

DEPARTMENT OF THE INTERIOR
UNITED STATES GEOLOGICAL SURVEY
CHARLES D. WALCOTT, DIRECTOR

BIBLIOGRAPHY AND INDEX

OF

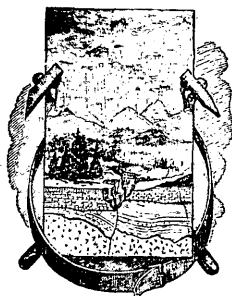
NORTH AMERICAN GEOLOGY, PALEONTOLOGY, PETROLOGY
AND MINERALOGY

FOR

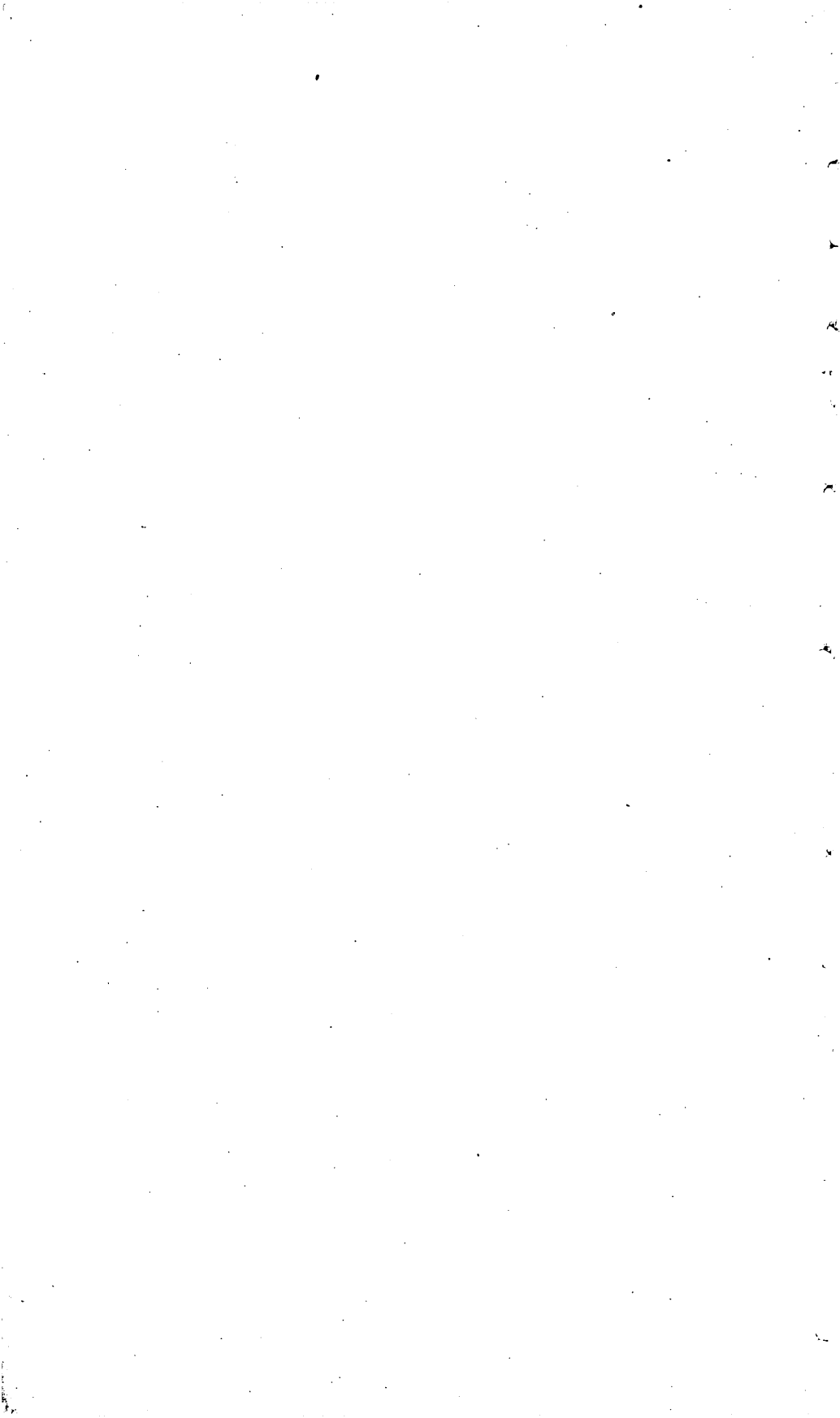
THE YEAR 1901

BY

FRED BOUGHTON WEEKS



WASHINGTON
GOVERNMENT PRINTING OFFICE
1902



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LETTER OF TRANSMITTAL.

DEPARTMENT OF THE INTERIOR,
UNITED STATES GEOLOGICAL SURVEY,
Washington, D. C., July 22, 1902.

SIR: I have the honor to transmit herewith the manuscript of a Bibliography and Index of North American Geology, Paleontology, Petrology, and Mineralogy for the Year 1901, and to request that it be published as a Bulletin of the Survey.

Yours respectfully,

F. B. WEEKS.

Hon. CHARLES D. WALCOTT,
Director United States Geological Survey.

BIBLIOGRAPHY AND INDEX OF NORTH AMERICAN GEOLOGY, PALEONTOLOGY, PETROLOGY, AND MINERALOGY FOR THE YEAR 1901.

By FRED BOUGHTON WEEKS.

INTRODUCTION.

The preparation and arrangement of the material of the Bibliography and Index for 1901 is similar to that adopted for the previous publications (Bulletins Nos. 130, 135, 146, 149, 156, 162, 172, 188, and 189). Several papers that should have been entered in the previous bulletins are here recorded, and the date of publication is given with each entry.

Bibliography.—The bibliography consists of full titles of separate papers, arranged alphabetically by authors' names, an abbreviated reference to the publication in which the paper is printed, and a brief description of the contents, each paper being numbered for index reference.

Index.—The subject headings, their subdivisions and arrangement, are shown in the classified key to the index, which immediately precedes the index. Reference is made in each entry by author's name and number of article in the Bibliography.

LIST OF PUBLICATIONS EXAMINED.

- American Academy of Arts and Sciences: Proceedings, Vol. XXXVI, Nos. 9-29, and Vol. XXXVII, Nos. 1-12 (except 4-5) 1901. Boston, Mass.
- American Association for the Advancement of Science: Proceedings, Vol. L, 1901.
- American Geographical Society: Bulletin, Vol. XXXII, 1900, and Vol. XXXIII, 1901. New York, N. Y.
- American Geologist, Vols. XXVII and XXVIII, 1901. Minneapolis, Minn.
- American Institute of Mining Engineers: Transactions, Vol. XXX, 1901. New York, N. Y.
- American Journal of Science: 4th series, Vols. XI and XII, 1901. New Haven, Conn.
- American Museum of Natural History: Bulletin, Vol. XI, Part 4, Vol. XIV and Vol. XV, Part 1, 1901. New York, N. Y.
- American Naturalist, Vol. XXXV, 1901. Boston, Mass.
- American Philosophical Society: Proceedings, Vol. XL, Nos. 165-167, Transactions, new series, Vol. XX, Part II, 1901. Philadelphia, Pa.
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- Boston Society of Natural History: Bulletin, Vol. XXIX, Nos. 15-18, and Vol. XXX, Nos. 1-2, 1901. Boston, Mass.
- Botanical Gazette, Vol. XXXI, 1901. Chicago, Ill.
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- Canada Geological Survey: New series, Vol. XI, 1901. Ottawa, Canada.
- Canada Royal Society: Proceedings and Transactions, 2d series, Vol. VI, 1900. Ottawa, Canada.
- Canadian Institute: Proceedings, Vol. VII, Part 1, 1901. Toronto, Canada.
- Canadian Mining Institute: Journal, Vol. IV, 1901. Ottawa, Canada.
- Canadian Mining Review, Vol. XX, 1901. Ottawa, Canada.
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- Colorado Mining Bureau: Bulletin, No. IV, 1901. Denver, Colo.
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- Edinburgh Geological Society: Transactions, Vol. VIII, Part 1, 1901. Edinburgh, Scotland.
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- Engineering Magazine, Vol. XX, Nos. 4-6; Vol. XXI, and Vol. XXII, Nos. 1-3, 1901. New York, N. Y.
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- Franklin Institute: Journal, Vol. CLI, 1901. Philadelphia, Pa.
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- Geological Society of America: Bulletin, Vol. XII, pages 57-538, 1901; Vol. XIII, pages 1-16, 1901. Rochester, N. Y.
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- Hamilton Scientific Association: Journal and Proceedings, No. XVII, 1901. Hamilton, Ontario.
- Harvard College, Museum of Comparative Zoology: Bulletin, Vol. XXXVI, Nos. 7-8; Vol. XXXVII, No. 3; and Vol. XXXVIII, Nos. 2-4, 1901. Cambridge, Mass.
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- 2 **Adams** (Charles C.). Baseleveling and its faunal significance, with illustrations from southeastern United States.
Am. Nat., vol. 35, pp. 839-852, figs. 1-5, 1901. Science, new ser., vol. 13, p. 373, 1901.
Describes the process of baseleveling and its influence on the distribution of faunas. Includes a bibliography.
- 3 **Adams** (Frank D.). George M. Dawson.
Science, new ser., vol. 13, pp. 561-563, 1 pl., 1901.
Gives an account of his life and work.
- 4 ——— Experimental work on flow of rocks.
Abstracts: Geol. Soc. Am. Bull., vol. 12, pp. 455-461, pls. 42-43, 1901.
Science, new ser., vol. 13, pp. 95-96, 1901.
- 5 ——— and **Nicholson** (John Thomas). An experimental investigation into the flow of marble.
London Roy. Soc., Phil. Trans., ser. A., vol. 195, pp. 363-401, pls. 22-25, 1901. (Not seen.)
Abstract: Am. Geol., vol. 27, p. 316, 1901.
- 6 **Adams** (George I.). The Carboniferous and Permian age of the Red Beds of eastern Oklahoma from stratigraphic evidence.
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- 7 ——— Oil and gas fields of the western interior and northern Texas Coal Measures, and of the Upper Cretaceous and Tertiary of the Western Gulf Coast.
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- 8 **Aguilera** (J. G.). Distribucion geografica y geologica de los criaderos minerales de la Republica Mexicana.
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- 9 **Alderson** (Matt W.). Genesis of ore deposits.
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- 10 **Aldrich** (T. H.). A Texas oil well fossil.
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- 11 **Allen** (O. S.) and **Comstock** (W. J.). Bastnasite and tysonite from Colorado.
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- 12 **Ami** (Henry M.). Description of tracks from the fine-grained siliceous mud stones of the Knoydart formation (Eo-Devonian) of Antigonish County, Nova Scotia.
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- 13 — Preliminary lists of the organic remains occurring in the various geological formations comprised in the map of the Ottawa district, including portions of the provinces of Quebec and Ontario along the Ottawa River.
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- 14 — On the geology of the principal cities in eastern Canada.
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- 15 — Synopsis of the geology of Canada. (Being a summary of the principal terms employed in Canadian geological nomenclature.)
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- 16 — On a new or hitherto unrecognized geological formation in the Devonian system of Canada.
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- 17 — Addenda and corrigendum to "Progress of geological work in Canada during 1899."
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- 18 — The late George Mercer Dawson.
Ottawa Nat., vol. 15, pp. 43-52, 1901.
Gives a sketch of his life and work.
- 19 — Bibliography of Dr. George Mercer Dawson.
Ottawa Nat., vol. 15, pp. 202-213, 1901.
- 20 — Knoydart formation of Nova Scotia.
Geol. Soc. Am., Bull., vol. 12, pp. 301-312, pl. 26, fig. 1, 1901.
Describes the lithologic and faunal characters of a Devonian formation.

- 21 **Ami** (Henry M.). The Knoydart formation in Nova Scotia—a bit of the old Red sandstone of Europe.
Abstract: Science, new ser., vol. 13, p. 135, 1901.
- 22 ——— Stratigraphical note.
Science, new ser., vol. 13, pp. 394-395, 1901.
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- 23 ——— [Review of "General Index to the Reports of Progress, 1863 to 1884," by D. B. Dowling.]
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- 24 ——— The Royal Society of Canada (twentieth meeting).
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- 25 ——— Notes on some of the Silurian and Devonian formations of eastern Canada, and their faunas and floras.
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- 26 ——— On the subdivisions of the Cambrian system in Canada.
Abstract: Science, new ser., vol. 13, p. 1019 ($\frac{1}{2}$ p.), 1901.
Paper read before the Royal Society of Canada.
- 27 ——— A dual classification required in the nomenclature of the geological formations in different systems in Canada.
Abstract: Science, new ser., vol. 13, pp. 1019-1020, 1901.
Paper read before the Royal Society of Canada.
- 28 ——— Brief biographical sketch of Elkanah Billings.
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Gives a brief account of the life and work of Billings and a chronologic list of his publications.
- 29 ——— Bibliography of Dr. George M. Dawson.
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- 30 ——— Bibliography of E. Billings.
Am. Geol., vol. 28, p. 132 ($\frac{1}{2}$ p.), 1901.
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- 31 **Anderson** (F. M.). The Neocene basins of the Klamath Mountains [California].
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- 32 **Ashley** (George H.), **Blatchley** (W. S.) and. The lakes of northern Indiana and their associated marl deposits.
See Blatchley (W. S.) and Ashley (G. H.), 69.
- 33 **Askwith** (W. R.). The West Gore antimony deposits [Nova Scotia].
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B.

- 34 **Babcock** (E. J.). Report of the Geological Survey of North Dakota. N. D. Geol. Surv., 1st Biennial Rept., 103 pp., 1901.
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- 35 **Bagg** (R. M., jr.). Eocene Protozoa. Md. Geol. Surv., Eocene, pp. 233-258, pl. lxii-lxiv, 1901.
- 36 **Bailey** (L. W.). On some modes of occurrence of the mineral albertite.
Abstract: Science, new ser., vol. 13, p. 1018 ($\frac{1}{2}$ p.), 1901.
- 37 — On some geological correlations in New Brunswick.
Abstract: Science, new ser., vol. 13, pp. 1018-1019 ($\frac{1}{2}$ p.), 1901.
Paper read before the Royal Society of Canada.
- 38 **Bain** (H. Foster). The origin of the Joplin ore deposits [Missouri].
Abstract: Eng. and Mg. Jour., vol. 71, p. 557, 1901.
- 39 — [Review of Iowa Geological Survey, Vol. XI.]
Jour. Geol., vol. 9, pp. 547-549, 1901.
- 40 **Barbour** (Carrie A.). Observations on the concretions of the Pierre shale.
Neb. Acad. Sci., Proc., VII, pp. 36-38, pl. ii, 1901.
Describes the occurrences and character of the concretions.
- 41 **Barbour** (Erwin Hinckley). The unpublished meteorites of Nebraska.
Neb. Acad. Sci., Proc., VII, pp. 34-35, pl. i, 1901.
Describes new meteorites.
- 42 — The State [Nebraska] Geological Survey. Report of progress for the summer of 1900.
Neb. Acad. Sci., Proc., VII, pp. 166-169, pls. xiv-xv, 1901.
Gives an account of the work conducted by the State Geological Survey.
- 43 — Sand crystals and their relation to certain concretionary forms.
Geol. Soc. Am., Bull., vol. 12, pp. 165-172, pls. 13-18, 1901.
Describes the character and occurrence of the crystals and concretionary forms in the Tertiary strata of the Plains region.
- 44 **Barton** (George H.). Outline of elementary lithology
Boston, 112 pp., 1901. (Not seen.)
- 45 **Bartsch** (Paul), **Dall** (W. H.) and. A new Californian Bittium.
See Dall (W. H.) and Bartsch (Paul), 189.
- 46 **Bather** (F. A.), assisted by J. W. Gregory and E. S. Goodrich. A treatise on zoology.
A. & C. Black, London, vii + 344 pp., 1900.
Review, Science, new ser., vol. 14, pp. 844-845, 1901.

- 47 **Bayley** (W. S.). [Review of "Elements of mineralogy, crystallography and blowpipe analysis," by A. J. Moses and C. L. Parsons].

Am. Nat., vol. 35, pp. 239-240, 1901.

- 48 **Beard** (J. Carter). Three characteristic types of American dinosaurs.

Sci. Am., vol. 84, pp. 184-185, fig. 1, 1901.

- 49 ——— Something about ancient American saurians.

Sci. Am., vol. 85, p. 267, 1 fig., 1901.

Describes their general characteristics.

- 50 **Becker** (George F.). Report on the geology of the Philippine Islands, followed by a version of "Ueber Tertiäre fossilien von den Philippinen" (1895), by K. Martin.

U. S. Geol. Surv., 21st Ann. Rept., Part III, pp. 493-625, pls. lxvi-lxviii, figs. 103-104, 1901.

Abstract: Am. Geol., vol. 28, pp. 126-127, 1901.

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- 51 **Beecher** (Charles Emerson). Studies in evolution; mainly reprints of occasional papers selected from the publications of the laboratory of invertebrate paleontology, Peabody Museum, Yale University.

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- 52 ——— Note on the Cambrian fossils of St. François County, Missouri.

Am. Jour. Sci., 4th ser., vol. 12, pp. 362-363, 1901.

Abstract: Geol. Mag., new ser., dec. 4, vol. 8, pp. 559-561, 1901.

Discusses the fossil evidence indicating that a considerable thickness of the rocks of this region are to be referred to the Cambrian.

- 53 ——— Discovery of eurypterid remains in the Cambrian of Missouri.

Am. Jour. Sci., 4th ser., vol. 12, pp. 364-366, pl. vii, 1901.

Abstract: Geol. Mag., dec. 4, vol. 8, pp. 561-564, 1901.

Describes *Strabops tatcheri* n. gen. et sp.

- 54 ——— [Review of "A treatise on zoology," by F. A. Bather, etc.]

Science, new ser., vol. 14, pp. 844-845, 1901.

- 55 **Beede** (J. W.). Fauna of the Permian of the central United States. Part I.

Kans. Acad. Sci., Trans. vol. 17, pp. 185-189, pl. xiii-xiv, 1901.

Describes several new species.

- 56 **Beede** (J. W.). The age of the Kansas-Oklahoma red beds.
Am. Geol., vol. 28, pp. 46-47, 1901.
Describes the occurrence of fossils recently found, indicating the Permian age of the beds.
- 57 **Bell** (Robert). Report on an exploration of the northern side of Hudson Strait [Canada].
Can. Geol. Surv., new ser., vol. xi, Rept. M, 38 pp., 4 pls. and geologic map. 1901.
Contains notes on the physiographic features and ancient gneisses and limestones and Silurian strata of the region.
- 58 ——— Laurentian limestones of Baffinland.
Abstract: Geol. Soc. Am., Bull., vol. 12, p. 471, 1901.
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- 59 **Bell** (W. T.). The remarkable concretions of Ottawa County, Kansas.
Am. Jour. Sci., 4th ser., vol. 11, pp. 315-316, figs. 1-2, 1901.
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- 60 **Biddle** (H. C.). The deposition of copper by solutions of ferrous salts.
Jour. Geol., vol. 9, pp. 430-436, 1901.
Describes certain chemical experiments which show that the conditions under which the oxidation of the ferrous salts may result in the deposition of copper are those which are found in the circulation of underground water.
- 61 **Bishop** (S. E.). Brevity of tuff-cone eruptions.
Am. Geol., vol. 27, pp. 1-5, pl. i, 1901.
Discusses the origin and mode of formation of Diamond Head, Island of Oahu.
- 62 **Blake** (William P.). Some salient features in the geology of Arizona, with evidences of shallow seas in Paleozoic time.
Am. Geol., vol. 27, pp. 160-167, 1901.
Describes the general character and occurrence of ancient crystalline Paleozoic and Mesozoic rocks in Arizona.
- 63 ——— The evidences of shallow seas in Paleozoic time in southern Arizona.
Abstract: Jour. Geol., vol. 9, pp. 68-69, 1901; Geol. Soc. Am., Bull., vol. 12, p. 493, 1901.
Contains notes on probable lower Paleozoic rocks of the region.
- 64 ——— The caliche of southern Arizona.
Abstract: Eng. & Mg. Jour., vol. 72, pp. 601-602, 1901.
Describes the character and origin of the material.
- 65 **Blakemore** (William). Pioneer work in the Crows Nest coal areas [Canada].
Can. Mg. Rev., vol. 20, pp. 127-132, 3 figs., 1901; Can. Mg. Inst., Jour., vol. 4, pp. 230-243, 3 figs., 1901.
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- 66 **Blasdale** (Walter C.). Contribution to the mineralogy of California.
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- 67 **Blatchley** (W. S.). Oolite and oolitic stone for Portland cement manufacture.
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- 69 — and **Ashley** (George H.). The lakes of northern Indiana and their associated marl deposits.
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- 71 **Bishop** (Irving P.). Oil and gas in southwestern New York.
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- 73 **Bownocker** (J. A.). The Corning oil and gas field.
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- 74 **Branner** (John Casper). [Review of "A record of the geology of Texas for the decade ending December 31, 1896," by Fred-eric W. Simonds.]
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- 81 — and **Collier** (Arthur J.). Glacial phenomena of the Seward Peninsula [Alaska].
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- 82 — **Schrader** (F. C.) and. Some notes on the Nome gold region of Alaska.
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- 83 **Brown** (Arthur Erwin). On some points in the phylogeny of the primates.
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- 88 — and **Dana** (Edward S.). On a new and remarkable mineral locality at Branchville, in Fairfax County, Connecticut; with a description of several new species occurring there. First paper.
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- 90 ——— Third Branchville paper.

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- 91 ——— Fourth Branchville paper—Spodumene and the results of its alteration.

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- 92 ——— Fifth Branchville paper, with analyses of several man-ganesian phosphates by Horace L. Wells.

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- 95 ——— Ice ramparts.

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- 97 **Burr** (Henry T.). The structural relations of the amygdaloidal melaphyr in Brookline, Newton, and Brighton, Mass.

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- 98 **Burritt** (Chas. H.). The Coal Measures of the Philippines.

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- 101 — Concerning the occurrence of gold and some other mineral products in Iowa.
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- 102 **Campbell** (Douglas H.). [Review of "Studies in fossil botany," by D. H. Scott.]
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- 103 **Campbell** (John T.). Evidence of a local subsidence in the interior [Indiana].
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Abstracts: Geol. Soc. Am., Bull., vol. 12, p. 462 ($\frac{1}{2}$ p.), 1901.
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- 105 — Charleston Folio—West Virginia.
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- 106 **Carter** (O. S. C.). Artesian wells as a water supply for Philadelphia.
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- 107 — Artesian wells.
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- 108 — Anthracite coal near Perkiomen Creek.
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- 109 — Drilling for oil and natural gas in the vicinity of Philadelphia.
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- 111 — The Upper Schuylkill River.
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- 112 — Denver's water supply.
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- 115 — Limestones in vicinity of Philadelphia, and hydraulic cement.
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- 116 — The source of Camden's [New Jersey] artesian water supply.
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- 117 — The petrified forest of Arizona.
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- 118 — The erosion of the shore line at Atlantic City—land made and lost.
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- 119 — Atlantic City's [New Jersey] deep artesian well.
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- 121 **Catlett** (Charles). Coal-outcrops.
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- 123 — The sources and distribution of the gold bearing alluvions of Quebec.
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- 124 **Chamberlin** (Thomas C.). [Geologic terminology.]
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- 125 — [Review of "The Norwegian North polar expedition, 1893-1896. Scientific results, Vol. II.]
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- 126 — [Review of "Meteorological observations of the second Wellman expedition," by Evelyn B. Baldwin.]
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- 127 — On a possible function of disruptive approach in the formation of meteorites, comets, and nebulae.
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- 128 — [Review of "Rival theories of cosmogony," by O. Fisher.]
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- 129 — Report on some studies relative to primal questions in geology.
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- 130 — On Lord Kelvin's address on the age of the earth as an abode fitted for life.
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- 131 **Chance** (H. M.). Gold ores of the Black Hills, South Dakota.
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- 132 — The iron-mines of Hartville, Wyoming.
Am. Inst. Mg. Engrs., Trans., vol. 30, pp. 987-1003, 1 fig., 1901.
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- 133 **Charles** (H. W.). Dakota sandstone in Washington County, [Kansas].
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- 134 **Charlton** (O. C.). Note on the Mort and Bluff meteorites.
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- 136 **Chester** (Albert H.). Mineralogical notes and explorations.
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- 137 **Chibas** (Eduardo J.). Manganese mining in Cuba.
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- 138 **Cilley** (Frank H.). Some fundamental propositions in the theory of elasticity. A study of primary or self-balancing stresses.
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- 140 **Clark** (William Bullock) and **Martin** (George Curtis). The Eocene deposits of Maryland.
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- 141 ——— Eocene Mollusca.
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- 142 ——— Eocene Molluscoidea (Brachiopoda).
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- 143 ——— Eocene Echinodermata.
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- 144 **Clarke** (John M.). The Oriskany fauna of Becraft Mountain, Columbia County, N. Y.
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- 145 ——— Limestones of central and western New York interbedded with bituminous shales of the Marcellus stage, with notes on the nature and origin of their faunas.
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- 146 ——— New Agelacrinites.
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Reviews the literature regarding these forms and describes three new species.
- 147 ——— Value of Amnigenia as an indicator of fresh water deposits during the Devonian of New York, Ireland and the Rhineland.
N. Y. State Mus., Bull. No. 49, pp. 199-203, pl. 11, 1901.

- 148 **Clarke** (John M.). The Maryland Eocene book.
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- 149 **Claypole** (E. W.). Notes on petroleum in California.
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- 150 — The Sierra Madre near Pasadena [California].
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- 151 **Clements** (J. Morgan), **Van Hise** (C. R.) and. The Vermilion iron-bearing district.
See Van Hise (C. R.), 759.
- 152 **Coleman** (Arthur P.). Glacial and interglacial beds near Toronto [Canada].
Jour. Geol., vol. 9, pp. 285-310, figs. 1-2, 1901.
Describes the glacial history, the variations in climate and their effect on the then existing faunas and floras, and the glacial deposits of the region.
- 153 — Marine and fresh-water beaches of Ontario.
Geol. Soc. Am., Bull., vol. 12, pp. 129-146, figs. 1-2, 1901.
Abstract: Science, new ser., vol. 13, p. 136, 1901.
Describes the marine deposits, shell gravels, and beaches of the region.
- 154 — The Vermilion River placers [Ontario].
Ontario Bureau of Mines, Rept. for 1901, pp. 151-159, 1 fig., 1901.
Describes the character and distribution of the placers.
- 155 — Iron ranges of the Lower Huronian [Ontario].
Ontario Bureau of Mines, Rept. for 1901, pp. 181-211, pls. 25-28, 1901.
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- 156 — Sea beaches of eastern Ontario.
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- 157 **Collie** (George Lucius). Wisconsin shore of Lake Superior.
Geol. Soc. Am., Bull., vol. 12, pp. 197-216, figs. 1-2, 1901.
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- 158 **Collie** (George Lucius). Physiography of Wisconsin.
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- 159 **Collier** (Arthur J.), **Brooks** (Alfred H.) and. Glacial phenomena of the Seward Peninsula [Alaska].
See Brooks (A. H.) and Collier (A. J.), 81.
- 160 **Collins** (G. E.). Vein structure at the Reynolds mine, Georgia.
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- 161 **Comstock** (Theodore B.). The geology and vein phenomena of Arizona.
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Gives a general description of the mineral regions. Discusses the orographic disturbances and their effects on ore deposition, and describes the stratigraphic succession in the state.
- 162 **Comstock** (W. J.), **Allen** (O. D.) and. Bastnasite and tysonite from Colorado.
See Allen (O. D.) and Comstock (W. J.), 11.
- 163 **Cooper** (A. S.). The origin and occurrence of petroleum in California.
Min. Ind. for 1901, pp. 505-509, fig. 1, 1901.
Describes the occurrence and character of the oil.
- 164 **Corless** (C. V.). The Coal Creek colliery of the Crows Nest Pass Coal Co. [Canada].
Can. Mg. Rev., vol. 20, pp. 60-67, 16 figs., 1901.
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- 165 **Courtis** (W. M.). [In discussion of paper by G. O. Smith and Bailey Willis on "The Clealum iron ores, Washington."]
Am. Inst. Mg. Engrs., Trans., vol. 30, pp. 1116-1117, 1901.
Gives additional analyses of these ores.
- 166 **Cowles** (Henry C.). The relation between baseleveling and plant distribution.
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- 167 **Cragin** (F. W.). A study of some teleosts from the Russel substage of the Platte Cretaceous series.
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- 168 **Crane** (W. R.). Kansas coal mining.
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- 169 **Crosby** (W. O.). [Reviews of "Granites of southern Rhode Island and Connecticut, with observations on Atlantic Coast granites in general" by J. F. Kemp; "Contact metamorphism of a basic igneous rock" by U. S. Grant; "Suggestions regarding the classification of the igneous rocks" by W. H. Hobbs; "The nomenclature of feldspathic granulites" by H. W. Turner; and "Some contact phenomena of the Palisade diabase" by J. D. Irving.]
Am. Geol., vol. 27, pp. 51-54, 1901.
- 170 — [Reviews of "A brief review of the titaniferous magnetites" by J. F. Kemp; "The origin of kaolin" by H. Ries; "Igneous complex of Magnet Cove, Arkansas" by H. S. Washington; "A granite-gneiss area in central Connecticut" by L. G. Westgate; and "The origin of nitrates in cavern earths" by W. H. Hess.]
Am. Geol., vol. 27, pp. 119-122, 1901.
- 171 — [Review of "The calcareous concretions of Kettle Point, Lambton Courty, Ontario," by R. A. Daly; and "The granite rocks of the Pikes Peak quadrangle" by E. B. Mathews.]
Am. Geol., vol. 27, pp. 253-254, 1901.
- 172 — [Review of "Some principles of rock analysis" by W. F. Hillebrand; and "Analyses of rocks, Laboratory of the U. S. Geological Survey" by F. W. Clarke.]
Am. Geol., vol. 27, pp. 315-316, 1901.
- 173 — Are the amygdaloidal melaphyrs of the Boston Basin intrusive or contemporaneous?
Am. Geol., vol. 27, pp. 324-327, 1901.
Reviews a paper by Henry T. Burr.
- 174 — The tripolite deposits of Fitzgerald Lake, near St. John, New Brunswick.
Tech. Quart., vol. 14, pp. 124-127, 1901.
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- 175 — Geological history of the hematite iron ores of the Antwerp and Fowler belt in New York.
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- 176 **Cross** (Whitman), assisted by Arthur Coe Spencer. General geology, La Plata Folio—Colorado.
U. S. Geol. Surv., Geol. Atlas of U. S., Folio No. 60, 1899.
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- 177 **Cross** (Whitman). Outline of geology. (Silverton quadrangle, Colorado.)
U. S. Geol. Surv., Bull. No. 182, pp. 29-39, 1901.
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- 178 **Cummings** (Edgar R.). The use of Bedford as a formational name.
Jour. Geol., vol. 9, pp. 232-233, 1901.
Proposes the name Salem limestone for the Bedford limestone, the latter having been preoccupied.
- 179 — *Orthothetes minutus*, n. sp. from the Salem limestone of Harrodsburg, Indiana.
Am. Geol., vol. 27, pp. 147-149, pl. 15, 1901.
- 180 — A section of the upper Ordovician at Vevay, Indiana.
Am. Geol., vol. 28, pp. 361-380, pls. 34-35, 1901.
Gives a detailed section, names the fossils found in each bed, and compares this section with that at Cincinnati. Describes four new species.
- 181 — Notes on the Ordovician rocks of southern Indiana.
Ind. Acad. Sci., Proc. for 1900, pp. 200-215, 1901.
Gives section at various localities with notes on the faunas.
- 182 — Some developmental stages of *Orthothetes minutus* n. sp.
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- 183 **Currie** (P. W.). On the ancient drainage at Niagara Falls.
Can. Inst., Trans., vol. 7, pp. 7-14, 6 pls., 1901.
Describes the course of the preglacial river and discusses its mode of formation.
- 184 **Cushing** (H. P.). Origin and age of an Adirondack augite andesite.
Abstracts: Geol. Soc. Am., Bull., vol. 12, p. 464 ($\frac{1}{2}$ p.), 1901.
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Brief description of character and occurrence.
- 185 — Geology of Rand Hill and vicinity, Clinton County [New York].
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- 186 **Dall** (William H.). The structure of Diamond Head, Oahu.
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- 187 — The morphology of the hinge teeth of bivalves.
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- 188 **Dall** (William H.). A gigantic fossil *Lucina*.
Nautilus, vol. 15, pp. 40-42, 1901.
Describes *Lucina megameris* from Jamaica.
- 189 — and **Bartsch** (Paul). A new Californian *Bittium*.
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- 190 **Daly** (Reginald A.). The physiography of Acadia.
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Abstract: Am. Geol., vol. 27, pp. 317-318, 1901.
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- 191 — Notes on oceanography.
Science, new ser., vol. 13, pp. 951-954, 1901.
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- 192 **Dana** (Edward S.). On the composition of the labradorite rocks of Waterville, New Hampshire.
Yale Bicentennial publications, Cont. to Mineral. and Petrog., pp. 387-390, 1901. (From Am. Jour. Sci., 3rd ser., vol. 3, pp. 48-50, 1872.)
- 193 — **Brush** (George J.) and. On a new and remarkable mineral deposit at Branchville, in Fairfield County, Connecticut; with a description of several new species occurring there. First paper.
See Brush (G. J.) and Dana (E. S.), 88.
- 194 — — Second Branchville paper.
See Brush (G. J.) and Dana (E. S.), 89.
- 195 — — Third Branchville paper.
See Brush (G. J.) and Dana (E. S.), 90.
- 196 — — Fourth Branchville paper—spodumene and the results of its alteration.
See Brush (G. J.) and Dana (E. S.), 91.
- 197 — — Fifth Branchville paper; with analyses of several manganese phosphates, by Horace T. Wells.
See Brush (G. J.) and Dana (E. S.), 92.
- 198 **Darton** (Nelson Horatio). Preliminary description of the geology and water resources of the southern half of the Black Hills and adjoining regions in South Dakota and Wyoming.
U. S. Geol. Surv., 21st Ann. Rept., Pt. IV, pp. 497-599, pls. lviii-cxii, figs. 272-299, 1901.
Abstract: Jour. Geol., vol. 9, pp. 732-734, 1901.
Describes the character and occurrence of the Cambrian, Carboniferous, Juratrias, Cretaceous, Tertiary, and Pleistocene strata, and the water and mineral resources and soils of the region.

- 199 **Darton** (Nelson Horatio). Comparison of stratigraphy of the Black Hills with that of the Front range of the Rocky Mountains.

Abstracts: Geol. Soc. Am., Bull., vol. 12, p. 478 ($\frac{3}{4}$ p.), 1901; Science, new ser., vol. 13, p. 188, 1901.

- 200 — and **Keith** (Arthur). Washington Folio, Dist. of Columbia, Maryland, Virginia.

U. S. Geol. Surv., Geol. Atlas of U. S., Folio No. 70, 1901.

Describes geographic and topographic features, the character and occurrence of Archean rocks and of the Cretaceous, Eocene, Neocene, and Pleistocene strata, the general structure of the Piedmont and Coastal plain regions, and mineral resources of the area.

- 201 **Davis** (Charles A.). A second contribution to the natural history of marl.

Jour. Geol., vol. 9, pp. 491-506, 1901.

Abstract: Am. Geol., vol. 27, p. 186, 1901.

- 202 **Davis** (William M.). An excursion to the Grand Canyon of the Colorado.

Harv. Coll., Mus. Comp. Zool., Bull., vol. 38, pp. 108-201, pls. 1-2, figs. 1-18, 1901.

Abstracts: Geol. Soc. Am., Bull., vol. 12, p. 483 ($\frac{1}{4}$ p.), 1901; Geol. Mag., new ser., dec. 4, vol. 8, p. 324, 1901; Science, new ser., vol. 13, p. 138, 1901.

Describes the denudation and displacements of the region and discusses the origin of the drainage system.

- 203 — Peneplains of central France and Brittany.

Abstract: Geol. Soc. Am., Bull., vol. 12, pp. 480-487, pls. 44-45, 1901.

Discusses the theory of peneplains.

- 204 — Note on river terraces of New England.

Abstract: Geol. Soc. Am., Bull., vol. 12, pp. 483-485, 1 fig., 1901.

Discusses the formation of these terraces.

- 205 — Current notes on physiography.

Science, new ser., vol. 13, pp. 152-153, 1901.

Contains notes on the Dalles of the Wisconsin and the islands of southern California.

- 206 — Current notes on physiography.

Science, new ser., vol. 13, pp. 275-276, 1901.

Contains abstract of paper by H. W. Turner on the origin of Yosemite Valley.

- 207 — Current notes on physiography.

Science, new ser., vol. 13, pp. 351-352, 1901.

Contains abstracts of papers by I. C. Russell on the geology of the Cascade Mountains and by W. T. Lee on the glacier of Mt. Arapahoe.

- 208 **Davis** (William M.). Current notes on physiography.
Science, new ser., vol. 13, pp. 395-397, 1901.
Contains abstract of paper by Abbe on the physiography of Allegany County, Maryland.
- 209 — Current notes on physiography.
Science, new ser., vol. 13, pp. 471-472, 1901.
Contains abstract of paper by Ganong on the physiography of New Brunswick.
- 210 — Current notes on physiography.
Science, new ser., vol. 13, pp. 551-552, 1901.
Contains brief abstract of paper by Lindgren, describing the Snake River canyon.
- 211 — Current notes on physiography.
Science, new ser., vol. 13, pp. 628-629, 1901.
Contains brief abstract of monograph on the Illinois glacial lobe and describes reversion in river development in Pennsylvania.
- 212 — Current notes on physiography.
Science, new ser., vol. 13, pp. 751-753, 1901.
Contains abstracts of second folio of the Topographic atlas of the United States and of paper by Lee on the debris-covered mesas of Boulder, Colorado.
- 213 — Current notes on physiography.
Science, new ser., vol. 13, pp. 791-793, 1 fig., 1901.
Contains abstracts of the third folio of the Topographic atlas of the United States by R. T. Hill, and of a paper by Crosby on the Nashua Valley, Massachusetts.
- 214 — Current notes on physiography.
Science, new ser., vol. 13, pp. 871-872, 1901.
Gives an abstract of paper by Jones on the Tallulah gorge in Georgia.
- 215 — Current notes on physiography.
Science, new ser., vol. 13, pp. 950-951, 1901.
Reviews recently published folios of the Geologic atlas of the United States.
- 216 — Current notes on physiography.
Science, new ser., vol. 14, pp. 152-153, 1901.
Gives an abstract of a paper by Matthes on the Glacial sculpture of the Big Horn Mountains.
- 217 — Current notes on physiography.
Science, new ser., vol. 14, pp. 299-330, 1901.
Gives an abstract of paper by Shattuck on the Pleistocene problem of the North Atlantic Coastal plain.
- 218 — Current notes on physiography.
Science, new ser., vol. 14, pp. 457-459, 1901.
Reviews paper by Spurr on the structure of the Basin ranges.

- 219 **Davis** (William M.). Current notes on physiography.
Science, new ser., vol. 14, pp. 537-538, 1901.
Contains remarks on glacial lakes in Minnesota, esker lakes in Indiana and the Ontario coast.
- 220 — Current notes on physiography.
Science, new ser., vol. 14, pp. 698-699, 1901.
Refers to dikes as topographic features, the character of the plain of St. Lawrence Valley and the question of peneplains.
- 221 — Current notes on physiography.
Science, new ser., vol. 14, pp. 778-779, 1901.
Reviews papers by Johnson on the High Plains and by Low on the south shore of Hudson Strait.
- 222 — Current notes on physiography.
Science, new ser., vol. 14, pp. 856-859, 1901.
Reviews Hobbs's paper on the River system of Connecticut and Dowl-
ing and Tyrrell on Lake Winnipeg.
- 223 **Dawson** (George M.). Summary report on the operations of the
Geological Survey for the year 1898.
Can. Geol. Surv., new ser., vol. 11, Rept. A, 208, pp., 1901, published
in 1899.
- 224 — Geological record of the Rocky Mountain region in Canada.
Geol. Soc. Am., Bull., vol. 12, pp. 57-92, 1901.
Gives an account of the physiographic features and a table of geologic
formations of the region. Describes the character and occurrence of
the rocks of the subdivisions of the Archean, Paleozoic, Mesozoic, and
Cenozoic eras.
- 225 — Physical history of the Rocky Mountain region in Canada.
Science, new ser., vol. 13, pp. 401-407, 1901.
Contains portion of address delivered before the Geological Society of
America.
- 226 **Day** (David T.). Notes on the occurrence of platinum in North
America.
Am. Inst. Mg. Engrs., Trans. vol. 30, pp. 702-708, 1901.
Describes the geographic distribution of platinum and its occurrence
on the Pacific Coast.
- 227 **Dean** (Bashford). On two new Arthrodires from the Cleveland
shale of Ohio.
N. Y. Acad. Sci., Mem., vol. 2, pp. 86-100, pls. 2-7, figs. 1-2, 1901.
- 228 — On the characters of Mylostonia Newberry.
N. Y. Acad. Sci., Mem., vol. 2, pp. 101-109, pls. 7-8, figs. 3-10, 1901.
- 229 — Further notes on the relationships of the Arthrognathi.
N. Y. Acad. Sci., Mem., vol. 2, pp. 110-123, figs. 12-18, 1901.
Discusses the position of the Arthrognathi and the systematic arrange-
ment and nomenclature of the structures.

- 230 **Diller** (Joseph Silas). Geomorphogeny of the Klamath Mountains [California-Oregon].
Abstracts: Geol. Soc. Am., Bull., vol. 12, p. 461 ($\frac{1}{2}$ p.), 1901.
Science, new ser., vol. 13, p. 97, 1901.
- 231 — Coos Bay Folio—Oregon.
U. S. Geol. Surv., Geol. Atlas of U. S., Folio No. 73, 1901.
Describes the topographic features, the character and the occurrence of the Cretaceous, Eocene, Neocene, and Pleistocene deposits and igneous rocks, and the occurrence of coal and gold.
- 232 **Dodge** (Richard E.). Landslides of Echo and Vermillion cliffs.
Abstract: Geol. Soc. Am., Bull., vol. 12, p. 485 (7 l.), 1901.
- 233 **Donald** (J. T.). The composition of some Canadian limestones.
Can. Mg. Rev., vol. 20, pp. 67-68, 1901.
Can. Mg. Inst., Jour., vol. 4, pp. 152-154, 1901.
Gives chemical analyses and notes on the economic uses of these limestones.
- 234 **Douglass** (Earl). New species of *Merycochoerus* in Montana. Part II.
Am. Jour. Sci., 4th ser., vol. 11, pp. 73-89, figs. 1-5, 1901.
Describes material from Tertiary beds.
- 234a — Fossil mammalia of the White River beds of Montana.
Am. Phil. Soc., Trans. new ser., vol. 20, pp. [only separate seen], pl. ix and map, 1901.
Describes the characters of the strata and of the fossil mammals collected.
- 235 **Douglas** (James). Record of borings in the Sulphur Spring Valley, Arizona; and of agricultural experiments in the same locality.
Am. Phil. Soc., Proc., vol. 40, pp. 161-163, 1 fig., 1901.
Gives record of well boring in the valley to the depth of 765 feet.
- 236 **Dowling** (D. B.). Report on the geology of the west shore and islands of Lake Winnipeg.
Can. Geol. Surv., new ser., vol. 11, Rept. F., 100 pp., 2 pls., 10 figs. 1901, published in 1900.
Describes the physiography, the character, occurrence, and faunas of the Ordovician strata and the glacial phenomena of the region.
- 237 — The physical geography of the Red River Valley [Canada].
Ottawa Nat., vol. 15, pp. 115-120, pls. 8-9, 1901.
Describes the physiographic history of the region.
- 238 — See **Tyrrell** (J. B.), 747.
- 239 **Dresser** (John A.). A hornblende lamprophyre dike at Richmond, P. Q.
Can. Rec. Sci., vol. 8, pp. 315-320, 1901.
Describes the occurrence of the dike and the characters of the dike rock.

- 240 **Dresser** (John A.). A preliminary note on an amygdaloidal trap rock in the eastern townships of the Province of Quebec.
Ottawa Nat., vol. 14, pp. 180-182, 1901.
Describes the megascopic and microscopic characters of the rock.
- 241 — On the petrography of Mt. Orford.
Am. Geol., vol. 27, pp. 14-21, 1901.
Describes occurrence and character of diabase, gabbro-diorite, serpentine, and opihalcite, and gives a summary of the geologic history of the region.
- 242 — On the petrography of Shefford Mountain [Quebec].
Am. Geol., vol. 28, pp. 204-213, pl. 21, 1901.
Describes petrographic characters of essexite, nordmarkite, and pulaskite, and discusses their relations.
- 243 **Dryer** (Charles R.). Certain peculiar eskers and esker lakes of northeastern Indiana.
Jour. Geol., vol. 9, pp. 123-129, figs. 1-2, 1901.
Describes glacial phenomena of the region.
- 244 — Lessons in physical geography.
American Book Co., 1901.
Review, Jour. Geol., vol. 9, pp. 638-639, 1901.
- 245 **Dumble** (E. T.). Cretaceous of Obispo Canyon, Sonora, Mexico.
Texas Acad. Sci., Trans., vol. 4, p. 81, 1901.
Gives brief description of the character of the beds.
- 246 — Occurrence of oyster shells in volcanic deposits in Sonora, Mexico.
Texas Acad. Sci., Trans., vol. 4, p. 82, 1901.
Gives brief description of occurrence.
- 247 — The iron ores of east Texas.
Eng. & Mg. Jour., vol. 72, p. 104 ($\frac{1}{2}$ p.), 1901.
Contains brief notes on the character of the ores.
- 248 — Geology of the Beaumont oil fields (Texas).
Houston, Texas, June, 1901. (Not seen.)
- 249 **Dwight** (W. B.). Fort Cassin beds in the Calciferous limestone of Dutchess County, New York.
Abstract: Geol. Soc. Am., Bull., vol. 12, pp. 490-491, 1901.
Contains notes on the faunas of these beds.

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- 250 **Eakle** (Arthur S.). Mineralogical notes, with chemical analyses by W. T. Schaller.
Univ. of Cal., Dept. of Geol., Bull., vol. 2, pp. 315-326, pl. 9, 1901.
Describes pectolite, zircon crystals, esmeraldaite, coquimbite, and altaite crystals.

- 251 **Eastman** (Charles R.). Systematic paleontology, Eocene Pisces.
Md. Geol. Surv., Eocene, pp. 98-115, pls. 12-15, 1901.
- 252 — On *Campodus*, *Edestus*, *Helicoprion*, *Acanthodes*, and other Permo-Carboniferous sharks.
Abstracts: Science, new ser., vol. 14, p. 795, 1901.
Sci. Am. Suppl., vol. 52, p. 21505, 1901.
- 253 **Eckel** (Edwin C.). The formation as the basis for geologic mapping.
Jour. Geol., vol. 9, pp. 708-717, 1901.
Discusses the problems involved and the application of the proposed system.
- 254 — The emery deposits of Westchester County, New York.
Min. Ind. for 1900, pp. 15-17, 1901.
Describes briefly the character and occurrence of the deposits.
- 254a — A recently discovered extension of the Tennessee white phosphate fields.
U. S. Geol. Surv., Min. Res. for 1900, pp. 812-813, 1901.
Briefly describes occurrence in Decatur County.
- 255 **Eldridge** (George H.). The asphalt and bituminous rock deposits of the United States.
U. S. Geol. Surv. 22nd Ann. Rept., Pt. 1, pp. 209-452, pls. xxv-lviii, fig. 1-52, 1901.
Describes the character and geologic occurrence of these materials in the United States.
- 256 **Ells** (R. W.). Report on the geology of the Three Rivers map sheet or northwestern sheet of the eastern townships map, Quebec.
Can. Geol. Surv., new ser., vol. 11. Rept. J., 70 pp., 4 pls., 1901. Published in 1900.
Describes the physiography, the character, and occurrence of the Ordovician, Silurian, and Pleistocene deposits and economic resources of the region.
- 257 — The physical features and geology of the Paleozoic basin between the Lower Ottawa and St. Lawrence rivers.
Can. Roy. Soc., Proc. & Trans., 2nd ser., vol. 6, sect. 4, pp. 99-120, 1900.
Describes the character and occurrence of the Paleozoic rocks and the structure of the region.
- 258 — The Carboniferous basin of New Brunswick.
Can. Roy. Soc., Proc. and Trans., 2nd ser., vol. 7, sect. 4, pp. 45-56. (Not seen.)
Abstract: Science, new ser., vol. 13, p. 1017, 1901.

- 259 **Ells** (R. W.). The Devonian of the Acadian provinces.
 Can. Rec. Sci., vol 8, pp. 335-343, 1901.
 Reviews previous geologic work on the Devonian strata of the region and discusses the problems involved.
- 260 — Ancient channels of the Ottawa River [Canada].
 Ottawa Nat., vol. 15, pp. 17-30, 1 map, 1901.
 Describes glacial phenomena of the region.
- 261 **Emmons** (Samuel Franklin). The secondary enrichment of ore deposits.
 Am. Inst. Mg. Engrs., Trans., vol. 30, pp. 177-217, 1901.
 Discusses the process of the secondary enrichment of sulphide ore bodies by transference and reconcentration of the alteration products of the original vein materials by descending surface waters and the chemical reactions which take place. Describes the author's observations in various mining districts and discusses their bearing on these problems.
- 262 — Notes on two desert mines in southern Nevada and Utah.
 Abstract: Science, new ser., vol. 13, pp. 426-427, 1901.
 Contains abstract of paper read before the Geological Society of Washington.

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- 263 **Fairbanks** (Harold W.). Notes on the geology of the Three Sisters, Oregon.
 Abstracts: Jour. Geol., vol. 9, p. 73 ($\frac{1}{2}$ p.), 1901.
 Geol. Soc. Am., Bull., vol. 12, pp. 498-499 ($\frac{1}{2}$ p.), 1901.
 Brief notes on occurrence of volcanic rocks.
- 264 — Pyramid Lake, Nevada.
 Pop. Sci. Mo., vol. 58, pp. 405-514, figs. 1-8, 1901.
 Describes the geological history of the lake and adjacent region and the characteristics of the volcanic materials.
- 265 **Fairchild** (Herman LeRoy). Beach structure in Medina sandstone.
 Am. Geol., vol. 28, pp. 9-14, pls. ii-iv, 1901.
 Review, Jour. Geol., vol. 9, pp. 549-550, 1901.
 Discusses the evidences indicating the origin of the ripple marks in the Medina sandstone of New York.
- 266 **Farnsworth** (P. J.). When was the Mississippi River Valley formed?
 Am. Geol., vol. 28, pp. 393-396, 1901.
 Discusses the geologic history of the region.
- 267 **Farrington** (Oliver Cummings). On the nature of the metallic veins of the Farmington meteorite.
 Am. Jour. Sci., 4th ser., vol. 11, pp. 60-62, fig. 1, 1901.
- 268 — The structure of meteorites.
 Jour. Geol., vol. 9, pp. 51-66, figs. 1-6, pp. 174-190, figs. 7-11, 1901.
 Describes the various structural features of meteorites and discusses their origin.

- 269 **Farrington** (Oliver Cummings). The constituents of meteorites.
Jour. Geol., vol. 9, pp. 393-408, and 522-532, 1901.
Describes the character and occurrence of the mineral constituents of meteorites.
- 270 — The pre-terrestrial history of meteorites.
Jour. Geol., vol. 9, pp. 623-632, 1901.
Discusses the evidences indicating the probable structure of meteorites before reaching the earth.
- 271 — Observations on Indiana caves.
Field Col. Mus., Geol. ser., vol. 1, pp. 247-266, pls. 32-33, figs. 1-8, 1901.
- 272 **Finlay** (George I.). The granite of Barre, Vermont.
Abstract: Science, new ser., vol. 13, p. 509 ($\frac{1}{2}$ p.), 1901. N. Y. Acad. Sci., Annals, vol. 14, pp. 101-102, 1901.
Briefly describes megascopic and microscopic characters.
- 273 **Fisher** (C. A.). Comparative value of bluff and valley wash deposits as brick material.
Nebr. Board of Agric., Ann. Rept., 1900, pp. 181-184. (Not seen.)
- 274 — **Gould** (C. N.) and. The Dakota and Carboniferous clays of Nebraska.
See Gould (C. N.) and Fisher (C. A.), 305.
- 275 **Fisher** (O.). On rival theories of cosmogony.
Am. Jour. Sci., 4th ser., vol. 11, pp. 414-422, 1901.
Review by T. C. Chamberlin, Jour. Geol., vol. 9, pp. 458-465, 1901.
Discusses the meteoric and nebular theories as to the origin of the earth.
- 276 — Mathematical notes to rival theories of Cosmogony.
Am. Jour. Sci., 4th ser., vol. 12, pp. 140-142, 1901.
Contains mathematical notes supplementary to the author's previous paper.
- 277 **Flink** (Gust.). On the minerals from Narsarsuk on the firth of Tunugdliarfik in southern Greenland.
Meddelelser om Gronland, vol. 24, pp. 11-213, pls. 1-lx, 1901. (Not seen.)
- 278 **Foerste** (August F.). Silurian and Devonian limestones of Tennessee and Kentucky.
Geol. Soc. Am., Bull., vol. 12, pp. 395-444, pls. 35-41, 1901.
Discusses the occurrence and lithologic character of the Ordovician, Silurian and Devonian series in the southern portion of the Cincinnati anticline and discusses the evidences of unconformity. Gives lists of fossils from several formations at various points in the region.
- 279 — The Niagara group along the western side of the Cincinnati anticline.
Abstract: Science, new ser., vol. 13, pp. 134-135, 1901.

- 280 **Foord** (Arthur H.). [Reviews of "Report on the geology and natural resources of the country traversed by the Yellow Head pass route from Edmonton to Tete Jaune Cache, comprising portions of Alberta and British Columbia," by James McErvoy; "On some additional or imperfectly understood fossils from the Cretaceous rocks of the Queen Charlotte Islands, with a revised list of the species from these rocks," by J. F. Whiteaves; and "General Index to the Reports of Progress, 1863 to 1884," by D. B. Dowling.] *Geol. Mag.*, new ser., dec. iv, vol. 8, pp. 136-139, 1901.
- 281 **Foote** (H. W.), **Penfield** (S. L.) and. On bixbyite, a new mineral.
See Penfield (S. L.) and Foote (H. W.), 598.
- 282 ——— On clinohedrite, a new mineral from Franklin, N. J.
See Penfield (S. L.) and Foote (H. W.), 599.
- 283 ——— **Pratt** (J. H.) and. On wellsite, a new mineral.
See Pratt (J. H.) and Foote (H. W.), 624.
- 284 **Ford** (W. E.), **Penfield** (S. L.) and. On calavarite.
See Penfield (S. L.) and Ford (W. E.), 600.
- 285 **Fraas** (E.). [Origin of the Oligocene beds of the Bad Lands, South Dakota.]
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Contains quotation from letter to Professor Osborn.
- 286 **Frazer** (Persifor). Memoir of Franklin Platt.
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Gives a brief sketch of his life and a list of his publications.
- 287 ——— The Eighth Session of the International Congress of Geologists.
Am. Geol., vol. 27, pp. 335-342, 1901.
- 288 **Fuller** (Myron L.). Probable representatives of the pre-Wisconsin till in southeastern Massachusetts.
Jour. Geol., vol. 9, pp. 311-329, figs. 1-6, 1901.
Abstract: *Science*, new ser., vol. 13, p. 664 ($\frac{1}{3}$ p.), 1901.
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- 289 **Furman** (H. van F.). Gold mining in Alaska.
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Describes character and occurrence of gold ores in southeastern Alaska.

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- 290 **Gannett** (Henry). Profiles of rivers.
U. S. Geol. Surv., Water Supply and Irrigation Papers, No. 44, 100 pp., 11 pls., 1901. Review, *Am. Geol.*, vol. 28, p. 56, 1901.

- 291 **Geikie** (Archibald). The founders of geology.
 Johns Hopkins Univ., George Huntington Williams Memorial lectures,
 vol. 1, 297 pp., 1901.
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- 292 **Gidley** (J. W.). Tooth characters and revision of the North
 American species of the genus *Equus*.
 Am. Mus. Nat. Hist., Bull., vol. 14, pp. 91-142, pls. 18-21, figs.
 1-27, 1901.
- 293 **Gilbert** (Grove Karl). Physical history of Niagara River [New
 York].
 U. S. Geol. Surv., Map of Niagara River and vicinity, 1901.
 Abstract: Am. Geol., vol. 27, pp. 375-377, 1901.
- 294 **Gilpin** (Edwin, jr.). The minerals of Nova Scotia.
 Halifax, N. S., 78 pp., 1901. (Not seen.)
- 295 **Girty** (George H.). The Waverly group in northeastern Ohio.
 Abstract: Science, new ser., vol. 13, p. 664 ($\frac{1}{3}$ p.), 1901.
 Gives brief notes on the correlation and succession of the subdivisions.
- 296 **Gordon** (C. H.). On the origin and classification of gneisses.
 Neb. Acad. Sci., Proc. VII, pp. 90-96, 1901.
- 297 **Gould** (Charles Newton). Notes on the fossils from the Kansas-
 Oklahoma Red Beds.
 Jour. Geol., vol. 9, pp. 337-340, 1901.
 Gives a description of the character of the Red beds and of the evi-
 dences on which they have been assigned to the Permian. Refers to
 fossils recently found in the beds.
- 298 — Notes on the geology of parts of the Seminole, Creek, Cher-
 okee, and Osage Nations.
 Am. Jour. Sci., 4th ser., vol. 11, pp. 185-190, 1901.
 This paper is a contribution to the Red Beds problem of the region
 and indicates that the strata are of Permian and Carboniferous age.
- 299 — Tertiary Springs of western Kansas and Oklahoma.
 Am. Jour. Sci., 4th ser., vol. 11, pp. 263-268, 1901.
 Describes the occurrence of those springs at the contact between the
 Tertiary and the underlying Cretaceous or Red Bed strata.
- 300 — Notes on the Kansas-Oklahoma-Texas Gypsum Hills.
 Am. Geol., vol. 27, pp. 188-190, 1901.
 Describes the geologic features of the region and discusses the age of
 the beds.
- 301 — The Dakota Cretaceous of Kansas and Nebraska.
 Kans. Acad. Sci., Trans., vol. 17, pp. 122-178, pls. 4-12, 1901.
 Gives a historical sketch of work on the Dakota group, describes its
 geographic distribution, character, occurrence, and relations, its eco-
 nomic products, and the general characteristics of its faunas and flora.
 Includes a bibliography.

- 302 **Gould** (Charles Newton). On the southern extension of the Marion and Wellington formations.
 Kans. Acad. Sci., Trans., vol. 17, pp. 179-181, 1901.
 Describes their character and occurrence in Oklahoma.
- 303 — The Oklahoma salt plains.
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- 304 — Oklahoma limestones.
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- 305 — and **Fisher** (C. A.). The Dakota and Carboniferous clays of Nebraska.
 Nebr. Board of Agric., Ann. Rept. 1900, pp. 185-194. (Not seen.)
- 306 **Grabau** (Amadeus W.). Guide to the geology and paleontology of Niagara Falls and vicinity.
 Buffalo Soc. Nat. Sci. Bull., vol. 7, pp. 1-284, 18 pls., 190 figs., and geologic map; N. Y. State Mus., Bull. No. 45, pp. 1-284, 18 pls., 190 figs. and geologic map, 1901; Review, Am. Geol., vol. 28, pp. 56-57, 1901.
 Describes the physiography of the region, the character, occurrence, and distribution of the Silurian and Devonian strata, and the fossils of the Silurian rocks. Includes a bibliography.
- 307 — A preliminary geologic section in Alpena and Presque Isle Counties, Michigan.
 Am. Geol., vol. 28, pp. 177-189, pl. 20, 1901.
 Gives a section of a well 1,250 ft. in depth and describes the character and occurrence of the Devonian strata of the section exposed.
- 308 — Recent contributions to the problem of Niagara.
 Abstract: Science, new ser., vol. 14, p. 773, 1901; N. Y. Acad. Sci., Annals, vol. 14, p. 139, 1901; Am. Geol., vol. 28, pp. 329-330, 1901.
 Contains abstract of paper read before the New York Academy of Sciences.
- 309 **Granger** (Walter), **Osborn** (Henry F.) and. Fore and hind limbs of Sauropoda from the Bone Cabin quarry [Wyoming].
 See Osborn (H. F.) and Granger (W.), 585.
- 310 **Grant** (C. C.). Opening address. Geological Section [Hamilton Scientific Association].
 Hamilton Sci. Assoc., Jour. & Proc. No. 17, pp. 62-77, 2 figs., 1901.
 Contains notes on fossils collected near Hamilton, Ontario.
- 311 — Niagara Falls as an index of time.
 Hamilton Sci. Assoc., Jour. & Proc. No. 17, pp. 78-83, 1 fig., 1901.
- 312 — Geological notes, etc.
 Hamilton Sci. Assoc., Jour. & Proc. No. 17, pp. 84-96, 1 fig., 1901.
 Discusses certain post-glacial problems.

- 313 **Grant** (Ulysses Sherman). Preliminary report on the copper bearing rocks of Douglas County, Wisconsin.
Wis. Geol. & Nat. Hist. Surv. Bull. No. 6 (2d edition), 83 pp., pls. 1-13, fig. 1, 1901.
Abstract: Am. Geol., vol. 28, pp. 323-324, 1901.
Contains the material of the first edition and the results of the field work of 1900 in the same region.
- 314 — Junction of the Lake Superior sandstone and Keweenaw traps in Wisconsin.
Abstract: Geol. Soc. Am., Bull., vol. 13, pp. 6-9, 1901.
Describes the structural relations in Douglas County.
- 315 **Gratacap** (L. P.). Paleontological speculations.
Am. Geol., vol. 27, pp. 75-100, 1901.
Discusses the life history and development of various fossil forms.
- 316 — Paleontological speculations. II.
Am. Geol., vol. 28, pp. 214-234, 1901.
Discusses biological crises.
- 317 — The Ward-Coonley collection of meteorites.
Sci. Am. Suppl., vol. 52, pp. 21382-21383, 1901.
Contains notes on the characters of meteorites.
- 318 **Grave** (Caswell). The oyster reefs of North Carolina; a geological and economic study.
Johns Hopkins Univ., Circ. No. 151, pp. 50-53, 2 figs., 1901.
- 319 **Greene** (George K.). Contribution to Indiana Paleontology, Part VI.
New Albany, Ind., pp. 42-49, pls. 16-18, 1901.
Describes Devonian fossils from Indiana.
- 320 — Contribution to Indiana Paleontology. Part VII.
New Albany, Ind., pp. 50-61, pls. 19-21, 1901.
Describes Devonian and Carboniferous fossils from Indiana.
- 321 — Contribution to Indiana Paleontology. Part VIII.
New Albany, Ind., pp. 62-74, pls. 22-24, 1901.
Describes fossils from upper Paleozoic rocks.
- 322 **Gregory** (Herbert E.). Andesites of the Aroostook volcanic area of Maine.
Yale Bicentennial publications. Cont. to Mineral. and Petrog., pp. 467-480, 1901. (From Am. Jour. Sci., 4th ser., vol. 8, pp. 359-369.)
- 323 — [Review of "Physical geography of the Texas region," by R. T. Hill.]
Am. Jour. Sci., 4th ser., vol. 11, pp. 90-91 ($\frac{1}{2}$ p.), 1901.
- 324 — [Review of "The Pleistocene geology of the south central Sierra Nevada with special reference to the origin of Yosemite Valley," by H. W. Turner.]
Am. Jour. Sci., 4th ser., vol. 11, pp. 242-243, 1901.

- 325 **Gregory** (Herbert E.). [Review of "Geology of the Boston basin, vol. 1, Part III. The Blue Hills Complex," by W. O. Crosby.]
Am. Jour. Sci., 4th ser., vol. 11, p. 324, 1901.
- 326 **Gregory** (J. W.) The plan of the earth and its causes.
Am. Geol., vol. 27, pp. 100-119, figs. 1-5, and 134-147, pls. 12-14, figs. 1-16, 1901.
Reviews previous discussions as to the origin of the distribution of the irregularities in the surface of the lithosphere and discusses the pentagonal theory of Élie de Beaumont and the tetrahedral of Green.
- 327 **Gresley** (W. S.). Possible new coal plants, etc., in coal.
Am. Geol., vol. 27, pp. 6-14, pls. 2-7, 1901.
Describes structures occurring in coal beds which may be of vegetable origin.
- 328 **Griffith** (William). An investigation of the buried valley of Wyoming [Pennsylvania].
Wyoming Hist. and Geol. Soc., Proc. and Coll., vol. 6, pp. 27-36, with map, 1901.
Abstract: Am. Geol., vol. 28, p. 324, ($\frac{1}{3}$ p.), 1901.
Describes glacial phenomena of the region.
- 329 **Grimsley** (G. P.). Kansas mines and minerals.
Kans. Acad. Sci., Trans., vol. 17, pp. 200-207, 1901.
Gives an account of the occurrence of the various economic products of the State.
- 330 **Hague** (Arnold). Note sur les phénomènes volcaniques Tertiaires de la chaîne d'Absaroka [Wyoming].
Int. Cong. Geol., Compte Rendu, viii session, pp. 364-365, 1901.
- 331 **Hall** (Christopher W.). Sources of the constituents of Minnesota soils.
Minn. Acad. Nat. Sci., Bull. No. 3, pp. 388-406, 2 figs., 1901.
- 332 — Keweenawan area of eastern Minnesota.
Geol. Soc. Am., Bull., vol. 12, pp. 313-342, pls. 27-28, figs. 1-3, 1901.
Describes the topography and physiography, relations, associated formations, the occurrence of the Keweenawan rocks and the general characters and petrography of the Chengwatana series.
- 333 — Keewatin area of eastern and central Minnesota.
Geol. Soc. Am., Bull., vol. 12, pp. 343-376, pls. 29-32, 1901.
Describes the occurrence of the series at various localities and their megascopic and microscopic characters. Discusses the evidences as to the age of the series.
- 334 **Hallock** (William). Peculiar effects due to a lightning discharge on Lake Champlain in August, 1900.
Jour. Geol., vol. 9, pp. 671-672, 1901.
Describes the effect upon the rocks struck by the discharge.

- 335 **Halse** (Edward). Some silver-bearing veins of Mexico.
North of Eng. Inst. of Mg. & Mch. Engrs., Trans., vol. 50, pp. 202-217, 1901.
Contains brief notes on the vein systems of various mines.
- 336 **Hamilton** (S. Harbert). Troost's survey of Philadelphia.
Am. Geol., vol. 27, pp. 41-42 ($\frac{1}{2}$ p.), 1901.
Calls attention to the location of a copy of Dr. Gerard Troost's publication on the survey of the environs of Philadelphia.
- 337 — and **Withrow** (James R.). The progress of mineralogy in 1899, an analytical catalogue of the contributions to that science during the year.
Am. Inst. Mg. Engrs., Bull. No. 2, 1900. (Not seen.)
Abstract: Am. Geol., vol. 27, p. 48 ($\frac{1}{3}$ p.), 1901.
- 338 **Hanks** (Henry G.). The deep-lying auriferous gravels and table mountains of California.
San Francisco, 15 pp., 6 pls., 1901. (Not seen.)
- 339 **arrington** (B. J.). George Mercer Dawson.
Am. Geol., vol. 28, pp. 67-76, pl. 9, 1901.
Describes the life and work of Dr. Dawson.
- 340 **Harris** (Gilbert D.). Oil in Texas.
Science, new ser., vol. 13, pp. 666-667, 1901.
Contains notes on the thickness of the Tertiary in the vicinity of Beaumont.
- 341 **Haseltine** (R. M.). Lignite deposits or fields of brown coal in North Dakota.
Mines and Minerals, vol. 21, pp. 545-546, 1901.
Describes character and occurrence of the lignite beds.
- 342 **Hatcher** (J. B.). Diplodocus Marsh, its osteology, taxonomy and probable habits, with a restoration of the skeleton.
Carnegie Mus., Mem. vol. 1, No. 1, pp. 1-63, pls. 1-13, figs. 1-24, 1901.
Abstract: Science, new ser., vol. 14, pp. 531-532, 1901.
- 343 — On the cranial elements and the deciduous and permanent dentations of Titanotherium.
Carnegie Mus., Annals, vol. 1, pp. 256-262, pls. 7-8, 1901. (Not seen.)
- 344 — Sabal rigida; a new species of palm from the Laramie.
Carnegie Mus., Annals, vol. 1, pp. 263-264, 1901. (Not seen.)
- 345 — The Jurassic dinosaur deposits near Canyon City, Colorado.
Carnegie Mus., Annals, vol. 1, pp. 327-341, 1901. (Not seen.)
- 346 — Some new and little known fossil vertebrates.
Carnegie Mus., Annals, vol. 1, 1901. (Not seen.)
Abstract: Am. Geol., vol. 27, p. 379, 1901.

- 347 **Hatcher** (J. B.). On the structure of the manus in *Brontosaurus*.
Science, new ser., vol. 14, pp. 1015-1017, 1901.
- 348 **Hawes** (George W.). On a group of dissimilar eruptive rocks
in Campton, New Hampshire.
Yale Bicentennial publications, Cont. to Mineral. and Petrog., pp.
394-399, 1901. (From Am. Jour. Sci., 3d ser., vol. 17, pp. 147-151,
1879.)
- 349 — The Albany granite, New Hampshire, and its contact
phenomena.
Yale Bicentennial publications. Cont. to Mineral. and Petrog., pp.
400-414, 1901. (From Am. Jour. Sci., 3d ser., vol. 21, pp. 21-32, 1881.)
- 350 **Haworth** (Erasmus). The Galena-Joplin lead and zinc district.
Min. Ind. for 1899, pp. 658-668, 2 figs., 1900.
Describes the general geology of the region and the occurrence of the
ores.
- 351 — Petroleum and natural gas in Kansas.
Eng. and Mg. Jour., vol. 72, p. 397, 1901.
Describes the geographic and geologic distribution of the oil and gas.
- 352 **Hay** (O. P.). [Review of "Beitrag zur systematik und Genealogie
der Reptilien" by Max Furbringer.]
Science, new ser., vol. 14, pp. 180-181, 1901.
- 353 — The chronological distribution of the elasmobranchs.
Am. Phil. Soc., Trans., new ser., vol. 20, pp. 63-75, 1901.
- 354 **Hayden** (Horace Edwin). Mr. Ralph Dupuy Lacoe.
Wyoming Hist. and Geol. Soc., Proc. and Coll., vol. 6, pp. 39-54, 1901.
Am. Geol., vol. 28, pp. 335-344, pl. 32, 1901.
Gives a sketch of his life.
- 355 **Hayes** (Charles Willard). Geological relations of the iron-ores
in the Cartersville district, Georgia.
Am. Inst. Mg. Engrs., Trans., vol. 30, pp. 403-419, figs. 1-2, 1901.
Describes the stratigraphy and structure of the region and the char-
acter and occurrence of the iron, with notes on the occurrence of ocher
and manganese.
- 356 — The Arkansas bauxite deposits.
U. S. Geol. Surv., 21st Ann. Rept., Pt. III, pp. 435-472, pls. lx-lxiv,
1901.
Abstract: Jour. Geol., vol. 9, pp. 737-739, 1901.
Describes the general geologic and physiographic relations of the
region, and the character, occurrence and origin of the bauxite deposits.
- 357 — Tennessee white phosphate.
U. S. Geol. Surv., 21st Ann. Rept., Pt. III, pp. 473-485, pl. lxxv, 1901.
Describes the character, occurrence and origin of the phosphates of
Perry County.

- 358 **Heilprin** (A.). Fossils and their teachings.
Sci. Am. Suppl., vol. 52, pp. 21472-21473, 1901.
Lecture delivered before the Philadelphia Academy of Natural Sciences.
- 359 — How to interpret the facts of geology.
Sci. Am. Suppl., vol. 52, pp. 21488-21489, 1901.
Abstract of lecture delivered before the Philadelphia Academy of Natural Sciences.
- 360 **Heiney** (Wm. M.). River bends and bluffs [Indiana].
Ind. Acad. Sci., Proc. for 1900, pp. 197-200, 3 figs, 1901.
- 361 **Hershey** (Oscar H.). Peneplains of the Ozark Highlands.
Am. Geol., vol. 27, pp. 25-41, 1901.
Describes the Cretaceous and Tertiary peneplains, the Lafayette base level, the Ozarkian valleys and the modern valleys.
- 362 — Metamorphic formations of northwestern California.
Am. Geol., vol. 27, pp. 225-245, 1901.
Describes the character, occurrence, and distribution of the pre-Cretaceous rocks of the Klamath Mountains.
- 363 — On the age of certain granites in the Klamath Mountains.
Am. Geol., vol. 27, pp. 258-259, 1901.
Brief discussion of the geology of the region and of the intrusive origin of the granite.
- 364 — The age of the Kansan drift sheet.
Am. Geol., vol. 28, pp. 20-25, 1901.
Describes the occurrence of the Kansan drift in Missouri and discusses its age.
- 365 — The geology of the central portion of the Isthmus of Panama.
Univ. of Cal., Dept. of Geol., Bull., vol. 2, pp. 231-267, and map, 1901.
Describes the physiographic features and the occurrence and character of several formations. Discusses the relations of the crust movements of the region.
- 366 — On the age of certain granites in the Klamath Mountains [California].
Abstracts: Jour. Geol., vol. 9, pp. 76-77, 1901; Geol. Soc. Am., Bull., vol. 12, p. 501 ($\frac{2}{3}$ p.), 1901.
Contains notes on the occurrence of the granites and on the geologic history of the region.
- 367 — An unusual type of auriferous deposit.
Science, new ser., vol. 13, pp. 869-871, 1901.
Describes occurrence of gold in a semidecomposed rock mass in California and discusses the mode of deposition of the gold.
- 368 **Hilgard** (E. W.). A historical outline of the geological and agricultural survey of the State of Mississippi.
Am. Geol., vol. 27, pp. 284-311, 1901.
Gives an account of the work of this organization and a list of its publications.

- 369 **Hilgard** (E. W.). A sketch of the pedalogical geology of California.

Abstracts: Jour. Geol., vol. 9, pp. 74-75, 1901; Geol. Soc. Am., Bull., vol. 12, pp. 499-500, 1901.

General notes on the soils of the state.

- 370 **Hill** (B. F.), **Kemp** (J. F.) and. Preliminary report on the pre-Cambrian formations in parts of Warren, Saratoga, Fulton, and Montgomery counties (New York.)

See Kemp (J. F.) and Hill (B. F.), 421.

- 371 **Hill** (Robert T.). [Review of "A record of the geology of Texas for the decade ending December 31, 1896," by Frederic W. Simonds.]

Science, new ser., vol. 13, pp. 226-227, 1901.

- 372 — The coast prairie of Texas.

Science, new ser., vol. 14, pp. 326-328, 1901.

Describes the evidences of differential movements in this region and its bearing on the occurrence of oil.

- 373 — Geographic and geologic features of Mexico.

Eng. & Mg. Jour., vol. 72, pp. 561-564, 2 figs., 1901.

Describes the physiography and geology of the country.

- 374 **Hills** (R. C.). Spanish Peaks folio—Colorado.

U. S. Geol. Surv., Geol. Atlas of U. S., Folio No. 71, 1901.

Describes the geographic features, the character and occurrence of the Cretaceous, Eocene and Neocene strata, the geologic structure, the igneous rocks, and the occurrence of coal and artesian water.

- 375 **Hitchcock** (C. H.). Tuff cone at Diamond Head, Hawaiian Islands.

Abstracts: Geol. Soc. Am., Bull., vol. 12, p. 462 ($\frac{1}{4}$ p.), 1901; Science, new ser., vol. 13, p. 981 ($\frac{1}{4}$ p.), 1901.

- 376 **Hobbs** (William Herbert). The Newark system of the Pomperaug Valley, Connecticut.

U. S. Geol. Surv., 21st Ann. Rept., Pt. III, pp. 7-160, pls. i-xvii, figs. 1-59, 1901.

Gives a sketch of present knowledge regarding this system, describes the character of the sedimentary and igneous rocks, and discusses the deformation and degradation of the region.

- 377 — The river system of Connecticut.

Jour. Geol., vol. 9, pp. 469-485, pls. 1-2, figs. 1-2, 1901.

Describes the occurrence and origin of the jointing and faulting in the Pomperaug Valley, the occurrence of certain intersecting series of parallel lines called troughs, which occupy the drainage channels for varying distances.

- 378 — Diamondiferous deposits in the United States.

Min. Ind. for 1900, pp. 301-304, 1901.

Briefly describes occurrence and distribution.

- 379 **Hobbs** (William Herbert). Connecticut rivers.
Science, new ser., vol. 14, pp. 1011-1012, 1901.
Discusses a recent review by W. M. Davis.
- 380 **Hoffmann** (G. Christian). Report of the section of chemistry and mineralogy.
Can. Geol. Surv., new ser., vol. 11, Rept. R., 55 pp., 1901. Published in 1900.
- 381 — On some new mineral occurrences in Canada.
Am. Jour. Sci., 4th ser., vol. 11, pp. 149-155, 1901.
- 382 — On some new mineral occurrences in Canada.
Am. Jour. Sci., 4th ser., vol. 12, pp. 447-448, 1901.
Describes datolite and faujasite.
- 383 **Holder** (Charles F.). A remarkable salt deposit.
Sci. Am., vol. 84, p. 217, 2 figs., 1901.
Describes occurrence of salt on the Salton desert in California.
- 384 — Erosion on the Pacific Coast.
Sci. Am., vol. 85, p. 8, 3 figs., 1901.
Describes some of the physiographic features of the California Coast.
- 385 **Hollick** (Arthur). A reconnaissance of the Elizabeth Islands [Massachusetts].
N. Y. Acad. Sci., Annals, vol. 13, pp. 387-418, pls. 8-15, 1901.
Describes the physiographic and glacial features of the region.
- 386 — Discovery of a mastodon's tooth and the remains of a boreal vegetation in a swamp on Staten Island, N. Y.
N. Y. Acad. Sci., Annals, vol. 14, pt. 1, pp. 67-68, 1901.
- 387 — Eocene plantæ.
Md. Geol. Surv., Eocene, pp. 258-261, pl. 64, 1901.
- 388 **Hopkins** (T. C.). A short discussion of the origin of the Coal Measure fire clays.
Am. Geol., vol. 28, pp. 47-51, 1901.
Reviews the evidences of the formation of fire clays in situ and states that the occurrence of a considerable portion of them is better explained by considering them as transported clays reduced before deposition.
- 389 — Graphite and garnet.
Mines and Minerals, vol. 21, p. 352, 1901.
Describes occurrence in Pennsylvania and other regions.
- 390 **Hovey** (E. O.). The Geological Society of America. Thirtieth Annual meeting.
Sci. Am. Suppl., vol. 51, pp. 20948-20950, 1901.
Contains abstracts of papers read.
- 391 — Geology and geography at the Denver meeting of the American Association for the Advancement of Science.
Sci. Am. Suppl., vol. 52, pp. 21504-21505, 1901.

- 392 **Hovey** (E. O.). The Thirtieth Annual Meeting of the Geological Society of America.
 Sci. Am., vol. 84, p. 19, 1901.
 Contains brief abstract of some of the papers read.
- 393 — [Abstracts of papers read before the thirtieth annual meeting of the Geological Society of America.]
 Eng. and Mg. Jour., vol. 71, pp. 49-50, 1901.
- 394 — Geology at the fiftieth meeting of the American Association for the Advancement of Science.
 Eng. and Mg. Jour., vol. 72, pp. 297-298, 1901.
 Contains abstracts of papers read.
- 395 — Notes on the Triassic and Jurassic strata of the Black Hills of South Dakota and Wyoming.
 Abstract: N. Y. Acad. Sci., Annals, vol. 14, p. 152, 1901.
- 396 — See **Whitfield** (R. P.), 822.
- 397 **Hovey** (Horace C.). The lead and silver mines of Newbury [Massachusetts].
 Sci. Am. Suppl., vol. 51, p. 21284, 1901.
 Contains notes on the occurrence of the minerals and the geology of the region.
- 398 **Howe** (Ernest). Experiments illustrating intrusion and erosion.
 U. S. Geol. Surv., 21st Ann. Rept., Pt. III, pp. 291-303, pls. xlv-xlvii, figs. 100-102, 1901.
 Describes experiments illustrating the formation of laccoliths and the deformation of the invaded strata.
- 399 **Hubbard** (George D.). [Review of "Preliminary description of the geology and water resources of the southern half of the Black Hills and adjoining regions in South Dakota and Wyoming" by N. H. Darton, and "The High Plains and their utilization" by Willard D. Johnson.]
 Jour. Geol., vol. 9, pp. 732-737, 1901.
- 400 **Hudson** (Edward J.), **Mabery** (Charles H.) and. On the composition of California petroleum.
 See Mabery (C. F.) and Hudson (E. J.), 507.

I.

- 401 **Ingall** (Elfric Drew). Section of mineral statistics and mines, Annual report for 1898.
 Can. Geol. Surv., new ser., vol. 11, Rept. S., 192 pp., 1901. Published in 1900.
 Contains statistics of production and notes on the coal fields of Nova Scotia, Manitoba, Northwestern Territories and British Columbia, and on the occurrence of natural gas and oil in Ontario.

J.

- 402 **Jaggar** (Thomas Augustus). The laccoliths of the Black Hills [South Dakota].
U. S. Geol. Surv., 21st Ann. Rept., Pt. III, pp. 163-290, pls. xviii-xli, figs. 60-99, 1901.
Describes the occurrence of the sedimentary and igneous rocks, and the character, occurrence and distribution of the laccolithic intrusives, and discusses the physiographic form of eroded domes.
- 403 **Johnson** (D. W.). Notes on the geology of the saline basins of central New Mexico.
Abstract: N. Y. Acad. Sci., Annals, vol. 14, pp. 161-162, 1901.
- 404 **Johnson** (Willard D.). The high plains and their utilization.
U. S. Geol. Surv., 21st Ann. Rept., Pt. IV, pp. 601-741, pls. cxiii-clvi, figs. 300-329, 1901.
Abstract: Jour. Geol., vol. 9, pp. 734-737, 1901.
Discusses the origin and structure of the region.
- 405 **Joly** (J.). An estimate of the geological age of the earth.
Smith. Inst., Ann. Rept. 1899, pp. 247-288, 1901.
- 406 **Jones** (S. P.). The geology of the Tallulah Gorge [Georgia].
Am. Geol., vol. 27, pp. 67-75, pls. 9-11, figs. 1-3, 1901.
Describes the physiographic features of the region and the origin of the gorge.
- 407 **Julien** (Alexis A.). A study of the structure of fulgurites
Jour. Geol., vol. 9, pp. 673-693, figs. 1-3, 1901.
Gives the results of the study of four fulgurites.
- 408 — Erosion by flying sand of the beaches of Cape Cod.
Abstract: N. Y. Acad. Sci., Annals, vol. 14, p. 152, 1901.
- 409 — The geology of central Cape Cod [Massachusetts].
Abstract: Am. Geol., vol. 27, p. 44 ($\frac{1}{2}$ p.), 1901.
Contains notes on the glacial phenomena of the region.
- 410 — [Discussion of paper by J. F. Kemp on "The Cambro-Ordovician outlier at Wellstown, Hamilton County, New York."]
Science, new ser., vol. 13, p. 710, 1901.
Discusses the origin of the sand in the limestones.

K.

- 411 **Keith** (Arthur). Maynardville folio—Tennessee.
U. S. Geol. Surv., Geol. Atlas of U. S., Folio No. 75, 1901.
Describes the geographic features, the stratigraphy, the character and occurrence of the Cambrian, Silurian, Devonian, and Carboniferous rocks, the geologic structure, and the mineral resources of the region.

- 412 **Keith** (Arthur), **Darton** (N. H.) and. Washington Folio, District of Columbia, Maryland, Virginia.
See Darton (N. H.) and Keith (Arthur), 200.

- 413 **Kemp** (James Furman). The Albany meeting of the Geological Society of America.

Science, new ser., vol. 13, pp. 95-100, 133-139, 1901.

Contains abstracts of papers presented.

- 414 — The Cambro-Ordovician outlier at Wellstown, Hamilton County, New York.

Abstract: Science, new ser., vol. 13, p. 710, 1901. N. Y. Acad. Sci., Annals, vol. 14, p. 103, 1901.

Contains brief description of occurrence of small outliers of Paleozoic strata within the crystalline area of the region.

- 415 — [Review of "Clays of New York, their properties and uses" by Heinrich Ries.]

Science, new ser., vol. 13, pp. 946-947, 1901.

- 416 — New asbestos region in northern Vermont.

Abstract: Science, new ser., vol. 14, pp. 773-774, 1901. N. Y. Acad. Sci., Annals, vol. 14, p. 140, 1901.

Describes the occurrence of asbestos associated with serpentine.

- 417 — Physiography of Lake George.

Abstract: Science, new ser., vol. 14, p. 774, 1901. N. Y. Acad. Sci., Annals, vol. 14, pp. 141-142, 1901.

Describes briefly the physiographic history of the region.

- 418 — Calculation of rock analyses.

School of Mines Quart., vol. 22, p. 75, 1901.

Abstract: Am. Nat., vol. 35, p. 947 ($\frac{1}{2}$ p.), 1901.

- 419 — New asbestos region in northern Vermont.

Abstract: Am. Geol., vol. 28, p. 330 ($\frac{3}{4}$ p.), 1901.

Abstract of paper read before the N. Y. Academy of Sciences.

- 420 — Physiography of Lake George, New York.

Abstract: Am. Geol., vol. 28, pp. 331-332, 1901.

Abstract of paper read before the N. Y. Academy of Sciences.

- 420a — Notes on the occurrence of asbestos in Lamoille and Orleans counties, Vermont.

U. S. Geol. Surv., Min. Res. of U. S. for 1900, pp. 862-866, 1901.

- 421 — and **Hill** (B. F.). Preliminary report on the pre-Cambrian formations in parts of Warren, Saratoga, Fulton, and Montgomery counties, New York.

N. Y. State Mus., 53d Ann. Rept., pp. r17-r35, pls. 3-8, 1901.

Describes the local geology of various townships of the counties named.

- 422 **Keyes** (Charles R.). A depositional measure of unconformity.
Geol. Soc. Am., Bull., vol. 12, pp. 173-196, pl. 19, 1901.
Describes the development of the Carboniferous sediments in the Mississippi Valley and Southwestern regions.
- 423 — Origin and classification of ore deposits.
Am. Inst. Mg. Engrs., Trans., vol. 30, pp. 323-356, 1901.
Discusses the nature of ore deposits, general methods of ore formation, the classification of ore deposits, and certain other phases of ore deposits.
- 424 — Derivation of the terrestrial spheroid from the rhombic dodecahedron.
Jour. Geol., vol. 9, pp. 244-249, 1901.
Discusses Green's hypothesis of the tetrahedral form of the earth.
- 425 — Composite genesis of the Arkansas Valley-through the Ozark highlands.
Jour. Geol., vol. 9, pp. 486-490, figs. 1-2, 1901.
Discusses the evidences which indicate that there has been but one uplift in the region and that the river eroded its bed as fast as the strata were raised.
- 426 — [Review of "Uintacrinus; its structure and relations by Frank Springer; "Oriskany fauna of Becraft Mountain" by J. M. Clarke; and "Stratigraphical succession of the fossil floras of the Pottsville formation in the southern Anthracite coal field" by David White.]
Jour. Geol., vol. 9, pp. 539-547, 1901.
- 427 — [Review of "Zinc and lead region of north Arkansas" by John C. Branner.]
Jour. Geol., vol. 9, pp. 634-636, 1901.
- 428 — Ore formation on the hypothesis of concentration through surface decomposition.
Am. Geol., vol. 27, pp. 355-362, 1901.
Discusses the evidence as to the derivation of the lead and zinc ores of the Ozark region and their bearing on the origin of ore deposits in general.
- 429 — Nomenclature of the Cambrian formations of the St. François Mountains [Missouri].
Am. Geol., vol. 28, pp. 51-53, 1901.
Discusses the validity of certain names applied to the Cambrian formations of the region.
- 430 — [Reviews of "Paleozoic faunas of northern Arkansas" by H. S. Williams; "What is an Echinoderm?" by F. A. Bather; and "Structure and relations of Uintacrinus" by Frank Springer.]
Am. Geol., vol. 28, pp. 254-260, 1901.

- 431 **Keyes** (Charles R.). A schematic standard for the American Carboniferous.
Am. Geol., vol. 28, pp. 299-305, fig. 1, 1901.
Presents a general section of the Carboniferous of the Mississippi Valley and discusses its correlation with other regions.
- 432 — [Review of "Geology of eastern Choctaw coal-field" by J. A. Taff and G. I. Adams.]
Am. Geol., vol. 28, pp. 318-319, 1901.
- 433 — Time values of provincial Carboniferous terranes.
Am. Jour. Sci., 4th ser., vol. 12, pp. 305-309, fig. 1, 1901.
Discusses the time ratios of the several subdivisions of the Carboniferous of the Mississippi Valley region.
- 434 — Note on the correlation of the Clarinda well section with the schematic section of the Carboniferous.
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Compares the well section with the general section.
- 435 — A depositional measure of unconformity.
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- 436 — On a crinoidal horizon in the Upper Carboniferous.
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- 437 — Zone of maximum richness in ore bodies.
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- 438 — Horizons of Arkansas and Indian Territory coals compared with those of other trans-Mississippian coals.
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- 439 — The stratigraphical location of named trans-Mississippian coals.
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Gives list of geological formations and the coals occurring in each.
- 440 — Contiguity of ore deposits of different generic relationships.
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- 441 — Diverse origins and diverse times of formation of the lead and zinc deposits of the Mississippi Valley.
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- 442 **Kindle** (Edward M.). The Devonian fossils and stratigraphy of Indiana.
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- 443 **Kingsley** (J. S.). The origin of the Mammals.
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- 444 **Knapp** (S. A.). Tonopah [Nevada].
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- 446 **Knight** (W. C.). Description of Bates Hole [Wyoming].
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- 447 — The petroleum fields of Wyoming.
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- 449 — Geology of the oil fields [Wyoming].
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- 450 — and **Slosson** (E. E.). The Dutton, Rattlesnake, Arago, Oil Mountain, and Powder River oil fields [Wyoming].
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- 461 **Lakes** (Arthur). The American Nettie [Colorado].
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 Describes the geology of the region and the occurrence of ores in cave deposits.
- 462 — Cripple Creek [Colorado].
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 Describes volcanic rocks and phenomena of the region.

- 463 **Lakes** (Arthur). The Curtis coal mine [Colorado].
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- 464 — Cave ore deposits [Colorado].
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- 465 — The Cerrillos anthracite mines [New Mexico].
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- 466 — A new coal field [New Mexico].
Mines and Minerals, vol. 21, pp. 375-376, 2 figs., 1901.
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- 467 — The turquoise mines [New Mexico].
Mines and Minerals, vol. 21, pp. 395-396, 1901.
Describes occurrence of turquoise.
- 468 — Change of ore bodies with change of country rock.
Mines and Minerals, vol. 21, p. 417, 1901.
Discusses some phenomena accompanying ore deposition.
- 469 — Peculiar geological formations of the Southern States.
Mines and Minerals, vol. 21, p. 430, 1901.
Contains notes on the general geology of the region.
- 470 — Oil fields of California.
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Describes the general geology of southern California and the occurrence of oil.
- 471 — Prospecting for oil in Colorado.
Mines and Minerals, vol. 21, pp. 481-483, 4 figs., 1901.
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- 472 — Building and monumental stones of Colorado.
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- 473 — Sedimentary building stones of Colorado.
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- 474 — Petroleum in western North America.
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- 476 — Oil springs of Rio Blanco County, Colorado.
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Describes the geologic structure and occurrence of oil.
- 477 — Some Idaho mining districts.
Mines and Minerals, vol. 22, pp. 203-206, 5 figs., 1901.
Contains notes on the geology of the State and the character and occurrence of ore bodies.
- 478 — The geological occurrence of oil in Colorado.
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- 479 **Lambe** (L. M.). A revision of the general and species of Canadian Paleozoic corals. The *Madreporia aporosa* and *rugosa*.
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- 481 — The pre-Glacial surface deposits of Lower Michigan.
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- 482 **Lawson** (Andrew C.). A feldspar-corundum rock from Plumas County, California.
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- 483 — The drainage features of California.
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- 484 — Joseph Le Conte.
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- 484a — and **Palache** (Charles). The Berkeley Hills [California]. A detail of Coast Range geology.
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- 485 **Le Conte** (Joseph). A century of geology.
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- 486 **Ledoux** (A. R.). Notes on the Oregon nickel prospects.
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- 487 **Lee** (Willis T.). The Morrison formation of southwestern Colorado.
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- 488 **L'Hame** (Wm. E.). Thunder Mountain, Idaho.
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- 490 — **Van Hise** (C. R.) and. The Mesabi district.
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- 491 **Leonard** (Arthur Gray). The basic rocks of northwestern Maryland and their relation to the granite.
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- 493 **Letson** (Elizabeth J.). Post-Pliocene fossils of the Niagara River gravels.
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- 494 **Leverett** (Frank). Old channels of the Mississippi in southeastern Iowa.
Annals of Iowa, April, 1901. (Not seen.)
- 495 **Lindgren** (Waldemar). Metasomatic processes in fissure veins.
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Abstract: Am. Jour. Sci., 3d ser., vol. 11, pp. 243-244 ($\frac{1}{2}$ p.), 1901.
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- 496 **Lindgren** (Waldemar). Trias in northeastern Oregon.

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- 497 — Rare minerals in gold quartz veins of eastern Oregon.

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- 498 **Loomis** (F. B.). On Jurassic stratigraphy in southeastern Wyoming.

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- 499 **Low** (A. P.). Report on an exploration of part of the south shore of Hudson Strait and of Niagara Bay [Canada].

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- 500 **Lowry** (J. D.). Mining in Lower California.

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- 501 **Lucas** (Frederic A.). A new rhinoceros, *Trigonias osborni*, from the Miocene of South Dakota.

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- 502 — A new dinosaur, *Stegosaurus marshi*, from the Lower Cretaceous of South Dakota.

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- 503 — The pelvic girdle of *Zeuglodon*, *Basilosaurus cetoides* (Owen), with notes on other portions of the skeleton.

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- 504 — A new fossil Cyprinoid, *Leuciscus turneri*, from the Miocene of Nevada.

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- 504a — A flightless Auk, *Mancalla californiensis*, from the Miocene of California.

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- 505 — Vertebrates from the Trias of Arizona.

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- 506 **Lyon** (D. A.). Serpentine marbles of Washington.

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- 507 **Mabery** (Charles F.) and **Hudson** (Edward J.). On the composition of California petroleum.
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- 508 **McBeth** (W. A.). The development of the Wabash drainage system and the recession of the ice sheet in Indiana.
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- 509 — A theory to explain the western Indiana bowlder belts
Ind. Acad. Sci., Proc. for 1900, pp. 192-194, 1901.
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- 510 **Macbride** (Thomas H.). Geology of Clay and O'Brien counties [Iowa].
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Describes physiography, the occurrence and character of the Pleistocene beds and the occurrence of economic products.
- 511 **McCalley** (Henry). The Alabama coal fields.
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- 512 **McCallie** (S. W.). A preliminary report on the roads and road-building materials of Georgia.
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- 513 — Some notes on the trap dikes of Georgia.
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- 515 **McCormick** (E.). The Santa Fe mining district, Nevada.
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- 516 **McEvoy** (James). Report on the geology and natural resources of the country traversed by the Yellow Head Pass route from Edmonton to Tete Jaune Cache, comprising portions of Alberta and British Columbia
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- 518 **Malcolnson** (James W.). The Sierra Mojada, Coahuila, Mexico, and its ore deposits.
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- 519 **Manning** (P. C.). Glacial potholes in Maine.
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- 520 **Martin** (Daniel S.). [Minerals at Haddam, Maine.]
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- 521 ——— Geological notes on the neighborhood of Buffalo.
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- 522 **Martin** (George Curtis), **Clark** (William Bullock) and. Eocene Echinodermata.
See Clark (W. B.) and Martin (G. C.), 143.
- 523 ——— ——— Eocene Molluscoidea (Brachiopoda).
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- 524 ——— ——— Eocene Mollusca.
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- 525 ——— ——— The Eocene deposits of Maryland.
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- 526 **Martin** (J. O.). The Ontario coast between Fairhaven and Sodus bays [New York].
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- 527 **Martin** (K.). Ueber Tertiäre fossilen von der Philippinen.
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- 528 **Mason** (F. H.). Potters clay at Middle Musquodoboit [Nova Scotia].
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- 531 — Acrothyra and Hyolithes—a comparison.
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- 532 — Hyolithes gracilis, and related forms from the Lower Cambrian of the St. John group.
Can. Roy. Soc., Proc. and Trans., vol. 7, sect. 4, pp. 109-111, 1901.
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- 533 — [Devonian of the Acadian provinces.]
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- 534 — [Review of "Beitrag zur Kenntniss des Siberischen Cambrium I," by E. von Toll.]
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- 535 — Are the St. John plant beds Carboniferous?
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- 537 — A backward step in Paleobotany.
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- 540 **Mead** (J. R.). The Flint Hills of Kansas.
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- 541 **Memminger** (C. G.). Progress in the phosphate mining industry of the United States during 1900.
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- 542 **Merriam** (John C.). A contribution to the geology of the John Day basin [Oregon].

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- 543 — A geological section through the John Day basin [Oregon].

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- 544 **Merrill** (George P.). The Department of Geology in the National Museum.

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Gives an account of the methods employed in caring for and rendering available to students the materials in charge of this department of the Museum, and in displaying the same for the benefit of the public.

- 544a — On a stony meteorite which fell near Felix, Perry County, Alabama, May 15, 1901.

U. S. Nat. Mus., Proc., vol. 24, pp. 193-198, pls. xiii-xiv, 1901.

- 545 — Guide to the study of the collections in the section of applied geology—the nonmetallic minerals [U. S. National Museum].

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- 546 — and **Stokes** (H. N.). A new stony meteorite from Allegan, Michigan, and a new iron meteorite from Mart, Texas.

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- 547 **Miller** (Arthur M.). Preglacial drainage in southwestern Ohio.

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- 548 **Miller** (B. L.). Geology of Marion County [Iowa].

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- 549 **Miller** (Gerrit S., jr.). Preliminary list of mammals of New York.

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- 550 **Miller** (Willet G.). On some newly discovered areas of nepheline syenite in central Canada.

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- 551 **Miller** (Willet G.). Iron ores of Nipissing district [Ontario].
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- 552 — The iron ore fields of Ontario.
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- 553 **Miller** (W. W. jr.). Analysis of emery from Virginia.
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- 554 — Examination of sandstone from Augusta County, Virginia.
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- 555 — Analysis of smithsonite from Arkansas.
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- 556 **Montgomery** (Thomas H.). Missing links.
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- 557 **Morganroth** (L. C.). The caves of Huntington County Pennsylvania.
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- 558 **Moses** (A. J.). Mineralogical notes.
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- 580 — [Review of "Diplodocus Marsh. Its osteology, taxonomy, and probable habits, with the restoration of the skeleton" by J. B. Hatcher.]
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- 582 — Des méthodes précises mises actuellement en œuvre dans l'étude des vertébrés fossiles des États-Unis d'Amérique.
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- 607 — [Review of "The Mesozoic flora of the United States," by L. F. Ward et al.]
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- 612 **Pierce** (S. J.). The Cleveland water-supply tunnel [Ohio].
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- 613 **Pilsbry** (Henry A.). Crustacea of the Cretaceous formation of New Jersey.
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618 — **Weed** (Walter H.) and. Missourite, a new leucite rock from the Highwood Mountains of Montana.

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619 — — Geology of the Shonkin sag and Palisade Butte laccoliths in the Highwood Mountains of Montana.

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622 — The occurrence and distribution of corundum in the United States.

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623 — On northupite; pirssonite, a new mineral; gay-lussite and hanksite from Borax Lake, San Bernardino County, California.

Yale Bicentennial publications. Cont. to Mineral. and Petrog., pp. 261-274, 1901. (from Am. Jour. Sci., vol. 2, pp. 128-135, 1896)

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- 625 **Pratt** (Joseph Hyde) and **Penfield** (S. L.). On the occurrence of thaumasite at West Paterson, New Jersey.
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- 626 **Preston** (C. H.). Prof. W. H. Barris.
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- 627 **Price** (J. A.) and **Shaaf** (Albert). Spy Run and Poinsett lake bottoms [Indiana].
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- 628 ——— Abandoned meanders of Spy Run Creek [Indiana].
Ind. Acad. Sci., Proc. for 1900, pp. 181-184, 1 fig., 1901.
Describes its drainage modifications.
- 629 **Prosser** (Charles S.). The classification of the Waverly series of Central Ohio.
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- 630 ——— [On the use of the term Bedford limestone.]
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- 631 ——— The Paleozoic formations of Allegany County, Maryland.
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- 632 ——— Names for the formations of the Ohio Coal Measures.
Am. Jour. Sci., 4th ser., vol. 11, pp. 191-199, 1901.
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- 633 **Purdue** (A. H.). Valleys of solution in northern Arkansas.
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- 634 ——— Illustrated note on a miniature overthrust fault and anticline.
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- 635 ——— Physiography of the Boston Mountains, Arkansas.
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- 636 **Purington** (Chester Wells). *Economic geology*. La Plata Folio, Colo.

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- 637 **Queneau** (A. J.). *The grain of igneous rocks*.

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- 639 **Ransome** (Frederick Leslie). *A report on the economic geology of the Silverton quadrangle, Colorado*.

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Describes the lode fissures, the characters of the ores and of the stocks or masses, and the origin of the ore deposits. Includes detailed descriptions of special areas.

- 640 — *A peculiar clastic dike near Ouray, Colorado, and its associated deposit of silver ore*.

Am. Inst. Mg. Engrs., Trans., vol. 30, pp. 227-236, figs. 1-2, 1901.

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- 641 **Raymond** (R. W.). *Recent contributions to the science of ore deposits*.

Min. Ind. for 1900, pp. 753-762, 1901.

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- 642 **Reid** (Harry Fielding). *De la progression des glaciers, leur stratification, et leurs veines bleues*.

Int. Cong. Geol., Compte Rendu, viii session, pp. 749-755, 1901

- 643 — *The variations of glaciers, VI*.

Jour. Geol., vol. 9, pp. 250-254, 1901.

This paper comprises a summary of the Fifth Annual report of the International Committee on glaciers.

- 644 — [Review of "Les variations de Longueur des Glaciers dans les Regions Artique et Boriales," by Charles Rabot.]

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- 645 **Richards** (Joseph W.). "Mohawkite."

Am. Jour. Sci., 4th ser., vol. 11, pp. 457-458, 1901.

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- 646 **Rickard** (Forbes). Notes on Nome, and the outlook for vein mining in that district [Alaska].
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- 647 **Rickard** (T. A.). The Cripple Creek volcano [Colorado].
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- 648 — The telluride ores of Cripple Creek [Colorado] and Kalgoorlie [Australia].
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- 649 **Ries** (Heinrich). Theodore Greely White.
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- 650 **Riggs** (Elmer S.). The Dinosaur beds of the Grand River valley of Colorado.
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- 651 — The fore leg and pectoral girdle of *Morosaurus*. With a note on the genus *Camarosaurus*.
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- 652 — The largest known dinosaur.
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Contains brief description of the skeleton obtained by a recent expedition of the Field Columbian Museum.
- 653 **Ritter** (Wm. E.). Some observations bearing on the probable subsidence during recent geologic times of the Island of Santa Catalina off the coast of southern California.
Science, new ser., vol. 14, pp. 575-577, 1901.
- 654 **Robinson** (H. H.). On octohedrite and brookite, from Brindletown, North Carolina.
Am. Jour. Sci., 4th ser., vol. 12, pp. 180-184, figs. 1-6, 1901.
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Am. Jour. Sci., 4th ser., vol. 12, pp. 42-48, figs. 1-8, 1901.
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- 656 — The Pottawatomie and Douglas formations along the Kansas River.
Kan. Univ. Quart., vol. 9, pp. 234-254, 1900.
Gives lists of fossils from various localities.

- 657 **Ropes** (Leverett S.). [Corundum of North Carolina.]
Min. Ind., 1899, pp. 12-14, 1900.
Notes on occurrence.
- 658 **Rowley** (R. R.). Two new genera and some new species of fossils from the Upper Paleozoic rocks of Missouri.
Am. Geol., vol. 27, pp. 343-355, pl. 28, 1901.
Describes species of two little known groups of blastoids.
- 659 **Ruedemann** (Rudolf). Hudson River beds near Albany and their taxonomic equivalents.
N. Y. State Mus., Bull. No. 42, pp. 489-587, pls. 1-2, figs. 1-5, 1901.
Abstract: Am. Geol., vol. 27, pp. 377-378, 1901.
Reviews previous work on these strata. Describes the lithologic and faunal characters at various localities in the region and discusses the geologic structure and correlation of the beds. Describes the characters of new species of fossils collected.
- 660 — Trenton conglomerate of Rysedorph Hill, Rensselaer County, N. Y., and its fauna.
N. Y. State Mus., Bull. 49, pp. 3-114, pls. A-B and 1-7, 1901.
Describes the stratigraphic relations and characters of the fauna.
- 661 **Russell** (Israel C.). Geology and water resources of Nez Perce County, Idaho. Part I.
U. S. Geol. Surv., Water-Supply and Irrigation Papers, No. 53, pp. 1-85, pls. i-x, figs. 1-4, 1901. Abstract: Am. Geol., vol. 28, pp. 319-321, 1901.
Describes the pre-Tertiary terranes, the Columbia lava, the soils and the physiography of the region.
- 662 — Geology and water resources of Nez Perce County, Idaho. Part II.
U. S. Geol. Surv., Water-Supply and Irrigation Papers, No. 54, pp. 95-141, figs. 5-14, 1901.
Describes the character and occurrence of the water supply, building stones, and lignite. Includes a bibliography of artesian waters and a note concerning Portland cement.
- 663 **Rutland** (Joshua). Mammals and reptiles; or what was the Ice ages?
Sci. Am. Suppl., vol. 51, pp. 21032-21033, 1901.
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- 664 **Rutley** (Frank). Mineralogy.
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- 665 **Safford** (J. M.). Classification of the geological formations of Tennessee.
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- 666 **Safford** (J. M.). Horizons of phosphate rocks in Tennessee.
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- 667 **Salisbury** (Rollin D.) [Reviews of "The Norwegian Polar Expedition, 1893 to 1896. Scientific Results, Vol. I," and "The Pleistocene geology of the South Central Sierra Nevada, with especial reference to the origin of the Yosemite Valley," by H. W. Turner.]
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- 668 — [Reviews of "Handbuch der Seenkunde, allgemeine Limnologie," by F. A. Forel: "A preliminary report on the Artesian basins of Wyoming," by Wilbur C. Knight; and "Die vierte Eiszeit im Bereiche der Alpen," by Albrecht Penck.]
 Jour. Geol., vol. 9, pp. 199-202, 1901.
- 669 — [Review of "Glacial sculpture of the Bighorn Mountains, Wyoming," by F. E. Matthes.]
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- 670 — Glacial work in the Western mountains in 1901. .
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 Describes the results of the work of several parties of students in various parts of western United States.
- 671 **Sardeson** (Frederick W.). Problem of the Monticuliporoidea. I.
 Jour. Geol., vol. 9, pp. 1-27, pl. A. and fig. 1, 1901.
 Describes the characters of various species of Trepostomata and discusses their affinities.
- 672 — Problem of the Monticuliporidea. II.
 Jour. Geol., vol. 9, pp. 149-173, pl. B, fig. 2, 1901.
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- 673 — Note on the western Tertiary.
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- 674 — Fossils in the St. Peter sandstone.
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- 675 — Paleozoic fossils in the drift [Minnesota].
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- 676 — The lower Silurian formations of Wisconsin and Minnesota compared.
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- 677 **Sardeson** (Frederick W.). The range and distribution of the lower Silurian fauna of Minnesota, with descriptions of some new species.
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- 678 **Sarle** (Clifton J.). Reef structures in Clinton and Niagara strata of western New York.
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- 679 **Schiotz** (O. E.). Results of the pendulum observations and some remarks on the constitution of the earth's crust.
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- 680 **Scholz** (C.). [In discussion of paper by Charles Catlett on "Coal outcrops."]
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- 681 **Schrader** (F. C.) and **Brooks** (Alfred H.). Some notes on the Nome gold region of Alaska.
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- 682 **Schuchert** (Charles). On the Helderbergian fossils near Montreal, Canada.
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- 683 **Scott** (Dunkinfield Henry). Studies on fossil botany.
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- 684 **Scott** (W. B.). Historical geology.
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- 685 ——— Earth carrying.
Sci. Am. Suppl., vol. 52, p. 21456, 1901.
Abstract of lecture delivered at the Wagner Institute, Philadelphia, Pa.
- 686 **Seeley** (Henry M.). Sketch of the life and work of Augustus Wing.
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- 687 **Seeley** (Henry M.). The geology of Vermont.
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- 688 **Sellards** (E. H.). Permian plants. Taeniopteris of the Permian of Kansas.
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- 689 — Fossil plants in the Permian of Kansas.
Kan. Acad. Sci., Trans., vol. 17, pp. 208-209, 1901.
Describes occurrence of the plant remains at various localities.
- 690 **Shaaf** (Albert), **Price** (J. A.) and. Spy Run and Poinsett lake bottoms.
See Price (J. A.) and Shaaf (A.), 627.
- 691 — Abandoned meanders of Spy Run Creek [Indiana].
See Price (J. A.) and Shaaf (A.), 628.
- 692 **Shaler** (N. S.). Broad valleys of the Cordilleras.
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Discusses the origin and development of these valleys and the bearing of the evidence on the orographic features of the region.
- 693 **Shattuck** (George Burbank). The Pleistocene problem of the North Atlantic Coastal plain.
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Am. Geol., vol. 28, pp. 87-107, 1901.
Reviews the opinions of various writers on these problems and gives the author's conclusions.
- 694 — Apparent unconformities during periods of continuous sedimentation.
Abstract: Science, new ser., vol. 13, pp. 99-100, 1901.
- 695 **Sheldon** (J. M. Arms). Concretions from the Champlain clays of the Connecticut valley.
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Abstract: Am. Jour. Sci., 4th ser., vol. 11, p. 397 ($\frac{1}{2}$ p.), 1901.
- 696 **Shimek** (B.). Recent decline in the level of Lake Nicaragua.
Am. Geol., vol. 28, pp. 396-398, 1901.
Refers to a paper published in 1896 on the same subject.
- 697 — The loess of Iowa City and vicinity [Iowa].
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Am. Geol., vol. 28, pp. 344-358, 1901.
Gives list of loess and recent fossils with notes on some of the species.
- 698 **Siebenthal** (C. E.). On the use of the term Bedford limestone.
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Discusses the use of the name in Ohio and Indiana and considers the Bedford of Indiana has priority.

- 699 **Siebenthal** (C. E.). [Review of "Twenty-fifth Annual Report, Department of Geology and Natural Resources of Indiana."] Jour. Geol., vol. 9, pp. 354-356, 1901.
- 700 — [Review of "Texas petroleum" by William Battle Phillips.] Jour. Geol., vol. 9, pp. 637-638, 1901.
- 701 — The Silver Creek hydraulic limestone of southeastern Indiana.
Ind. Dept. of Geol. and Nat. Res., 25th Ann. Rept., pp. 331-389, pls. 13-14, figs. 71-72, 1901.
Reviews the geologic literature regarding the region, describes the stratigraphic and paleontologic features and nomenclature of the Devonian formations, and gives an account of the economic uses of the limestone.
- 702 **Simonds** (Frederic W.). The minerals and mineral localities of Texas.
Abstract: Science, new ser., vol. 14, p. 797, 1901.
Gives an account of the preparation of a list of Texas minerals and localities.
- 703 **Sinclair** (William J.). The discovery of a new fossil tapir in Oregon.
Jour. Geol., vol. 9, pp. 702-707, fig. 1, 1901.
Describes *Protapirus robustus* n. sp. from the John Day beds.
- 704 **Slosson** (E. E.), **Knight** (W. C.) and. Alkali lakes and deposits [Wyoming].
See Knight (W. C.) and Slosson (E. E.), 451.
- 705 — The Dutton, Rattlesnake, Arago, Oil Mountain, and Powder River oil fields [Wyoming].
See Knight (W. C.) and Slosson (E. E.), 450.
- 706 **Smith** (Alva J.). The Americus limestone.
Kans. Acad. Sci., Trans., vol. 17, pp. 189-190, pls. 15-17, 1901.
Describes its distribution in Lyon County, Kansas, and its petrographic and faunal characters.
- 707 **Smith** (George Otis). A geological study of the Fox Islands, Maine.
Colby College, Bull., vol. 1, supplement, pp. 1-53, and geologic map, 1901.
Describes the character and occurrence of the sedimentary and igneous rocks and the geologic history of the islands.
- 708 — Geology and water resources of a portion of Yakima County, Washington.
U. S. Geol. Surv., Water Supply and Irrigation Papers, No. 55, pp. 1-68, pls. i-vii, figs. 1-8, 1901.
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- 709 **Smith** (George Otis) and **Willis** (Bailey). The Clealum iron ores, Washington.
Am. Inst. Mg. Engrs., Trans., vol. 30, pp. 356-366, 1 fig., 1901.
Describes the character, occurrence and origin of the ores and the general geologic and structural feature of the region.
- 710 **Smith** (James Perrin). The border line between the Paleozoic and Mesozoic in western America.
Jour. Geol., vol. 9, pp. 512-521, 1901.
Discusses briefly the criteria by which geologic time divisions of the line between this Paleozoic and Mesozoic as influenced by the faunas of certain beds of Idaho and California and their relation to allied Asiatic and European faunas.
- 711 — and **Weller** (Stuart). Prodromites, a new ammonite genus from the Lower Carboniferous.
Jour. Geol., vol. 9, pp. 255-268, pls. 6-8, 1901.
Discusses the occurrence of ammonites in upper Paleozoic rocks of the Mississippi Valley, and describes a new genus and two new species.
- 712 **Smock** (John C.). Administrative report. (New Jersey Geological Survey.)
N. J. Geol. Surv., Ann. Rept. for 1900, pp. xi-xl, 1901.
Gives an account of the work of the Survey for the year, and discusses the character and relations of the surface formations of southern New Jersey.
- 713 **Smyth** (C. H., jr.). Geology of the crystalline rocks in the vicinity of the St. Lawrence River.
N. Y. State Mus., 53d Ann. Rept., vol. 1, pp. r85-r104, pls. 13-24 and geologic map, 1901.
Describes the gneiss and associated rocks of the region.
- 714 **Sollas** (W. J.). Evolutional geology.
Smith. Inst., Ann. Rept. 1900, pp. 289-314, pl. 1, 1901.
- 715 **Spalding** (E. P.). The quicksilver mines of Brewster County, Texas.
Eng. & Mg. Jour., vol. 71, pp. 749-750, figs. 1-6, 1901.
Contains notes on the character and occurrence of the ore.
- 716 **Spencer** (Arthur C.). The iron ores of Santiago, Cuba.
Eng. & Mg. Jour., vol. 72, pp. 633-634, 6 figs., 1901.
Describes the character and geologic relations of the ore bodies.
- 717 — The physiography of the Copper River basin, Alaska.
Abstract: Science, new ser., vol. 13, p. 189, 1901.
Contains abstract of paper read before the Geological Society of Washington.
- 718 — See **Cross** (Whitman), 176.
- 719 **Spencer** (Joseph William Winthrop). On the geological and physical development of Antigua.
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- 720 **Spencer** (Joseph William Winthrop). On the geological and physical development of Guadelupe.
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- 721 — On the geological and physical development of Anguilla, St. Martin, St. Bartholomew, and Sombrero.
London Geol. Soc., Quart. Jour., vol. 57, pp. 520-533, 1901.
- 722 — On the geological and physical development of the St. Christopher chain and Saba Banks.
London Geol. Soc., Quart. Jour., vol. 57, pp. 534-544, 1901.
- 723 **Spurr** (Josiah Edward). Origin and structure of the Basin ranges.
Geol. Soc. Am., Bull., vol. 12, pp. 217-270, pls. 20-25, 1901.
Abstract: Science, new ser., vol. 13, p. 98, 1901.
Describes the structural features of the ranges in the Great Basin region and discusses their origin.
- 724 — Variations of texture in certain Tertiary igneous rocks of the Great Basin.
Jour. Geol., vol. 9, pp. 586-606, fig. 1, 1901.
Describes the character and occurrence of the variations of certain andesitic and rhyolitic rocks and gives chemical analyses.
- 725 **Stanton** (Timothy W.). [Report on Cretaceous fossils from the John Day Basin, Oregon.]
Univ. of Cal., Dept. of Geol., Bull., vol. 2, pp. 280-284, 1901.
Gives list of fossils with notes on some of the species and discusses the faunal relations.
- 726 — Chondrodonta, a new genus of ostreiform mollusks from the Cretaceous, with descriptions of the genotype and a new species.
U. S. Nat. Mus., Proc., vol. 24, pp. 301-307, pls. 25-26, 1901.
- 727 **Stearns** (Robert E. C.). Fossil land shells of the John Day region, with notes on related living species.
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- 727a. — The fossil fresh-water shells of the Colorado desert, their distribution, environment, and variation.
U. S. Nat. Mus., Proc., vol. 24, pp. 271-299, pls. xix, xxiv, 1901.
- 728 **Stevens** (E. A.). An occurrence of limburgite in the Cripple Creek district [Colorado].
Am. Inst. Mg. Engrs., Trans., vol. 30, pp. 759-764, figs. 1-4, 1901.
Describes the occurrence and character of this rock type.
- 729 **Stokes** (H. N.). On pyrite and marcasite.
U. S. Geol. Surv., Bull. No. 186, pp. 1-50, pl. 1, figs. 1-2, 1901; Am. Jour. Sci., 4th ser., vol. 12, pp. 414-420, 1901.
Describes the uncertainty of the methods of distinguishing pyrite and marcasite and a method for the quantitative determination of the minerals when in mixture, and discusses the relations of these sulphides to those of copper.

- 730 **Stokes** (N. H.), **Merrill** (George P.) and. A new stony meteorite from Allegan, Michigan, and a new iron meteorite from Mart, Texas.
See Merrill (George P.) and Stokes (H. N.), 546.
- 731 **Stose** (George W.). [Review of "Allegany County, Maryland."] Science, new ser., vol. 14, pp. 181-182, 1901.
- 732 **Stone** (George H.). Note on the minerals associated with copper in parts of Arizona and New Mexico.
Abstracts: Science, new ser., vol. 14, pp. 796-797, 1901.
Sci. Am. Suppl., vol. 52, p. 21505, 1901.
- 733 ——— Note on the extinct glaciers of New Mexico and Arizona.
Abstract: Science, new ser., vol. 14, p. 798, 1901.
Brief account of occurrence.
- 734 **Stretch** (R. H.). The Silverton mining district, Snohomish County, Washington.
Eng. and Mg. Jour., vol. 72, p. 105, 1901.
Describes briefly the occurrence of copper ores.

T.

- 735 **Taff** (Joseph A.). A comparison of the Ouachita and Arbuckle Mountain sections, Indian Territory.
Abstract: Science, new ser., vol. 13, pp. 271-272, 1901.
Briefly describes sections of Paleozoic rocks.
- 736 ——— Colgate Folio—Indian Territory.
U. S. Geol. Surv., Geol. Atlas of U. S., Folio No. 74, 1901.
Describes the geographic and topographic features, the general geologic relations, the character and occurrence of the Carboniferous, Neocene and Pleistocene strata, and the occurrence of coal.
- 737 **Talmage** (J. E.). A recent fault slip, Ogden Canyon, Utah.
Science, new ser., vol. 13, p. 550, 1901.
Gives a brief account of the phenomena.
- 738 **Taylor** (F. B.). Glacial phenomena in eastern Ontario.
Abstract: Science, new ser., vol. 13, p. 138, 1901.
- 739 **Tays** (E. A. H.). Genesis of ore deposits.
Mg. and Sci. Press., vol. 83, pp. 142-143, 3 figs., 1901.
Discusses article by M. W. Alderson on the same subject.
- 740 **Tight** (W. G.). Pre-Glacial drainage in southwestern Ohio.
Science, new ser., vol. 14, pp. 775-776, 1901.
Discusses recent article by A. M. Miller on the same subject.
- 741 **Todd** (James E.). River action phenomena.
Geol. Soc. Am., Bull., vol. 12, pp. 486-490, 1901.
Discusses the variations in phenomena of river action in time of flood and the formation of silt and loess deposits.

- 742 **Todd** (James E.). Some problems of the Dakota artesian system.
Abstract: Science, new ser., vol. 14, p. 794, 1901.
Sci. Am. Suppl., vol. 52, p. 21504, 1901.
- 743 — Moraines and maximum diurnal temperature.
Abstracts: Science, new ser., vol. 14, pp. 794-795, 1901.
Sci. Am. Suppl., vol. 52, p. 21504, 1901.
Describes certain glacial phenomena.
- 744 **Turner** (Henry W.). The geology of the Great Basin in eastern California and southwestern Nevada.
Abstracts: Jour. Geol., vol. 9, p. 73 ($\frac{1}{2}$ p.), 1901; Geol. Soc. Am., Bull., vol. 12, p. 498 ($\frac{3}{4}$ p.), 1901.
Describes the structure of the region and its general stratigraphic features.
- 745 — Perknite (lime-magnesia rocks).
Jour. Geol., vol. 9, pp. 507-511, 1901.
Describes the character and occurrence of a new rock type and gives chemical analyses of rocks included in this group.
- 746 — The mines of Esmeralda County, Nevada.
Mg. and Sci. Press, vol. 82, pp. 73-74, 1901.
Contains notes on the general geology of portions of the County.
- 747 **Tyrrell** (J. B.). Report on the east shore of Lake Winnipeg and adjacent parts of Manitoba and Keewatin, compiled by D. B. Dowling.
Can. Geol. Surv., new ser., vol. 11, Rept. G., 96 pp., 3 pls., 1901, published in 1900.
Describes the physiography and drainage of the region and the character of the crystalline rocks.

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- 748 **Udden** (J. A.). Geology of Louisa County [Iowa].
Iowa Geol. Surv., vol. 11, pp. 58-126, pl. 4, fig. 1, 2 maps, 1901.
Describes the physiography, the character and distribution of the Carboniferous and Pleistocene deposits and the occurrence of economic products.
- 749 — Geologie of Pottawattamie County [Iowa].
Iowa Geol. Surv., vol. 11, pp. 202-277, pl. 6, figs. 13-15 and map, 1901.
Describes the physiography, the character and occurrence of the Carboniferous, Cretaceous, and Pleistocene strata and the occurrence of economic products.
- 750 **Ulrich** (E. O.). Systematic paleontology, Eocene Arthropoda.
Md. Geol. Surv., Eocene, pp. 116-122, pl. 16, 1901.
- 751 — Eocene Molluscoidea (Bryozoa).
Md. Geol. Surv., Eocene, pp. 205-222, pls. 59-60, 1901.

- 752 **Upham** (Warren). Artesian wells in North and South Dakota.
Minn. Acad. Nat. Sci., Bull., vol. 3, pp. 370-379, 1901.
- 753 — Pre-Glacial erosion in the course of the Niagara gorge, and its relation to estimates of post-Glacial time.
Am. Geol., vol. 28, pp. 235-244, 1901.
Gives the author's views of the glacial history of the region and discusses their bearing on estimates of post-Glacial time.
- 754 — The antiquity of the races of mankind.
Am. Geol., vol. 28, pp. 250-254, 1901.
Reviews the evidences indicating the pre-Glacial origin of man.
- 755 — [Review of "Iowa Geological Survey, volume 11."]
Am. Geol., vol. 28, p. 258, ($\frac{1}{2}$ p.), 1901.
- 756 — The Toronto and Scarboro drift series [Ontario].
Am. Geol., vol. 28, pp. 306-316, 1901.
Quotes Coleman's description of these beds and discusses the bearing of the evidences on the existence of interglacial epochs of moderate oscillations of the ice border.
- 757 — [Review of "Geological Survey of Canada, Annual Report, new series, volume 11, 1898."]
Am. Geol., vol. 28, pp. 321-322, 1901.

V.

- 758 **Van Hise** (Charles R.). Some principles controlling the deposition of ores.
Am. Inst. Mg. Engrs., Trans., vol. 30, pp. 27-177, figs. 1-10, 1901.
Abstracts: Am. Jour. Sci., 4th ser., vol. 11, p. 90 ($\frac{1}{2}$ p.), 1901; Eng. & Mg. Jour., vol. 72, pp. 699-702, 1901.
This subject is discussed under the following general heads: Three zones of the lithosphere; the water content and openings in rocks; physico-chemical principles controlling the work of underground waters; general geologic work of underground waters; the precipitation of ores by ascending waters; precipitation of ores by ascending and descending waters combined; the association of certain ores; concentration; enrichment and diminution of richness in depth; special factors affecting the concentration of ores, and the classification of ore deposits.
- 759 — The iron-ore deposits of the Lake Superior region.
U. S. Geol. Surv., 21st Ann. Rept., Pt. III, pp. 305-434, pls. xlviii-lix, 1901.
Describes the general stratigraphy and occurrence of iron ores in the several districts of the Lake Superior region. The Mesabi district is by C. R. Van Hise and C. K. Leith. The Vermillion iron-bearing district is by C. R. Van Hise and J. Morgan Clements.
- 760 — The geology of ore deposits.
Science, new ser., vol. 14, pp. 745-757, figs. 1-6, 785-793, 1901.
Abstract: Sci. Am. Suppl., vol. 52, p. 21504, 1901.
Discusses the evidences that metallic ores and gangue are deposited by underground waters.

- 761 **Van Hise** (Charles R.). [Discussion of "Ice ramparts," by E. R. Buckley].
Wis. Acad. Sci. Arts and Letters, Trans., vol. 13, Pt. I, pp. 158-162, pls. 14-18, 1901.
Compares the phenomena of ice deformation with those of crustal deformation.
- 762 **Van Ingen** (Gilbert). The Siluric fauna near Batesville, Arkansas, I.
School of Mines Quart., vol. 22, pp. 318-328, fig. 1, 1901.
Describes the geologic relations of the strata. Includes a bibliography.
- 763 — The Siluric fauna near Batesville, Arkansas.
School of Mines Quart., vol. 23, pp. 34-74, figs. 9-22, 1901.
Describes the characters of the various species collected.
- 764 — [Paleozoic rocks of northwestern New Jersey.]
Abstract: Am. Geol., vol. 27, pp. 42-43, 1901.
Contains considerable data on the Paleozoic strata and faunas of New Jersey.
- 765 **Vaughan** (T. Wayland). Eocene Coelenterata.
Md. Geol. Surv., Eocene, pp. 222-232, pl. 61, 1901.
- 766 — Some fossil corals from the elevated reefs of Curaçao, Arube, and Bonaire.
Sammlungen d. Geol. Reichs-Museum, Leiden, ser. 11, Bd. 11, Heft 1, 1901.
- 766a — The stony corals of the Porto Rican waters.
U. S. Fish Comm., Bull., vol. 2, for 1900, pp. 289-320, pls. i-xxxviii, 1901.
In addition to describing recent species of corals, gives notes on fossil species from the United States and the West Indies.
- 767 — Shell Bluff, Georgia, one of Lyell's original localities.
Abstract: Science, new ser., vol. 13, p. 270, 1901.
Contains abstract of paper read before the Geological Society of Washington.
- 768 — Review of recent papers on Bahaman corals.
Science, new ser., vol. 14, pp. 497-498, 1901.
- 769 — The copper mines of Santa Clara province, Cuba.
Eng. & Mg. Jour., vol. 72, pp. 814-816, 4 figs., 1901.
Describes the geology and occurrence and character of the ore bodies.
- 770 **Vaux** (George) and (William S., jr.). Observations made in 1900 on glaciers in British Columbia.
Phil. Acad. Nat. Sci., Proc. for 1901, pp. 213-215, 1901.
Notes on movements of the glaciers.

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- 771 **Walcott** (Charles D.). Cambrian Brachiopoda; *Obolella* subgenus *Glyptias*; *Bicia*; *Obolus*, subgenus *Westonia*; with description of new species.
U. S. Nat. Mus., Proc., vol. 23, pp. 669-695, 1901.
- 772 — The work of the United States Geological Survey in relation to the mineral resources of the United States.
Am. Inst. Mg. Engrs., Trans., vol. 30, pp. 3-26, with map, 1901.
Gives a general account of the work of the U. S. Geological Survey in the development of the mineral resources of the country.
- 773 — Twenty-second Annual Report of the Director of the United States Geological Survey to the Secretary of the Interior, 1900-1901.
U. S. Geol. Surv., 22d Ann. Rept., Pt. I, pp. 1-207, pls. i-xxiv, 1901.
Gives an account of the work of the U. S. Geological Survey for the year.
- 774 — Sur les formations Pré-Cambriennes fossilifères.
Int. Cong. Geol., Compte Rendu, viii session, pp. 299-312, 1901.
Describes the lithologic and faunal characters of the pre-Cambrian strata in various parts of the United States.
- 775 **Walker** (B. E.). List of the published writings of Elkanah Billings.
Can. Rec. Sci., vol. 8, pp. 366-388, 1901.
- 776 **Wanner** (Atreus). A new species of *Olenellus* from the Lower Cambrian of York County, Pennsylvania.
Wash. Acad. Sci., vol. 3, pp. 267-272, pls. 31-32, 1901.
- 777 **Ward** (Lester F.). Geology of the Little Colorado Valley [Arizona].
Am. Jour. Sci., 4th ser., vol. 12, pp. 401-413, 1901.
Describes the character and occurrence of the several subdivisions of the Mesozoic strata of the region.
- 778 — [Review of "Sur quelques Microorganismes des combustibles fossiles," by B. Renault.]
Science, new ser., vol. 13, pp. 577-581, 1901.
- 779 — The petrified forests of Arizona.
Smith. Inst., Ann. Rept. 1899, pp. 289-307, 1901.
- 780 **Warren** (C. H.). [Review of "The structural relations of the amygdaloidal melaphyre in Brookline, Newton, and Brighton, Mass.," by Henry T. Burr.]
Am. Jour. Sci., 4th ser., vol. 12, pp. 80-81, 1901.

- 781 **Warren** (C. H.). [Reviews of "Elements of mineralogy, crystallography and blowpipe analysis," by A. J. Moses and C. L. Parsons; and "A text-book of important minerals and rocks," by S. E. Tillman.]
Science, new ser., vol. 13, pp. 267-268, 1901.
- 782 — **Penfield** (S. L.) and. Some new minerals from the zinc mines at Franklin, N. J., and note concerning the chemical composition of ganomalite.
See Penfield (S. L.) and Warren (C. H.), 603.
- 783 **Washington** (Henry S.). The foyaite-ijolite series of Magnet Cove [Arkansas]; a chemical study in differentiation. I.
Jour. Geol., vol. 9, pp. 607-622, 1901.
Comprises a study of the chemical composition of several rock types and a discussion of their relations.
- 784 — The foyaite-ijolite series of Magnet Cove [Arkansas]; a chemical study in differentiation. II.
Jour. Geol., vol. 9, pp. 645-670, figs. 1-3, 1901.
Describes the petrographic characters of the rocks and compares them with similar rocks from other regions. Discusses differentiation in laccolithic magmas.
- 785 — The rocks of Lake Winnepesaukee, New Hampshire
Abstract: Am. Geol., vol. 27, p. 44 ($\frac{1}{2}$ p.), 1901.
Contains brief notes on the rocks.
- 786 — A chemical study of the glaucophane schists.
Am. Jour. Sci., 4th ser., vol. 11, pp. 35-59, 1901.
Abstract: Am. Geol., vol. 27, pp. 184-185, 1901.
Describes the microscopic and chemical characters of these schists from several foreign countries and from western United States.
- 787 **Watson** (Thomas Leonard). The granitic rocks of Georgia and their relationships.
Am. Geol., vol. 27, pp. 199-225, pls. 17-24, 1901.
Describes the microscopic and chemical and mineralogic characters of the varieties of granite and discusses the evidence of their intrusive origin.
- 788 — The Georgia bauxite deposits; their chemical constituents and genesis.
Am. Geol., vol. 28, pp. 25-45, pl. 7, 1901.
Describes the general geology of the bauxite area and the occurrence, geologic position, and chemical composition of the ore and discusses its origin.
- 789 — On the origin of the phenocrysts in the porphyritic granites of Georgia.
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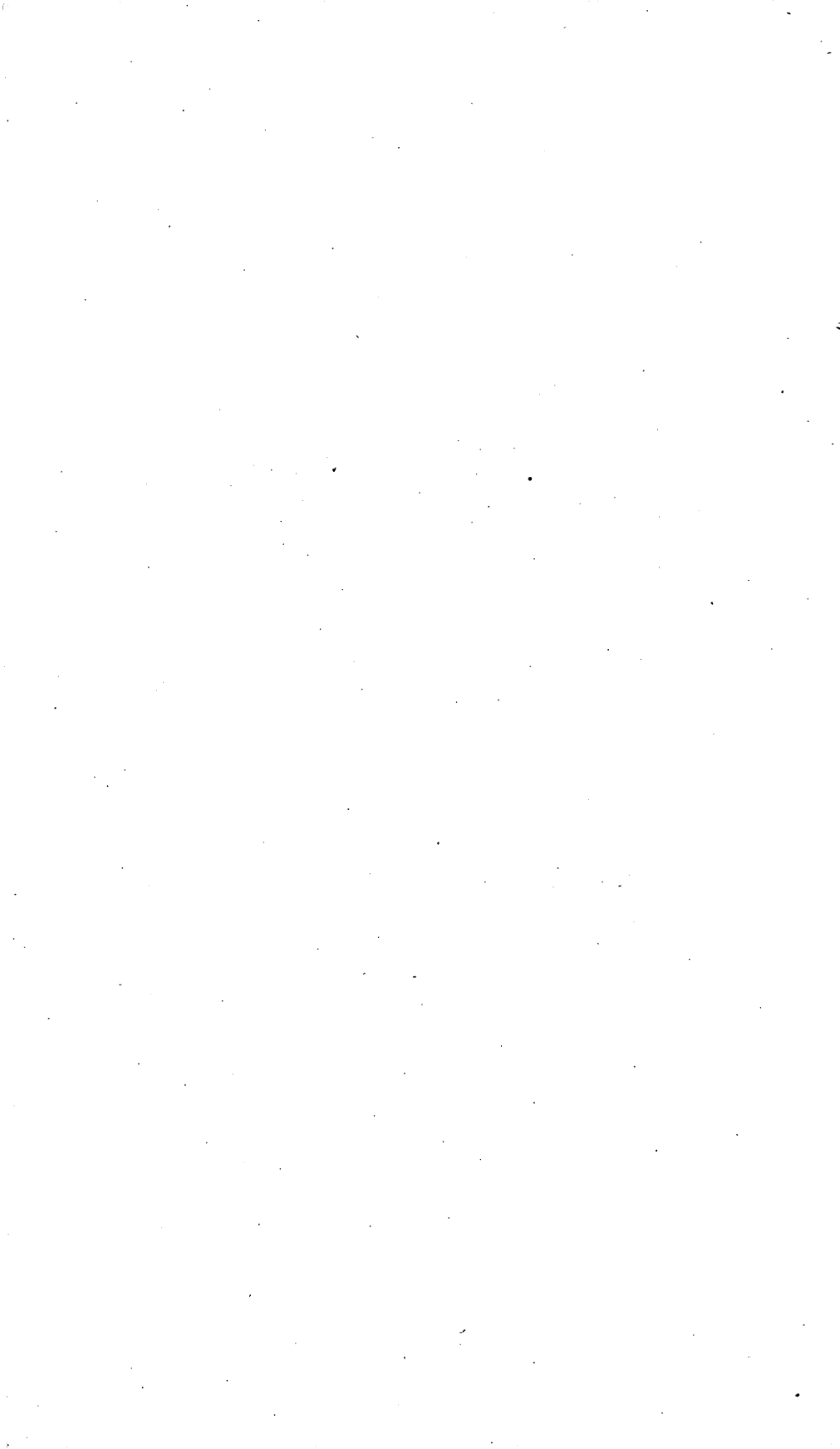
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1	117	380	573	747
14	122	401	604	831
15	236	459	656	840
46	256	460	657	841
115	257	516	683	
116	350	546	727	



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