

Watson, Thomas Leonard.

Describes the stratigraphy and geologic structure of the Cartersville district, the geographic distribution, geologic position, and genesis of the ocher deposits, the composition and physical properties of the ocher, and the economic developments.

Describes the general geology of the region, the distribution of the ore deposits, and the alteration, mode of occurrence, and origin of the ores. Adds a bibliography.

Describes the distribution and lithologic characters of various types of granite occurring in the Piedmont region of Virginia.


66836 Bull. 372—09—13
Watson, Thomas Leonard—Continued.

Describes the occurrence of copper ores in various parts of the State.

The Virginia copper deposits.—See Weed and Watson, no. 2504.

A brief note in regard to the occurrence of fluorite and barite in Tennessee.

Refers briefly to recorded occurrences of dikes penetrating Paleozoic rocks of Virginia and describes the occurrence and character of an igneous rock in Cambrian sandstone in Augusta County, Virginia.


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2493. Mineral resources of Virginia.—The Virginia Jamestown Exposition Commission, Lynchburg, 1907. 618 pp., 83 pl.s. (incl. maps), 101 figs.
The section on cement and cement materials is by R. S. Bassler (pp. 86-167), on clays by Helnrich Bies (pp. 167-187), and on iron by R. J. Holden (pp. 402-491).

Watson, Thomas Leonard, and Laney, Francis B., with the collaboration of George P. Merrill.

Describes the varieties, distribution, geologic relations, character, microscopic structure, and weathering qualities of the building stones.

Weatherbe, D'Arcy.

Contains records of strata passed through in borings in Nova Scotia.

Webster, Clement L.


Weed, Walter Harvey.


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Discusses the localization of pay ore in ore shoots.
Weed, Walter Harvey—Continued.

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   Includes accounts of the copper districts of the United States, Canada, and Mexico.


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   Describes the distribution of copper deposits in Virginia, the character of the deposits and associated rock, and the origin of the ores.

Weeks, Fred Boughton.


   Describes the occurrence and relations of pre-Cambrian, Paleozoic, Mesozoic, and Tertiary formations, and the geologic structure of the region.

Weeks, F. B., and Ferrier, W. F.


Wegener, Georg.

   Describes observations made upon Mont Pelé in March, 1903.

   Describes observations on Mont Pelé in March, 1903.

   An account of travels in the West Indies and Central America. Includes notes on the physiography of the regions visited and a description of Mont Pelé on the island of Martinique.

Weidman, Samuel.


2512. The geology of north central Wisconsin.—Wisconsin Geol. and Nat. Hist. Survey, Bull. no. 16, 697 pp., 76 pls. (incl. maps), 38 figs., 1907.
   Describes in detail the distribution, relations, and petrographic characters of pre-Cambrian sedimentary and igneous intrusive rocks and of Cambrian strata, the glacial geology, and the physiography of the area.

Weidman, Samuel, and Lenher, Victor.

   Describes the characters and composition of this mineral occurring in a quartz-bearing pegmatite from northern Wisconsin.
Weller, Chas. A.


Weller, Stuart.


The letterpress accompanying the map gives a general account of the stratigraphy of the State and of the materials used in compiling the map.


Discusses more particularly the axes of deformation of the State and briefly describes the principal geological formations.


A description of the geologic section near Glen Park station, Missouri, from which the fossils were obtained, precedes their systematic descriptions and a discussion of the time relations of the fauna and of the distribution of Kinderhook faunas.


Discusses the occurrence and correlation of New Jersey Cretaceous formations, with an analysis of their faunas, including lists of species, and the classification and correlation of the faunas, and gives descriptions of the invertebrate fossils.


2522. The pre-Richmond unconformity in the Mississippi Valley.—Jour. Geology, vol. 15, no. 6, pp. 519-525, 1 fig., 1907.


Wells, Horace L.


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Wendeborn, B. A.


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Westgate, Lewis G.

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Wheeler, Arthur O.

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Describes the occurrence, character, and composition of fire-clays of Missouri.


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Wheeler, W. M.

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Wheeler, Ward H.
2534. Dolomite and magnesite with reference to the separation of calcium and magnesium.—See Knight and Wheeler, no. 1414.

Wherry, Edgar T.


Describes scapolite from Philadelphia, Pennsylvania.


Directory of mineral localities in and around Philadelphia.—See Benge and Wherry, no. 203.

White, Americus Frederic.

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Gives a list of the plants identified and considers them to indicate a lower Mississippian age.


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Die Kalkälsereihe der Minerale.—See Day and others, no. 690.

Whiteaves, J. F.


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Gives an outline of the work of the year in this section of the Geological Survey of Canada.


Gives critical notes upon the fossils from these places and systematic descriptions of some of them.

Whiteaves, J. F.—Continued.


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Whitman, A. R.


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California, Bakersfield area, by Macy H. Lapham and Charles A. Jensen, pp. 1089-1114.
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Georgia, Dodge County, by Charles W. Ely and A. M. Griffen, pp. 231-246.
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Iowa, Tama County, by Charles W. Ely and others, pp. 769-790.
Kansas, Garden City area, by James L. Burgess and George N. Coffey, pp. 895-934.
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    Describes the occurrence of fossil cycads; their preservation and external characters, the methods of study employed, and their structure and relationships.
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    An administrative report outlining the work done and indicating future work and its needs.
    Gives also a list of his publications.
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Williams, Henry Shaler.
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Williston, Samuel W.


Reviews the literature relating to American amphicoelian crocodiles, discusses their characters and relationships, and describes *Cullosuchus reedi* new genus and species.


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Willmott, A. B.


Includes notes on the geology and occurrence of the area.


Wilson, Alfred W. G.


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Wilson, E. B.


Includes notes on the rocks of the region and the origin of the placers.

Wilson, Guy West.


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2621. Fifth biennial report of the Commissioners of the Geological and Natural History Survey, covering the period from July 1, 1904, to June 30, 1906, 45 pp., 1906.
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Describes the general geology, the occurrence of the gold and silver ores, and the mining developments.

Wooster, Lyman C.
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Young, George A.


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Bedrock series, California: Reid, 2018.

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Magdalena group, Carboniferous, New Mexico: Gordon, 982.
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Manzano group, Carboniferous, New Mexico: Gordon, 982.
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Maquoketa shale, Ordovician, upper Mississippi Valley: Bahn, 99.
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Monroe beds, North Carolina: Graton, 1025.

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Monroe Creek beds, Tertiary, Wyoming and 
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Monson granite gneiss, Connecticut: Greg­
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Montalto quartzite member of Harpers 
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Mount Selma beds, Tertiary, Texas: 
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Naches formation, Tertiary, Washington: 
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Nanaimian series, Eocene, New Mexico: 
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Navesink formation, Cretaceous, New Jersey: Weller, 2520.
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Negaunee formation, pre-Cambrian, Michigan: Lane and Seaman, 1518.
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Nevada limestone, Devonian, Nevada: Lawson, 1526.
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Pleasanton beds, Carboniferous, Kansas: Wooster, 2636.
Pleasanton shale, Pennsylvanian, Missouri: Shepard, 2184.
Plum Creek clay, Silurian, Kentucky: Foerste, 883, 884.
Plum Point marls, Mississippian, Maryland: Shattuck et al., 2193.
Plum Point marls, Tertiary, Maryland: Shattuck, 2185.
Pocono formation, Carboniferous, Pennsylvania: Butts, 368; Clapp, 475, 477.
Pocono sandstone, Lower Carboniferous, Pennsylvania: Barrell, 150.
Pocono sandstone, Carboniferous, West Virginia: Grimsley, 1044.
Pocono formation, Mississippian, Maryland: Clark and Mathews, 488.
Pogonip limestone, Ordovician, California and Nevada: Ball, 120.
Point Pleasant formation, Ordovician, Ohio and Kentucky: Bassler, 156.


Polk Bayou limestone, Ordovician, Arkansas: Purdue, 1970.

Pomfret phyllite, Connecticut: Gregory, 1034; Gregory and Robinson, 1038.

Poor Mountain zone, Cambrian?, South Carolina: Sloan, 2218.

Portage member, Devonian, Maryland: Clark and Mathews, 488.

Port Clarence limestone, Silurian, Alaska: Brooks, 313.

Porters Creek clay, Cretaceous, Mississippi: Crider, 598.

Porters Creek clay, Tertiary, Mississippi: Crider, 595; Crider and Johnson, 599.

Porters Creek (Flatwoods) clay, Eocene, Mississippi: Logan, 1608.


Porters Creek formation, Tertiary, Missouri: Shepard, 2194.

Porters Creek formation, Tertiary, Tennessee, Kentucky, and Illinois: Glenn, 971.

Port Ewen limestone, Devonian, New York: Grabau, 991.

Port Hudson formation, Quaternary, Mississippi: Crider, 595; Crider and Johnson, 599.

Port Hudson formation, Quaternary, Louisiana and Arkansas: Veach, 2436.

Port Renfrew series, Vancouver Island: Hall, 1064.

Potomac group, Cretaceous, Maryland and Delaware: Miller, 1749.

Potomac group, Jurassic-Cretaceous, Maryland: Clark and Mathews, 488.

Potosi volcanic series, California: Shattuck et al., 2193.

Potomac formation, Cretaceous, Mississippi: Logan and Hand, 1609.

Pottsville formation, Carboniferous, Pennsylvania, Ohio, and West Virginia: Griswold and Munn, 1048.

Pottsville formation, Pennsylvania, Maryland: Clark and Mathews, 488.

Pottsville series, Carboniferous, West Virginia: Grimsley, 1044.

Poughquag quartzite, Connecticut: Gregory, 1034.


Poughquag quartzite, Cambrian, New York: Veatch, 2436.


Powers Bluff quartzite, pre-Cambrian, Wisconsin: Weidman, 2512.

Prairie du Chien formation, Ordovician, upper Mississippi Valley: Bain, 99.

Prairie du Chien limestone, Ordovician, Iowa: Beyer and Williams, 234.

Prairie du Chien formation, Ordovician, Wisconsin: Grant and Burchard, 1021.

Prattsburg shales and flags, Devonian, New York: Luther, 1834.

Pre-Kansan, Quaternary, Iowa: Calvin, 387.

Preston formation, Cretaceous, Arkansas: Veatch, 2436.


Prichard (?) formation, pre-Cambrian, Montana: Emmons, 806.

Prichard slate, Algonkian, Montana: Wallcott, 2470.

Prospect porphyritic gneiss, Connecticut: Gregory, 1034; Gregory and Robinson, 1038.

Prospect Mountain quartzite, Cambrian, Nevada and California: Hall, 129.

Prosperity limestone, Carboniferous, Pennsylvania: Clapp, 475.

Prosperity limestone, Carboniferous, Pennsylvania, Ohio, and West Virginia: Griswold and Munn, 1048.

Prout limestone, Devonian, Ohio: Stauffer, 2277.

Pruitts Bluff, Quaternary, Vermont: Grabau, 991.

Puente shale, Miocene, California: Eldridge and Arnold, 779.


Puero marl, Eocene, New Mexico: Keys, 1388.

Puero marl, Eocene, Colorado and New Mexico: Shaler, 2176.


Pulliam formation, Cretaceous, Texas: Uddeh, 2408.

Purgatory conglomerate, Massachusetts: Mansfield, 1674.

Purisima formation, Tertiary, California: Arnold, 57.
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Putnam gneiss, Connecticut: Gregory, 1034; Gregory and Robinson, 1038.

Putnam Hill limestone, Carboniferous, Pennsylvania: Stevenson, 2294.

Quadrant (?) formation, Carboniferous, Montana: Emmons, 806.

Quadrant formation, Mississippian, Montana: Rowe, 2090.

Quartermaster formation, Permian, Texas: Gould, 586, 587.

Quebec group, Canada: Young, 2600.

Quadrant (?) formation, Carboniferous, Montana: Emmons, 806.

Quadrant formation, Mississippian, Montana: Rowe, 2090.

Quartermaster formation, Permian, Texas: Gould, 586, 587.

Quartermaster formation, Permian, Texas: Gould, 986, 987.

Quartermaster formation, Permian, Texas: Gould, 986, 987.

Quartermaster formation, Permian, Texas: Gould, 986, 987.

Quinault formation, Tertiary, Washington: Arnold, 56.

Quincy group, early Carboniferous, or late pre-Carboniferous: Emerson and Perry, 790.

Quine HTC! limestone, Silurian, Wisconsin: Aiden, 23.


Ramsay Lake graywacke conglomerate, pre-Cambrian, Ontario: Coleman, 509.

Ranchoes formation, Carboniferous, Maryland and Delaware: Miller, 1749.

Raritan clay, Cretaceous, New Jersey: Miller, 2520.

Raritan formation, Cretaceous, Maryland: Clark and Mathews, 488; Shattuck et al., 2193.

Raritan formation, Carboniferous, West Virginia: Groomsley, 1044.

Raritan formation, Cretaceous, Maryland and Delaware: Miller, 1749.

Raritan, Cretaceous, New York: Veatch, 2454.

Rattlesnake beds, Cretaceous, Texas: Udden, 2400.

Ravalli (?) formation, pre-Cambrian, Montana: Emmons, 806.

Ravalli series, Algonkian, Montana: Walton, 2370.

Red Bank sand, Cretaceous, New Jersey: Miller, 2520.

Red Beds, Permian, New Mexico: Ordnes, 1831.

Red Beds, Triassic, Colorado: Durston, 649; Gage, 922.

Red Bluff formation, Quaternary, California: Diller, 721.

Red Bluff sandstones, Permian, Kansas: Wooster, 2636.

Red Mountain formation (Clinton), Silurian, Alabama: Smith, 2229.

Redstone limestone, Carboniferous, Appalachian region: Stevenson, 2295.

Redstone limestone, Carboniferous, West Virginia: Grimsley, 1044, 1046.

Remmel granodiorite, Jurassic, Cascade Mountains: Daly, 632.

Roverett quartzite, Algonkian, Montana: MacDonald, 1658.

Richfield black shale, Devonian, New York: Lathie, 1009, 1054.

Rich Hill quartzite, pre-Cambrian, Wisconsin: Weidman, 2512.

Richmond division of the Cincinnati, Ordovician, Illinois: Heller, 2524.


Richmond limestone and shales, Ordovician, Missouri: Bowman and Reeds, 277.

Ripley formation, Cretaceous, Alabama: Smith, 2229.


Ripley formation, Carboniferous, Mississippi: Crider, 595; Crider and Johnson, 500; Logan, 1908.

Ripley formation, Cretaceous, North Carolina: Stephenson, 2281.

Ritchie red beds, Carboniferous, Appalachian region: Stevenson, 2295.


Ronn gneiss, Archean, North Carolina: Keith, 1352, 1354.


Ryeasdale, Carboniferous, Appalachian region: Stevenson, 2295.

Rockwood (Clinton), Virginia: Eckel, 765.

Rockwood formation, Silurian, West Virginia: Grimsley, 1044.

Rocky Mountain quartzite, Carboniferous, Alberta: Dowling, 736.

Rogersville limestone, Carboniferous, Appalachian region: Stevenson, 2295.

Rogersville shale, Cambrian, Virginia: Bassler, 188.

Rome shales, Cambrian, Georgia: Watson, 2485.

Romney formation, Devonian, Maryland: Clark and Mathews, 488.

Romney shale, Devonian, West Virginia: Grimsley, 1044.


Rondout limestone, Silurian, New York: Graban, 991.

Rosalie granite, pre-Cambrian, Colorado: Ball, 118.

Rosebud beds, Tertiary, South Dakota: Matthews, 1702.

Rosendale cement rock, Silurian, New York: Graban, 991.


Roslyn formation, Tertiary, Washington: Smith and Calkins, 2240.

Roubidoux sandstone, Cambro-Ordovician, Missouri: Shepard, 2104.

Rove shales, Algonkian, Minnesota: Abbott, 1.

Roxbury conglomerate, Carboniferous, Massachusetts: Mansfield, 1674.


Ruth limestone, Carboniferous, Nevada: Lawson, 1526.

Rutledge limestone, Cambrian, Virginia: Bassler, 188.

Saline formation, Tertiary, Arkansas and Louisiana: Veatch, 2436, 2437.
Sabin stage, Eocene, Louisiana: Harris, 1079.
Saddlehorse lentil, Permian, Texas: Gould, 987.
Saginaw formation, Carboniferous, Michigan: Cooper, 575; Lane, 1516.
St. Clair limestone, Silurian, Arkansas: Purdue, 1970.
St. Clair marble, Silurian, Indian Territory: Taff, 2382.
St. Croix formation, Cambrian, Iowa: Calvin, 387; Leonard, 1559.
St. Croix sandstone, Cambrian, Iowa: Beyer and Williams, 234.
St. Joe limestone member, Mississippian, Arkansas: Purdue, 1971.
St. Joe member, Mississippian, Indian Territory: Taff, 2382.
St. Lawrence formation, Cambrian, Iowa: Calvin, 387.
St. Lawrence limestone, Cambrian, Iowa: Calvin, 387.
St. Louis limestone, Mississippian, Illinois: Bowman and Reeds, 277; Fenneman, 860; Weller, 2523.
St. Louis formation, Mississippian, Missouri: Shepard, 2194.
St. Lawrence limestone, Silurian, Iowa: Calvin, 387.
St. Lawrence formation, Cambrian, Iowa: Calvin, 387.
St. Louis stage, Mississippian, Iowa: Beyer and Williams, 234.
St. Mary's formation, Miocene, Maryland: Clark and Matthews, 488; Shuttock, 2185, 2188, 2191.
St. Mary's formation, Tertiary, Virginia: Clark and Miller, 489.
St. Peter sandstone, Cambrian, Michigan: Lane and Seaman, 1518.
St. Peter sandstone, Cambro-Ordovician, Missouri: Shepard, 2194.
St. Peter formation, Ordovician, Iowa: Calvin, 387, 388; Leonard, 1559.
St. Peter sandstone, Ordovician, upper Mississippi Valley: Bain, 99; Berrey, 205; Davis, 603.
St. Peter sandstone, Ordovician, Wisconsin: Alden, 23; Grant, 1017; Grant and Burchard, 1021.
St. Regis formation, Algonkian, Montana: MacDonald, 1658; Walcott, 2470.
St. Stephen's limestone, Eocene, Alabama: Smith, 2229.
St. Stephen's limestone, Tertiary, Gulf region: Smith, 2226.
Salem limestone, Carboniferous, Indiana: Cummings and Beebe, 612.
Salam formation, Silurian, New York: Hartnagel, 1085.
Salina formation, Silurian, Maryland: Clark and Matthews, 488.
Salkehatchie marl, Miocene, South Carolina: Sloan, 2218.
Salt Plain shales, Permian, Kansas: Wooster, 2636.
Saltsburg sandstone, Carboniferous, Pennsylvania: Butts, 368.
Saltburg sandstone, Carboniferous, West Virginia: Grimsley, 1044, 1046.
Saluda zone, Archean, South Carolina: Sloan, 2218.
San Bruno limestone, California: Crandall, 591.
Sandia beds, Carboniferous, New Mexico: Gordon, 982.
Sandia formation, Carboniferous, New Mexico: Reyes, 1377.
Sandusky formation, Devonian, Ohio: Swartz, 2229.
San Miguel beds, Cretaceous, Texas: Udden, 2408.
San Pedro formation, Pleistocene, California: Prindle, 1956.
San Pedro shales, California: Crandall, 591.
Santa Fe sands, Miocene, New Mexico: Keyes, 1388, 1390.
San Jacinto marl, Eocene, South Carolina: Sloan, 2218.
Saratoga formation, Cretaceous, Arkansas: Veatch, 2438.
Savanna formation, Carboniferous, Arkansas: Calhoun, 556.
Scarborough beds of Toronto formation, Quaternary, Canada: Coleman, 547.
Schoharie grit, Devonian, New York: Graham, 901.
Scotland schist, Connecticut: Gregory, 1034; Gregory and Robinson, 1038.
Sea Island sands, Pleistocene, South Carolina: Sloan, 2218.
Seekonk conglomerate, Massachusetts: Mansfield, 1674.
Sellersburg beds, Devonian, Indiana: Stauf- fer, 2275.
Sellersburg limestone, Devonian, Indiana: Blatchley, 246.
Selma chalk, Cretaceous, Alabama: Smith, 2229.
Selma chalk, Cretaceous, Mississippi: Crider, 595, 598; Crider and Johnson, 599; Logan, 1608.
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Selma clay. Cretaceous, Tennessee: Glenn, 971.

Selma formation, Eocene-Oligocene, California: Arnold, 63; Eldridge and Arnold, 770.


Sespe sandstone, Eocene or Oligocene, California: Arnold and Anderson, 66.

Setters quartzite, Algonkian, Maryland: Clark and Mathews, 488.

Seven Sisters sandstone member, Carboniferous, Kentucky: Ashley and Glenn, 77.

Severy shales, Carboniferous, Kansas: Wooster, 2656.

Sevier shales, Ordovician, Virginia: Bassler, 158.

Shakopee formation, Carboniferous, West Virginia: Grimsley, 1044, 1046.

Shakopee sandstone, Carboniferous, Appalachian region: Stevenson, 2295.

Shawangunk sandstone, Carboniferous, West Virginia: Grimsley, 1046.

Shady limestone, Cambrian, Tennessee: Keith, 1354.

Shakopee formation, Ordovician, Iowa: Calvlin, 387, 388.

Shakopee formation, Ordovician, upper Mississippian Valley: Bain, 99.

Shakopee limestone, Ordovician, Iowa: Beyer and Williams, 224.


Shawangunk grit, Shurian, New York: Clarke, 499; Grabau, 991.

Shenandoah limestone, Cambro-Ordovician, Maryland: Clark and Mathews, 488.

Shenandoah limestone, Cambro-Ordovician, Pennsylvania: Stose, 2318.

Shenandoah limestone, Cambro-Ordovician, West Virginia: Grimsley, 1044.

Shenandoah limestone group, Cambrian, Virginia: Bassler, 158.

Sherburne formation, Devonian, New York: Grabau, 991.

Sherburne flagstone member, Devonian, New York: William, 2583.

Shinarump conglomerate, Triassic, Utah: Cross, 604; Lee, 1544.

Shuswap series, British Columbia: Dawson, 681.

Shuswap series, Archean, Yukon Territory: Brooks, 313.

Slamo slate, pre-Cambrian, Michigan: Lane and Seaman, 1518.

Siebert Lake beds, Pliocene, Nevada: Ball, 120.

Stillery formation, Cambrian, Canada: Young, 2660.

Silver Creek hydralic limestone, Devonian, Indiana: Blatchley, 246.

Silver Pipe limestone, Mississippian, New Mexico: Gordon, 981.

Silver Plume granite, pre-Cambrian, Colorado: Ball, 118.

Silver Terrace sandstone, California: Crandall, 591.

Silverton volcanic series, Colorado: Cross et al., 907.

Sunnikamek granite, Tertiary, Cascade Mountains: Daly, 632.

Sioux quartzite, pre-Cambrian, Iowa: Calvin, 387.

Sioux quartzite, Proterozoic, Iowa: Beyer and Williams, 234.

Skagit series, Alaska: Brooks, 313.

Skaneateles shale, Devonian, New York: Luther, 1633.

Skolai volcanics, Triassic, Alaska: Brooks, 313.

Skwentna complex, Alaska: Brooks, 313.

Smithfield limestone member, Cambrian, Rhode Island: Emerson and Perry, 790.

Smith River beds, Tertiary, Montana: Rowe, 2090.


Snowbird formation, Cambrian, Tennessee: Keith, 1354.

Socorran series, Carboniferous, New Mexico: Keyes, 1377.

Sodus shale, Shurian, New York: Clarke, 494; Hartnagel, 1085.

Soudan formation, Archean, Minnesota: Abbott, 1.

Southgate member, Ordovician, Ohio and Kentucky: Bassler, 156.

Spadra shale, Carboniferous, Arkansas: Collier, 556.

Spearfish formation, Triassic, Wyoming: Darton and O'Hara, 656.

Spenger limestone, Mississippian, Illinois: Fenneman, 860; Weller, 2523.

Spenger limestone, Mississippian, Missouri: Shepard, 2194.

Spergon Hill limestone, Mississippian, Illinois: Bowman and Reeds, 277.

Spokane formation, Algonkian, Montana: Barrett, 149.

Spokane shale, Algonkian, Montana: Rowe, 2090.

Spry Creek granite, Colorado: Graton, 1026.

Springvale beds, Mississippian, Iowa: Beyer and Williams, 234.

Square Lake limestone, Devonian, New York: Grabau, 991.

Stafford limestone, Devonian, New York: Luther, 1633.

Standish shales, Devonian, New York: Luther, 1634.

Stanley limestone, Carboniferous, Kansas: Besse and Rogers, 181; Wooster, 2636.

State Quarry limestone, Devonian, Iowa: Beyer and Williams, 234; Calvin, 387.

Stenett limestone, Pennsylvanian, Iowa: Beyer and Williams, 234.


Stockbridge limestone, Connecticut: Gregory, 1094.

Stockton limestone, Carboniferous, West Virginia: Grimesley, 1044.

Stones River formation, Ordovician, Virginia: Bassler, 158.

Stockton limestone, Carboniferous, West Virginia: Grimsley, 1044.

Stones River formation, Ordovician, Maryland: Clark and Mathews, 488.

Stones River limestone, Ordovician, Missouri: Bowman and Reeds, 277.

Stones River limestone, Ordovician, Pennsylvania: Stose, 2318.

Stony Creek granite-gneiss, Connecticut: Gregory, 1034; Gregory and Robinson, 1038.

Storm King granite, pre-Cambrian, New York: Berker, 207.

Strawn limestone, Carboniferous, Kansas: Wooster, 2636.

Sundial formation, Carboniferous, Pennsylvania: Cooper, 375.

Sundance formation, Jurassic, Wyoming: Darton, 642; 644-647; Darton and O'Hara, 656; Fisher, 873.

Sunderland formation, Pleistocene, Maryland: Clark and Mathews, 488; Shattuck, 2184, 2185, 2188, 2191; Shattuck et al., 2193.

Sunderland formation, Quaternary, Maryland and Delaware: Miller, 1749.

Sunderland formation, Pleistocene, Virginia: Clark and Miller, 489.

Sundance formation, pre-Jurassic?, Alaska: Fulwe and Knopf, 1802.

Sunrise formation, pre-Jurassic?, Alaska: Moffet, 1762.

Sunsota limestone, Carboniferous, Alaska: Brooks, 313.

Swanton marble, Cambrian, Vermont: Edson, 774.


Sweetland Creek shales, Devonian, Iowa: Calvin, 387.

Sylvania sandstone, Michigan: Nattress, 1785.

Talbot formation, Pleistocene, Maryland: Clark and Mathews, 488; Shattuck, 2184, 2185, 2188, 2191; Shattuck et al., 2193.

Talbot formation, Quaternary, Maryland and Delaware: Miller, 1749.

Talbot formation, Pleistocene, Virginia: Clark and Miller, 489.

Tallulahna bhrstone, Tertiary, Mississippi: Crider, 595; Crider and Johnson, 599.

Tallulahna bhrstone, Eocene, Alabama: Smith, 2229.

Tanana schists, Alaska: Brooks, 313.


Tank volcanics, California: Lawson, 1528.

Tatelayer, Ordovician, Kentucky: Foreste, 884.

Taylor marls, Cretaceous, Texas: Ries, 2058.


Tecovas formation, Triassic, Texas: Gould, 987.

Telluride conglomerate, Eocene (?), Colorado: Croes et al., 607.

Ten-mile limestone, Carboniferous, Appalachian region: Stevenson, 2295.

Ten Mile sands, Pleistocene, South Carolina: Sloan, 2218.


Terbuck beds, Cretaceous, Texas: Udden, 2409.


Thayer shales, Carboniferous, Kansas: Wooster, 2636.

Thaynes formation, Carboniferous, Utah: Boutwell, 271.

Thomaston granite-gneiss, Connecticut: Gregory, 1034; Gregory and Robinson, 1038.

Thorofare andesite, Silurian?, Maine: Smith et al., 2241.


Tiehenor limestone, Devonian, New York: Smith, 2229.

Timpas limestone, Cretaceous, Colorado: Darton, 648; Fisher, 869.


Tisbury (Manhasset) gravel, Quaternary, New York: Veatch, 2434.

Titlina volcanics, Quaternary, New York: Veatch, 2434.

Tobaccoe sands, Cretaceous, Mississippi: Logan and Hand, 1609.

Tomstown limestone, Cambrian, Maryland: Clark and Mathews, 488.
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Tomstown limestone, Cambrian, Pennsylvania: Stose, 2318.

Topatopa formation, Eocene, California: Arnold, 63; Eldridge and Arnold, 779.

Topeka limestone, Carboniferous, Kansas: Wooster, 2636.

Tordrillo series, Jurassic, Alaska: Brooks, 313.

Tornillo clays, Cretaceous, Texas: Uddei, 2400.

Toronto formation, Quaternary, Canada: Coleman, 547.

Torrejon sandstones, Eocene, New Mexico: Keys, 1388, 1390.

Totsen series, Alaska: Brooks, 313.

Trangville beds, Tertiary, Yukon Territory: Brooks, 313.

Traverse group, Devonian, Michigan: Cooper, 575; Lane, 1516.


Trenton limestone, Ordovician, Iowa: Leonard, 1559.

Trenton limestone,Ordovician, Missouri and Illinois: Bowman and Reeds, 277.

Trenton limestone,Ordovician, Ontario: Ellis, 788.

Trenton limestone, Ordovician, Vermont: Edson, 774.

Trenton shales,Ordovician, Virginia: Bassler, 158.

Trinity sand, Cretaceous, Arkansas: Vehatch, 2430.

Trout Creek sandstone member, Cretaceous, Colorado: Fenneman and Gale, 863.

Trouwdale granite, Colorado: Underhill, 2414.

Trout Lake conglomerate, pre-Cambrian, Ontario: Coleman, 539, 546.


Tule formation, Tertiary, Texas: Gould, 986.

Tullahoma formation,Mississippian, Mississippi: Crider, 595.

Tully limestone, Devonian, New York: Luther, 1634; Williams, 2583.

Tunnel Hill zone, Archean, South Carolina: Sloan, 2218.

Tuscaloosa formation, Cambrian, Alabama: Smith, 2229.

Tuscaloosa formation, Cretaceous, Alabama: Smith, 2229.

Tuscaloosa formation, Cretaceous, Gulf region: Smith, 2226, 2228.

Tuscaloosa formation, Cretaceous, Mississippi: Crider, 595; Crider and Johnson, 699; Logan, 1098.

Tuscaloosa clay, Cretaceous, Mississippi: Crider, 598.

Tuscaloosa formation, Eocene, Alabama: Smith, 2229.

Tuscan tuff, Tertiary, California: Diller, 721.

Tuscarora formation, Silurian, Maryland: Clark and Matthews, 488.

Tuscarora member, Ordovician, Virginia: Bassler, 158.

Tuscumbia (St. Louis) limestone, Mississippian, Alabama: Smith, 2228.

Tusquitee quartzite, Cambrian, North Carolina: Keith, 1352.

Twelve mile beds, Tertiary, Alaska: Brooks, 313.

Twenty mile sandstone member, Cretaceous, Colorado: Fenneman and Gale, 863.

Two-mile limestone, Carboniferous, West Virginia: Grimsley, 1044.

Tyger zone, Archean, South Carolina: Sloan, 2218.

Tyler red beds, Carboniferous, Appalachian region: Stevenson, 2295.

Tyner formation, Ordovician, Indian Territory: Taft, 2532.

Tyonok beds, Alaska: Brooks, 313.

Tyrene, Ordovician, Kentucky: Miller, 1748.

Hillington shales, Carboniferous, Pennsylvania: Stevenson, 2294.

 Uinta formation, pre-Cambrian, Utah: Weeks, 2506.

 Uinta quartzite, Utah: Emmons, 798.

 Uncompahgre formation, Algonkian, Colorado: Cross et al., 607.

 Unicoi formation, Cambrian, North Carolina and Tennessee: Keith, 1354.

 Unontown limestone, Carboniferous, Appalachian region: Stevenson, 2295.

 Unontown limestone, Carboniferous, West Virginia: Grimsley, 1044, 1046.

 Unontown sandstone, Carboniferous, Appalachian region: Stevenson, 2295.

 Unontown sandstone, Carboniferous, Pennsylvania: Clapp, 475.

 Upsun clay, Cretaceous, Texas: Uddei, 2408.

 Utica shale, Ordovician, Pennsylvania: Stose, 2318.

 Utica shale, Ordovician, Virginia: Bassler, 158.


 Valdes series, Alaska: Brooks, 313.

 Vallenar series, Devonian, Alaska: Brooks, 313; Kindie, 1400.

 Valleytown formation, Cambrian, North Carolina: Keith, 1352.

 Vancouver series, Triassic and Carboniferous, British Columbia: Brooks, 313.

 Vanport limestone, Carboniferous, Pennsylvania: Butts, 368; Stevenson, 2294; Woolsey, 2634.

 Vanport limestone, Carboniferous, West Virginia: Grimsley, 1046.

 Vaqueros formation, Miocene, California: Arnold, 63; Arnold and Anderson, 66, 67; Eldridge and Arnold, 779.

 Vaqueros sandstone, Tertiary, California: Prudhoe, 1956.
Vaucluse zone, Archean, South Carolina: Sloan, 2218.
Venice member of Columbus formation, Devonian: Swartz, 2229.
Vermillion series, Archean, Minnesota: Abbott, 1.
Verdi beds, Mississippian, Iowa: Beyer and Williams, 234.
Versailles bed, Ordovician, Kentucky: Foerste, 884.
Vernon shale, Silurian, Kentucky: Foerste, 884.
Vernon shale, Silurian, Vermont: Richardson, 2037.
Vicksburg formation, Oligocene, Mississippi: Logan, 1608.
Vicksburg formation, Tertiary, Mississippi: Crider, 598; Crider and Johnson, 599.
Vicksburg limestone, Tertiary, Gulf region: Smith, 2226.
Waccamaw marl, Miocene and Pliocene, South Carolina: Sloan, 2218.
Waco limestone, Silurian, Kentucky: Foerste, 884.
Wadmalaw shell-marl, Pleistocene, South Carolina: Sloan, 2218.
Waupakkee formation, pre-Cambrian, Wisconsin: Warner, 2477.
Waynesboro formation, Cambrian, Pennsylvania: Alden, 23.
Waynesboro formation, Cambrian, Pennsylvania, Ohio, and West Virginia: Grimsley, 1046.
Waynesboro formation, Cambrian, Pennsylvania, Ohio, and West Virginia: Grimsley, 1044.
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