

PUBLICATIONS
OF THE
**GEOLOGICAL
SURVEY**

1879-1961



**PUBLICATIONS
OF THE
GEOLOGICAL
SURVEY**

1879 - 1961



THIS VOLUME IS A PERMANENT CATALOG
OF BOOKS, MAPS, AND CHARTS ISSUED BY
THE GEOLOGICAL SURVEY THROUGH DE-
CEMBER 1961. LATER PUBLICATIONS
WILL BE LISTED IN SUPPLEMENTARY
CATALOGS.

UNITED STATES DEPARTMENT OF THE INTERIOR

CECIL D. ANDRUS, *Secretary*

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H. William Menard, *Director*

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PUBLICATIONS OF THE GEOLOGICAL SURVEY 1879-1961

This permanent catalog is a list of books and maps¹ that were published between 1879 and 1961. It supplements another permanent catalog "Publications of the Geological Survey, 1962-1970." These permanent catalogs, as well as some others, are available under the conditions indicated below from the Branch of Distribution, U.S. Geological Survey, 604 South Pickett Street, Alexandria, VA 22304, and the Branch of Distribution, U.S. Geological Survey, Box 25286, Federal Center, Denver, CO 80225. The catalogs are also available over the counter at any of the Geological Survey offices that sell books.

Permanent catalogs "Publications of the Geological Survey, 1879-1961" and "Publications of the Geological Survey, 1962-1970" may be purchased for \$2.00 per copy.

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¹ Individual topographic quadrangle maps are not listed; they are shown on State indexes to topographic maps, which are free on application. These indexes also show commercial dealers in each State.

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(99201)
ANCHORAGE, Alaska—Skyline Bldg., Rm. 108, 508 2d Ave. (99501)

Maps

Maps may be purchased over the counter at U.S. Geological Survey offices where books are sold (see above) and at the following Geological Survey offices:

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MENLO PARK, California—345 Middlefield Road
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Survey maps are also sold by some 1,750 commercial dealers throughout the United States.

BOOK PUBLICATIONS

ANNUAL REPORTS¹

[An asterisk (*) indicates that the paper is out of print.]

- *First Annual Report of the United States Geological Survey, by Clarence King, Director, 1880, 79 p. [Some versions have 62 p. and 77 p.] A preliminary report, describing plan of organization and publications.
- *Second Annual Report of the United States Geological Survey, 1880-81; John Wesley Powell, Director, 1882, 588 p.
 - *a. Report of the Director, 1882, p. xi-iv; Administrative reports by the heads of divisions, 1882, p. 3-46.
 - *b. The physical geology of the Grand Canyon district, by C. E. Dutton, 1882, p. 47-166.
 - *c. Contributions to the history of Lake Bonneville, by G. K. Gilbert, 1882, p. 167-200.
 - *d. Abstract of report on geology and mining industry of Leadville, Lake County, Colo., by S. F. Emmons, 1882, p. 201-290.
 - *e. A summary of the geology of the Comstock lode and the Washoe district, by G. F. Becker, 1882, p. 291-330.
 - *f. Production of the precious metals in the United States, by Clarence King, 1882, p. 331-401.
 - *g. A new method of measuring heights by means of the barometer, by G. K. Gilbert, 1882, p. 403-566; Report index, 1882, p. 567-588.
- *Third Annual Report of the United States Geological Survey, 1881-82; J. W. Powell, Director, 1883, 564 p.
 - *a. Report of the Director, 1883, p. xv-xviii; Administrative reports of chiefs of divisions and heads of independent parties, 1883, p. 1-41.
 - *b. Birds with teeth, by O. C. Marsh, 1883, p. 45-88.
 - *c. The copper-bearing rocks of Lake Superior, by R. D. Irving, 1883, p. 89-188.
 - *d. Sketch of the geological history of Lake Lahontan, a Quaternary lake of northern Nevada, by I. C. Russell, 1883, p. 189-235.
 - *e. Abstract of report on the geology of the Eureka district, Nev., by Arnold Hague, 1883, p. 237-290.
 - *f. Preliminary paper on the terminal moraine of the second glacial epoch, by T. C. Chamberlin, 1883, p. 291-402.
 - *g. A review of the nonmarine fossil Mollusca of North America, by C. A. White, 1883, p. 403-550; Report index, 1883, p. 551-564.
- *Fourth Annual Report of the United States Geological Survey, 1882-83; J. W. Powell, Director, 1884, 473 p.
 - *a. Report of the Director, 1884, p. xiii-xxxii; Administrative reports of chiefs of divisions and heads of independent parties, 1884, p. 1-72.
 - *b. Hawaiian volcanoes, by C. E. Dutton, 1884, p. 75-219.
 - *c. Abstract of a report on the mining geology of the Eureka district, Nev., by J. S. Curtis, 1884, p. 221-251.
 - *d. Popular fallacies regarding the precious-metal ore deposits, by Albert Williams, Jr., 1884, p. 253-271.
 - *e. A review of the fossil Ostreidae of North America; and a comparison of the fossil with the living forms, by C. A. White, 1884, p. 273-308, with Appendix I, North American Tertiary Ostreidae, by Angelo Heilprin, 1884, p. 309-316, and Appendix II, A sketch of the life-history of the oyster, by J. A. Ryder, 1884, p. 317-430.
 - *f. A geological reconnaissance in southern Oregon, by I. C. Russell, 1884, p. 431-464; Report index, 1884, p. 465-473.
- *Fifth Annual Report of the United States Geological Survey, 1883-84; J. W. Powell, Director, 1885, 469 p.
 - *a. Report of the Director, 1885, p. xvii-xxxvi; Administrative reports of chiefs of divisions and heads of independent parties, 1885, p. 1-66.
 - *b. The topographic features of lake shores, by G. K. Gilbert, 1885, p. 69-123.
 - *c. The requisite and qualifying conditions of artesian wells, by T. C. Chamberlin, 1885, p. 125-173.

¹Beginning with the 23rd (1901-02), the annual reports of the Geological Survey contain no technical papers but were published separately until 1933. After 1933 a condensed form has been included in the annual report of the Secretary of the Interior.

Each of the papers in the first 22 reports was issued also in separate form. In this list lower case letters are used before the titles to indicate these separates so that they may be listed in the geographic, subject, and author indexes at the end of this publication.

- *d. Preliminary paper on an investigation of Archean formations of the Northwestern States, by R. D. Irving, 1885, p. 175-242.
- *e. The gigantic mammals of the order Dinocerata, by O. C. Marsh, 1885, p. 243-302.
- *f. Existing glaciers of the United States, by I. C. Russell, 1885, p. 303-355.
- *g. Sketch of paleobotany, by L. F. Ward, 1885, p. 357-452; Report index, 1885, p. 453-469.
- *Sixth Annual Report of the United States Geological Survey, 1884-85; J. W. Powell, Director. 1885. 570 p.
 - *a. Report of the Director, 1885, p. xv-xxix; Administrative reports of chiefs of divisions and heads of independent parties, 1885, p. 1-101.
 - *b. Mount Taylor and the Zuni Plateau, by C. E. Dutton, 1885, p. 105-198.
 - *c. Preliminary paper on the Driftless Area of the upper Mississippi Valley, by T. C. Chamberlin and R. D. Salisbury, 1885, p. 199-322.
 - *d. The quantitative determination of silver by means of the microscope, by J. S. Curtis, 1885, p. 323-352.
 - *e. Preliminary report on seacoast swamps of the eastern United States, by N. S. Shaler, 1885, p. 353-398.
 - *f. Synopsis of the flora of the Laramie group, by L. F. Ward, 1885, p. 399-557; Report index, 1885, p. 559-570.
- *Seventh Annual Report of the United States Geological Survey, 1885-86; J. W. Powell, Director. 1888. 656 p.
 - *a. Report of the Director, 1888, p. 3-42; Administrative reports of chiefs of divisions and heads of independent parties, 1888, p. 43-143.
 - *b. The rock scorings of the great ice invasions, by T. C. Chamberlin, 1888, p. 147-248.
 - *c. Obsidian Cliff, Yellowstone National Park, by J. P. Iddings, 1888, p. 249-295.
 - *d. Report on the geology of Marthas Vineyard, by N. S. Shaler, 1888, p. 297-363.
 - *e. On the classification of the early Cambrian and pre-Cambrian formations, by R. D. Irving, 1888, p. 365-454.
 - *f. The structure of the Triassic formation of the Connecticut Valley, by W. M. Davis, 1888, p. 455-490.
 - *g. Salt-making processes in the United States, by T. M. Chatard, 1888, p. 491-535.
 - *h. The geology of the head of Chesapeake Bay, by W. J. McGee, 1888, p. 537-646; Report index, 1888, p. 647-656.
- *Eighth Annual Report of the United States Geological Survey, 1886-87; J. W. Powell, Director. 1889. 1063 p. 2 parts.
 - *Part I. Director's report, reports of chiefs of divisions, and papers of a theoretic nature, 1889, 474 p.
 - *a. Report of the Director, 1889, p. 1-93; Administrative reports of chiefs of divisions and heads of independent parties, 1889, p. 95-257.
 - *b. Quaternary history of Mono Valley, Calif., by I. C. Russell, 1889, p. 261-394.
 - *c. Geology of the Lassen Peak district [Calif.], by J. S. Diller, 1889, p. 395-432.
 - *d. The fossil butterflies of Florissant [Colo.], by S. H. Scudder, 1889, p. 433-474.
 - *Part II. Papers of a theoretic nature, 1889, p. 475-1063.
 - *a. The Trenton limestone as a source of petroleum and inflammable gas in Ohio and Indiana, by Edward Orton, 1889, p. 475-662.
 - *b. The geographical distribution of fossil plants, by L. F. Ward, 1889, p. 663-960.
 - *c. Summary of the geology of the quicksilver deposits of the Pacific slope, by G. F. Becker, 1889, p. 961-985.
 - *d. The geology of the island of Mount Desert, Maine, by N. S. Shaler, 1889, p. 967-1061; Report index, 1889, p. 1063.
- *Ninth Annual Report of the United States Geological Survey, 1887-88; J. W. Powell, Director. 1889. 717 p.
 - *a. Report of the Director, 1889, p. 1-46; Administrative reports of chiefs of divisions and heads of independent parties, 1889, p. 47-199.
 - *b. The Charleston earthquake of August 31, 1886, by C. E. Dutton, 1889, p. 203-528.
 - *c. The geology of Cape Ann, Mass., by N. S. Shaler, 1889, p. 529-611.
 - *d. Formation of travertine and siliceous sinter by the vegetation of hot springs, by W. H. Weed, 1889, p. 613-676.
 - *e. On the geology and physiography of a portion of northwestern Colorado and adjacent parts of Utah and Wyoming, by C. A. White, 1889, p. 677-712; Report index, 1889, p. 713-717.
- *Tenth Annual Report of the United States Geological Survey, 1888-89; J. W. Powell, Director. 1890. 774 p. and 123 p. 2 parts.
 - *Part I. Geology, 1890, 774 p.
 - *a. Report of the Director, 1890, p. 1-80; Administrative reports of chiefs of divisions and heads of independent parties, 1890, p. 81-252.
 - *b. General account of the fresh-water morasses of the United States, with a description of the Dismal Swamp district of Virginia and North Carolina, by N. S. Shaler, 1890, p. 255-339.
 - *c. The Penokee iron-bearing series of Michigan and Wisconsin, by R. D. Irving and C. R. Van Hise, 1890, p. 341-507.
 - *d. The fauna of the Lower Cambrian or Olenellus zone, by C. D. Walcott, 1890, p. 509-763; Index, 1890, p. 765-774.
 - *Part II. Irrigation, 1890, 123 p.

- *a. Irrigation survey—First Annual Report, by J. W. Powell, 1890, p. 1-65.
- *b. Report of A. H. Thompson [Topographic Branch], 1890, p. 65-77.
- *c. Report of C. E. Dutton [Hydrographic work], 1890, p. 78-108.
- *d. Expenditures, by U. S. G. S. disbursing agents, 1890, p. 108-119; Index, 1890, p. 121-123.
- *Eleventh Annual Report of the United States Geological Survey, 1889-90; J. W. Powell, Director. 1891. 757 p. and 395 p. 2 parts.
 - *Part I. Geology, 1891, 757 p.
 - *a. Report of the Director, 1891, p. 1-30; Administrative reports of chiefs of divisions and heads of independent parties, 1891, p. 31-185.
 - *b. The Pleistocene history of northeastern Iowa, by W J McGee, 1891, p. 189-577.
 - *c. The natural-gas field of Indiana, by A. J. Phinney, 1891, p. 579-742; Index, 1891, p. 743-757.
 - *Part II. Irrigation, 1891, 395 p.
 - *a. Hydrography, by J. W. Powell, 1891, p. 1-110.
 - *b. Engineering, by J. W. Powell, 1891, p. 111-200.
 - *c. The arid lands, by J. W. Powell, 1891, p. 201-289.
 - *d. Topography, by A. H. Thompson, 1891, p. 291-343.
 - *e. Irrigation literature, 1891, p. 345-388; Index, 1891, p. 389-395.
- *Twelfth Annual Report of the United States Geological Survey, 1890-91; J. W. Powell, Director. 1891. 675 p. and 576 p. 2 parts.
 - *Part I. Geology, 1891, 675 p.
 - *a. Report of the Director, 1891, p. 1-19; Administrative reports of chiefs of divisions and heads of independent parties, 1891, p. 21-210.
 - *b. The origin and nature of soils, by N. S. Shaler, 1891, p. 213-345.
 - *c. The Lafayette formation, by W J McGee, 1891, p. 347-521.
 - *d. The North American continent during Cambrian time, by C. D. Walcott, 1891, p. 523-568.
 - *e. The eruptive rocks of Electric Peak and Sepulchre Mountain, Yellowstone National Park, by J. P. Iddings, 1891, p. 569-664; Index, 1891, p. 665-675.
 - *Part II. Irrigation, 1891, 576 p.
 - *a. Report upon the location and survey of reservoir sites during the fiscal year ended June 30, 1891, by A. H. Thompson, 1891, p. 1-212.
 - *b. Hydrography of the arid regions, by F. H. Newell, 1891, p. 213-361.
 - *c. Irrigation in India, by H. M. Wilson, 1891, p. 363-561. (See also Water-Supply Paper 87.)
 - *d. Financial statement, 1891, p. 562-568; Index, 1891, p. 569-576.
- *Thirteenth Annual Report of the United States Geological Survey, 1891-92; J. W. Powell, Director. 1892. (Parts I and III, 1893.) 240 p., 372 p., and 486 p. 3 parts.
 - *Part I. Director's report and reports of chiefs of divisions, 1893, 240 p.
 - Report of the Director, 1893, p. 1-66; Administrative reports of chiefs of divisions and heads of independent parties, 1893, p. 67-240.
 - *Part II. Geology, 1892, 372 p.
 - *a. Second expedition to Mount St. Elias, in 1891, by I. C. Russell, 1892, p. 1-91.
 - *b. The geological history of harbors, by N. S. Shaler, 1892, p. 93-209.
 - *c. The mechanics of Appalachian structure, by Bailey Willis, 1892, p. 211-281.
 - *d. The average elevation of the United States, by Henry Gannett, 1892, p. 283-289.
 - *e. The Rensselaer girt plateau in New York, by T. N. Dale, 1892, p. 291-340.
 - *f. The American Tertiary Aphidae, with a list of the known species and tables for their determination, by S. H. Scudder, 1892, p. 341-366; Index, 1892, p. 367-372.
 - *Part III. Irrigation, 1893, 486 p.
 - *a. Water supply for irrigation, by F. H. Newell, 1893, p. 1-99.
 - *b. American irrigation engineering, by H. M. Wilson, 1893, p. 101-349.
 - *c. Engineering results of irrigation survey, by H. M. Wilson, 1893, p. 351-427.
 - *d. Report upon the construction of topographic maps and the selection and survey of reservoir sites in the hydrographic basin of the Arkansas River, Colo., by A. H. Thompson, 1893, p. 429-444.
 - *e. Report upon the location and survey of reservoir sites during the fiscal year ending June 30, 1892, by A. H. Thompson, 1893, p. 445-478; Index, 1893, p. 479-486.
- *Fourteenth Annual Report of the United States Geological Survey, 1892-93; J. W. Powell, Director. 1893. (Part II, 1894.) 321 p. and 597 p. 2 parts.
 - *Part I. Director's report and reports of chiefs of divisions, 1893, 321 p.
 - Report of the Director, 1893, p. 1-165; Administrative reports of chiefs of divisions and heads of independent parties, 1893, p. 167-321.
 - *Part II. Accompanying papers, 1894, 597 p.
 - *a. Potable waters of eastern United States, by W J McGee, 1894, p. 1-47.
 - *b. Natural mineral waters of the United States, by A. C. Peale, 1894, p. 49-88.
 - *c. Results of stream measurements, by F. H. Newell, 1894, p. 89-155.
 - *d. The laccolitic mountain groups of Colorado, Utah, and Arizona, by Whitman Cross, 1894, p. 157-241.
 - *e. The gold-silver veins of Ophir, Calif., by Waldemar Lindgren, 1894, p. 243-284.
 - *f. Geology of the Coconino belt, by Arthur Keith, 1894, p. 285-395.
 - *g. Tertiary revolution in the topography of the Pacific coast, by J. S. Diller, 1894, p. 397-434.
 - *h. The rocks of the Sierra Nevada, by H. W. Turner, 1894, p. 435-495.
 - *i. Pre-Cambrian igneous rocks of the Unkar terrane, Grand Canyon of the Colorado, Ariz., by C. D. Walcott, with notes on the petrographic character of the lavas, by J. P. Iddings, 1894, p. 497-524.

- *j. On the structure of the ridge between the Taconic and Green Mountain ranges in Vermont, by T. N. Dale, 1894, p. 525-549.
- *k. The structure of Monument Mountain in Great Barrington, Mass., by T. N. Dale, 1894, p. 551-565.
- *l. The Potomac and Roaring Creek coal fields in West Virginia, by J. D. Weeks, 1894, p. 567-590; Index, 1894, p. 591-597.
- Note. A pocket in the cover of Part II carries a reconnaissance map of the United States showing the distribution of the geologic systems as far as known, compiled by W J McGee from data in the possession of the United States Geological Survey in 1893.
- *Fifteenth Annual Report of the United States Geological Survey, 1893-94; J. W. Powell, Director. 1895. 755 p.
- *a. Report of the Director, 1895, p. 1-110; Administrative reports of chiefs of divisions and heads of independent parties, 1895, p. 111-251.
- *b. Preliminary report on the geology of the common roads of the United States, by N. S. Shaler, 1895, p. 255-306.
- *c. The Potomac formation, by L. F. Ward, 1895, p. 307-397.
- *d. Sketch of the geology of the San Francisco Peninsula, by A. C. Lawson, 1895, p. 399-476.
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- *c. The High Plains and their utilization (conclusion of paper in Twenty-first Annual Report, Pt. IV, c.), by W. D. Johnson, 1902, p. 631-669; Index, 1902, p. 671-690.
- *Twenty-third Annual Report of the Director of the United States Geological Survey. 1901-2; Charles D. Walcott, Director. 1902. 217 p.
- *Twenty-fourth, 1902-3. 1903. 302 p.
- *Twenty-fifth, 1903-4. 1904. 388 p.
- *Twenty-sixth, 1904-5. 1905. 322 p.
- *Twenty-seventh, 1905-6. 1906. 104 p.
- *Twenty-eighth Annual Report of the Director of the United States Geological Survey, for the fiscal year ended June 30, 1907; George Otis Smith, Director. 1907. 80 p.

- *Twenty-ninth, June 30, 1908. 1908. 99 p.
- *Thirtieth, June 30, 1909. 1909. 128 p.
- *Thirty-first, June 30, 1910. 1910. 131 p.
- *Thirty-second, June 30, 1911. 1911. 151 p.
- *Thirty-third, June 30, 1912. 1912. 175 p.
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- *Forty-ninth, June 30, 1928. 1928. 77 p.
- *Fiftieth, June 30, 1929. 1929. 87 p.
- *Fifty-first, June 30, 1930. 1930. 91 p.
- *Fifty-second Annual Report of the Director of the Geological Survey for the fiscal year ended June 30, 1931; [Walter Curran Mendenhall, Acting Director.] 1931. 95 p.
- *Fifty-third Annual Report of the Director of the Geological Survey, for the fiscal year ended June 30, 1932; Walter Curran Mendenhall, Director. 1932. 94 p.

Note.--Annual reports of the Director of the Geological Survey for the fiscal years 1933, 1934, and 1935 were not published separately, but a condensed report was included in the annual report of the Secretary of the Interior. Since then the Director's report has continued to be included in the annual report of the Secretary. For the fiscal years 1936 to date, a limited number of copies of the annual report of the Director, as it appears in the annual report of the Secretary, have been reprinted for official use. A copy of any of these reports may be obtained free, as long as the supply lasts, upon application to the Director, Geological Survey, Washington, D. C. 20242

- *Geological Survey [annual report to the Secretary of the Interior, fiscal year 1936]; [Walter Curran Mendenhall, Director.] [1937.] p. 309-345.
- *Fiscal year 1937. [1937.] p. 151-189.
- Fiscal year 1938. [1939.] p. 125-172.
- *Fiscal year 1939. [1940.] p. 139-190.
- Fiscal year 1940. [1941.] p. 39-81.
- Annual report of the Director of the Geological Survey to the Secretary of the Interior [for the fiscal year ended June 30, 1941]. [Walter Curran Mendenhall, Director.] [1941.] p. 85-128.
- *Fiscal year ended June 30, 1942. [1943.] p. 45-68.
- Annual report of the Director of the Geological Survey to the Secretary of the Interior [for the fiscal year ended June 30, 1943]. [William Embry Wrather, Director.] [1944.] p. 33-59.
- Fiscal year ended June 30, 1944. [1945.] p. 101-126.
- Fiscal year ended June 30, 1945. [1946.] p. 105-129.
- *Fiscal year ended June 30, 1946. [1947.] p. 191-220.
- *Fiscal year ended June 30, 1947. [1948.] p. 213-258.
- Annual report of the Director, Geological Survey, to the Secretary of the Interior, fiscal year ended June 30, 1948. [William Embry Wrather, Director.] [1949.] p. 197-248.
- Fiscal year ended June 30, 1949. [1950.] p. 165-209.
- Fiscal year ended June 30, 1950. [1951.] p. 169-219.
- Fiscal year ended June 30, 1951. [1952.] p. 189-235.
- Fiscal year ended June 30, 1952. [1953.] p. 219-257.
- *Fiscal year ended June 30, 1953. [1954.] p. 249-286.
- *Fiscal year ended June 30, 1954. [1955.] p. 131-170.
- Fiscal year ended June 30, 1955. [1956.] p. 130-177.
- Annual report of the Director, Geological Survey, to the Secretary of the Interior, fiscal year ended June 30, 1956. [Thomas Brennan Nolan, Director.] [1957.] p. 106-144.
- Fiscal year ended June 30, 1957. [1958.] p. 131-167.
- Fiscal year ended June 30, 1958. [1959.] p. 99-138.
- Fiscal year ended June 30, 1959. [1960.] p. 119-159.
- Fiscal year ended June 30, 1960. [1961.] p. 99-138.

BULLETINS

[An asterisk (*) indicates that the paper is out of print.]

- *1. On hypersthene andesite and on triclinc pyroxene in augitic rocks, by Whitman Cross, with a geological sketch of Buffalo Peaks, Colo., by S. F. Emmons, geologist in charge of Rocky Mountain division. 1883. 42 p.
- *2. Gold and silver conversion tables, giving the coining values of troy ounces of fine metal and the weights of fine metal represented by given sums of United States money, computed by Albert Williams, Jr. 1883. 8 p.
- *3. On the fossil faunas of the Upper Devonian, along the meridian of 76° 30', from Tompkins County, N. Y., to Bradford County, Pa., by H. S. Williams. 1884. 36 p.
- *4. On Mesozoic fossils, by C. A. White. 1884. 36 p.
- *5. A dictionary of altitudes in the United States, compiled by Henry Gannett, chief geographer. 1884. 325 p. (See also Bulletins 76, 160, and 274.)
- *6. Elevations in the Dominion of Canada, by J. W. Spencer. 1884. 43 p.
- *7. *Mapoteca geologica americana*, a catalogue of geological maps of America (North and South), 1752-1881, in geographic and chronologic order, by Jules Marcou and John B. Marcou. 1884. 184 p.
- *8. On secondary enlargements of mineral fragments in certain rocks, by R. D. Irving and C. R. Van Hise. 1884. 56 p.
- *9. A report of work done in the Washington laboratory during the fiscal year 1883-84; F. W. Clarke, chief chemist; T. M. Chatard, assistant chemist. 1884. 40 p.
Contains: Introductory remarks, p. 7; Mineral, rock, and ore analyses, p. 9-18; Water analyses, p. 19-35; The estimation of alkalis in silicates, by T. M. Chatard, p. 36-37; Index, p. 39-40.
- *10. On the Cambrian faunas of North America (preliminary studies), by C. D. Walcott. 1884. 74 p.
- *11. On the Quaternary and Recent Mollusca of the Great Basin, with descriptions of new forms, by R. E. Call, introduced by a sketch of the Quaternary lakes of the Great Basin, by G. K. Gilbert. 1884. 66 p.
- *12. A crystallographic study of the thimolite of Lake Lahontan, by E. S. Dana. 1884. 34 p.
- *13. Boundaries of the United States and of the several States and Territories, with a historical sketch of the territorial changes, by Henry Gannett, chief geographer. 1885. 135 p. (See also Bulletins 171, 226, 689, and 817.)
- *14. The electrical and magnetic properties of the iron carburets, by Carl Barus and Vincent Strouhal. 1885. 238 p. (See also Bulletins 27 and 35.)
- *15. On the Mesozoic and Cenozoic paleontology of California, by C. A. White. 1885. 33 p.
- *16. On the higher Devonian faunas of Ontario County, N. Y., by J. M. Clarke. 1885. 86 p.
- *17. On the development of crystallization in the igneous rocks of Washoe, Nev., with notes on the geology of the district, by Arnold Hague and J. P. Iddings. 1885. 44 p.
- *18. On marine Eocene, fresh-water Miocene, and other fossil Mollusca of western North America, by C. A. White. 1885. 26 p.
- *19. Notes on the stratigraphy of California, by G. F. Becker. 1885. 28 p.
- *20. Contributions to the mineralogy of the Rocky Mountains, by Whitman Cross and W. F. Hillebrand. 1885. 114 p.
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- *21. The lignites of the Great Sioux Reservation, a report on the region between the Grand and Moreau Rivers, Dakota, by Bailey Willis. 1885. 16 p.
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- *340-G. Building Stones.--Marble of White Pine County, Nev., near Gandy, Utah, by N. H. Darton, 1908, p. 377-380; Survey publications on building stone and road metal, 1908, p. 381-382.
- *340-H. Cement and Concrete Materials.--Concrete materials produced in the Chicago district, by E. F. Burchard, 1908, p. 383-410; Portland cement materials near El Paso, Tex., by G. B. Richardson, 1908, p. 411-414; Survey publications on cement and cement and concrete materials, 1908, p. 415-416.
- *340-I. Clays.--Clays in the Kootenai formation near Belt, Mont., by C. A. Fisher, 1908, p. 417-423; Survey publications on clays, fuller's earth, etc., 1908, p. 424-425.
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- *341-C. Coal Fields of Colorado, New Mexico, Utah, Oregon, and Virginia.--Coal fields of northwestern Colorado and northeastern Utah, by H. S. Gale, 1909, p. 283-315; The Grand Mesa coal field, Colo., by W. T. Lee, 1909, p. 316-334; The coal field between Gallina and Raton Spring, N. Mex., in the San Juan coal region, by J. H. Gardner, 1909, p. 335-351; The coal field between Durango, Colo., and Monero, N. Mex., by J. H. Gardner, 1909, p. 352-363; The coal field between Gallup and San Mateo, N. Mex., by J. H. Gardner, 1909, p. 364-378; The Harmony, Colob, and Kanab coal fields, southern Utah, by G. B. Richardson, 1909, p. 379-400; The Rogue River valley coal field, Oreg., by J. S. Diller, 1909, p. 401-405; A coal prospect on Willow Creek, Morrow County, Oreg., by W. C. Mendenhall, 1909, p. 406-408; The Pocket coal district, Va., in the Little Black Mountain coal field, by C. A. Fisher, 1909, p. 409-418; Classified list of papers dealing with coal, coke, lignite, and peat contained in publications of U. S. Geological Survey, except those on Alaska, compiled by W. T. Lee and J. M. Nickles, 1909, p. 419-436; Index, 1909, p. 437-444. (Bulletin 341 was issued as a single volume, Contributions to economic geology, 1907, Part II, Coal and lignite, and also as separate chapters, for which pagination of volume has been used above.)
- *342. Results of spirit leveling in California, 1896 to 1907, inclusive, by S. S. Gannett and D. H. Baldwin, 1908, 172 p. (See also Bulletin 766.)
- *343. Binders for coal briquets; investigations made at the fuel-testing plant, St. Louis, Mo., by J. E. Mills, 1908, 56 p.
- *344. The strength of concrete beams; results of tests of 108 beams, first series, made at the structural-materials testing laboratories, by R. L. Humphrey, 1908, 59 p.
- *345-A. Administrative report, by A. H. Brooks, 1908, p. 5-17; The distribution of mineral resources in Alaska, by A. H. Brooks, 1908, p. 18-29; The mining industry in 1907, by A. H. Brooks, 1908, p. 30-

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- *346. Structure of the Berea oil sand in the Flushing quadrangle, Harrison, Belmont, and Guernsey counties, Ohio, by W. T. Griswold, 1908, 30 p.
- *347. The Ketchikan and Wrangell mining districts, Alaska, by F. E. and C. W. Wright, 1908, 210 p.
- *348. Coal resources of the Russell Fork basin in Kentucky and Virginia, by R. W. Stone, 1908, 127 p.
- *349. Economic geology of the Kenova quadrangle, Ky., Ohio, and W. Va., by W. C. Phalen, 1908, 158 p.
- *350. Geology of the Rangely oil district, Rio Blanco County, Colo., with a section on the water supply, by H. S. Gale, 1908, 61 p.
- *351. The clays of Arkansas, by J. C. Branner, 1908, 247 p.
- *352. Geologic reconnaissance of a part of western Arizona, by W. T. Lee, with notes on the igneous rocks of western Arizona, by Albert Johannsen, 1908, 96 p.
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- *354. The chief commercial granites of Massachusetts, New Hampshire, and Rhode Island, by T. N. Dale, 1908, 228 p. (See also Bulletin 738.)
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- *358. Geology of the Seward Peninsula tin deposits, Alaska, by Adolph Knopf, 1908, 71 p.
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- *379-F. Recent developments in southern Seward Peninsula, by P. S. Smith, 1909, p. 267-301; The Iron Creek region, by P. S. Smith, 1909, p. 302-354; Mining in the Fairhaven precinct, by F. F. Henshaw, 1909, p. 355-369; Water-supply investigations in Seward Peninsula, 1908, by F. F. Henshaw, 1909, p. 370-401; Index, 1909, p. 403-411; Recent Survey publications on Alaska, 1909, p. 413-418.
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- *380-C. Lead and Zinc.--The Tres Hermanas mining district, N. Mex., by Waldemar Lindgren, 1909, p. 123-128; Survey publications on lead and zinc, 1909, p. 129-130.
- *380-D. Rare Metals.--Tin, tungsten, and tantalum deposits of South Dakota, by F. L. Hess, 1909, p. 131-163; Note on a wolframite deposit in the Whetstone Mountains, Ariz., by F. L. Hess, 1909, p. 164-165; Survey publications on antimony, chromium, nickel, platinum, quicksilver, tin, tungsten, uranium, vanadium, etc., 1909, p. 166-168.
- *380-E. Iron and Manganese.--Tonnage estimates of Clinton iron ore in the Chattanooga region of Tennessee, Georgia, and Alabama, by E. F. Burchard, 1909, p. 169-187; The Taylor Peak and Whitepine iron-ore deposits, Colo., by E. C. Harder, 1909, p. 188-198; The Hanover iron-ore deposits, N. Mex., by Sidney Paige, 1909, p. 199-214; The iron ores of the Appalachian region in Virginia, by E. C. Harder, 1909, p. 215-254; Manganese deposits of the United States, by E. C. Harder, 1909, p. 255-277; Survey publications on iron and manganese ores, 1909, p. 278-281.
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- *380-H. Asphalt.--An occurrence of asphaltite in northeastern Nevada, by Robert Anderson, 1909, p. 283-285; Grahamite deposits of southeastern Oklahoma, by J. A. Taff, 1909, p. 286-297; Survey publications on asphalt, 1909, p. 298.
- *380-I. Building Stones.--Marble prospects in the Chiricahua Mountains, Ariz., by Sidney Paige, 1909, p. 299-311; Survey publications on building stone and road metal, 1909, p. 312-313.
- *380-J. Cement and Concrete Materials.--The Niobrara limestone of northern Colorado as a possible source of Portland cement material, by G. C. Martin, 1909, p. 314-326; Cement material near Havre, Mont., by L. J. Pepperberg, 1909, p. 327-336; Ganister in Blair County, Pa., by Charles Butts, 1909, p. 337-342; Survey publications on cement and concrete materials, 1909, p. 343-345.
- *380-K. Clays.--Notes on the clays of Florida, by G. C. Matson, 1909, p. 346-357; Survey publications on clays, fuller's earth, etc., 1909, p. 358-360.
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- *380-L. Salines.--Sodium sulphate in Soda Lake, Carrizo Plain, San Luis Obispo County, Calif., by Ralph Arnold and H. R. Johnson, 1909, p. 369-372; Survey publications on salines, including salt, borax, and soda, 1909, p. 372.
- *380-M. Sulphur and Pyrite.--Sulphur deposits near Thermopola, Wyo., by E. G. Woodruff, 1909, p. 373-380; Survey publications on sulphur and pyrite, 1909, p. 381.
- *380-N. Miscellaneous Nonmetallic Products.--Mica deposits of South Dakota, by D. B. Sterrett, 1909, p. 382-397; Survey publications on miscellaneous nonmetallic products, 1909, p. 398-399; Index, 1909, p. 401-406.

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- *381-B. Coal Fields in Wyoming.--The Powder River coal field, Wyo., adjacent to the Burlington Railroad, by R. W. Stone and C. T. Lupton, 1910, p. 115-136; The Buffalo coal field, Wyo., by H. S. Goss and C. H. Wegemann, 1910, p. 137-169; The coal field in the southeastern part of the Bighorn Basin, Wyo., by E. G. Woodruff, 1910, p. 170-185; The eastern part of the Little Snake River coal field, Wyo., by M. W. Ball and Eugene Stebinger, 1910, p. 186-213; The southern part of the Rock Springs coal field, Sweetwater County, Wyo., by A. R. Schultz, 1910, 214-281; Weathering of coal in the arid region of the Green River Basin, Sweetwater County, Wyo., by A. R. Schultz, 1910, p. 282-296.
- *381-C. Coal Fields in Colorado and New Mexico.--Coal of the Denver Basin, Colo., by G. C. Martin, 1910, p. 297-306; The South Park coal field, Colo., by C. W. Washburne, 1910, p. 307-316; The Colorado Springs coal field, Colo., by M. I. Goldman, 1910, p. 317-340; The Canon City coal field, Colo., by C. W. Washburne, 1910, p. 341-378; The Trinidad coal field, Colo., by G. B. Richardson, 1910, p. 379-446; Isolated coal fields in Santa Fe and San Miguel Counties, N. Mex., by J. H. Gardner, 1910, p. 447-451; The Carthage coal field, N. Mex., by J. H. Gardner, 1910, p. 452-460; The coal field between San Mateo and Cuba, N. Mex., by J. H. Gardner, 1910, p. 461-473.
- *381-D. Petroleum and Natural Gas.--Geology and oil prospects of the Reno region, Nev., by Robert Anderson, 1910, p. 475-489; Two areas of oil prospecting in Lyon County, western Nevada, by Robert Anderson, 1910, p. 490-493; Analyses of crude petroleum from Oklahoma and Kansas, by D. T. Day, 1910, p. 494-503; The Madill oil pool, Okla., by J. A. Taff and W. J. Reed, 1910, p. 504-513; Development in the Boulder oil field, Colo., by C. W. Washburne, 1910, p. 514-516; The Florence oil field, Colo., by C. W. Washburne, 1910, p. 517-544; Survey publications on petroleum and natural gas, 1910, p. 545-547; Index, 1910, p. 549-559.
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- *382. The effect of oxygen in coal, by David White. 1909. 74 p.
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- *399. Results of spirit leveling in West Virginia, 1896 to 1908, inclusive, compiled by S. S. Gannett and D. H. Baldwin. 1909. 81 p. (See also Bulletin 632.)
- *400. Iron ores, fuels, and fluxes of the Birmingham district, Ala., by E. F. Burchard and Charles Butts, with chapters on the origin of the ores, by E. C. Eckel. 1910. 204 p.
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- *420. Economic geology of the feldspar deposits of the United States, by E. S. Bastin. 1910. 85 p.
- *421. Results of spirit leveling in Illinois, 1896 to 1908, inclusive, compiled by S. S. Gannett and D. H. Baldwin. 1910. 74 p. (See also Bulletin 930.)
- *422. The analysis of silicate and carbonate rocks, by W. F. Hillebrand. 1910. 239 p. (A revision of Bulletin 305. Reprinted with minor corrections in 1916. See also Bulletin 700.)
- *423. A primer on explosives for coal miners, by C. E. Munroe and Clarence Hall. 1909. 61 p.
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- *430-A. Introduction, 1910, p. 9-10;
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- *430-B. Copper.--The occurrence of copper in Shasta County, Calif., by L. C. Graton, 1910, p. 71-111; Geology of the copper deposits near Montpelier, Bear Lake County, Idaho, by H. S. Gale, 1910, p. 112-121; The copper deposits of South Mountain in southern Pennsylvania, by G. W. Stose, 1910, p. 122-131; Survey publications on copper, 1910, p. 132-134.
- *430-C. Lead and Zinc.--Notes on the mineral deposits of the Bearpaw Mountains, Mont., by L. J. Pepperberg, 1910, p. 135-146; Survey publications on lead and zinc, 1910, p. 147-150.
- *430-D. Rare Metals.--Notes on the occurrence of cinnabar in central western Arizona, by Howland Bancroft, 1910, p. 151-153; Some occurrences of molybdenite in the Santa Rita and Patagonia mountains, Ariz., by F. C. Schrader and J. M. Hill, 1910, p. 154-163; Note on the occurrence of tungsten minerals near Calabasas, Ariz., by J. M. Hill, 1910, p. 164-166; Some chromite deposits in western and central California, by E. C. Harder, 1910, p. 167-183; An occurrence of monazite in northern Idaho, by F. C. Schrader, 1910, p. 184-191; Platinum in southeastern Nevada, by Howland Bancroft,

- 1910, p. 192-199; The Virginia rutile deposits, by T. L. Watson and Stephen Taber, 1910, p. 200-213; Notes on tungsten deposits near Deer Park, Wash., by Howland Bancroft, 1910, p. 214-216; Survey publications on antimony, chromium, nickel, platinum, quicksilver, tin, tungsten, uranium, vanadium, etc., 1910, p. 217-218.
- *430-E. Iron and Manganese.--Some iron ores of western and central California, by E. C. Harder, 1910, p. 219-227; The Iron Age iron-ore deposit, near Dale, San Bernardino County, Calif., by E. C. Harder and J. L. Rich, 1910, p. 228-239; Iron ores near Dayton, Nev., by E. C. Harder, 1910, p. 240-246; The Jaus iron mine, Dillsburg, Pa., by A. C. Spencer, 1910, p. 247-249; Deposits of brown iron ore near Dillsburg, York County, Pa., by E. C. Harder, 1910, p. 250-255; Preliminary report on pre-Cambrian geology and iron ores of Llano County, Tex., by Sidney Paige, 1910, p. 256-268; Survey publications on iron and manganese ores, 1910, p. 269-272.
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- *430-F. Structural Materials.--
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Glass and Sand, etc.--Survey publications on glass sand, and glass-making materials, 1910, p. 421.
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- *430-G. Mineral Paints.--Ocher deposits of eastern Pennsylvania, by J. C. Stoddard and A. C. Callen, 1910, p. 424-439; Paint-ore deposits near Lehigh Gap, Pa., by F. T. Agthe and J. L. Dynan, 1910, p. 440-454; Survey publications on mineral paint, 1910, p. 455-456.
- *430-H. Phosphates.--Preliminary report on the phosphate deposits in southeastern Idaho and adjacent parts of Wyoming and Utah, by H. S. Gale and R. W. Richards, 1910, p. 457-535; Phosphate deposits east of Ogden, Utah, by Elliot Blackwelder, 1910, p. 536-551; Survey publications on phosphates and other mineral fertilizers, 1910, p. 552-553.
- *430-I. Salines.--The salt resources of the Idaho-Wyoming border, with notes on the geology, by C. L. Breger, 1910, p. 555-569; Deposits of sodium salts in Wyoming, by A. R. Schultz, 1910, p. 570-589; Survey publications on salines, including salt, borax, and soda, 1910, p. 590.
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- *430-J. Miscellaneous Nonmetallic Products.--Mica deposits of North Carolina, by D. B. Sterrett, 1910, p. 593-638; Supposed graphite deposits near Brigham, Utah, by H. S. Gale, 1910, p. 639-640; Survey publications on miscellaneous nonmetallic products, 1910, p. 641-642; Index, 1910, p. 643-653. (Bulletin 430 was issued as a single volume, Contributions to economic geology (short papers and preliminary reports), 1909, Part I, Metals and nonmetals except fuels, and also as separate chapters, for which pagination of volume has been used above.)
- *431-A. Petroleum and Natural Gas.--Introduction, 1911, p. 5-6; Natural gas in North Dakota, by A. G. Leonard, 1911, p. 7-10; The San Juan oil field, San Juan County, Utah, by H. E. Gregory, 1911, p. 11-25; Gas and oil prospects near Vale, Oreg., and Payette, Idaho, by C. W. Washburne, 1911, p. 26-55; Gas prospects in Harney Valley, Oreg., by C. W. Washburne, 1911, p. 56-57; Preliminary report on the geology and the oil prospects of the Cantua-Panoche region, Calif., by Robert Anderson, 1911, p. 58-87.
- *431-B. Coal and Lignite.--The southern part of the Cahaba coal field, Ala., by Charles Butts, 1911, p. 89-146; The Powell Mountain coal field, Scott and Wise counties, Va., by M. R. Campbell, and E. G. Woodruff, 1911, p. 147-162; The eastern part of the Bull Mountain coal field, Mont., by C. T. Lupton, 1911, p. 163-189; Preliminary report on the Coos Bay coal field, Oreg., by J. S. Diller and M. A. Pishel, 1911, p. 190-228; The Black Mesa coal field, Ariz., by M. R. Campbell and H. E. Gregory, 1911, p. 229-238; Coal deposits near Pinedale, Navajo County, Ariz., by A. C. Veatch, 1911, p. 239-242; Coal in San Benito County, Calif., by M. R. Campbell, 1911, p. 243-247; Index, 1911, p. 249-254.
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- *432. Some ore deposits in Maine and the Milan mine, N. H., by W. H. Emmons, 1910, 62 p.
- *433. Geology and mineral resources of the Solomon and Casadepaga quadrangles, Seward Peninsula, Alaska, by P. S. Smith, 1910, 234 p.
- *434. Results of spirit leveling in Delaware, District of Columbia, Maryland, and Virginia, 1896 to 1909, inclusive; R. B. Marshall, chief geographer. 1910. 74 p. (See also Bulletins 562, Virginia, and 563, Maryland.)

- *435. A reconnaissance of parts of northwestern New Mexico and northern Arizona, by N. H. Darton, 1910, 88 p.
- *436. The fauna of the phosphate beds of the Park City formation in Idaho, Wyoming, and Utah, by G. H. Girty, 1910, 82 p.
- *437. Results of spirit leveling in Maine, New Hampshire, and Vermont, 1896 to 1909, inclusive; R. B. Marshall, chief geographer, 1910, 59 p. (See also Bulletin 633 for Maine and 888 for Vermont.)
- *438. Geology and mineral resources of the St. Louis quadrangle, Mo.-Ill., by N. M. Fenneman, 1911, 73 p.
- *439. The fauna of the Moorefield shale of Arkansas, by G. H. Girty, 1911, 148 p.
- *440. Results of triangulation and primary traverse for the years 1906, 1907, and 1908; R. B. Marshall, chief geographer, 1910, 688 p.
- *441. Results of spirit leveling in Alabama, Georgia, North Carolina, South Carolina, and Tennessee, 1896 to 1909, inclusive; R. B. Marshall, chief geographer, 1911, 145 p. (See also Bulletins 517, Alabama, 519, Tennessee, 635, Georgia, and 646, North Carolina, and 890-A-B for South Carolina.)
- *442-A. Administrative report, 1910, p. 17-19; The mining industry in 1909, by A. H. Brooks, 1910, p. 20-46; Alaska coal and its utilization, by A. H. Brooks, 1910, p. 47-100.
- *442-B. The preparation and use of peat as fuel, by C. A. Davis, 1910, p. 101-132.
- *442-C. Mining in southeastern Alaska, by Adolph Knopf, 1910, p. 133-143; The occurrence of iron ore near Haines, by Adolph Knopf, 1910, p. 144-146; A water-power reconnaissance in southeastern Alaska, by J. C. Hoyt, 1910, p. 147-157.
- *442-D. Mining in the Chitina district, by F. H. Moffit, 1910, p. 158-163; Mining and prospecting on Prince William Sound in 1909, by U. S. Grant, 1910, p. 164-165; Preliminary report on the mineral resources of the southern part of Kenai Peninsula, by U. S. Grant and D. F. Higgins, 1910, p. 166-178.
- *442-E. Outline of the geology and mineral resources of the Iliamna and Clark lakes region, by G. C. Martin and F. J. Katz, 1910, p. 179-200; Gold placers of the Mulchatna, by F. J. Katz, 1910, p. 201-202.
- *442-F. Sketch of the geology of the northeastern part of the Fairbanks quadrangle, by L. M. Prindle, 1910, p. 203-209; Auriferous quartz veins in the Fairbanks district, by L. M. Prindle, 1910, p. 210-229; Placer mining in the Yukon-Tanana region, by C. E. Ellsworth, 1910, p. 230-245; Occurrence of wolframite and cassiterite in the gold placers of Deadwood Creek, Birch Creek district, by B. L. Johnson, 1910, p. 246-250; Water supply of the Yukon-Tanana region, 1909, by C. E. Ellsworth, 1910, p. 251-283.
- *442-G. The Koyukuk-Chandalar gold region, by A. G. Maddren, 1910, p. 284-315.
- *442-H. Mineral resources of the Nulato-Council region, by P. S. Smith and H. M. Eakin, 1910, p. 316-352.
- *442-I. Mining in Seward Peninsula, by F. F. Henshaw, 1910, p. 353-371; Water-supply investigations in Seward Peninsula in 1909, by F. F. Henshaw, 1910, p. 372-418.
- *442-J. Alaska coal and its utilization, by A. H. Brooks, 1910, p. 47-100 (a reprint of part of separate A); Index, 1910, p. 419-426; Recent Survey publications on Alaska, 1910, p. 427-432. (Bulletin 442 was issued as a single volume, Mineral resources of Alaska, report on progress of investigations in 1909, and also as separate chapters for which pagination of volume has been used above.)
- *443. Reconnaissance of the geology and mineral resources of Prince William Sound, Alaska, by U. S. Grant and D. F. Higgins, 1910, 89 p.
- *444. Bibliography of North American geology for 1909, with subject index, by J. M. Nickles, 1910, 174 p.
- *445. Geology of the pegmatites and associated rocks of Maine, including feldspar, quartz, mica, and gem deposits, by E. S. Bastin, 1911, 152 p.
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- *453. Results of spirit leveling in Minnesota, 1897 to 1910, inclusive; R. B. Marshall, chief geographer, 1911, 39 p. (See also Bulletin 560.)
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- *457. Results of spirit leveling in the State of Washington, 1896 to 1910, inclusive; R. B. Marshall, chief geographer, 1911, 108 p. (See also Bulletins 557 and 674.)
- *458. Results of spirit leveling in Arkansas, Louisiana, and Mississippi, 1896 to 1909, inclusive; R. B. Marshall, chief geographer, 1911, 79 p. (See also Bulletins 634, Louisiana, 636, Arkansas, and 639, Mississippi.)
- *459. Results of spirit leveling in Missouri, 1896 to 1909, inclusive; R. B. Marshall, chief geographer, 1911, 48 p. (See also Bulletin 568.)

- *460. Results of spirit leveling in Iowa, 1896 to 1909, inclusive; R. B. Marshall, chief geographer. 1911. 32 p. (See also Bulletin 569.)
- *461. Results of spirit leveling in Michigan and Wisconsin, 1897 to 1909, inclusive; R. B. Marshall, chief geographer. 1911. 64 p. (See also Bulletins 559 and 919, Michigan, and 570, Wisconsin.)
- *462. Results of spirit leveling in Oregon, 1896 to 1910, inclusive; R. B. Marshall, chief geographer. 1911. 82 p. (See also Bulletin 556.)
- *463. Results of spirit leveling in Arizona, 1899 to 1909, inclusive; R. B. Marshall, chief geographer. 1911. 94 p. (See also Bulletin 573.)
- *464. Results of spirit leveling in New Mexico, 1902 to 1909, inclusive; R. B. Marshall, chief geographer. 1911. 53 p. (See also Bulletin 638.)
- *465. The State geological surveys of the United States, compiled under the direction of C. W. Hayes. 1911. 177 p.
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- *468. Results of spirit leveling in Texas, 1896 to 1910, inclusive; R. B. Marshall, chief geographer. 1911. 133 p. (See also Bulletin 637.)
- *469. Results of spirit leveling in North Dakota, 1897 to 1910, inclusive; R. B. Marshall, chief geographer. 1911. 23 p.
- *470-A. Introduction, 1911, p. 9-10; Phosphates in Montana, by H. S. Gale. (Reprinted in separate H.)
- *470-B. Gold and Silver.--The auriferous gravels of the Trinity River basin, Calif., by J. S. Diller, 1911, p. 11-29; The economic geology of Carson camp, Hinsdale County, Colo., by E. S. Larsen, Jr., 1911, p. 30-38; Geology and mineralization of the upper St. Joe River basin, Idaho, by J. T. Pardee, 1911, p. 39-61; Gold-bearing ground moraine in northwestern Montana, by F. C. Schrader, 1911, p. 62-74; Geologic relation of ore deposits in the Elkhorn Mountains, Mont., by R. W. Stone, 1911, p. 75-98; Notes on the economic geology of the Ramsey, Talapoosa, and White Horse mining districts, in Lyon and Washoe counties, Nev., by J. M. Hill, 1911, p. 99-108; The ore deposits near Pinos Altos, N. Mex., by Sidney Paige, 1911, p. 109-125; Survey publications on gold and silver, 1911, p. 126-130.
- *470-C. Copper.--Metalliferous ore deposits near the Burro Mountains, Grant County, N. Mex., by Sidney Paige, 1911, p. 131-150; Preliminary report on the mineral deposits of Ducktown, Tenn., by W. H. Emmons and F. B. Laney, 1911, p. 151-172; Survey publications on copper, 1911, p. 173-175.
- *470-D. Lead and Zinc.--Notes on lead and copper deposits in the Bear River Range, Idaho and Utah, by R. W. Richards, 1911, p. 177-187; Lead and zinc deposits in the Metaline mining district, northeastern Washington, by Howland Bancroft, 1911, p. 188-200; Survey publications on lead and zinc, 1911, p. 201-204.
- *470-E. Rare Metals.--The arsenic deposits at Brinton, Va., by F. L. Hess, 1911, p. 205-211; Survey publications on antimony, chromium, monazite, nickel, platinum, quicksilver, tin, tungsten, uranium, vanadium, etc., 1911, p. 212-214.
- *470-F. Iron and Manganese.--Iron ores in the Montevallo-Columbiana region, Ala., by Charles Butts, 1911, p. 215-230; Survey publications on iron and manganese ores, 1911, p. 231-234. Aluminum Ores.--Survey publications on aluminum ores--bauxite, cryolite, etc., 1911, p. 235. Asphalt.--Survey publications on asphalt, 1911, p. 236.
- *470-G. Structural Materials.--Building Stone.--Variegated marble southeast of Calera, Shelby County, Ala., by Charles Butts, 1911, p. 237-239; Supplementary notes on the granites of Massachusetts, by T. N. Dale, 1911, p. 240-288; Survey publications on building stone and road metal, 1911, p. 289-290. Cement and Concrete Materials.--Survey publications on cement and concrete materials, 1911, p. 291. Clays.--Clay near Calhan, El Paso County, Colo., by G. B. Richardson, 1911, p. 293-296; Clay resources of the Murphysboro quadrangle, Ill., by E. W. Shaw, 1911, p. 297-301; Notes on some clays from Texas, by Alexander Deussen, 1911, p. 302-351; Survey publications on clays, fuller's earth, etc., 1911, p. 352-353. Gypsum and Plasters.--Gypsum deposits in Eagle County, Colo., by E. F. Burchard, 1911, p. 354-365; Survey publications on gypsum and plasters, 1911, p. 366. Lime and Magnesite.--Survey publications on lime and magnesite, 1911, p. 367. Glass Sand, etc.--Survey publications on glass sand and glass-making materials, 1911, p. 368. Abrasives.--Survey publications on abrasive materials, 1911, p. 369-370.
- *470-H. Phosphates.--Preliminary report on a portion of the Idaho phosphate reserve, by R. W. Richards and G. R. Mansfield, 1911, p. 371-439; Rock phosphate near Melrose, Mont., by H. S. Gale, 1911, p. 440-451; A reconnaissance of the phosphate deposits in western Wyoming, by Eliot Blackwelder, 1911, p. 452-481; Survey publications on phosphates and other mineral fertilizers, 1911, p. 482-483.
- *470-I. Mineral Paints.--Paint shales of Pennsylvania, by B. L. Miller, 1911, p. 485-496; Survey publications on mineral paints, 1911, p. 497. Salines.--Survey publications on salines, including salt, borax, and soda, 1911, p. 498.
- *470-J. Sulphur and Pyrite.--Sulphur deposits near Soda Springs, Idaho, by R. W. Richards and J. H. Bridges, 1911, p. 499-503; Survey publications on sulphur and pyrite, 1911, p. 504.
- *470-K. Miscellaneous Nonmetallic Products.--The types, modes of occurrence, and important deposits of asbestos in the United States, by J. S. Diller, 1911, p. 505-524; Dolomite for flux in the vicinity of Montevallo, Shelby County, Ala., by Charles Butts, 1911, p. 525-527; Graphite near Dillon, Mont., by A. N. Winchell, 1911, p. 528-532; Fluorspar near Deming, N. Mex., by N. H. Darton and

- E. F. Burchard, 1911, p. 533-545; Survey publications on miscellaneous nonmetallic products--Asbestos, barite, feldspar, fluorspar, graphite, mica, quartz, etc., 1911, p. 546-547; Index, 1911, p. 549-558.
(Bulletin 470 was issued as a single volume, Contributions to economic geology (short papers and preliminary reports), 1910, Part I, Metals and nonmetals except fuels, and also as separate chapters, for which pagination of volume has been used above.)
- *471-A. Introduction, 1912, p. 7; The Campton oil pool, Ky., by M. J. Munn, 1912, p. 9-17; Oil and gas development in Knox County, Ky., by M. J. Munn, 1912, p. 18-29; The Fayette gas field, Ala., by M. J. Munn, 1912, p. 30-55; The Powder River oil field, Wyo., by C. H. Wegemann, 1912, p. 56-75; Geology of the San Juan oil field, Utah, by E. G. Woodruff, 1912, p. 76-104; Marsh gas along Grand River near Moab, Utah, by E. G. Woodruff, 1912, p. 105; Preliminary report on the geology and possible oil resources of the south end of the San Joaquin Valley, Calif., by Robert Anderson, 1912, p. 106-136.
This chapter has been reprinted in five separate pamphlets, with the following titles:
*(A-1) Petroleum and natural gas in Kentucky, 1912, p. 9-29.
*(A-2) Petroleum and natural gas in Alabama, 1912, p. 30-55.
*(A-3) Petroleum and natural gas in Wyoming, 1912, p. 56-75.
*(A-4) Petroleum and natural gas in Utah, 1912, p. 76-105.
*(A-5) Petroleum and natural gas in California, 1912, p. 106-136.
- *471-B. Coal on Dan River, N. C., by R. W. Stone, 1912, p. 137-169.
- *471-C. Lignite in the Fort Berthold Indian Reservation, N. Dak., north of Missouri River, by M. A. Pishel, 1912, p. 170-186.
- *471-D. Geology of certain lignite fields in eastern Montana, by W. R. Calvert, 1912, p. 187-201; The Baker lignite field, Custer County, Mont., by C. F. Bowen, 1912, p. 202-226; The Terry lignite field, Custer County, Mont., by F. A. Herald, 1912, p. 227-270; The Glendive lignite field, Dawson County, Mont., by J. H. Hance, 1912, p. 271-283; The Sidney lignite field, Dawson County, Mont., by Eugene Stebinger, 1912, p. 284-318; The Culbertson lignite field, Valley County, Mont., by A. L. Beekly, 1912, p. 319-358.
- *471-E. The southern extension of the Milk River coal field, Chouteau County, Mont., by L. J. Peppenberg, 1912, p. 359-383; The Livingston and Trail Creek coal fields, Park, Gallatin, and Sweetgrass counties, Mont., by W. R. Calvert, 1912, p. 384-405; The Electric coal field, Park County, Mont., by W. R. Calvert, 1912, p. 406-422.
- *471-F. The Little Powder River coal field, Campbell County, Wyo., by J. A. Davis, 1912, p. 423-440; The Sussex coal field, Johnson, Natrona, and Converse counties, Wyo., by C. H. Wegemann, 1912, p. 441-471; The Lost Spring coal field, Converse County, Wyo., by D. E. Winchester, 1912, p. 472-515.
- *471-G. Coal fields of the Wind River region, Fremont and Natrona counties, Wyo., by E. G. Woodruff and D. E. Winchester, 1912, p. 516-564.
- *471-H. The coal resources of Gunnison Valley, Mesa and Delta counties, Colo., by E. G. Woodruff, 1912, p. 565-573; The Tijeras coal field, Bernalillo County, N. Mex., by W. T. Lee, 1912, p. 575-578.
- *471-I. The Deep Creek district of the Vernal coal field, Uintah County, Utah, by C. T. Lupton, 1912, p. 579-594; The Blacktail (Tabby) Mountain coal field, Wasatch County, Utah, by C. T. Lupton, 1912, p. 595-628.
- *471-J. Miscellaneous analyses of coal samples from various fields of the United States, 1912, p. 629-655; Index, 1912, p. 657-663.
(Bulletin 471 was issued as a single volume, Contributions to economic geology (short papers and preliminary reports), 1910, Part II, Mineral fuels, and also as separate chapters, for which pagination of volume has been used above.)
- *472. Results of spirit leveling in South Dakota, 1896 to 1910, inclusive; R. B. Marshall, chief geographer. 1911. 54 p. (See also Bulletin 643.)
- *473. Results of spirit leveling in Kansas and Nebraska, 1896 to 1909, inclusive; R. B. Marshall, chief geographer. 1911. 42 p. (See also Bulletins 571 and 889, Kansas, and 572, Nebraska.)
- *474. Coals of the State of Washington, by E. E. Smith. 1911. 206 p.
- *475. The diffusion of crude petroleum through fuller's earth, with notes on its geologic significance, by J. E. Gilpin and O. E. Bransky. 1911. 50 p.
- *476. Results of spirit leveling in Ohio, 1909 and 1910; R. B. Marshall, chief geographer. 1911. 79 p. (See also Bulletin 651.)
- *477. Results of spirit leveling in West Virginia, 1909 and 1910; R. B. Marshall, chief geographer. 1911. 54 p. (See also Bulletin 632.)
- *478. Geology and ore deposits near Lake City, Colo., by J. D. Irving and Howland Bancroft. 1911. 128 p.
- *479. The geochemical interpretation of water analyses, by Chase Palmer. 1911. 31 p.
- *480-A. Administrative report, by A. H. Brooks, 1911, p. 5-14; Report on progress of surveys of public lands in Alaska during 1910, by A. H. Brooks, 1911, p. 15-20.
- *480-B. The mining industry in 1910, by A. H. Brooks, 1911, p. 21-42.
- *480-C. Geologic features of Alaskan metalliferous lodes, by A. H. Brooks, 1911, p. 43-93.
- *480-D. Mining in southeastern Alaska, by Adolph Knopf, 1911, p. 94-102; The Eagle River region, by Adolph Knopf, 1911, p. 103-111.
- *480-E. The upper Susitna and Chistochina districts, by F. H. Moffit, 1911, p. 112-127.
- *480-F. Preliminary report on a detailed survey of part of the Matanuska coal fields, by G. C. Martin, 1911, p. 128-138; A reconnaissance of the Willow Creek gold region, by F. J. Katz, 1911, p. 139-152.
- *480-G. Placer mining in the Yukon-Tanana region, by C. E. Ellsworth and G. L. Parker, 1911, p. 153-172; Water supply of the Yukon-Tanana region, 1910, by C. E. Ellsworth and G. L. Parker, 1911, p. 173-217.

- *480-H. Mineral resources of the Bonfield region, by S. R. Capps, 1911, p. 218-235.
- *480-I. Gold placer mining developments in the Innoko-Iditarod region, by A. G. Maddren, 1911, p. 236-270.
- *480-J. The Shungnak region, Kobuk Valley, by P. S. Smith and H. M. Eakin, 1911, p. 271-305; The Squirrel River placers, by P. S. Smith, 1911, p. 306-319; Index, 1911, p. 321-325; Recent Survey publications on Alaska, 1911, p. 327-333.
(Bulletin 480 was issued as a single volume, Mineral resources of Alaska, report on progress of investigations in 1910, and also as separate chapters.)
- *481. Results of spirit leveling in California, 1907 to 1910, inclusive; R. B. Marshall, chief geographer. 1911. 115 p. (See also Bulletin 766.)
- *482. Results of spirit leveling in Montana, 1896 to 1910, inclusive; R. B. Marshall, chief geographer. 1911. 154 p.
- *483. Economic geology of Richmond, Va., and vicinity, by N. H. Darton. 1911. 48 p.
- *484. The granites of Connecticut, by T. N. Dale and H. E. Gregory, 1911. 137 p. (See also Bulletin 738.)
- *485. A geologic reconnaissance of the Iliamna region, Alaska, by G. C. Martin and F. J. Katz. 1912. 138 p.
- *486. Results of spirit leveling in Colorado, 1896 to 1910, inclusive; R. B. Marshall, chief geographer. 1911. 107 p. (See also Bulletin 565.)
- *487. Results of spirit leveling in Idaho, 1896 to 1909, inclusive; R. B. Marshall, chief geographer. 1911. 46 p. (See also Bulletin 567.)
- *488. Results of spirit leveling in Nevada, 1897 to 1909, inclusive; R. B. Marshall, chief geographer. 1911. 28 p. (See also Bulletin 654.)
- *489. Results of spirit leveling in Utah, 1897 to 1910, inclusive; R. B. Marshall, chief geographer. 1911. 38 p. (See also Bulletin 566.)
- *490. Mineralogical notes, series 1, by W. T. Schaller. 1911. 109 p.
- *491. The data of geochemistry (second edition), by F. W. Clarke. 1911. 782 p. (See also Bulletins 616, 695, and 770.)
- *492. The gabbros and associated rocks at Preston, Conn., by G. F. Loughlin, 1912. 158 p.
- *493. Results of spirit leveling in Illinois, 1909 and 1910; R. B. Marshall, chief geographer. 1911. 115 p. (See also Bulletins 421, 553, 672 and 930-A, B, C, and D.)
- *494. The New Madrid earthquake, by M. L. Fuller. 1912. 119 p.
- *495. Bibliography of North American geology for 1910, with subject index, by J. M. Nickles. 1911. 179 p.
- *496. Results of triangulation and primary traverse for the years 1909 and 1910; R. B. Marshall, chief geographer. 1912. 392 p.
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- *503. Iron-ore deposits of the Eagle Mountains, Calif., by E. C. Harder. 1912. 81 p.
- *504. The Sitka mining district, Alaska, by Adolph Knopf. 1912. 32 p.
- *505. Mining laws of Australia and New Zealand, by A. C. Veatch, with a preface, by W. L. Fisher, Secretary of the Interior. 1911. 180 p.
- *506. Geology and mineral resources of the Peoria quadrangle, Ill., by J. A. Uddeh. 1912. 103 p.
- *507. The mining districts of the Western United States, by J. M. Hill, with a geologic introduction, by Waldemar Lindgren. 1912. 309 p.
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- *515. Results of spirit leveling in Pennsylvania, 1899 to 1911, inclusive; R. B. Marshall, chief geographer. 1912. 164 p.
- *516. Results of spirit leveling in Florida, 1911; R. B. Marshall, chief geographer. 1912. 24 p.
- *517. Results of spirit leveling in Alabama, 1911; R. B. Marshall, chief geographer. 1912. 38 p.
- *518. Results of spirit leveling in Ohio, 1911; R. B. Marshall, chief geographer. 1912. 108 p. (See also Bulletin 651.)
- *519. Results of spirit leveling in Tennessee, 1910 and 1911; R. B. Marshall, chief geographer. 1912. 45 p.
- *520-A. Preface, by A. H. Brooks, 1912, p. 5-6; Administrative report, by A. H. Brooks, 1912, p. 7-16; The mining industry in 1911, by A. H. Brooks, 1912, p. 17-44; Railway routes from the Pacific seaboard to Fairbanks, by A. H. Brooks, 1912, p. 45-88; Recent Survey publications on Alaska, 1912, p. 353-360.

- *520-B. Tin resources of Alaska, by F. L. Hess, 1912, p. 89-92.
- *520-C. The Taral and Bremner River districts, by F. H. Moffit, 1912, p. 93-104; The Chitina copper district, by F. H. Moffit, 1912, p. 105-107.
- *520-D. Gold deposits near Valdez, by A. H. Brooks, 1912, p. 108-130.
- *520-E. Gold deposits of the Seward-Sunrise region, Kenai Peninsula, by B. L. Johnson, 1912, p. 131-173.
- *520-F. Gold placers of the Yentna district, by S. R. Capps, 1912, p. 174-200.
- *520-G. Gold placers between Woodchopper and Fourth of July Creeks, upper Yukon River, by L. M. Prindle and J. B. Mertie, Jr., 1912, p. 201-210.
- *520-H. Placer mining in the Fortymile, Eagle, and Seventymile River districts, by E. A. Porter, 1912, p. 211-218; Water supply of the Fortymile, Seventymile, and Eagle districts, by E. A. Porter, 1912, p. 219-239; Placer mining in the Fairbanks and Circle districts, by C. E. Ellsworth, 1912, p. 240-245; Water supply of the Fairbanks, Salchaket, and Circle districts, by C. E. Ellsworth, 1912, p. 246-270.
- *520-I. The Rampart and Hot Springs regions, by H. M. Eakin, 1912, p. 271-286.
- *520-J. The Ruby placer district, by A. G. Maddren, 1912, p. 287-296.
- *520-K. Geologic investigations along the Canada-Alaska boundary, by A. G. Maddren, 1912, p. 297-314.
- *520-L. The Alatna-Noatak region, by P. S. Smith, 1912, p. 315-338.
- *520-M. Notes on mining in Seward Peninsula, by P. S. Smith, 1912, p. 339-344; Index, 1912, p. 345-352. (Bulletin 520 was issued as a single volume, Mineral resources of Alaska, report on progress of investigations in 1911, and also as separate chapters, for which pagination of volume has been used above.)
- *521. The commercial marbles of western Vermont, by T. N. Dale, 1912, 170 p.
- *522. Portland cement materials and industry in the United States, by E. C. Eckel, with contributions, by E. F. Burchard and others, 1913, 401 p.
- *523. Nitrate deposits, by H. S. Gale, 1912, 36 p. (See also Bulletin 838.)
- *524. Bibliography of North American geology for 1911, with subject index, by J. M. Nickles, 1912, 162 p.
- *525. A geologic reconnaissance of the Fairbanks quadrangle, Alaska, by L. M. Prindle, with a detailed description of the Fairbanks district, by L. M. Prindle and F. J. Katz, and an account of lode mining near Fairbanks, by P. S. Smith, 1913, 220 p.
- *526. Coastal glaciers of Prince William Sound and Kenai Peninsula, Alaska, by U. S. Grant and D. F. Higgins, 1913, 75 p.
- *527. Ore deposits of the Helena mining region, Mont., by Adolph Knopf, 1913, 143 p.
- *528. Geology and ore deposits of Lemhi County, Idaho, by J. B. Umpleby, 1913, 182 p.
- *529. The enrichment of sulphide ores, by W. H. Emmons, 1913, 260 p. (See also Bulletin 625.)
- *530. Contributions to economic geology (short papers and preliminary reports), 1911, Part I, Metals and nonmetals except fuels; Waldemar Lindgren, chief geologist, 1913, 400 p. [This bulletin was issued as a single volume and also as chapters, which failed to follow any systematic page or subject arrangement. The small letters used here are not chapter letters but rather have been assigned to facilitate the indexing and follow the pagination of the volume.]
- *a. Introduction, 1913, p. 7-8; Gold and Silver.--Notes on the gold lodes of the Carrville district, Trinity County, Calif., by D. F. MacDonald, 1913, p. 9-41; A preliminary report on the geology and ore deposits of Creede, Colo., by W. H. Emmons and E. S. Larsen, Jr., 1913, p. 42-65; A preliminary account of the ore deposits of the Loon Creek district, Idaho, by J. B. Umpleby, 1913, p. 66-74; Geology of the St. Joe-Clearwater region, Idaho, by F. C. Calkins and E. L. Jones, Jr., 1913, p. 75-86; Notes on the Antelope district, Nev., by F. C. Schrader, 1913, p. 87-98; Notes on the northern La Sal Mountains, Grand County, Utah, by J. M. Hill, 1913, p. 99-118; Survey publications on gold and silver, 1913, p. 119-124.
- *b. Copper.--The Turquoise copper-mining district, Ariz., by F. L. Ransome, 1913, p. 125-134; Survey publications on copper, 1913, p. 135-137; Lead and Zinc.--Survey publications on lead and zinc, 1913, p. 138-141.
- *c. Rare Metals.--Notes on the vanadium deposits near Placerville, Colo., by F. L. Hess, 1913, p. 142-156; Vanadium in the Sierra de los Caballos, N. Mex., by F. L. Hess, 1913, p. 157-160; Carnotite near Green River, Utah, by F. L. Hess, 1913, p. 161-164; Zirconiferous sandstone near Ashland, Va., by T. L. Watson and F. L. Hess, 1913, p. 165-171; Survey publications on antimony, chromium, monazite, nickel, platinum, quicksilver, tin, tungsten, uranium, vanadium, etc., 1913, p. 172-174; Iron and Manganese.--Survey publications on iron and manganese ores, 1913, p. 175-178.
- *d. Aluminum Ores.--Alunite in the San Cristobal quadrangle, Colo., by E. S. Larsen, Jr., 1913, p. 179-183; Survey publications on aluminum ores-bauxite, cryolite, etc., 1913, p. 184.
- *e. Structural Materials.--Notes on the clays of Delaware, by G. C. Matson, 1913, p. 185-201; Clay in the Portland region, Maine, by F. J. Katz, 1913, p. 202-206; Developed deposits of fuller's earth in Arkansas, by H. D. Miser, 1913, p. 207-219; Gypsum along the west flank of the San Rafael Swell, Utah, by C. T. Lupton, 1913, p. 221-231; Geology of the salt and gypsum deposits of southwestern Virginia, by G. W. Stose, 1913, p. 232-255; Survey publications on building stone and road metal, 1913, p. 256-257; Survey publications on cement and concrete materials, 1913, p. 258-259; Survey publications on clays, etc., 1913, p. 260-261; Survey publications on gypsum and plasters, 1913, p. 262; Survey publications on glass sand and glass-making materials, 1913, p. 263; Survey publications on lime and magnesite, 1913, p. 264; Survey publications on asphalt, 1913, p. 265; Survey publications on abrasive materials, 1913, p. 266.
- *f. Phosphates.--A geologic reconnaissance in southeastern Idaho, by A. R. Schultz and R. W. Richards, 1913, p. 267-284; Some further discoveries of rock phosphate in Montana, by J. T. Pardee, 1913, p. 285-291; Survey publications on phosphates and other mineral fertilizers, 1913, p. 292-293; Mineral Paints.--Survey publications on mineral paint, 1913, p. 294.

- *g. Salines.--The search for potash in the United States--a report of progress, by H. S. Gale. (Revision published in volume as "The search for potash in the desert basin region," 1913, p. 295-312.); The occurrence of potash salts in the bitterns of the eastern United States, 1913, by W. C. Phalen, 1913, p. 313-329; Exploration of salines in Silver Peak Marsh, Nev., by R. B. Dole, 1913, p. 330-345; Survey publications on salines, including salt, borax, and soda, 1913, p. 346.
- *h. Sulphur and Pyrite.--A sulphur deposit in the San Rafael Canyon, Utah, by F. L. Hess, 1913, p. 347-349; Sulphur deposits of Sunlight Basin, Wyo., by D. F. Hewett, 1913, p. 350-362; Two sulphur deposits in Mineral County, Colo., by E. S. Larsen, Jr. and J. F. Hunter, 1913, p. 363-369; Survey publications on sulphur and pyrite, 1913, p. 370.
- *i. Miscellaneous Nonmetallic Products.--Graphite near Raton, N. Mex., by W. T. Lee, 1913, p. 371-374; Mica in Idaho, New Mexico, and Colorado, by D. B. Sterrett, 1913, p. 375-390; Survey publications on miscellaneous nonmetallic products, asbestos, barite, feldspar, fluorspar, graphite, mica, quartz, etc., 1913, p. 391-392; Index, 1913, p. 393-400.
- *531-A. Petroleum and Natural Gas.--Introduction, 1913, p. 7; The Menifee gas field and the Ragland oil field, Ky., by M. J. Munn, 1913, p. 9-26.
- *531-B. Oil and gas development in north-central Oklahoma, by R. H. Wood, 1913, p. 27-53.
- *531-C. Geology and petroleum resources of the De Beque oil field, Colo., by E. G. Woodruff, 1913, p. 54-68.
- *531-D. Geologic structure of the Punxsutawney, Curwensville, Houtzdale, Barnesboro, and Patton quadrangles, central Pennsylvania, by G. H. Ashley and M. R. Campbell, 1913, p. 69-89.
- *531-E. Coal and Lignite.--The Williston lignite field, Williams County, N. Dak., by F. A. Herald, 1913, p. 91-157.
- *531-F. The Little Sheep Mountain coal field, Dawson, Custer, and Rosebud counties, Mont., by G. S. Rogers, 1913, p. 159-227.
- *531-G. Coal in the Tertiary lake beds of southwestern Montana, by J. T. Pardee, 1913, p. 229-244.
- *531-H. Coal at Horseshoe Bend and Jerusalem Valley, Boise County, Idaho, by C. F. Bowen, 1913, p. 245-251; Lignite in the Goose Creek district, Cassia County, Idaho, by C. F. Bowen, 1913, p. 252-262.
- *531-I. The Barber coal field, Johnson County, Wyo., by C. H. Wegemann, 1913, p. 263-284.
- *531-J. The Cerrillos coal field, Santa Fe County, N. Mex., by W. T. Lee, 1913, p. 285-312.
- *531-K. The Coaldale coal field, Esmeralda County, Nev., by J. H. Hance, 1913, p. 313-322.
- *531-L. Coal resources of Cowlitz River valley, Cowlitz and Lewis counties, Wash., by A. J. Collier, 1913, p. 323-330.
- *531-M. Miscellaneous analyses of coal samples from various fields of the United States, 1913, p. 331-355; Index, 1913, p. 357-361.
(Bulletin 531 was issued as a single volume, Contributions to economic geology (short papers and preliminary reports), 1911, Part II, Mineral fuels, and also as separate chapters, for which pagination of volume has been used above.)
- *532. The Koyukuk-Chandalar region, Alaska, by A. G. Maddren, 1913, 119 p.
- *533. Geology of the Nome and Grand Central quadrangles, Alaska, by F. H. Moffit, 1913, 140 p.
- *534. The Yentna district, Alaska, by S. R. Capps, 1913, 75 p.
- *535. A geologic reconnaissance of a part of the Rampart quadrangle, Alaska, by H. M. Eakin, 1913, 38 p.
- *536. The Noatak-Kobuk region, Alaska, by P. S. Smith, 1913, 160 p.
- *537. The classification of the public lands, by G. O. Smith and others, 1913, 197 p.
- *538. A geologic reconnaissance of the Circle quadrangle, Alaska, by L. M. Prindle, 1913, 82 p.
- *539. Some ore deposits in northwestern Custer County, Idaho, by J. B. Umpleby, 1913, 104 p.
- *540-A. Gold and Silver.--Introduction, 1914, p. 9-10; Auriferous gravels in the Weaverville quadrangle, Calif., by J. S. Diller, 1914, p. 11-21; Gold lodes of the Weaverville quadrangle, Calif., by H. G. Ferguson, 1914, p. 22-79.
- *540-B. Mineral resources of the Inyo and White mountains, Calif., by Adolph Knopf, 1914, p. 81-120.
- *540-C. The ore deposits of Kirwin, Wyo., by D. F. Hewett, 1914, p. 121-132; Survey publications on gold and silver, 1914, p. 133-138.
- *540-D. Copper.--Copper deposits near Superior, Ariz., by F. L. Ransome, 1914, p. 139-158; Copper deposits of the White Mesa district, Ariz., by J. M. Hill, 1914, p. 159-163; Survey publications on copper, 1914, p. 164-166.
- *540-E. Lead and Zinc.--Economic geology of the region around Mullan, Idaho, and Salsate, Mont., by F. C. Calkins and E. L. Jones, Jr., 1914, p. 167-211; The lead-silver deposits of the Dome district, Idaho, by J. B. Umpleby, 1914, p. 212-222.
- *540-F. The Yellow Pine mining district, Clark County, Nev., by J. M. Hill, 1914, p. 223-274; Survey publications on lead and zinc, 1914, p. 275-278.
- *540-G. Iron and Manganese.--Preliminary report on the red iron ores of east Tennessee, northeast Alabama, and northwest Georgia, by E. F. Burchard, 1914, p. 279-328.
- *540-H. Titaniferous magnetite beds on the Blackfoot Indian Reservation, Mont., by Eugene Stebinger, 1914, p. 329-337; Recent discoveries of "Clinton" iron ore in eastern Wisconsin, by F. T. Thwaites, 1914, p. 338-342; Survey publications on iron and manganese ores, 1914, p. 343-345.
- *540-I. Aluminum Ores.--Alunite in granite porphyry near Patagonia, Ariz., by F. C. Schrader, 1914, p. 347-350; Alunite at Bovard, Nev., by F. C. Schrader, 1914, p. 351-356; Survey publications on aluminum ores--bauxite, cryolite, etc., 1914, p. 357.
- *540-J. Omitted.
- *540-K. Structural Materials, etc.--The Aberdeen granite quarry near Gunnison, Colo., by J. F. Hunter, 1914, p. 359-362; Ornamental marble near Barstow, Calif., by R. W. Pack, 1914, p. 363-368; Clay in northeastern Montana, by C. M. Bauer, 1914, p. 369-372; Survey publications on building stone

- and road metal, 1914, p. 373-374; Survey publications on cement and cement and concrete materials, 1914, p. 375-376; Survey publications on clays, fuller's earth, etc., 1914, p. 377-379; Survey publications on gypsum and plasters, 1914, p. 380; Survey publications on glass sand and glass-making materials, 1914, p. 381; Survey publications on lime and magnesite, 1914, p. 382.
- *540-L. Phosphate Rock.--Phosphate deposits in southwestern Virginia, by G. W. Stose, 1914, p. 383-396; Survey publications on phosphates and other mineral fertilizers, 1914, p. 397-398.
- *540-M. Omitted.
- *540-N. Salines.--Notes on the Quaternary lakes of the Great Basin, with special reference to the deposition of potash and other salines, by H. S. Gale, 1914, p. 399-406; Prospecting for potash in Death Valley, Calif., by H. S. Gale, 1914, p. 407-415; Salt, borax, and potash in Saline Valley, Inyo County, Calif., by H. S. Gale, 1914, p. 416-421; Potash tests at Columbus Marsh, Nev., by H. S. Gale, 1914, p. 422-427; Sodium sulphate in the Carrizo Plain, San Luis Obispo County, Calif., by H. S. Gale, 1914, p. 428-433.
- *540-O. Borate deposits in Ventura County, Calif., by H. S. Gale, 1914, p. 434-456.
- *540-P. Potash in western saline deposits, by J. H. Hance, 1914, p. 457-469.
- *540-Q. Niter near Melrose, Mont., by R. W. Richards, 1914, p. 470-473; Survey publications on salines, including salt, borax, and soda, 1914, p. 474-475.
- *540-R. Sulphur and Pyrite.--Sulphur deposits in Park County, Wyo., by D. F. Hewett, 1914, p. 477-480; Survey publications on sulphur and pyrite, 1914, p. 481.
- *540-S. Late developments of magnesite deposits in California and Nevada, by H. S. Gale, 1914, p. 483-520.
- *540-T. Celestite deposits in California and Arizona, by W. C. Phalen, 1914, p. 521-533.
- *540-U. New areas of diamond-bearing peridotite in Arkansas, by H. D. Miser, 1914, p. 534-546; Survey publications on antimony, chromium, monazite, nickel, platinum, quicksilver, tin, tungsten, uranium, vanadium, etc., 1914, p. 547-549; Survey publications on asphalt, 1914, p. 550; Survey publications on abrasive materials, 1914, p. 551; Survey publications on mineral paint, 1914, p. 552; Survey publications on miscellaneous nonmetallic products--asbestos, barite, feldspar, fluorspar, graphite, mica, quartz, etc., 1914, p. 553-554; Index, 1914, p. 555-563.
(Bulletin 540 was issued as a single volume, Contributions to economic geology (short papers and preliminary reports), 1912, Part I, Metals and nonmetals except fuels, and also as separate chapters, for which pagination of volume has been used above.)
- *541-A. Introduction, 1914, p. 7; Oil and gas in the northern part of the Cadiz quadrangle, Ohio, by D. D. Condit, 1914, p. 9-17; Gas from mud lumps at the mouths of the Mississippi, by E. W. Shaw, 1914, p. 19-22.
- *541-B. Structure of the Fort Smith-Poteau gas field, Ark. and Okla., by C. D. Smith, 1914, p. 23-33; The Glenn oil and gas pool and vicinity, Okla., by C. D. Smith, 1914, p. 34-48.
- *541-C. The Douglas oil and gas field, Converse County, Wyo., by V. H. Barnett, 1914, p. 49-88; The Shoshone River section, Wyo., by D. F. Hewett, 1914, p. 89-113.
- *541-D. Oil and gas near Green River, Grand County, Utah, by C. T. Lupton, 1914, p. 115-133; Petroleum near Dayton, N. Mex., by G. B. Richardson, 1914, p. 135-140.
- *541-E. Reconnaissance of the Barstow-Kramer region, Calif., by R. W. Pack, 1914, p. 141-154.
- *541-F. Rhode Island anthracite, by G. H. Ashley, 1914, p. 155-162; Coking coal in Powell Mountain, Scott County, Va., by M. R. Campbell, 1914, p. 163-164; The coal resources and general geology of the Pound quadrangle of Virginia and Kentucky, by Charles Butts, 1914, p. 165-221; The coal resources of a part of northeastern Missouri, by F. C. Greene, 1914, p. 223-242.
- *541-G. The Cannonball River lignite field, Morton, Adams, and Mettinger counties, N. Dak., by E. R. Lloyd, 1914, p. 243-291.
- *541-H. Lignite in the vicinity of Plentywood and Scobey, Sheridan County, Mont., by C. M. Bauer, 1914, p. 293-315; Geology and coal resources of the area southwest of Custer, Yellowstone and Bighorn counties, Mont., by G. S. Rogers, 1914, p. 316-328; Coal discovered in a reconnaissance survey between Musselshell and Judith, Mont., by C. F. Bowen, 1914, p. 338-355; The Big Sandy coal field, Chouteau County, Mont., by C. F. Bowen, 1914, p. 356-378.
- *541-I. The Horseshoe Creek district of the Teton Basin coal field, Fremont County, Idaho, by E. G. Woodruff, 1914, p. 379-388; The Glacier coal field, Whatcom County, Wash., by E. G. Woodruff, 1914, p. 389-398; The Eden Ridge coal field, Coos County, Oreg., by C. E. Leshner, 1914, p. 399-418.
- *541-J. Geology and coal resources of the Sierra Blanca coal field, Lincoln and Otero counties, N. Mex., by C. H. Wegemann, 1914, p. 419-452; Coal near Thompson, Grand County, Utah, by F. R. Clark, 1914, p. 453-477; Coal near Wales, Sanpete County, Utah, by F. R. Clark, 1914, p. 478-489.
- *541-K. Analyses of coal samples from various fields of the United States, by M. R. Campbell, 1914, p. 491-526; Index, 1914, p. 527-532.
(Bulletin 541 was issued as a single volume, Contributions to economic geology (short papers and preliminary reports), 1912, Part II, Mineral fuels, and also as separate chapters, for which pagination of volume has been used above.)
- *542-A. Preface, by A. H. Brooks, 1913, p. 5-6; Administrative report, by A. H. Brooks, 1913, p. 7-17; The mining industry in 1912, by A. H. Brooks, 1913, p. 18-51.
- *542-B. Marble resources of Ketchikan and Wrangell districts, by E. F. Burchard, 1913, p. 52-77.
- *542-C. The McKinley Lake district, by Theodore Chapin, 1913, p. 78-80; Mining in Chitina Valley, by F. H. Moffit, 1913, p. 81-85.
- *542-D. Mineral deposits of the Ellamar district, by S. R. Capps and B. L. Johnson, 1913, p. 86-124.
- *542-E. Mineral deposits of Kodiak and the neighboring islands, by G. C. Martin, 1913, p. 125-136.

- *542-F. Lode mining near Fairbanks, by P. S. Smith, 1913, p. 137-202; Placer mining in the Yukon-Tanana region, by C. E. Ellsworth and R. W. Davenport, 1913, p. 203-222; Water supply of the Yukon-Tanana region, 1912, by C. E. Ellsworth and R. W. Davenport, 1913, p. 223-278.
- *542-G. Gold placers of the Ruby district, by H. M. Eakin, 1913, p. 279-292; Gold placers of the Innok-Iditarod region, by H. M. Eakin, 1913, p. 293-303; Index, 1913, p. 305-308. (Bulletin 542 was issued as a single volume, Mineral resources of Alaska, report on progress of investigations in 1912, and also as separate chapters.)
- *543. Geology and geography of a portion of Lincoln County, Wyo., by A. R. Schultz. 1914. 141 p.
- *544. Fauna of the Wewoka formation of Oklahoma, by G. H. Girty. 1915. 353 p.
- *545. Bibliography of North Americangeology for 1912, with subject index, by J. M. Nickles. 1913. 192 p.
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- *549. The Shinumo quadrangle, Grand Canyon district, Ariz., by L. F. Noble. 1914. 100 p.
- *550. The ore deposits of northeastern Washington, by Howland Bancroft, including a section on the Republic mining district, by Waldemar Lindgren and Howland Bancroft. 1914. 215 p.
- *551. Results of triangulation and primary traverse, 1911 and 1912; R. B. Marshall, chief geographer. 1914. 396 p.
- *552. Results of triangulation and primary traverse in Ohio, 1898 to 1911, inclusive; R. B. Marshall, chief geographer. 1914. 232 p.
- *553. Results of spirit leveling in Illinois, 1911 to 1913, inclusive; R. B. Marshall, chief geographer. 1914. 110 p. (See also Bulletin 930.)
- *554. Results of spirit leveling in Kentucky, 1898 to 1913, inclusive; R. B. Marshall, chief geographer. 1914. 184 p. (See also Bulletin 673.)
- *555. Results of spirit leveling in Indiana, 1897 to 1911, inclusive; R. B. Marshall, chief geographer. 1913. 51 p.
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- *557. Results of spirit leveling in the State of Washington, 1896 to 1913, inclusive; R. B. Marshall, chief geographer. 1914. 178 p. (See also Bulletin 674.)
- *558. Results of spirit leveling in Wyoming, 1896 to 1912, inclusive; R. B. Marshall, chief geographer. 1914. 148 p.
- *559. Results of spirit leveling in Michigan, 1911 and 1913; R. B. Marshall, chief geographer. 1914. 79 p. (See also Bulletin 461.)
- *560. Results of spirit leveling in Minnesota, 1897 to 1914, inclusive; R. B. Marshall, chief geographer. 1915. 190 p.
- *561. Results of spirit leveling in Hawaii, 1910 to 1913, inclusive; R. B. Marshall, chief geographer. 1914. 42 p.
- *562. Results of spirit leveling in Virginia, 1900 to 1913, inclusive; R. B. Marshall, chief geographer. 1914. 68 p.
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- *565. Results of spirit leveling in Colorado, 1896 to 1914, inclusive; R. B. Marshall, chief geographer. 1915. 192 p.
- *566. Results of spirit leveling in Utah, 1897 to 1914, inclusive; R. B. Marshall, chief geographer. 1915. 77 p. (See also Bulletin 912.)
- *567. Results of spirit leveling in Idaho, 1896 to 1914, inclusive; R. B. Marshall, chief geographer. 1915. 130 p.
- *568. Results of spirit leveling in Missouri, 1896 to 1914, inclusive; R. B. Marshall, chief geographer. 1915. 219 p. (See also Bulletin 898.)
- *569. Results of spirit leveling in Iowa, 1896 to 1913, inclusive; R. B. Marshall, chief geographer. 1915. 126 p.
- *570. Results of spirit leveling in Wisconsin, 1897 to 1914, inclusive; R. B. Marshall, chief geographer. 1914. 86 p.
- *571. Results of spirit leveling in Kansas, 1896 to 1913, inclusive; R. B. Marshall, chief geographer. 1914. 47 p.
- *572. Results of spirit leveling in Nebraska, 1896 to 1913, inclusive; R. B. Marshall, chief geographer. 1914. 57 p.
- *573. Results of spirit leveling in Arizona, 1899 to 1915, inclusive; R. B. Marshall, chief geographer. 1915. 123 p.
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- *580-A. The Darwin silver-lead mining district, Calif., by Adolph Knopf, 1915, p. 1-18.

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- *580-H. Carnotite near Mauch Chunk, Pa., by E. T. Wherry, 1915, p. 147-151.
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- *580-K. Ore deposits in the Sawtooth quadrangle, Blaine and Custer Counties, Idaho, by J. B. Umpleby, 1915, p. 221-249.
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- *580-N. The Elliston phosphate field, Mont., by R. W. Stone and C. A. Bonine, 1915, p. 373-383.
- *580-O. The rutile deposits of the eastern United States, by T. L. Watson, 1915, p. 385-412.
- *580-P. Publications by Survey authors on metals and nonmetals except fuels, compiled by I. P. Evans, 1915, p. 413-455; Index, 1915, p. 457-462.
(Bulletin 580 was issued as a single volume, Contributions to economic geology (short papers and preliminary reports), 1913, Part I, Metals and nonmetals except fuels, and also as separate chapters.)
- *581-A. Oil shale of northwestern Colorado and northeastern Utah, by E. G. Woodruff and D. T. Day, 1915, p. 1-21.
- *581-B. Oil and gas in the western part of the Olympic Peninsula, Wash., by C. T. Lupton, 1915, p. 23-81.
- *581-C. The Moorcroft oil field, Crook County, Wyo., by V. H. Barnett, 1915, p. 83-104; Possibilities of oil in the Big Muddy dome, Converse and Natrona counties, Wyo., by V. H. Barnett, 1915, p. 105-117.
- *581-D. Geology and oil prospects of Waltham, Priest, Bitterwater, and Peachtree Valleys, Calif., by R. W. Pack and W. A. English, 1915, p. 119-160.
- *581-E. The Coalville coal field, Utah, by C. H. Wegemann, 1915, p. 161-184; Index, 1915, p. 185-187; i-iv (including title page, contents, and list of illustrations of volume).
(Bulletin 581 was issued as a single volume, Contributions to economic geology (short papers and preliminary reports), 1913, Part II, Mineral fuels, and also as separate chapters.)
- *582. Mineral deposits of the Santa Rita and Patagonia Mountains, Ariz., by F. C. Schrader, with contributions, by J. M. Hill, 1915, 373 p.
- *583. Colorado ferberite and the wolframite series, by F. L. Hess and W. T. Schaller, 1914, 75 p.
- *584. Bibliography of North American geology for 1913, with subject index, by J. M. Nickles, 1914, 183 p.
- *585. Useful minerals of the United States, compiled by Samuel Sanford and R. W. Stone, 1914, 250 p. (See also Bulletin 624.)
- *586. Slate in the United States, by T. N. Dale and others, 1914, 220 p.
- *587. Geology and mineral resources of Kenai Peninsula, Alaska, by G. C. Martin, B. L. Johnson, and U. S. Grant, 1915, 243 p.
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- *591. Analyses of rocks and minerals from the laboratory of the United States Geological Survey, 1880 to 1914, tabulated by F. W. Clarke, chief chemist, 1915, 376 p.
- *592-A. Preface, by A. H. Brooks, 1914, p. 5-6; Administrative report, by A. H. Brooks, 1914, p. 7-17; The mineral deposits of Alaska, by A. H. Brooks, 1914, p. 18-44; The Alaskan mining industry in 1913, by A. H. Brooks, 1914, p. 45-74; Recent Survey publications on Alaska, 1914, p. i-xi.
- *592-B. Lode mining in the Ketchikan region, by P. S. Smith, 1914, p. 75-94.
- *592-C. Marble resources of the Juneau, Skagway, and Sitka districts, by E. F. Burchard, 1914, p. 95-107.
- *592-D. A barite deposit near Wrangell, by E. F. Burchard, 1914, p. 109-117.
- *592-E. Mineral deposits of the Yakataga district, by A. G. Maddren, 1914, p. 119-153.
- *592-F. Preliminary report on a water-power reconnaissance in south-central Alaska, by C. E. Ellsworth and R. W. Davenport, 1914, p. 155-193.
- *592-G. The Port Wells gold-lode district, by B. L. Johnson, 1914, p. 195-236; Mining on Prince William Sound, by B. L. Johnson, 1914, p. 237-243.
- *592-H. Gold lodes and placers of the Willow Creek district, by S. R. Capps, 1914, p. 245-272; Mineral resources of the upper Matanuska and Nelchina valleys, by G. C. Martin and J. B. Mertie, Jr., 1914, p. 273-299; Preliminary report on the Broad Pass region, by F. H. Moffit, 1914, p. 301-305; Mining in the Valdez Creek placer district, by F. H. Moffit, 1914, p. 307-308.
- *592-I. The Chisana placer district, by A. H. Brooks, 1914, p. 309-320.
- *592-J. Lode mining near Fairbanks, by Theodore Chapin, 1914, p. 321-355; Placer mining in the Yukon-Tanana region, by Theodore Chapin, 1914, p. 357-362; Placer mining in the Ruby district, by H. M. Eakin, 1914, p. 363-369.
- *592-K. Mineral resources of the Yukon-Koyukuk region, by H. M. Eakin, 1914, p. 371-384.
- *592-L. Placer mining on Seward Peninsula, by Theodore Chapin, 1914, p. 385-395; Lode developments on Seward Peninsula, by Theodore Chapin, 1914, p. 397-407; Index, 1914, p. 409-413.
(Bulletin 592 was issued as a single volume, Mineral resources of Alaska, report on progress of investigations in 1913, and also as separate chapters.)

- *593. The fauna of the Batesville sandstone of northern Arkansas, by G. H. Girty. 1915. 170 p.
- *594. Some mining districts in northeastern California and northwestern Nevada, by J. M. Hill. 1915. 200 p.
- *595. Fauna of the so-called Boone chert near Batesville, Ark., by G. H. Girty. 1915. 45 p.
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- *599. Our mineral reserves--how to make America industrially independent, by G. O. Smith. 1914. 48 p.
- *600. The Glacier National Park, a popular guide to its geology and scenery, by M. R. Campbell. 1914. 54 p.
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- *610. Mineralogic notes, series 3, by W. T. Schaller. 1916. 164 p.
- *611. Guidebook of the western United States, Part A, The Northern Pacific Route, with a side trip to Yellowstone Park, by M. R. Campbell and others. 1915. 218 p., 27 route maps.
- *612. Guidebook of the western United States, Part B, The Overland Route, with a side trip to Yellowstone Park, by W. T. Lee, R. W. Stone, H. S. Gale, and others. 1915. 244 p., 29 route maps.
- *613. Guidebook of the western United States, Part C, The Santa Fe Route, with a side trip to the Grand Canyon of the Colorado, by N. H. Darton and others. 1915. 200 p., 25 route maps.
- *614. Guidebook of the western United States, Part D, The Shasta Route and Coast Line, by J. S. Diller and others. 1915. 142 p., 19 route maps.
- *615. Rhode Island coal, by G. H. Ashley. 1915. 62 p.
- *616. The data of geochemistry (third edition), by F. W. Clarke. 1916. 821 p. (See also Bulletins 695 and 770.)
- *617. Bibliography of North American geology for 1914, with subject index, by J. M. Nickles. 1915. 167 p.
- *618. Geology and underground water of Luna County, N. Mex., by N. H. Darton. 1916. 188 p.
- *619. The Caddo oil and gas field, Louisiana and Texas, by G. C. Matson. 1916. 62 p.
- *620-A. A gold-platinum-palladium lode in southern Nevada, by Adolph Knopf, 1916, p. 1-18.
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- *620-C. Gold deposits near Quartzsite, Ariz., by E. L. Jones, Jr., 1916, p. 45-57.
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- *620-H. A reconnaissance in the Kofa Mountains, Ariz., by E. L. Jones, Jr., 1916, p. 151-164.
- *620-I. A reconnaissance of the Cottonwood-American Fork mining region, Utah, by B. S. Butler and G. F. Loughlin, with notes on history and production, by V. C. Heikes, 1916, p. 165-226.
- *620-J. Potash in certain copper and gold ores, compiled by B. S. Butler, with a note on muscovite, by George Steiger, 1916, p. 227-236.
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- *620-L. Notes on the fine gold of Snake River, Idaho, by J. M. Hill, 1916, p. 271-294.
- *620-M. Preliminary report on the economic geology of Gilpin County, Colo., by E. S. Bastin and J. M. Hill, 1916, p. 295-323.
- *620-N. The Aztec gold mine, Baldy, N. Mex., by W. T. Lee, 1916, p. 325-330.
- *620-O. A reconnaissance for phosphate in the Salt River Range, Wyo., by G. R. Mansfield, 1916, p. 331-349.
- *620-P. Cassiterite in San Diego County, Calif., by W. T. Schaller, 1916, p. 351-354; Index, 1916, p. 355-361.
- (Bulletin 620 was issued as a single volume, Contributions to economic geology (short papers and preliminary reports), 1915, Part I, Metals and nonmetals except fuels, and also as separate chapters.)
- *621-A. Field apparatus for determining ash in coal, by C. E. Leshner, 1916, p. 1-12.
- *621-B. The Healdton oil field, Carter County, Okla., by C. H. Wegemann and K. C. Heald, 1916, p. 13-30.
- *621-C. The Loco gas field, Stephens and Jefferson counties, Okla., by C. H. Wegemann, 1916, p. 31-42.
- *621-D. The Duncan gas field, Stephens County, Okla., by C. H. Wegemann, 1916, p. 43-50.
- *621-E. A reconnaissance in Palo Pinto County, Tex., with special reference to oil and gas, by C. H. Wegemann, 1916, p. 51-59.

- *621-F. Possibilities of oil in the Porcupine dome, Rosebud County, Mont., by C. F. Bowen, 1916, p. 61-70.
- *621-G. The Lawton oil and gas field, Okla., by C. H. Wegemann and R. W. Howell, 1916, p. 71-85.
- *621-H. Anticlines in the Clinton sand near Wooster, Wayne County, Ohio, by C. A. Bonine, 1916, p. 87-98.
- *621-I. The Orofino coal field, Clearwater, Lewis, and Idaho counties, Idaho, by C. T. Lupton, 1916, p. 99-108.
- *621-J. A reconnaissance for oil near Quanah, Hardeman County, Tex., by C. H. Wegemann, 1916, p. 109-115.
- *621-K. Geology and coal resources of northern Teton County, Mont., by Eugene Stebinger, 1916, p. 117-156.
- *621-L. Oil and gas near Basin, Big Horn County, Wyo., by C. T. Lupton, 1916, p. 157-190.
- *621-M. Geology and oil prospects of Cuyama Valley, Calif., by W. A. English, 1916, p. 191-215.
- *621-N. Structure of the Berea oil sand in the Summerfield quadrangle, Guernsey, Noble, and Monroe counties, Ohio, by D. D. Condit, 1916, p. 217-231.
- *621-O. Structure of the Berea oil sand in the Woodsfield quadrangle, Belmont, Monroe, Noble, and Guernsey counties, Ohio, by D. D. Condit, 1916, p. 233-249.
- *621-P. Analyses of coal samples from various parts of the United States, by M. R. Campbell and F. R. Clark, 1916, p. 251-370; Index, 1916, p. 371-375; i-vii (including title page, contents, and list of illustrations of volume).
(Bulletin 621 was issued as a single volume, Contributions to economic geology (short papers and preliminary reports), 1915, Part II, Mineral fuels, and also as separate chapters.)
- *622-A. Preface, by A. H. Brooks, 1915, p. 5-6; Administrative report, by A. H. Brooks, 1915, p. 7-14; The Alaskan mining industry in 1914, by A. H. Brooks, 1915, p. 15-68; The future of gold placer mining in Alaska, by A. H. Brooks, 1915, p. 69-79; Recent Survey publications on Alaska, 1915, p. i-xi.
- *622-B. Tin mining in Alaska, by H. M. Eakin, 1915, p. 81-94.
- *622-C. Mining in the Juneau region, by H. M. Eakin, 1915, p. 95-102.
- *622-D. Mineral deposits of the Kotsina-Kuskulana district, with notes on mining in Chitina Valley, by F. H. Moffit, 1915, p. 103-117; Auriferous gravels of the Nelchina-Susitna region, by Theodore Chapin, 1915, p. 118-130.
- *622-E. Mining on Prince William Sound, by B. L. Johnson, 1915, p. 131-139; The gold and copper deposits of the Port Valdez district, by B. L. Johnson, 1915, p. 140-188.
- *622-F. Mineral resources of the Chisana-White River district, by S. R. Capps, 1915, p. 189-228.
- *622-G. Mining in the Fairbanks districts, by H. M. Eakin, 1915, p. 229-238; Mining in the Hot Springs district, by H. M. Eakin, 1915, p. 239-245.
- *622-H. Mineral resources of the Lake Clark-Iditarod region, by P. S. Smith, 1915, p. 247-271; Quick-silver deposits of the Kuskokwim region, by P. S. Smith and A. G. Maddren, 1915, p. 272-291; Gold placers of the lower Kuskokwim, with a note on copper in the Russian Mountains, by A. G. Maddren, 1915, p. 292-360.
- *622-I. Iron-ore deposits near Nome, by H. M. Eakin, 1915, p. 361-365; Placer mining in Seward Peninsula, by H. M. Eakin, 1915, p. 366-373; Index, 1915, p. 375-380.
(Bulletin 622 was issued as a single volume, Mineral resources of Alaska, report on progress of investigations in 1914, and also as separate chapters.)
- *623. Petroleum withdrawals and restorations affecting the public domain, by M. W. Ball; compilation by L. W. Stockbridge. 1916. 427 p. Appendix A. 1916. p. 429-444.
- *624. Useful minerals of the United States, compiled by F. C. Schrader, R. W. Stone, and Samuel Sanford. 1917. 412 p. (Revision of Bulletin 585.)
- *625. The enrichment of ore deposits, by W. H. Emmons. 1917. 530 p.
- *626. The Atlantic gold district and the North Laramie Mountains, Fremont, Converse, and Albany counties, Wyo., papers by A. C. Spencer. 1916. 85 p.
Contains: Preface, by F. L. Ransome, 1916, p. 7-8; The Atlantic gold district, Fremont County, Wyo., by A. C. Spencer, 1916, p. 9-45; Economic geology of the North Laramie Mountains, Converse and Albany counties, Wyo., by A. C. Spencer, 1916, p. 47-81; Index, 1916, p. 83-85.
- *627. The lignite field of northwestern South Dakota, by D. E. Winchester, C. J. Hares, E. R. Lloyd, and E. M. Parks. 1916. 169 p.
- *628. Geology and coal resources of Castle Valley in Carbon, Emery, and Sevier counties, Utah, by C. T. Lupton. 1916. 88 p.
- *629. Natural gas resources of parts of north Texas: Gas in the area north and west of Fort Worth, by E. W. Shaw; Gas prospects south and southeast of Dallas, by G. C. Matson; with Notes on the gas fields of central and southern Oklahoma, by C. H. Wegemann. 1916. 129 p.
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- *630. The Chisana-White River district, Alaska, by S. R. Capps. 1916. 130 p.
- *631. The Yukon-Koyukuk region, Alaska, by H. M. Eakin. 1916. 88 p.
- *632. Spirit leveling in West Virginia, 1896 to 1915, inclusive; R. B. Marshall, chief geographer. 1916. 168 p.
- *633. Spirit leveling in Maine, 1899-1915; R. B. Marshall, chief geographer. 1916. 64 p.
- *634. Spirit leveling in Louisiana, 1903 to 1915, inclusive; R. B. Marshall, chief geographer. 1916. 101 p.

- *635. Spirit leveling in Georgia, 1896 to 1914, inclusive; R. B. Marshall, chief geographer. 1916. 60 p.
- *636. Spirit leveling in Arkansas, 1896 to 1915, inclusive; R. B. Marshall, chief geographer. 1916. 56 p.
- *637. Spirit leveling in Texas, 1896 to 1915, inclusive; R. B. Marshall, chief geographer. 1916. 254 p.
- *638. Spirit leveling in New Mexico, 1902 to 1915, inclusive; R. B. Marshall, chief geographer. 1916. 112 p.
- *639. Spirit leveling in Mississippi, 1901 to 1915, inclusive; R. B. Marshall, chief geographer. 1916. 80 p.
- *640-A. Notes on the Promontory district, Utah, by B. S. Butler and V. C. Heikes, 1917, p. 1-10.
- *640-B. Reconnaissance of the Conconully and Ruby mining districts, Wash., by E. L. Jones, Jr., 1917, p. 11-36.
- *640-C. Some manganese mines in Virginia and Maryland, by D. F. Hewett, 1917, p. 37-71.
- *640-D. Molybdenite near Ramona, San Diego County, Calif., by F. C. Calkins, 1917, p. 73-76; An occurrence of nickel ore in San Diego County, Calif., by F. C. Calkins, 1917, p. 77-82.
- *640-E. Lode mining in the Quartzburg and Grimes Pass porphyry belt, Boise Basin, Idaho, by E. L. Jones, Jr., 1917, p. 83-111.
- *640-F. The Golden Arrow, Clifford, and Ellendale districts, Nye County, Nev., by H. G. Ferguson, 1917, p. 113-123.
- *640-G. Tin ore in northern Lander County, Nev., by Adolph Knopf, 1917, p. 125-138.
- *640-H. Gypsum in the southern part of the Bighorn Mountains, Wyo., by C. T. Lupton and D. D. Condit, 1917, p. 139-157.
- *640-I. The Gold Log mine, Talladega County, Ala., by E. S. Bastin, 1917, p. 159-161.
- *640-J. Placer deposits of the Manhattan district, Nev., by H. G. Ferguson, 1917, p. 163-193.
- *640-K. The Garrison and Phillipsburg phosphate fields, Mont., by J. T. Pardee, 1917, p. 195-228.
- *640-L. Lungsten deposits of northwestern Inyo County, Calif., by Adolph Knopf, 1917, p. 229-249; Index, 1917, p. 251-255; i-viii (including title page, contents, and list of illustrations of volume). (Bulletin 640 was issued as a single volume, Contributions to economic geology (short papers and preliminary reports), 1916, Part I, Metals and nonmetals except fuels, and also as separate chapters.)
- *641-A. Ozokerite in central Utah, by H. M. Robinson, 1917, p. 1-16.
- *641-B. The oil and gas geology of the Foraker quadrangle, Osage County, Okla., by K. C. Heald, 1917, p. 17-47.
- *641-C. Possibilities of oil and gas in north-central Montana, by Eugene Stebinger, 1917, p. 49-91.
- *641-D. Structure of the Vicksburg-Jackson area, Miss., with special reference to oil and gas, by O. B. Hopkins, 1917, p. 93-120.
- *641-E. An anticlinal fold near Billings, Noble County, Okla., by A. E. Fath, 1917, p. 121-138.
- *641-F. Oil shale in northwestern Colorado and adjacent areas, by D. E. Winchester, 1917, p. 139-198.
- *641-G. Geology of the Upper Stillwater Basin, Stillwater and Carbon counties, Mont.; with special reference to coal and oil, by W. R. Calvert, 1917, p. 199-214.
- *641-H. Geology of the Hound Creek district of the Great Falls coal field, Cascade County, Mont., by V. H. Barnett, 1917, p. 215-231.
- *641-I. Anticlines in central Wyoming, by C. J. Hares, 1917, p. 233-279.
- *641-J. Anticlines in the Blackfeet Indian Reservation, Mont., by Eugene Stebinger, 1917, p. 281-305.
- *641-K. Coals in the area between Bon Air and Clifty, Tenn., by Charles Butts, 1917, p. 307-310.
- *641-L. Oil resources of black shales of the eastern United States, by G. H. Ashley, 1917, p. 311-324; Index, 1917, p. 325-333; i-viii (including title page, contents, and list of illustrations of volume). (Bulletin 641 was issued as a single volume, Contributions to economic geology (short papers and preliminary reports), 1916, Part II, Mineral fuels, and also as separate chapters.)
- *642-A. Preface, by A. H. Brooks, 1916, p. 5-6; Administrative report, by A. H. Brooks, 1916, p. 7-15; The Alaskan mining industry in 1915, by A. H. Brooks, 1916, p. 16-71; Recent Survey publications on Alaska, 1916, p. i-x.
- *642-B. Mining developments in southeastern Alaska, by Theodore Chapin, 1916, p. 73-104; Waterpower investigations in southeastern Alaska, by G. H. Canfield, 1916, p. 105-127.
- *642-C. Mineral resources of the upper Chitina Valley, by F. H. Moffit, 1916, p. 129-136.
- *642-D. Mining on Prince William Sound, by B. L. Johnson, 1916, p. 137-145.
- *642-E. The Turnagain-Knik region, by S. R. Capps, 1916, p. 147-194.
- *642-F. Gold mining in the Willow Creek district, by S. R. Capps, 1916, p. 195-200.
- *642-G. Preliminary report on the Tolovana district, by A. H. Brooks, 1916, p. 201-209.
- *642-H. Exploration in the Cosna-Nowitna region, by H. M. Eakin, 1916, p. 211-222; Mineral resources of the Ruby-Kuskokwim region, by J. B. Mertie, Jr. and G. L. Harrington, 1916, p. 223-266; Index 1916, p. 267-279. (Bulletin 642 was issued as a single volume, Mineral resources of Alaska, report on progress of investigations in 1915, and also as separate chapters.)
- *643. Spirit leveling in South Dakota, 1896 to 1915, inclusive; R. B. Marshall, chief geographer. 1916. 100 p.
- *644-A. Primary traverse in Alabama and North Carolina, 1913-1915. 1916. p. 1-12.
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- *644-C. Triangulation in California, 1913-1915. 1916. p. 25-84.
- *644-D. Triangulation in Colorado, Utah, Idaho, Montana, and Wyoming, 1913-1915. 1916. p. 85-223.
- *644-E. Primary traverse in Illinois, Wisconsin, Minnesota, North Dakota, and South Dakota, 1913-1915. 1916. p. 225-296.
- *644-F. Primary traverse in Indiana and Michigan, 1913-1915. 1916. p. 297-345.
- *644-G. Primary traverse in Iowa and Missouri, 1913-1915. 1916. p. 347-390.

- *644-H. Triangulation and primary traverse in Kentucky, Tennessee, and Arkansas, 1913-1915, 1916, p. 391-404.
- *644-I. Primary traverse in Louisiana and Mississippi, 1913-1915, 1916, p. 405-414.
- *644-J. Triangulation and primary traverse in Maine and Vermont, 1913-1915, 1916, p. 415, 417-421.
- *644-K. Primary traverse in Maryland and the District of Columbia, 1913-1915, 1916, p. 423-429.
- *644-L. Primary traverse in Nebraska, Kansas, and Oklahoma, 1913-1915, 1916, p. 431-446.
- *644-M. Triangulation in Nevada, 1913-1915, 1916, p. 447-472.
- *644-N. Triangulation and primary traverse in New York, New Jersey, and Pennsylvania, 1913-1915, 1916, p. 473-496.
- *644-O. Triangulation and primary traverse in Oregon, 1913-1915, 1916, p. 497-520.
- *644-P. Triangulation and primary traverse in Texas, 1913-1915, 1916, p. 521-597.
- *644-Q. Triangulation and primary traverse in Washington, 1913-1915, 1916, p. 599-608.
- *644-R. Triangulation and primary traverse in Virginia and West Virginia, 1913-1915, 1916, p. 609-632; Index, 1916, p. 633-655.
(Bulletin 644 was issued as a single volume, Triangulation and primary traverse, 1913-1915; R. B. Marshall, chief geographer, and also as separate chapters.)
- *645. Bibliography of North American geology for 1915, with subject index, by J. M. Nickles. 1916. 144 p.
- *646. Spirit leveling in North Carolina, 1896 to 1914, inclusive; R. B. Marshall, chief geographer. 1916. 71 p.
- *647. The Bull Mountain coal field, Musselshell and Yellowstone counties, Mont., by L. H. Woolsey, R. W. Richards, and C. T. Lupton. 1917. 218 p.
- *648. Notes on some mining districts in eastern Nevada, by J. M. Hill. 1916. 214 p.
- *649. Antimony deposits of Alaska, by A. H. Brooks. 1916. 67 p.
- *650. Geographic tables and formulas, fourth edition, compiled by S. S. Gannett. Reprinted with additions and corrections, 1924. 424 p. (Superseded in part by Bulletin 809.)
- *651. Spirit leveling in Ohio, 1898 to 1916, inclusive; R. B. Marshall, chief geographer. 1917. 456 p.
- *652. Tungsten minerals and deposits, by F. L. Hess. 1917. 85 p.
- *653. Chemical relations of the oil-field waters in San Joaquin Valley, Calif. (preliminary report), by G. S. Rogers. 1917. 119 p.
- *654. Spirit leveling in Nevada, 1897 to 1916, inclusive; R. B. Marshall, chief geographer. 1917. 91 p.
- *655. The Lake Clark-central Kuskokwim region, Alaska, by P. S. Smith. 1917. 162 p.
- *656. Anticlines in the southern part of the Bighorn Basin, Wyo. (a preliminary report on the occurrence of oil), by D. F. Hewett and C. T. Lupton. 1917. 192 p.
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- *660-C. Manganese deposits of the Caddo Gap and De Queen quadrangles, Ark., by H. D. Miser, 1918, p. 59-122.
- *660-D. Tin resources of the Kings Mountain district, N. C. and S. C., by Arthur Keith and D. B. Sterrett, 1918, p. 123-146.
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- *660-I. Strontianite deposits near Barstow, Calif., by Adolph Knopf, 1918, p. 257-270.
- *660-J. Possibilities for manganese ore on certain undeveloped tracts in the Shenandoah Valley, Va., by D. F. Hewett, G. W. Stose, F. J. Katz, and H. D. Miser, 1918, p. 271-296; Index, 1918, p. 297-304; i-viii (including title page, contents, and list of illustrations of volume).
(Bulletin 660 was issued as a single volume, Contributions to economic geology (short papers and preliminary reports), 1917, Part I, Metals and nonmetals except fuels, and also as separate chapters.)
- *661-A. The Cleveland gas field, Cuyahoga County, Ohio, with a study of rock pressure, by G. S. Rogers, 1918, p. 1-68.
- *661-B. Structure of the northern part of the Bristow quadrangle, Creek County, Okla., with reference to petroleum and natural gas, by A. E. Fath, 1918, p. 69-99.
- *661-C. The De Soto-Red River oil and gas field, La., by G. C. Matson and O. B. Hopkins, 1918, p. 101-140.
- *661-D. The Irvine oil field, Estill County, Ky., by E. W. Shaw, 1918, p. 141-192.
- *661-E. The Bowdoin dome, Mont., a possible reservoir of oil or gas, by A. J. Collier, 1918, p. 193-209.
- *661-F. The Coriscana oil and gas field, Tex., by G. C. Matson and O. B. Hopkins, 1918, p. 211-252.
- *661-G. The Palestine salt dome, Anderson County, Tex., by O. B. Hopkins, 1918, p. 253-270; The Brenham salt dome, Washington and Austin counties, Tex., by O. B. Hopkins, 1918, p. 271-280.
- *661-H. Oil and gas possibilities of the Hatchetigbee anticline, Ala., by O. B. Hopkins, 1918, p. 281-313.

- *661-I. Phosphatic oil shales near Dell and Dillon, Beaverhead County, Mont., by C. F. Bowen, 1918, p. 315-320; Index, 1918, p. 321-328; i-viii (including title page, contents, and list of illustrations of volume).
(Bulletin 661 was issued as a single volume, Contributions to economic geology (short papers and preliminary reports), 1917, Part II, Mineral fuels, and also as separate chapters.)
- *662-A. Administrative report, 1918, p. 3-10; The Alaskan mining industry in 1916, by A. H. Brooks, 1918, p. 11-62; Recent Survey publications on Alaska, 1918, p. i-xi.
- *662-B. Mining developments in the Ketchikan and Wrangell mining districts, by Theodore Chapin, 1918, p. 63-75; Lode mining in the Juneau gold belt, by H. M. Eakin, 1918, p. 77-92; Gold-placer mining in the Porcupine district, by H. M. Eakin, 1918, p. 93-100; Water-power investigations in southeastern Alaska, by G. H. Canfield, 1918, p. 101-154.
- *662-C. Mining in the lower Copper River basin, by F. H. Moffit, 1918, p. 155-182; Mining on Prince William Sound, by B. L. Johnson, 1918, p. 183-192; Copper deposits of the Latouche and Knight Island districts, Prince William Sound, by B. L. Johnson, 1918, p. 193-220.
- *662-D. The gold placers of the Tolovana district, by J. B. Mertie, Jr., 1918, p. 221-277.
- *662-E. Mineral resources of the Kantishna region, by S. R. Capps, 1918, p. 279-331.
- *662-F. Gold placers of the Anvik-Andreafski region, by G. L. Harrington, 1918, p. 333-349.
- *662-G. Lode deposits near the Nenana coal field, by R. M. Overbeck, 1918, p. 351-362; Gold placers near the Nenana coal field, by A. G. Maddren, 1918, p. 363-402.
- *662-H. Lode mining in the Fairbanks district, by J. B. Mertie, Jr., 1918, p. 403-424.
- *662-I. Lode mining and prospecting on Seward Peninsula, by J. B. Mertie, Jr., 1918, p. 425-449; Placer mining on Seward Peninsula, by J. B. Mertie, Jr., 1918, p. 451-458; Index, 1918, p. 459-469. (Bulletin 662 was issued as a single volume, Mineral resources of Alaska, report on progress of investigations in 1916, and also as separate chapters.)
- *663. The structural and ornamental stones of Minnesota, by Oliver Bowles. 1918. 225 p.
- *664. The Nenana coal field, Alaska, by G. C. Martin. 1919. 54 p.
- *665. Bibliography of North American geology for 1916, with subject index, by J. M. Nickles. 1917. 172 p.
- *666-A. Chromite, by J. S. Diller, 1919, p. 13-17.
- *666-B. Sulphur, by P. S. Smith, 1919, p. 19-22.
- *666-C. Manganese, by D. F. Hewett, 1919, p. 23-34.
- *666-D. Platinum, by J. M. Hill, 1919, p. 35-38.
- *666-E. Gypsum, by R. W. Stone, 1919, p. 39-41.
- *666-F. Salt, bromine, and calcium chloride, by R. W. Stone, 1919, p. 43-46.
- *666-G. Sand and gravel, by R. W. Stone, 1919, p. 47-49.
- *666-H. Asbestos, by J. S. Diller, 1919, p. 51-54.
- *666-I. Talc and soapstone, by J. S. Diller, 1919, p. 55-56.
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- *666-L. Graphite, by H. G. Ferguson, 1919, p. 65-71.
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- *666-P. Alaska's mineral supplies, by A. H. Brooks, 1919, p. 89-102.
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- *666-Z. Nitrates, by H. S. Gale, 1919, p. 163-166.
- *666-AA. Lead, by C. E. Siebenthal, 1919, p. 167-169.
- *666-BB. Magnesite, by H. S. Gale, 1919, p. 171-173.
- *666-CC. Fluorspar, by E. F. Burchard, 1919, p. 175-182.
- *666-DD. Petroleum, by J. D. Northrop, 1919, p. 183-195.
- *666-EE. Manganiferous iron ores, by E. C. Harder, 1919, p. 197-209.
- *666-FF. Quicksilver, by F. L. Ransome, 1919, p. 211-219.
- *666-GG. Bibliography, compiled under the direction of G. M. Wood, 1919, p. 221-278.
(Bulletin 666 was issued as a single volume, Our mineral supplies, and also as separate chapters, for which pagination of volume has been used above.)
- *667. The Cosna-Nowitna region, Alaska, by H. M. Eakin. 1918. 54 p.
- *668. The Nelchina-Susitna region, Alaska, by Theodore Chapin. 1918. 67 p.
- *669. Salt resources of the United States, by W. C. Phalen. 1919. 284 p.
- *670. The Salt Creek oil field, Wyo., by C. H. Wegemann. 1918. 52 p.
- *671. Spirit leveling in New York, 1896-1905 and 1912-1916; R. B. Marshall, chief geographer. 1918. 214 p. (See also Bulletin 514.)
- *672. Spirit leveling in Illinois, 1914 to 1917, inclusive; R. B. Marshall, chief geographer. 1918. 108 p. (See also Bulletin 930.)
- *673. Spirit leveling in Kentucky, 1914 to 1916, inclusive; R. B. Marshall, chief geographer. 1918. 100 p. (See also Bulletin 554.)

- *674. Spirit leveling in the State of Washington, 1896 to 1917, inclusive; R. B. Marshall, chief geographer. 1918. 204 p.
- *675. The upper Chitina Valley, Alaska, by F. H. Moffit, with a description of the igneous rocks, by R. M. Overbeck. 1918. 82 p.
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- *680. A geologic reconnaissance for phosphate and coal in southeastern Idaho and western Wyoming, by A. R. Schultz. 1918. 84 p.
- *681. The oxidized zinc ores of Leadville, Colo., by G. F. Loughlin. 1918. 91 p.
- *682. Marble resources of southeastern Alaska, by E. F. Burchard, with a section on the geography and geology, by Theodore Chapin. 1920. 118 p.
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- *685. Relation of landslides and glacial deposits to reservoir sites in the San Juan Mountains, Colo., by W. W. Atwood. 1918. 38 p.
- *686-A. Introduction, by David White, 1922, p. ix-xvi.
- *686-B. T. 23 N., R. 11 E.; Tps. 22 and 23 N., R. 12 E., by W. B. Emery, 1922, p. 1-9.
- *686-C. T. 27 N., R. 9 E., by D. E. Winchester, 1922, p. 11-15.
- *686-D. T. 24 N., R. 10 E., by C. F. Bowen, 1922, p. 17-26.
- *686-E. T. 25 N., R. 9 E., by K. C. Heald, 1922, p. 27-41.
- *686-F. T. 28 N., Rs. 9 and 10 E.; T. 29 N., R. 10 E., by C. F. Bowen, 1922, p. 43-58.
- *686-G. T. 25 N., R. 10 E., by D. E. Winchester, K. C. Heald, and others, 1922, p. 59-73.
- *686-H. T. 25 N., Rs. 11 and 12 E., by O. B. Hopkins, 1922, p. 75-90.
- *686-I. T. 26 N., Rs. 9, 10, and 11 E., by F. R. Clark, 1922, p. 91-118.
- *686-J. T. 20 N., R. 11 E., by E. R. Lloyd and K. F. Mather, 1922, p. 119-127.
- *686-K. T. 27 N., R. 7 E., by K. C. Heald, 1922, p. 129-135.
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- *686-M. Tps. 24 and 25 N., R. 8 E., by K. C. Heald and K. F. Mather, 1922, p. 149-170.
- *686-N. Tps. 20 and 21 N., R. 12 E., by C. S. Ross, 1922, p. 171-178.
- *686-O. Tps. 21 and 22 N., R. 11 E., by C. S. Ross, 1922, p. 179-191.
- *686-P. T. 24 N., R. 9 E., by K. C. Heald, C. F. Bowen, and others, 1922, p. 193-212.
- *686-Q. T. 27 N., R. 8 E., by K. C. Heald, 1922, p. 213-222.
- *686-R. T. 26 N., R. 8 E., by K. C. Heald and K. F. Mather, 1922, p. 223-236.
- *686-S. T. 24 N., Rs. 11 and 12 E., by O. B. Hopkins and Sidney Powers, 1922, p. 237-253.
- *686-T. T. 27 N., R. 11 E., by H. M. Robinson and R. V. A. Mills, 1922, p. 255-277.
- *686-U. Tps. 21-23 N., Rs. 6-7 E., and Tps. 23-25 N., Rs. 3-5 E., by C. F. Bowen, P. V. Roundy, C. S. Ross, and Frank Reeves, 1922, p. 279-301.
- *686-V. T. 27 N., R. 10 E., by H. M. Robinson and R. V. A. Mills, 1922, p. 303-327.
- *686-W. T. 29 N., Rs. 11 and 12 E., by M. I. Goldman, 1922, p. 329-352.
- *686-X. T. 20 N., R. 10 E., by M. I. Goldman, 1922, p. 353-358.
- *686-Y. T. 28 N., Rs. 11 and 12 E., by M. I. Goldman and H. M. Robinson, 1922, p. 359-394.
- *686-Z. Tps. 26 and 27 N., R. 12 E., by P. V. Roundy, K. C. Heald, and G. B. Richardson, 1922, p. 395-420; Index, 1922, p. 421-427.
(Bulletin 686 was issued as a single volume, Structure and oil and gas resources of the Osage Reservation, Oklahoma, and also as separate chapters, for which pagination of volume has been used above.)
- *687. The Kantishna region, Alaska, by S. R. Capps. 1919. 116 p.
- *688. The oil fields of Allen County, Ky., with notes on the oil geology of adjoining counties, by E. W. Shaw and K. F. Mather. 1919. 126 p.
- *689. Boundaries, areas, geographic centers, and altitudes of the United States and the several States, with a brief record of important changes in their territory, by E. M. Douglas. 1923. 234 p. (See also Bulletin 817.)
- *690-A. Zinc carbonate and related copper carbonate ores at Ophir, Utah, by G. F. Loughlin, 1919, p. 1-14.
- *690-B. Gravel deposits of the Caddo Gap and De Queen quadrangles, Ark., by H. D. Miser and A. H. Purdue, 1919, p. 15-30.
- *690-C. A geologic reconnaissance of the Uinta Mountains, northern Utah, with special reference to phosphate, by A. R. Schultz, 1919, p. 31-94.
- *690-D. Quicksilver deposits of the Phoenix Mountains, Ariz., by F. C. Schrader, 1919, p. 95-109.
- *690-E. Manganese at Butte, Mont., by J. T. Pardee, 1919, p. 111-130.
- *690-F. Some manganese deposits in Madison County, Mont., by J. T. Pardee, 1919, p. 131-143; Index, 1919, p. 145-149; i-vi (including title page, contents, and list of illustrations of volume).
(Bulletin 690 was issued as a single volume, Contributions to economic geology (short papers and preliminary reports), 1918, Part I, Metals and nonmetals except fuels, and also as separate chapters.)

- *691-A. The structure of parts of the central Great Plains, by N. H. Darton, 1919, p. 1-26.
- *691-B. Oil shale of the Uinta Basin, northeastern Utah, by D. E. Winchester, 1919, p. 27-50; Results of dry distillation of miscellaneous shale samples, by D. E. Winchester, 1919, p. 51-55.
- *691-C. Geologic structure of the northwestern part of the Pawhuska quadrangle, Okla., by K. C. Heald, 1919, p. 57-100.
- *691-D. Geology and oil and gas prospects of the Lake Basin field, Mont., by E. T. Hancock, 1919, p. 101-147.
- *691-E. Oil and gas geology of the Birch Creek-Sun River area, northwestern Montana, by Eugene Stebinger, 1919, p. 149-184.
- *691-F. Anticlines in a part of the Musselshell Valley, Musselshell, Meagher, and Sweetgrass counties, Mont., by C. F. Bowen, 1919, p. 185-209.
- *691-G. The Nesson anticline, Williams County, N. Dak., by A. J. Collier, 1919, p. 211-217.
- *691-H. Geology and oil prospects of the Salinas Valley-Parkfield area, Calif., by W. A. English, 1919, p. 219-250.
- *691-I. The Santo Tomas cannel coal, Webb County, Tex., by G. H. Ashley, 1919, p. 251-270.
- *691-J. Asphalt deposits and oil conditions in southwestern Arkansas, by H. D. Miser and A. H. Purdue, 1919, p. 271-292.
- *691-K. Coal south of Mancos, Montezuma County, Colo., by A. J. Collier, 1919, p. 293-310.
- *691-L. Geology of the Lost Creek coal field, Morgan County, Utah, by F. R. Clark, 1919, p. 311-322.
- *691-M. Structure and oil resources of the Simi Valley, southern California, by W. S. W. Kew, 1919, p. 323-347; Index, 1919, p. 349-355; i-viii (including title page, contents, and list of illustrations of volume).
(Bulletin 691 was issued as a single volume, Contributions to economic geology (short papers and preliminary reports), 1918, Part II, Mineral fuels, and also as separate chapters.)
- *692-A. Administrative report, 1919, p. 3-10; The Alaskan mining industry in 1917, by G. C. Martin, 1919, p. 11-42; Recent Survey publications on Alaska, 1919, p. i-xiv.
- *692-B. Water-power investigations in southeastern Alaska, by G. H. Canfield, 1919, p. 43-83; Mining developments in the Ketchikan district, by Theodore Chapin, 1919, p. 85-89; Geology and mineral resources of the west coast of Chichagof Island, by R. M. Overbeck, 1919, p. 91-136.
- *692-C. Platinum-bearing auriferous gravels of Chistochina River, by Theodore Chapin, 1919, p. 137-141; Mining on Prince William Sound, by B. L. Johnson, 1919, p. 143-151; Mineral resources of Jack Bay district and vicinity, Prince William Sound, by B. L. Johnson, 1919, p. 153-173; Mining in central and northern Kenai Peninsula, by B. L. Johnson, 1919, p. 175-176.
- *692-D. Gold lode mining in the Willow Creek district, by S. R. Capps, 1919, p. 177-186; Mineral resources of the western Talkeetna Mountains, by S. R. Capps, 1919, p. 187-205; Mineral resources of the upper Chulitna region, by S. R. Capps, 1919, p. 207-232; Platinum-bearing gold placers of the Kahiltna Valley, by J. B. Mertie, Jr., 1919, p. 233-264; Chromite deposits in Alaska, by J. B. Mertie, Jr., 1919, p. 265-267; Geologic problems at the Matanuska coal mines, by G. C. Martin, 1919, p. 269-282.
- *692-E. Sulphur on Unalaska and Akun islands and near Stepovak Bay, by A. G. Maddren, 1919, p. 283-298; The beach placers of the west coast of Kodiak Island, by A. G. Maddren, 1919, p. 299-319.
- *692-F. Mining in the Fairbanks district, by Theodore Chapin, 1919, p. 321-327; A molybdenite lode on Healy River, by Theodore Chapin, 1919, p. 329; Mining in the Hot Springs district, by Theodore Chapin, 1919, p. 331-335; Tin deposits of the Ruby district, by Theodore Chapin, 1919, p. 337; The gold and platinum placers of the Tolstoi district, by G. L. Harrington, 1919, p. 339-351.
- *692-G. Tin mining in Seward Peninsula, by G. L. Harrington, 1919, p. 353-361; Graphite mining in Seward Peninsula, by G. L. Harrington, 1919, p. 363-367; The gold and platinum placers of the Kivalik-Koyuk region, by G. L. Harrington, 1919, p. 369-400; Index, 1919, p. 401-408.
(Bulletin 692 was issued as a single volume, Mineral resources of Alaska, report on progress of investigations in 1917, and also as separate chapters.)
- *693. The evaporation and concentration of waters associated with petroleum and natural gas, by R. V. A. Mills and R. C. Wells. 1919. 104 p.
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- *709-C. Primary traverse in Georgia, 1916-1918. 1923. p. 43-154.
- *709-D. Triangulation in Idaho and Montana, 1914-1916. 1923. p. 155-166.
- *709-E. Primary traverse in Illinois and Wisconsin, 1916-1918. 1923. p. 167-186.
- *709-F. Primary traverse in Michigan, 1916-1917. 1923. p. 187-209.
- *709-G. Primary traverse in Iowa, Kansas, Missouri, Nebraska, and Oklahoma, 1916-1918. 1923. p. 211-266.
- *709-H. Triangulation and primary traverse in Kentucky and Tennessee, 1916-1918, including spirit leveling in Camp Knox Military Reservation, Ky., 1923. p. 267-302.
- *709-I. Triangulation in Maine and New Hampshire, 1916-1918. 1923. p. 303-330.
- *709-J. Primary traverse in New York, 1916. 1923. p. 331-346.
- *709-K. Triangulation and primary traverse in Oregon and Washington, 1916-1919. 1923. p. 347-420.
- *709-L. Primary traverse in Virginia, 1916-1918. 1923. p. 421-509.
- *709-M. Triangulation in Arizona, California, and Nevada, 1915-1919. 1923. p. 511-597.
- *709-N. Primary traverse in South Carolina, 1917-1919. 1923. p. 599-738.
- *709-O. Triangulation in New Mexico and Texas, 1915-1917. 1923. p. 739-779.
- *709-P. Triangulation in Wyoming and Colorado, 1916-1919. 1923. p. 781-798.
- *709-Q. Triangulation and primary traverse in Texas, 1916-1920. 1923. p. 799-851.
- *709-R. Triangulation and primary traverse in North Carolina, 1918. 1923. p. 853-879; Index, 1923, p. 880-914.
(Bulletin 709 was issued as a single volume, Triangulation and primary traverse, 1916-1918, and also as separate chapters.)
- *710-A. A reconnaissance of the Pine Creek district, Idaho, by E. L. Jones, Jr., 1920. p. 1-36.
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- *710-C. Deposits of manganese ore in Costa Rica, by J. D. Sears, 1920. p. 61-83; Deposits of manganese ore near Boqueron River, Panama, by J. D. Sears, 1920. p. 85-91.
- *710-D. Deposits of manganese ore in Arizona, by E. L. Jones, Jr. and F. L. Ransome, 1920. p. 93-184.
- *710-E. Deposits of manganese ore in southeastern California, by E. L. Jones, Jr., 1920. p. 185-208.
- *710-F. Deposits of manganese ore in Nevada, by J. T. Pardee and E. L. Jones, Jr., 1920. p. 209-242; Index, 1920. p. 243-248; i-viii (including title page, contents, and list of illustrations of volume).
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- *711-A. The Farnham anticline, Carbon County, Utah, by F. R. Clark, 1920. p. 1-13.
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- *711-G. Geology and oil and gas prospects of the Huntley field, Mont., by E. T. Hancock, 1920. p. 105-148.
- *711-H. Anticlines near Maverick Springs, Fremont County, Wyo., by A. J. Collier, 1920. p. 149-166; Index, 1920. p. 167-171; i-viii (including title page, contents, and list of illustrations of volume).
(Bulletin 711 was issued as a single volume, Contributions to economic geology (short papers and preliminary reports), 1919, Part II, Mineral fuels, and also as separate chapters.)
- *712-A. Administrative report, by G. C. Martin, 1920. p. 3-10; The Alaskan mining industry in 1918, by G. C. Martin, 1920. p. 11-52; Recent Survey publications on Alaska, 1920. p. i-xv.
- *712-B. Water-power investigations in southeastern Alaska, by G. H. Canfield, 1920. p. 53-90.
- *712-C. Nickel deposits in the lower Copper River valley, by R. M. Overbeck, 1920. p. 91-98.
- *712-D. Preliminary report on the chromite of Kenai Peninsula, by A. C. Gill, 1920. p. 99-129.
- *712-E. Mining developments in the Matanuska coal fields, by Theodore Chapin, 1920. p. 131-167; Lode developments in the Willow Creek district, by Theodore Chapin, 1920. p. 169-176.
- *712-F. Placer mining in the Tolovana district, by R. M. Overbeck, 1920. p. 177-184.
- *712-G. Mining in northwestern Alaska, by S. H. Cathcart, 1920. p. 185-198; Index, 1920. p. 199-204.
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- *714-A. The future of Alaska mining, by A. H. Brooks, 1921. p. 5-57; The Alaskan mining industry in 1919, by A. H. Brooks and G. C. Martin, 1921. p. 59-95; Administrative report, by A. H. Brooks and G. C. Martin, 1921. p. 97-103; Recent Survey publications on Alaska, 1921. p. i-xv.
- *714-B. Lode mining in the Juneau and Ketchikan districts, by J. B. Mertie, Jr., 1921. p. 105-128; Notes on the Salmon-Unuk River region, compiled by J. B. Mertie, Jr., 1921. p. 129-142; Water-power investigations in southeastern Alaska, by G. H. Canfield, 1921. p. 143-187.
- *714-C. Mining in Chitina Valley, by F. H. Moffit, 1921. p. 189-196.

- *714-D. Mining developments in the Matanuska coal fields, by Theodore Chapin, 1921, p. 197-199; Lode developments in the Willow Creek district, by Theodore Chapin, 1921, p. 201-206.
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- *714-F. Mining on Seward Peninsula, by G. L. Harrington, 1921, p. 229-237; Index, 1921, p. 239-244; i-xv (including title page, contents, and list of illustrations of volume).
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- *715-G. Preliminary report on the deposits of manganese ore in the Batesville district, Ark., by H. D. Miser, 1921, p. 93-124.
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- *715-M. Permian salt deposits of the south-central United States, by N. H. Darton, 1921, p. 205-223; Index, 1921, p. 225-230; i-viii (including title page, contents, and list of illustrations of volume).
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- *725-J. Ore deposits of the Sierrita Mountains, Pima County, Ariz., by F. L. Ransome, 1922, p. 407-428; Index, 1922, p. 428-440; i-xi (including title page, contents, and list of illustrations of volume). (Bulletin 725 was issued as a single volume, Contributions to economic geology (short papers and preliminary reports), 1921, Part I, Metals and nonmetals except fuels, and also as separate chapters.)
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- *736-B. Oil and gas prospects in and near the Crow Indian Reservation, Mont., by W. T. Thom, Jr., 1923, p. 35-53.
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- *736-G. The Brooks, Steen, and Grand Saline salt domes, Smith and Van Zandt counties, Tex., by Sidney Powers and O. B. Hopkins, 1923, p. 179-239.
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- *739-C. Recent investigations of petroleum in Alaska: The Cold Bay district, by S. R. Capps, 1923, p. 77-116; The Iniskin Bay district, by F. H. Moffit, 1923, p. 117-132; A petroleum seepage near Anchorage, by A. H. Brooks, 1923, p. 133-135; A supposed petroleum seepage in the Nenana coal field, by G. C. Martin, 1923, p. 137-147.
- *739-D. The occurrence of metalliferous deposits in the Yukon and Kuskokwim regions, by J. B. Mertie, Jr., 1923, p. 149-165; Index, 1923, p. 167-169.
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- *747. Geologic literature on North America, 1785-1918, by J. M. Nickles, Part II, Index, 1924, 658 p. \$1.75.
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- *750-G. Bauxite in northeastern Mississippi, by E. F. Burchard, 1925, p. 101-146; Index, 1925, p. 147-148; i-v (including title page, contents, and list of illustrations of volume).
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- *813-D. Notes on the geology of upper Nizina River, by F. H. Moffitt, 1930, p. 143-163; Index, 1930, p. 165-166; i-ii (including title page, contents, and list of illustrations of volume).
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- *814. Geology and ore deposits of the Wood River region, Idaho, by J. B. Umpleby, L. G. Westgate, and C. P. Ross, with a description of the Minnie Moore and near-by mines, by D. F. Hewett, 1930, 250 p.

- *815. Geology and mineral resources of northwestern Alaska, by P. S. Smith and J. B. Mertie, Jr. 1930. 351 p.
- *816. Geology of the Eagle-Circle district, Alaska, by J. B. Mertie, Jr. 1930. 168 p.
817. Boundaries, areas, geographic centers, and altitudes of the United States and the several States, with a brief record of important changes in their territory and government (2d edition), by E. M. Douglas. 1930. 265 p. \$2.
- *818. Geology and mineral resources of the Cleveland district, Ohio, by H. P. Cushing, Frank Leverett, and F. R. Van Horn. 1931. 138 p.
- *819. The Wasatch Plateau coal field, Utah, by E. M. Spieker. 1931. 210 p.
- *820. Nitrate deposits in southeastern California, with notes on deposits in southeastern Arizona and southwestern New Mexico, by L. F. Noble. 1931. 108 p.
- *821-A. A graphic history of metal mining in Idaho, by C. P. Ross, 1931, p. 1-9.
- *821-B. A geologic study of the Madden Dam project, Alhajuela, Canal Zone, by Frank Reeves and C. P. Ross, 1931, p. 11-49.
- *821-C. Iron ore on Canyon Creek, Fort Apache Indian Reservation, Ariz., by E. F. Burchard, 1931, p. 51-75; Index, 1931, p. 77-78; i-iv (including title page, contents, and list of illustrations of volume).
(Bulletin 821 was issued as a single volume, Contributions to economic geology (short papers and preliminary reports), 1930, Part I, Metals and nonmetals except fuels, and also as separate chapters.)
- *822-A. Geology and mineral resources of parts of Carbon, Big Horn, Yellowstone and Stillwater counties, Mont., by R. S. Knappen and G. F. Moulton, 1931, p. 1-70.
- *822-B. The Granby anticline, Grand County, Colo., by T. S. Lovering, 1931, p. 71-76.
- *822-C. Bituminous sandstone near Vernal, Utah, by E. M. Spieker, 1931, p. 77-98; Index, 1931, p. 99-100; i-ii (including title page, contents, and list of illustrations of volume).
(Bulletin 822 was issued as a single volume, Contributions to economic geology (short papers and preliminary reports), 1930, Part II, Mineral fuels, and also as separate chapters.)
823. Bibliography of North American geology, 1919-1928, by J. M. Nickles. 1931. 1005 p. \$3.
- *824-A. Mineral industry of Alaska in 1929, by P. S. Smith, 1932, p. 1-81; Administrative report, by P. S. Smith, 1932, p. 83-109; Selected list of Geological Survey publications on Alaska, 1932, p. 1a-11a.
- *824-B. The Slana district, upper Copper River region, by F. H. Moffit, 1932, p. 111-124.
- *824-C. The Lake Clark-Mulchatna region, by S. R. Capps, 1932, p. 125-154.
- *824-D. Mining in the Circle district, Alaska, by J. B. Mertie, Jr., 1932, p. 155-172.
- *824-E. The occurrences of gypsum at Iyoukeen Cove, Chichagof Island, Alaska, by B. D. Stewart, 1932, p. 173-177; Index, 1932, p. 178-181; i-ii (including title page, contents, and list of illustrations of volume).
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- *825. Microscopic determination of the ore minerals, by M. N. Short. 1931. 204 p. (See also Bulletin 914.)
- *826. Names and definitions of the geologic units of California, by M. G. Wilmarth. 1931. 97 p.
- *827. A geologic reconnaissance of the Dennison Fork district, Alaska, by J. B. Mertie, Jr. 1931 [1932]. 44 p.
- *828. Geology and mineral resources of the Quakertown-Doylestown district, Pennsylvania and New Jersey, by F. Bascom, E. T. Wherry, G. W. Stose, and A. I. Jonas. 1931. 62 p.
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- *830-A. Copper deposits near Keating, Oreg., by James Gilluly, 1933, p. 1-32.
- *830-B. Geology of the Robertson, Humdinger, and Robert E. gold mines, southwestern Oregon, by P. J. Shenon, 1933, p. 33-55; Notes on the Chieftain and Continental mines, Douglas County, Oreg., by F. G. Wells, 1933, p. 57-62; Index, 1933, p. 63-64; i-iii (including title page, contents, and list of illustrations of volume).
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- *831-A. The Jackson gas field, Hinds and Rankin counties, Miss., by W. H. Monroe, 1932, p. 1-17.
- *831-B. The Ashland coal field, Rosebud, Powder River, and Custer counties, Mont., by N. W. Bass, 1932, p. 19-105.
[Title page, contents, list of illustrations, and index for volume, 1932, p. i-iv, 107-108.]
(Bulletin 831 was issued as a single volume, Contributions to economic geology (short papers and preliminary reports), 1931-32, Part II, Mineral fuels, and also as separate chapters.)
- *832. The crystal cavities of the New Jersey zeolite region, by W. T. Schaller. 1932. 90 p.
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- *835. Geology and oil resources of the Elk Hills, Calif., including Naval Petroleum Reserve No. 1, by W. P. Woodring, P. V. Roundy, and H. R. Farnsworth. 1932. 82 p.
- *836-A. Mineral industry of Alaska in 1930, by P. S. Smith, 1933, p. 1-83; Administrative report, by P. S. Smith, 1933, p. 85-115; Selected list of Geological Survey publications on Alaska, 1933, p. 1a-14a.

- *836-B. Notes on the geography and geology of Lituya Bay, by J. B. Mertie, Jr., 1933, p. 117-135.
- *836-C. Surface water supply of southeastern Alaska, 1909-1930, by F. F. Henshaw, 1933, p. 137-218.
- *836-D. The eastern portion of Mount McKinley National Park, by S. R. Capps, 1933, p. 219-300; The Kantishna district, by F. H. Moffit, 1933, p. 301-338; Mining development in the Tatlanika and Totatlanika Basins, by F. H. Moffit, 1933, p. 339-345.
- *836-E. The Tatonduk-Nation district, by J. B. Mertie, Jr., 1933, p. 347-443; Index, 1933, p. 445-454; 1-ii (including title page, contents, and list of illustrations of volume).
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- *843. A brief review of the geology of the San Juan region of southwestern Colorado, by Whitman Cross and E. S. Larsen, Jr. 1935. 138 p. (See also Professional Paper 258.)
- *844-A. Mineral industry of Alaska in 1931, by P. S. Smith, 1933, p. 1-82; Administrative report, by P. S. Smith, 1933, p. 83-117; Selected list of Geological Survey publications on Alaska, 1933, 1A-15A.
- *844-B. Mineral investigations in the Alaska Railroad belt, 1931, by S. R. Capps. 1933. p. 119-135.
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- *844-E. Reconnaissance of the northern Koyukuk Valley, Alaska, by Robert Marshall, 1934, p. 247-256; Index, 1934, p. 257-264; i-iii (Includes title page, contents, and list of illustrations of volume).
(Bulletin 844, issued only as separate chapters² under the general title, Mineral resources of Alaska, report on progress of investigations in 1931.)
845. Guidebook of the western United States, part F, The Southern Pacific lines, New Orleans to Los Angeles, by N. H. Darton. 1933. 304 p., 29 route maps. \$1.
- *846-A. Some mining districts of eastern Oregon, by James Gilluly, J. C. Reed, and C. F. Park, Jr. 1933. p. 1-140.
- *846-B. Geology and ore deposits of the Takilma-Waldo district, Oreg., including the Blue Creek district, by P. J. Shenon. 1933. p. 141-194.
- *846-C. The Climax molybdenum deposit, Colorado, by B. S. Butler and J. W. Vanderwilt, with a section on history, production, metallurgy, and development, by C. W. Henderson. 1933. p. 195-237.
- *846-D. Some lode deposits in the northwestern part of the Boise Basin, Idaho, by C. P. Ross, 1934, p. 239-277; Index, 1934, p. 279-285. [Includes title page, contents, and list of illustrations of volume.]
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- *847-A. The Contact mining district, Nev., by F. C. Schrader. 1935. p. 1-41.
- *847-B. The Rosebud coal field, Rosebud and Custer Counties, Mont., by W. G. Pierce. 1936. p. 43-120.
- *847-C. The Richey-Lambert coal field, Richland and Dawson Counties, Mont., by F. S. Parker. 1936. p. 121-174.
- *847-D. Phosphate rock near Maxville, Phillipsburg, and Avon, Mont., by J. T. Pardee. 1936. p. 175-188.
- *847-E. Geology and mineral resources of the western part of the Arkansas coal field, by T. A. Hendricks and Bryan Parks. 1937. p. 189-224.
- *847-F. Geology and mineral resources of north-central Chouteau, western Hill, and eastern Liberty Counties, Mont., by W. G. Pierce and C. B. Hunt, 1937, p. 225-264; Index, 1937, p. 265-270. [Includes title page, contents, and list of illustrations of volume.]
(Bulletin 847, issued only as separate chapters under the general title, Contributions to economic geology (short papers and preliminary reports), 1934-36.)
848. The microscopic determination of the nonopaque minerals (2d edition), by E. S. Larsen, Jr. and Harry Berman. 1934. 266 p. \$1.
- *849-A. Foreward, by P. S. Smith, 1933, p. 1-4; Progress of surveys in the Anthracite Ridge district, Alaska, by R. W. Richards and G. A. Waring, 1933, p. 5-27.
- *849-B. Lode deposits of the Fairbanks district, Alaska, by J. M. Hill. 1933. p. 29-163.
- *849-C. The Willow Creek gold-lode district, Alaska, by J. C. Ray. 1933. p. 165-229.
- *849-D. The Mount Eielson district, Alaska, by J. C. Reed. 1933 [1934]. p. 231-287.

² The plan of issuing a consolidated volume for each of the series published first in chapters was abandoned in 1933.

- *849-E. Mineral deposits near the West Fork of the Chulitna River, Alaska, by C. P. Ross. 1933. p. 289-333.
- *849-F. Lode deposits of Eureka and vicinity, Kantishna district, Alaska, by F. G. Wells. 1933. p. 335-379.
- *849-G. The Girdwood district, Alaska, by C. F. Park, Jr. 1933 [1934]. p. 381-424.
- *849-H. The Valdez Creek mining district, Alaska, by C. P. Ross. 1933. p. 425-468.
- *849-I. The Moose Pass-Hope district, Kenai Peninsula, Alaska, by Ralph Tuck, 1933, p. 469-527; Index, 1933, p. 529-530. [Includes title page, contents, and list of illustrations of volume.] (Bulletin 849, issued only as separate chapters under the general title, Investigations in Alaska Railroad belt, 1931. Each chapter contains its own index.)
- *850. Quicksilver deposits of southwestern Oregon, by F. G. Wells and A. C. Waters. 1934. 58 p.
- *851. The Book Cliffs coal field in Garfield and Mesa Counties, Colo., by C. E. Erdmann. 1934 [1935]. 150 p.
- *852. The Book Cliffs coal field in Emery and Grand Counties, Utah, by D. J. Fisher. 1936. 104 p.
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- *857-A. Mineral industry of Alaska in 1932, by P. S. Smith, 1934. p. 1-91. [Includes Selected list of Geological Survey publications on Alaska.]
- *857-B. Past placer-gold production from Alaska, by P. S. Smith. 1933. p. 93-98.
- *857-C. The Curry district, Alaska, by Ralph Tuck. 1934. p. 99-140.
- *857-D. Notes on the geology of the Alaska Peninsula and Aleutian Islands, by S. R. Capps. 1934. p. 141-153.
- *857-E. Core drilling for coal in the Moose Creek area, Alaska, by G. A. Waring, 1934, p. 155-166; Index, 1934, p. 167-173. [Includes title page, contents, and list of illustrations of volume.] (Bulletin 857, issued only as separate chapters under the general title, Mineral resources of Alaska, report on progress of investigations in 1932.)
- *858. Bibliography of North American geology, 1931 and 1932, by J. M. Nickles. 1934. 300 p.
- *859. Geology of the Santa Rita mining area, N. Mex., by A. C. Spencer and Sidney Paige. 1935. 78 p.
- *860-A. Part 1, The coal field from Gallup eastward toward Mount Taylor, with a measured section of pre-Dakota(?) rocks near Navajo Church, by J. D. Sears. 1934 [1935]. p. 1-29.
- *860-B. Part 2, The Mount Taylor coal field, by C. B. Hunt. 1936. p. 31-80.
- *860-C. Part 3, The La Ventana-Chacra Mesa coal field, by C. H. Dane, 1936 [1937]. p. 81-161; Index, 1936 [1937]. p. 163-166. [Includes title page, contents and list of illustrations of volume.] (Bulletin 860, issued only as separate chapters under the general title, Geology and fuel resources of the southern part of the San Juan Basin, N. Mex.)
- *861. Geology of the Anthracite Ridge coal district, Alaska, by G. A. Waring. 1936 [1937]. 57 p.
- *862. The southern Alaska Range, by S. R. Capps. 1935. 101 p.
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- *864-A. Mineral industry of Alaska in 1933, by P. S. Smith. 1934. p. 1-94. [Includes Selected list of Geological Survey publications on Alaska.]
- *864-B. The Willow Creek-Kashwitna district, Alaska, by S. R. Capps and Ralph Tuck. 1935. p. 95-113.
- *864-C. Mineral deposits of the Ruby-Kuskokwim region, by J. B. Mertie, Jr., 1936, p. 115-245; Index, 1936, p. 247-255. [Includes title page, contents, and list of illustrations of volume.] (Bulletin 864, issued only as separate chapters under the general title, Mineral and fuel resources of Alaska, report on progress of investigations in 1933.)
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- *868-B. Kodiak and vicinity, by S. R. Capps. 1937. p. 93-134.
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- *868-D. The Kaiyuh Hills, Alaska, by J. B. Mertie, Jr. 1937. p. 145-177. [Includes title page, contents, and list of illustrations of volume.] (Bulletin 868, issued only as separate chapters under the general title, Mineral resources of Alaska, report on progress of investigations in 1934. Each chapter contains its own index.)
- *869. Bibliography of North American geology, 1933 and 1934, by E. M. Thom. 1935 [1936]. 389 p.
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- *874-A. Part 1, The McAlester district, Pittsburg, Atoka, and Latimer Counties, by T. A. Hendricks. 1937. p. 1-90.
- *874-B. Part 2, The Lehigh district, Coal, Atoka, and Pittsburg Counties, by M. M. Knechtel. 1937. p. 91-149.
- *874-C. Part 3, The Quinton-Scipio district, Pittsburg, Haskell, and Latimer Counties, by C. H. Dane, H. E. Rothrock, and J. S. Williams. 1938. p. 151-253.
- *874-D. Part 4, The Howe-Wilburton district, Latimer and Le Flore Counties, by T. A. Hendricks. 1939. p. 255-298. [Includes title page, contents, and list of illustrations of volume.] (Bulletin 874, issued only as separate chapters under the general title, Geology and fuel resources of the southern part of the Oklahoma coal field. Each chapter contains its own index.)
- *875. Nonmetallic mineral resources of eastern Oregon, by B. N. Moore. 1937. 180 p.
- *876. Coal deposits of Pike County, Ky., by C. B. Hunt, G. H. Briggs, Jr., A. C. Munyan, and G. R. Wesley. 1937. 92 p.
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- *880-C. Kodiak and adjacent islands, by S. R. Capps. 1937. p. 111-184.
- *880-D. The Eeka Creek coal deposits, Matanuska Valley, by Ralph Tuck. 1937. p. 185-214.
* [Title page, contents, and list of illustrations of volume. 1938. p. i-ii.]
(Bulletin 880 issued only as separate chapters under the general title, Mineral resources of Alaska, report on progress of investigations in 1935. Each chapter contains its own index.)
- *881. Spirit leveling in Connecticut, 1922-35; J. G. Staack, chief topographic engineer. 1937. 65 p.
- *882. Spirit leveling in Massachusetts, 1922-35; J. G. Staack, chief topographic engineer. 1937. 156 p.
- *883-A. Part 1, Western Texas, 1896-1935. 1937. p. 1-50.
- *883-B. Part 2, Panhandle, 1896-1939. 1941. p. 51-149.
- *883-C. Part 3, West-central Texas, 1896-1938. 1941. p. 151-239.
- *883-D. Part 4, North-central Texas, 1896-1938. 1942. p. 241-559.
- *883-E. Part 5, South-central Texas, 1896-1938. 1941. p. 561-789.
* [Title page, contents, and list of illustrations of volume. 1950. p. i-ii.]
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- *884. Geology and mineral deposits of the Snowmass Mountain area, Gunnison County, Colo., by J. W. Vanderwilt. 1937 [1938]. 184 p.
- *885. Geology and ore deposits of the Lordsburg mining district, Hidalgo County, N. Mex., by S. G. Lasky. 1938. 62 p.
- *886-A. Possibility of new oil pools in the Siliceous lime and Bartlesville sand in T. 23 N., R. 10 E., Osage County, Okla., by N. W. Bass, W. R. Dillard, and J. H. Hengst. 1936. p. 1-4.
- *886-B. Geologic factors in the interpretation of fluorspar reserves in the Illinois-Kentucky field, by L. W. Currier. 1937. p. 5-14.
- *886-C. Geology and ore deposits of the southwestern Arkansas quicksilver district, by J. C. Reed and F. G. Wells. 1938. p. 15-90.
- *886-D. Preliminary report on the alunite deposits of the Marysvale region, Utah, by Eugene Callaghan. 1938. p. 91-134. [Includes title page, contents, and list of illustrations of volume.] (Bulletin 886, issued only as separate chapters under the general title, Contributions to economic geology (short papers and preliminary reports), 1937. Each chapter, except A and B, contains its own index.)
- *887. Geophysical abstracts 87, July-December 1936, compiled by W. Ayvazoglou. 1937. 98 p.
Geophysical abstracts 1 to 86 were issued in mimeographed form by the geophysical section of the Bureau of Mines. That section was transferred to the Geological Survey on July 1, 1936. (See also note under Bulletin 957.)
- *888. Spirit leveling in Vermont, 1896-1935; J. G. Staack, chief topographic engineer. 1938. 155 p.
- *889. Spirit leveling in Kansas, 1896-1935; J. G. Staack, chief topographic engineer. 1938. 88 p.
- *890-A. Part 1, Northern South Carolina. 1939. p. 1-455.
- *890-B. Part 2, Southern South Carolina. 1940. p. 457-766. [Includes title page, contents, and list of illustrations of volume.]
(Bulletin 890, issued only as separate chapters under the general title, Spirit leveling in South Carolina, 1896-1938. Each chapter contains its own index.)
- *891. Geology and mineral resources of the Honeybrook and Phoenixville quadrangles, Pa., by F. Bascom and G. W. Stose. 1938. 145 p.
- *892. Bibliography of North American geology for 1935 and 1936, by E. M. Thom. 1937. 504 p.
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- *894. Geology of the Chitina Valley and adjacent area, Alaska, by F. H. Moffit. 1938 [1939]. 137 p.
- *895-A. Geophysical abstracts 88, January-March 1937, compiled by W. Ayvazoglou. 1937. p. 1-42.
- *895-B. Geophysical abstracts 89, April-June 1937, compiled by W. Ayvazoglou. 1938. p. 43-92.
- *895-C. Geophysical abstracts 90, July-September 1937, compiled by W. Ayvazoglou. 1938. p. 93-196.
- *895-D. Geophysical abstracts 91, October-December 1937, compiled by W. Ayvazoglou. 1938. p. 137-203. [Includes title page, contents, and index to volume.]

- (Bulletin 895, issued only as separate chapters under the general title, Geophysical abstracts, 88-91, January-December 1937. Each chapter contains its own index.)
896. *Lexicon of geologic names of the United States (including Alaska)*, by M. G. Wilmarth. 1938. Part 1, A-L, p. 1-1244; Part 2, M-Z, p. 1245-2396. \$8.
- *897-A. *Mineral industry of Alaska in 1936*, by P. S. Smith. 1938. p. 1-107.
- *897-B. *The Valdez Creek mining district in 1936*, by Ralph Tuck. 1938. p. 109-131.
- *897-C. *Gold placers of the Fortymile, Eagle, and Circle districts, Alaska*, by J. B. Mertie, Jr. 1938. p. 133-261.
- *897-D. *Nickel content of an Alaskan basic rock*, by J. C. Reed. 1939. p. 263-268. [Includes title page, contents, and list of illustrations of volume.]
(Bulletin 897, issued only as separate chapters under the general title, Mineral resources of Alaska, report on progress of investigations in 1936. Each chapter, except D, contains its own index.)
- *898-A. Part 1, Southeastern Missouri, 1896-1937. 1938. p. 1-132.
- *898-B. Part 2, South-central Missouri, 1896-1937. 1938. p. 133-308.
- *898-C. Part 3, East-central Missouri, 1896-1937. 1938. p. 309-450.
- *898-D. Part 4, Northwestern Missouri, 1896-1937. 1938. p. 451-580.
- *898-E. Part 5, Southwestern Missouri, 1896-1937. 1939. p. 581-735.
- *898-F. Part 6, Northeastern Missouri, 1896-1938. 1939. p. 737-869.
- *898-G. Part 7, Central Missouri, 1896-1938. 1939. p. 871-1004.
- *898-H. Part 8, West-central Missouri, 1896-1938. 1939. p. 1005-1106.
*[Title page, contents, and list of illustrations of volume. 1940. p. i-iii.]
- (Bulletin 898, issued only as separate chapters under the general title, Spirit leveling in Missouri, 1896-1938. Each chapter contains its own index.)
- *899-A. Part 1, Structure and gas possibilities of the Oriskany sandstone in Steuben, Yates, and parts of the adjacent counties, by W. H. Bradley and J. F. Pepper. 1938. p. 1-68.
- *899-B. Part 2, Subsurface structure in part of southwestern New York and mode of occurrence of gas in the Medina group, by G. B. Richardson. 1941. p. 69-93. [Includes title page, contents, and list of illustrations of volume.]
(Bulletin 899, issued only as separate chapters under the general title, Geologic structure and occurrence of gas in part of southwestern New York. Each chapter contains its own index.)
- *900-A. Part 1, Townships 22 and 23 north, ranges 10 and 11 east, by N. W. Bass, L. E. Kennedy, W. R. Dillard, Otto Leatherock, and J. H. Hengst. 1938. p. 1-45.
- *900-B. Part 2, Townships 22 and 23 north, ranges 8 and 9 east, by C. T. Kirk, H. D. Jenkins, Otto Leatherock, W. R. Dillard, L. E. Kennedy, and N. W. Bass. 1939. p. 47-82.
- *900-C. Part 3, Townships 24 and 25 north, ranges 8 and 9 east, by N. W. Bass, L. E. Kennedy, J. N. Conley, and J. H. Hengst. 1939. p. 83-129.
- *900-D. Part 4, Townships 24 and 25 north, ranges 10 and 11 east, by L. E. Kennedy, J. D. McClure, H. D. Jenkins, and N. W. Bass. 1940. p. 131-171.
- *900-E. Part 5, Townships 26 and 27 north, ranges 10 and 11 east, by L. E. Kennedy, W. E. Shamblin, Otto Leatherock, and N. W. Bass. 1940. p. 173-208.
- *900-F. Part 6, Township 28 north, ranges 10 and 11 east, and township 29 north, ranges 9 to 11 east, by H. B. Goodrich, L. E. Kennedy, and Otto Leatherock. 1940 [1941]. p. 209-236.
- *900-G. Part 7, Townships 20 and 21 north, ranges 11 and 12 east, by W. R. Dillard, N. W. Bass, and C. T. Kirk. 1941. p. 237-268.
- *900-H. Part 8, Parts of township 20 north, ranges 9 and 10 east, and township 21 north, ranges 8 and 9 east and all of township 21 north, range 10 east, by C. T. Kirk, W. R. Dillard, Otto Leatherock, and H. D. Jenkins. 1941. p. 269-302.
- *900-I. Part 9, Townships 23 and 24 north, range 7 east, by N. W. Bass, W. R. Dillard, L. E. Kennedy, and H. B. Goodrich. 1941. p. 303-319.
- *900-J. Part 10, Burbank and South Burbank oil fields, townships 26 and 27 north, range 5 east, and townships 25 to 27 north, range 6 east, by N. W. Bass, H. B. Goodrich, and W. R. Dillard. 1942. p. 321-342.
- *900-K. Part 11, Summary of subsurface geology with special reference to oil and gas, by N. W. Bass. 1942 [1943]. p. 343-393. [Includes title page, contents, list of illustrations, and index to volume.]
(Bulletin 900, issued only as separate chapters under the general title, Subsurface geology and oil and gas resources of Osage County, Okla.)
- *901. *Clay investigations in the Southern States, 1934-35*, reports by W. B. Lang, P. B. King, M. N. Bramlette, T. N. McVay, H. S. Bay, and A. C. Munyan, with an introduction, by G. R. Mansfield. 1940. 346 p.
- *902. *The brown iron ores of eastern Texas*, by E. B. Eckel. 1938. 157 p.
- *903. *The Nushagak district, Alaska*, by J. B. Mertie, Jr. 1938. 96 p.
- *904. *Geology of the Slana-Tok district, Alaska*, by F. H. Moffit. 1938. 54 p.
- *905. *The coal resources of McCone County, Mont.*, by A. J. Collier, and M. M. Knechtel. 1939. 80 p.
- *906-A. *Gravel and sand deposits of eastern Maryland adjacent to Washington and Baltimore*, by N. H. Darton. 1939. p. 1-42.
- *906-B. *Geology and coal resources of the Minot region, N. Dak.*, by D. A. Andrews. 1939. p. 43-84.
- *906-C. *The Mizpah coal field, Custer County, Mont.*, by F. S. Parker and D. A. Andrews. 1939 [1940]. p. 85-133.
- *906-D. *Geology of the Searchlight district, Clark County, Nev.*, by Eugene Callaghan. 1939. p. 135-188.
- *906-E. *Structural control of ore deposition in the Uncompahgre district, Ouray County, Colo.*, with suggestions for prospecting, by W. S. Burbank. 1940 [1941]. p. 189-265.

- *906-F. Phosphate investigation in Florida, 1934 and 1935, by P. V. Roundy. 1941. p. 267-345. [Includes title page, contents, and list of illustrations of volume.]
(Bulletin 906, issued only as separate chapters under the general title, Contributions to economic geology, 1938-39, short papers and preliminary reports. Each chapter contains its own index.)
- *907. Geology of the Alaska Railroad region, by S. R. Capps. 1940. 201 p.
- *908. Geology of area between Green and Colorado Rivers, Grand and San Juan Counties, Utah, by E. T. McKnight. 1940 [1941]. 147 p.
- *909-A. Geophysical abstracts 92, January-March 1938, compiled by W. Ayvazoglou. 1938. p. 1-50.
- *909-B. Geophysical abstracts 93, April-June 1938, compiled by W. Ayvazoglou. 1939. p. 51-104.
- *909-C. Geophysical abstracts 94, July-September 1938, compiled by W. Ayvazoglou. 1939. p. 105-150.
- *909-D. Geophysical abstracts 95, October-December 1938, compiled by W. Ayvazoglou. 1939. p. 151-222. [Includes title page, contents, and index to volume.]
(Bulletin 909, issued only as separate chapters under the general title, Geophysical abstracts, 92-95, January-December 1938. Each chapter contains its own index.)
- *910-A. Mineral industry of Alaska in 1937, by P. S. Smith. 1939. p. 1-113.
- *910-B. Platinum deposits of the Goodnews Bay district, Alaska, by J. B. Mertie, Jr. 1939 [1940]. p. 115-145.
- *910-C. Fineness of gold from Alaska placers, by P. S. Smith. 1941. p. 147-272. [Includes title page, contents, and list of illustrations for volume.]
(Bulletin 910, issued only as separate chapters under the general title, Mineral resources of Alaska, report on progress of investigations in 1937. Each chapter contains its own index.)
- *911. Ore deposits in the vicinity of the London fault of Colorado, by Q. D. Singewald and B. S. Butler. 1941. 74 p.
- *912. Spirit leveling in Utah, 1897-1938; J. G. Staack, chief topographic engineer. 1940. 222 p.
- *913. Triangulation in Utah, 1871-1934; J. G. Staack, chief topographic engineer. 1940. 170 p.
914. Microscopic determination of the ore minerals (2d edition), by M. N. Short. 1940. 314 p. \$1.75.
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- *915-A. Geophysical abstracts 96, January-March 1939, compiled by W. Ayvazoglou. 1940. p. 1-48.
- *915-B. Geophysical abstracts 97, April-June 1939, compiled by W. Ayvazoglou. 1940. p. 49-86.
- *915-C. Geophysical abstracts 98, July-September 1939, compiled by W. Ayvazoglou. 1940. p. 87-132.
- *915-D. Geophysical abstracts 99, October-December 1939, compiled by W. Ayvazoglou. 1940 [1941]. p. 133-195. [Includes title page, contents, and index to volume.]
(Bulletin 915, issued only as separate chapters under the general title, Geophysical abstracts, 96-99, January-December 1939. Each chapter contains its own index.)
- *916-A. Part 1, Southeastern Missouri, 1903-37. 1939. p. 1-124.
- *916-B. Part 2, South-central Missouri, 1908-37. 1939 [1940]. p. 125-295.
- *916-C. Part 3, East-central Missouri, 1903-37. 1939 [1940]. p. 297-439.
- *916-D. Part 4, Northwestern Missouri, 1911-37. 1940. p. 441-563. [Index, p. xi-xii, incorrectly inserted preceding p. 441.]
- *916-E. Part 5, Southwestern Missouri, 1900-37. 1940. p. 565-732.
- *916-F. Part 6, Northeastern Missouri, 1900-37. 1940. p. 733-868.
- *916-G. Part 7, Central Missouri, 1902-37. 1940. p. 869-1024.
- *916-H. Part 8, West-central Missouri, 1906-37. 1940 [1941]. p. 1025-1156. [Includes title page, contents, and list of illustrations of volume.]
(Bulletin 916, issued only as separate chapters under the general title, Transit traverse in Missouri, 1900-1937. Each chapter contains its own index.)
- *917-A. Mineral industry of Alaska in 1938, by P. S. Smith. 1939. p. 1-113.
- *917-B. Geology of the upper Tetling River district, Alaska, by F. H. Moffit. 1941. p. 115-157.
- *917-C. Past lode-gold production from Alaska, by P. S. Smith. 1941. p. 159-212.
- *917-D. Tertiary deposits of the Eagle-Circle district, Alaska, by J. B. Mertie, Jr. 1942. p. 213-264.
[Includes title page, contents, and list of illustrations of volume.]
(Bulletin 917, issued only as separate chapters under the general title, Mineral resources of Alaska, report on progress of investigations in 1938. Each chapter contains its own index.)
- *918. The Goodnews platinum deposits, Alaska, by J. B. Mertie, Jr. 1940 [1941]. 97 p.
- *919. Spirit leveling in Michigan, 1896-1938; J. G. Staack, chief topographic engineer. 1941. 523 p.
- *920. Pre-Cambrian geology and mineral resources of the Delaware Water Gap and Easton quadrangles, N. J.-Pa., by W. S. Bayley. 1941. 98 p.
- *921-A. Manganese carbonate in the Batesville district, Ark., by H. D. Miser, with a chapter on minerals of the ores, by D. F. Hewett and H. D. Miser. 1941. p. 1-97.
- *921-B. Geology and oil and coal resources of the region south of Cody, Park County, Wyo., by W. G. Pierce and D. A. Andrews. 1941. p. 99-180. [Includes title page, contents, and list of illustrations of volume.]
(Bulletin 921, issued only as separate chapters under the general title, Contributions to economic geology, 1940, short papers. Each chapter contains its own index.)
- *922-A. Quicksilver deposits of the Bottle Creek district, Humboldt County, Nev., a preliminary report, by R. J. Roberts. 1940. p. 1-29.
- *922-B. Quicksilver deposits of the Mount Diablo district, Contra Costa County, Calif., by C. P. Ross. 1940. p. 31-54.
- *922-C. Manganese deposits in the Little Florida Mountains, Luna County, N. Mex., a preliminary report, by S. G. Lasky. 1940. p. 55-73.
- *922-D. Chromite deposits of Grant County, Oreg., a preliminary report, by T. P. Thayer. 1940. p. 75-113.

- *922-E. Quicksilver deposit at Buckskin Peak, National mining district, Humboldt County, Nev., a preliminary report, by R. J. Roberts. 1940. p. 115-133.
- *922-F. Tungsten deposits of Boulder County, Colo., by T. S. Lovering. 1940. p. 135-156.
- *922-G. Manganese deposits at Phillipsburg, Granite County, Mont., a preliminary report, by E. N. Goddard. 1940. p. 157-204.
- *922-H. Tungsten deposits of the Atolia district, San Bernardino and Kern Counties, Calif., by D. M. Lemmon and J. V. N. Dorr, 2d. 1940. p. 205-245.
- *922-I. Antimony deposits of a part of the Yellow Pine district, Valley County, Idaho, a preliminary report, by D. E. White. 1940. p. 247-279.
- *922-J. Chromite deposits in the Seiad quadrangle, Siskiyou County, Calif., by G. A. Rynearson and C. T. Smith. 1940 [1941]. p. 281-306.
- *922-K. Antimony deposits of the Wildrose Canyon area, Inyo County, Calif., by D. E. White. 1940. p. 307-325.
- *922-L. Quicksilver deposits of the Mayacmas and Sulphur Bank districts, Calif., a preliminary report, by C. P. Ross. 1940 [1941]. p. 327-353.
- *922-M. Tin deposits of the Black Range, Catron and Sierra Counties, N. Mex., a preliminary report, by Carl Fries, Jr. 1940. p. 355-370.
- *922-N. Chromite deposits of the eastern part of the Stillwater complex, Stillwater County, Mont., by J. W. Peoples and A. L. Howland. 1940 [1941]. p. 371-416.
- *922-O. Chromite deposits of the Pilliken area, Eldorado County, Calif., by F. G. Wells, L. R. Page, and H. L. James. 1940 [1941]. p. 417-460.
- *922-P. Chromite deposits in the Sourdough area, Curry County, and the Briggs Creek area, Josephine County, Oreg., by F. G. Wells, L. R. Page, and H. L. James. 1940. p. 461-496.
- *922-Q. Tungsten deposits in the Tungsten Hills, Inyo County, Calif., by D. M. Lemmon. 1941. p. 497-514.
- *922-R. Quicksilver deposits in San Luis Obispo County and southwestern Monterey County, Calif., by E. B. Eckel, R. G. Yates, and A. E. Granger. 1941. p. 515-580.
- *922-S. Tungsten deposits of the Benton Range, Mono County, Calif., by D. M. Lemmon. 1941. p. 581-593.
- *922-T. Tin-bearing pegmatites of the Tinton district, Lawrence County, S. Dak., a preliminary report, by W. C. Smith and L. R. Page. 1941. p. 595-630. [Includes title pages, contents, lists of illustrations, and indexes for part 1, A-K, and part 2, L-T.] (Bulletin 922, issued only as separate chapters, in two parts, Part 1, A-K, and Part 2, L-T, under the general title, Strategic minerals investigations, 1940, short papers and preliminary reports.)
- *923. Geology and mineral resources of the Randolph quadrangle, Utah-Wyo., by G. B. Richardson. 1941. 54 p.
- *924. Supplement to catalogue of Mesozoic and Cenozoic plants of North America, 1919-37, by R. S. LaMotte. 1944. 330 p. (See also Bulletin 696.)
- *925-A. Geophysical abstracts 100, January-March 1940, compiled by W. Ayvazoglou. 1940 [1941]. p. 1-50.
- *925-B. Geophysical abstracts 101, April-June 1940, compiled by W. Ayvazoglou. 1941. p. 51-92.
- *925-C. Geophysical abstracts 102, July-September 1940, compiled by W. Ayvazoglou. 1941. p. 93-136.
- *925-D. Geophysical abstracts 103, October-December 1940, compiled by W. Ayvazoglou. 1941. p. 137-200. [Includes title page, contents, and index for volume.] (Bulletin 925, issued only as separate chapters under the general title, Geophysical abstracts, 100-103, January-December 1940. Each chapter contains its own index.)
- *926-A. Mineral industry of Alaska in 1939, by P. S. Smith. 1941. p. 1-106.
- *926-B. Geology of the Gerstle River district, Alaska, with a report on the Black Rapids Glacier, by F. H. Moffit. 1942. p. 107-160.
- *926-C. Occurrences of molybdenum minerals in Alaska, by P. S. Smith. 1942. p. 161-210.
- *926-D. Geology of the Portage Pass area, Alaska, by F. F. Barnes. 1943. p. 211-235. [Includes title page, contents, and list of illustrations for volume.] (Bulletin 926, issued only in separate chapters under the general title, Mineral resources of Alaska, 1939. Each chapter contains its own index.)
- *927-A. Superposition in the interpretation of two-layer earth-resistivity curves, by Irwin Roman. 1941. p. 1-18.
No other chapters will be issued for Bulletin 927, Contributions to geophysics, 1941.
- *928-A. Stratigraphy, structure, and mineralization in the Beaver-Tarryall area, Park County, Colo., a reconnaissance report, by Q. D. Singewald. 1942. p. 1-44.
- *928-B. Geology and ore deposits of the Shafter mining district, Presidio County, Tex., by C. P. Ross. 1943. p. 45-125.
- *928-C. Adsorbent clays, their distribution, properties, production, and uses, by P. G. Nutting. 1943. p. 127-221.
- *928-D. Manganiferous and ferruginous chert in Perry and Lewis Counties, Tenn., by E. F. Burchard, with a statement on concentration tests on manganese from Perry County, by H. S. Rankin. 1943. p. 223-273. [Includes title page, contents, and list of illustrations for volume.] (Bulletin 928, issued only as separate chapters under the general title, Contributions to economic geology, 1941-42. Each chapter contains its own index.)
- *929. Geology and ore deposits of the Chichagof mining district, Alaska, by J. C. Reed and R. R. Coats. 1941 [1942]. 148 p.
- *930-A. Part 1, Southern Illinois. 1942. p. 1-481.

- *930-B. Part 2, West-central Illinois. 1942. p. 483-918.
- *930-C. Part 3, East-central Illinois. 1943. p. 919-1281.
- *930-D. Part 4, Northern Illinois. 1943. p. 1283-1704. [Includes title pages, contents, and lists of illustrations for volumes 1 and 2.]
(Bulletin 930, issued only in separate chapters in 2 volumes, volume 1, A-B, and volume 2, C-D, Spirit leveling in Illinois, 1896-1942. Each chapter contains its own index.)
- *931-A. Tungsten resources of the Blue Wing district, Lemhi County, Idaho, by Eugene Callaghan and D. M. Lemmon. 1941. p. 1-21.
- *931-B. Some quicksilver prospects in adjacent parts of Nevada, California, and Oregon, by C. P. Ross. 1941. p. 23-37.
- *931-C. Tin deposit at Majuba Hill, Pershing County, Nev., by W. C. Smith and V. P. Gianela. 1942. p. 39-55.
- *931-D. Nickel-gold deposit near Mount Vernon, Skagit County, Wash., by S. W. Hobbs and W. T. Pecora. 1941. p. 57-78.
- *931-E. Tungsten deposits in the Sierra Nevada near Bishop, Calif., a preliminary report, by D. M. Lemmon. 1941 [1942]. p. 79-104.
- *931-F. Nickel deposits of Bohemia Basin and vicinity, Yakobi Island, Alaska, by J. C. Reed and J. V. N. Dorr, 2d. 1942. p. 105-138.
- *931-G. Chromite deposits of Kenai Peninsula, Alaska, by P. W. Guild. 1942. p. 139-175.
- *931-H. Tin and tungsten deposits at Silver Hill, Spokane County, Wash., by L. R. Page. 1942. p. 177-203.
- *931-I. Nickel deposit near Riddle, Douglas County, Oreg., by W. T. Pecora and S. W. Hobbs. 1942. p. 205-2 6.
- *931-J. Quicksilver deposits in the Steens and Pueblo Mountains, southern Oregon, by C. P. Ross. 1942. p. 227-258.
- *931-K. The Wild Horse quicksilver district, Lander County, Nev., by C. H. Dane and C. P. Ross. 1942. p. 259-278.
- *931-L. Tin deposits of northern Lander County, Nev., by Carl Fries, Jr. 1942. p. 279-294.
- *931-M. Manganese deposits in the Nevada district, White Pine County, Nev., by R. J. Roberts. 1942. p. 295-318.
- *931-N. Quicksilver deposits of the Opalite district, Malheur County, Oreg., and Humboldt County, Nev., by R. G. Yates. 1942. p. 319-348.
- *931-O. Nickel deposit near Gold Hill, Boulder County, Colo., by E. N. Coddard and T. S. Lovering. 1942. p. 349-362.
- *931-P. Mica-bearing pegmatites of New Hampshire, a preliminary report, by J. C. Olson. 1942. p. 363-403.
- *931-Q. Quicksilver and antimony deposits of the Stayton district, Calif., by E. H. Bailey and W. B. Myers. 1942. p. 405-434.
- *931-R. Manganese resources of the Olympic Peninsula, Wash., a preliminary report, by C. F. Park, Jr. 1942. p. 435-457.
- *931-S. Manganese deposits in the Paymaster mining district, Imperial County, Calif., by J. B. Hadley. 1942. p. 459-473.
*[Title pages, contents, lists of illustrations, and indexes for part 1, A-J, and part 2, K-S. 1943. p. i-ix, i-ix.]
(Bulletin 931, issued only as separate chapters, in two parts, Part 1, A-J, and Part 2, K-S, under the general title, Strategic minerals investigations, 1941, short papers and preliminary reports.)
- *932-A. Geophysical abstracts 104, January-March 1941, compiled by W. Ayvazoglou. 1941. p. 1-40.
- *932-B. Geophysical abstracts 105, April-June 1941, compiled by W. Ayvazoglou. 1942. p. 41-84.
- *932-C. Geophysical abstracts 106, July-September 1941, compiled by W. Ayvazoglou. 1942. p. 85-122.
- *932-D. Geophysical abstracts 107, October-December 1941, compiled by W. Ayvazoglou. 1942. p. 123-183. [Includes title pages, contents, and index for volume.]
(Bulletin 932, issued only as separate chapters under the general title, Geophysical abstracts, 104-107, January-December 1941. Each chapter contains its own index.)
- *933-A. Mineral industry of Alaska in 1940, by P. S. Smith. 1942. p. 1-102.
- *933-B. Geology of the Nutzotin Mountains, Alaska, by F. H. Moffit, with a section on the igneous rocks, by R. G. Wayland. 1943. p. 103-174; Gold deposits near Nabesna, by R. G. Wayland. 1943. p. 175-199.
- *933-C. Relations of structure to mineral deposition at the Independence mine, Alaska, by W. C. Stoll. 1944. p. 201-217.
- *933-D. Reconnaissance of Porcupine Valley, Alaska, by Gerald Fitzgerald. 1944. p. 219-243. [Includes title page, contents, and list of illustrations for volume.]
(Bulletin 933, issued only as separate chapters under the general title, Mineral resources of Alaska, report on progress of investigations in 1940. Each chapter contains its own index.)
- *934. Phosphate resources of Florida, by G. R. Mansfield. 1942 [1943]. 82 p
- *935-A. Chrome resources of Cuba, by T. P. Thayer. 1942. p. 1-74.
- *935-B. Manganese deposits of Cuba, by C. F. Park, Jr. 1942. p. 75-97.
- *935-C. Tin deposits of the Republic of Mexico, by W. F. Foshag and Carl Fries, Jr. 1942 [1943]. p. 99-176.
- *935-D. Tungsten deposits, Isla de Pinos, Cuba, by L. R. Page and J. F. McAllister. 1944. p. 177-246.
- *935-E. Nickel-silicate and associated nickel-cobalt-manganese-oxide deposits near São José do Tocantins, Goiaz, Brazil, by W. T. Pecora. 1944. p. 247-305.

- *935-F. Manganese deposits in part of the Sierra Maestra, Cuba, by C. F. Park, Jr., and M. W. Cox. 1944. p. 307-355.
- *935-G. Geology and manganese deposits of Guisa-Los Negros area, Oriente Province, Cuba, by W. P. Woodring and S. N. Daviess. 1944. p. 357-386.
- *935-H. Manganese deposits in Costa Rica, by R. J. Roberts. 1944. p. 387-414.
*[Title page, preface, contents, and list of illustrations for volume. 1947. p. i-x.]
(Bulletin 935, issued only as separate chapters under the general title, *Geologic investigations in the American Republics, 1941-43.*)
- *936-A. Muscovite in the Spruce Pine district, N. C., by T. L. Kesler and J. C. Olson. 1942. p. 1-38.
- *936-B. Tungsten deposits of the Nightingale district, Pershing County, Nev., by W. C. Smith and P. W. Guild. 1942. p. 39-58.
- *936-C. Topaz deposits near the Brewer mine, Chesterfield County, S. C., by Carl Fries, Jr. 1942. p. 59-78.
- *936-D. Chromite and quicksilver deposits of the Del Puerto area, Stanislaus County, Calif., by H. E. Hawkes, Jr., F. G. Wells, and D. P. Wheeler, Jr. 1942. p. 79-110.
- *936-E. Manganese deposits of Cedar Creek Valley, Frederick and Shenandoah Counties, Va., by W. H. Monroe. 1942. p. 111-141.
- *936-F. Quicksilver deposits of the Parkfield district, Calif., by E. H. Bailey. 1942. p. 143-169.
- *936-G. Chromite deposits of Red Bluff Bay and vicinity, Baranof Island, Alaska, by P. W. Guild and J. R. Balsley, Jr. 1942. p. 171-187. 45c.
- *936-H. Quicksilver deposits near the Little Missouri River, Pike County, Ark., by David Gallagher. 1942. p. 189-219.
- *936-I. Nickel-copper deposits on the west coast of Chichagof Island, Alaska, by W. T. Pecora. 1942. p. 221-243.
- *936-J. The tin-spodumene belt of the Carolinas, a preliminary report, by T. L. Kesler. 1942. p. 245-269.
- *936-K. Tin deposits of Irish Creek, Va., by A. H. Koschmann, J. J. Glass, and J. S. Vhay. 1942. p. 271-296.
- *936-L. The Three Kids manganese district, Clark County, Nev., by C. B. Hunt, V. E. McKelvey, and J. H. Wiese. 1942. p. 297-319.
- *936-M. Nickel-copper deposit at Snipe Bay, Baranof Island, Alaska, by J. C. Reed and G. O. Gates. 1942. p. 321-330. 10c.
- *936-N. Antimony deposits of the Stampede Creek area, Kantishna district, Alaska, by D. E. White. 1942 [1943]. p. 331-348.
- *936-O. Nickel-copper deposit at Funter Bay, Admiralty Island, Alaska, by J. C. Reed. 1942. p. 349-361.
- *936-P. Vanadium deposits of Colorado and Utah, a preliminary report, by R. P. Fischer, 1942 [1943]. p. 363-394.
- *936-Q. The Coso quicksilver district, Inyo County, Calif., by C. P. Ross and R. G. Yates. 1943. p. 395-416.
- *936-R. Manganese deposits in the Artillery Mountains region, Mohave County, Ariz., by S. G. Lasky and B. N. Webber. 1944. p. 417-448.
*[Title pages, contents, lists of illustrations, and indexes for part 1, A-1, and part 2, J-R. 1944. p. i-ix, i-x.]
(Bulletin 936, issued only as separate chapters in two parts, Part 1, A-1, and Part 2, J-R, under the general title, *Strategic mineral investigations, 1942, short papers and preliminary reports.* Each chapter contains its own index.)
937. Bibliography of North American geology, 1929-39, by E. M. Thom. 1944. Part 1, Bibliography, p. 1-1063; Part 2, Index, p. 1065-1546 (in one volume, bound). \$4.25 per set.
- *938. Bibliography of North American geology for 1940 and 1941, by E. M. Thom. 1942 [1943]. 479 p.
- *939-A. Geophysical abstracts 108, January-March 1942, compiled by W. Ayvazoglou. 1942. p. 1-38.
- *939-B. Geophysical abstracts 109, April-June 1942, compiled by W. Ayvazoglou. 1942. p. 39-66.
- *939-C. Geophysical abstracts 110, July-September 1942, compiled by W. Ayvazoglou. 1943. p. 67-98.
- *939-D. Geophysical abstracts 111, October-December 1942, compiled by W. Ayvazoglou. 1943. p. 99-138. [Includes title page, contents, and index for volume.]
(Bulletin 939, issued only as separate chapters under the general title, *Geophysical abstracts, 108-111, January-December 1942.* Each chapter contains its own index.)
By Departmental Order of October 5, 1942, the geophysical section of the Geological Survey was transferred back to the Bureau of Mines, Department of the Interior, by whom later *Geophysical Abstracts* were issued. (See also note under Bulletin 957.)
- *940-A. The Rose Creek tungsten mine, Pershing County, Nev., by R. J. Roberts. 1943. p. 1-14.
- *940-B. Manganese deposits of the Elkon area, Va., by P. B. King. 1943. p. 15-55.
- *940-C. Geophysical surveys in the Ochoco quicksilver district, Oreg., a preliminary report, by E. L. Stephenson. 1943. p. 57-98.
- *940-D. Vanadium-bearing magnetite-ilmenite deposits near Lake Sanford, Essex County, N. Y., by J. R. Balsley, Jr. 1944. p. 99-123.
- *940-E. Occurrence of manganese in eastern Aroostook County, Maine, by W. S. White. 1943. p. 125-161.
- *940-F. Manganese deposits of the Lyndhurst-Vesuvius district, Augusta and Rockbridge Counties, Va., by M. M. Knechtel. 1944. p. 163-198. 30c.
- *940-G. Manganese deposits of the Sweet Springs district, W. Va. and Va., by H. S. Ladd. 1944. p. 199-217.

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- *957-B. Geophysical abstracts 129, April-June 1947, by V. L. Skitsky, 1947, p. 57-116.
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- *957-D. Geophysical abstracts 131, October-December 1947, by V. L. Skitsky, 1948, p. 179-265. [Includes title page, contents, and index for volume.]
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Abstracts 1 to 86 were issued in mimeographed form by the Bureau of Mines. On July 1, 1936, the geophysical section was transferred to the Geological Survey, who issued abstracts 87 to 111. By

Departmental Order of October 5, 1942, the geophysical work was again placed with the Bureau of Mines, and abstracts 112 to 127 were issued by that Bureau. Beginning July 1, 1947, the geophysics section was again transferred to the Geological Survey.

- *958. Bibliography of North American geology, 1946 and 1947, by E. M. Thom, Marjorie Hooker, and R. R. Dunaven. 1949. 658 p.
- *959-A. Geophysical abstracts 132, January-March 1948, by V. L. Skitsky and S. T. Vesselowsky. 1948. p. 1-85.
- *959-B. Geophysical abstracts 133, April-June 1948, by V. L. Skitsky and S. T. Vesselowsky. 1948. p. 87-175.
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- *959-D. Geophysical abstracts 135, October-December 1948, by V. L. Skitsky and S. T. Vesselowsky. 1949. p. 263-388. [Includes title page, contents, and index for volume.] (Bulletin 959, issued only as separate chapters under the general title, Geophysical abstracts, 1948. Each chapter contains its own index.)
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 - *a. Introduction, 1901, p. 3-4; Summary, 1901, p. 5-29; Iron ores, by John Birkinbine, 1901, p. 31-67; The American and foreign iron trades in 1899, by J. M. Swank, 1901, p. 69-118.
 - *b. Gold and silver, 1901, p. 119-127.
 - *c. Manganese ores, by John Birkinbine, 1901, p. 129-162.
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 - *f. Zinc, by Charles Kirchhoff, Jr., 1901, p. 249-266.
 - *g. Aluminum and bauxite, 1901, p. 267-271.
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 - *k. Tungsten, molybdenum, uranium, and vanadium, by J. H. Pratt, 1901, p. 299-318; An occurrence of tungsten ore in eastern Nevada, by F. B. Weeks, 1901, p. 319-320.
 - *l. Coal, by E. W. Parker, 1901, p. 321-519.
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 - *Part VI (continued), Nonmetallic products except coal and coke. 1901. 634 p.
 - *a. Petroleum, by F. H. Oliphant, 1901, p. 1-292.
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 - *e. Clay, 1901, p. 361-364; Clay and clay products at the Paris exposition of 1900, by Heinrich Ries, 1901, p. 365-392.
 - *f. Portland cement, by S. B. Newberry, 1901, p. 393-406; American rock cement, by Uriah Cummings, 1901, p. 407-411.
 - *g. Soapstone, by E. W. Parker, 1901, p. 413-418.
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 - *j. Phosphate rock, by E. W. Parker, 1901, p. 481-502.
 - *k. Sulphur and pyrite, by E. W. Parker, 1901, p. 503-522.
 - *l. Gypsum, by E. W. Parker, 1901, p. 523-530.
 - *m. Salt, by E. W. Parker, 1901, p. 531-554.
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 - *u. Feldspar and quartz, by Heinrich Ries, 1901, p. 593-596.
 - *v. Mineral waters, by A. C. Peale, 1901, p. 597-622; Index, 1901, p. 623-634.
- Note: By act of Congress approved March 3, 1901, the report on mineral resources was again made a distinct publication.
- *Mineral Resources of the United States, calendar year 1900. 1901. 927 p.
 - *a. Introduction, 1901, p. 11-12; Summary, 1901, p. 13-38; Iron and steel, 1901, p. 39-104. Includes: Iron ores, by John Birkinbine, 1901, p. 39-67; Iron and steel at the close of the nineteenth century, by J. M. Swank, 1901, p. 69-90.

- *b. Gold and silver, 1901, p. 105-113.
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- *jj. Chromite, or chromic iron ore, by J. H. Pratt, 1901, p. 897-898.
- *kk. Mineral waters, by A. C. Peale, 1901, p. 899-905; Index, 1901, p. 907-927.

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- *a. Introduction, 1902, p. 13-14; Summary, 1902, p. 15-41; Iron, 1902, p. 43-115.

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- *b. Gold and silver, by G. E. Roberts, 1902, p. 117-126.
- *c. Manganese ores, by John Birkinbine, 1902, p. 127-155.
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- *e. Lead, by Charles Kirchoff, Jr., 1902, p. 199-210.
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- *oo. Fuller's earth, 1902, p. 921-934, including Fuller's earth of southwestern Georgia and western Florida, by T. W. Vaughan, 1902, p. 922-932.
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- *uu. Mineral waters, 1902, p. 961-966.
- *vv. Ores of economic importance, by E. O. Hovey, 1902, p. 967-973; Index, 1902, p. 975-996.
- *Mineral Resources of the United States, calendar year 1902, 1904, 1038 p.
 - *a. Introduction, 1904, p. 9-10; Summary, 1904, p. 11-39; Iron ores, by John Birkinbine, 1904, p. 41-73; Statistics of the American iron trade for 1902, by J. M. Swank, 1904, p. 75-99; General statistics of iron and steel, iron ore, and coal to the year 1901, inclusive for five leading iron and steel producing countries, by J. M. Swank, 1904, p. 101-122.
 - *b. Gold and silver, by G. E. Roberts, 1904, p. 123-131.
 - *c. Manganese ores, by John Birkinbine, 1904, p. 133-161.
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 - *p. Coal, by E. W. Parker, 1904, p. 289-447.
 - *q. Coke, by E. W. Parker, 1904, p. 449-515; Gas, coke, tar, and ammonia at gas works, and in retort coke ovens, by E. W. Parker, 1904, p. 517-533.
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 - *v. Clay-working industries, by Jefferson Middleton, 1904, p. 703-776, including Effect of tannin on clay, by Heinrich Ries, 1904, p. 775-776.
 - *w. Cement, 1904, p. 777-812, including Review of cement industry in United States, by L. L. Kimball, 1904, p. 789-812.
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 - *z. Abrasive materials, by J. H. Pratt, 1904, p. 873-890.
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 - *jj. Asbestos, by J. H. Pratt, 1904, p. 963-966.
 - *kk. Chromite, or chromic iron ore, by J. H. Pratt, 1904, p. 967-969.
 - *ll. Flint and feldspar, by Heinrich Ries, 1904, p. 971-973.
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 - *qq. Monazite, by J. H. Pratt, 1904, p. 1003-1006.
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- *a. Introduction, 1904, p. 9-10; Summary of the mineral production of the United States in 1903, 1904, p. 11-39.
 - *b. Iron ores, by John Birkinbine, 1904, p. 41-73; Statistics of the American iron trade for 1903, by J. M. Swank, 1904, p. 75-127.
 - *c. Manganese ores, by John Birkinbine, 1904, p. 129-156.
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 - *h. Aluminum and bauxite, by Joseph Struthers, 1904, p. 265-279.
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 - *v. Clay-working industries, by Jefferson Middleton, 1904, p. 791-882, including The sand-lime brick industry, by S. V. Peppel, 1904, p. 866-882.
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- *Mineral Resources of the United States, calendar year 1904. 1905. 1264 p.
- *a. Introduction, 1905, p. 7-8; Summary, 1905, p. 9-36; Iron ores, by John Birkinbine, 1905, p. 37-68; Statistics of the American iron ore trade for 1904, by J. M. Swank, 1905, p. 69-111.
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- *r. Petroleum, by F. H. Oliphant, 1905, p. 675-759.
- *s. Natural gas, by F. H. Oliphant, 1905, p. 761-788.
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- *u. Stone, 1905, p. 801-841.
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- *z. Abrasive materials, by J. H. Pratt, 1905, p. 995-1015.
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- *ss. Peat, by H. H. Hindshaw, 1905, p. 1229-1234; Index, 1905, p. 1235-1264.
- *Mineral Resources of the United States, calendar year 1905, 1906, 1403 p.
 - *a. Introduction, 1906, p. 9-12; Summary, 1906, p. 13-52, including Value, by states, of the mineral products of the United States in the calendar year 1905, compiled by W. T. Thom, 1906, p. 42-52.
 - *b. Iron ores, by John Birkinbine, 1906, p. 53-86.
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 - *b. Coke, by E. W. Parker, 1909, p. 223-283; Gas, coke, tar, and ammonia, by E. W. Parker, 1909, p. 285-316.
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- *Part I, Metals. 1911. 617 p.
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- *Part I, Metals. 1927. 133a, 653 p.
- *a. Introduction, by F. J. Katz, 1927, p. 1a-8a; Summary, by M. B. Clark, 1927, p. 9a-130a; Prefatory note to the reports on gold, silver, copper, lead, and zinc, by F. J. Katz, 1927, p. 131a-133a.
- *b. Gold, silver, copper, lead, and zinc in the eastern States, by J. P. Dunlop, 1927, p. 1-7.
- *c. Platinum and allied metals, by J. M. Hill, 1927, p. 9-22.
- *d. Bauxite and aluminum, by J. M. Hill, 1927, p. 23-34.
- *e. Quicksilver, by C. P. Ross, 1927, p. 35-41; Recent publications on quicksilver, compiled by I. B. Evans, 1927, p. 42-46.
- *f. Silver, copper, lead, and zinc in the central States, by J. P. Dunlop and F. Begeman, 1927, p. 47-78.
- *g. Zinc, by C. E. Siebenthal and A. Stoll, 1927, p. 79-99.
- *h. Tin, by B. L. Johnson, 1927, p. 101-103.
- *i. Bismuth, by V. C. Heikes, 1927, p. 105-108.
- *j. Selenium, by V. C. Heikes, 1927, p. 109-110.
- *k. Tellurium, by V. C. Heikes, 1927, p. 111.

- *l. Chromite, by Edward Sampson and H. M. Meyer, 1927, p. 113-117.
- *m. Lead and zinc pigments and salts, by C. E. Siebenthal and A. Stoil, 1927, p. 129-144.
- *n. Manganese and manganiferous ores, by H. M. Meyer, 1927, p. 145-157.
- *o. Arsenic, by V. C. Heikes and G. F. Loughlin, 1927, p. 159-181.
- *p. Copper, by H. M. Meyer, 1927, p. 183-234.
- *q. Rare metals [including cobalt, molybdenum, nickel, tantalum, titanium, tungsten, radium, uranium, and vanadium], by F. L. Hess, 1927, p. 235-258, including Discussion of foreign deposits of uranium and vanadium, by F. L. Hess, 1927, p. 252-258.
- *r. Secondary metals, by J. P. Dunlop, 1927, p. 259-276.
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- *aa. Gold, silver, copper, lead, and zinc in Nevada, by V. C. Heikes, 1927, p. 481-514.
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- *cc. Gold and silver, by J. P. Dunlop, 1927, p. 549-585.
- *dd. Gold and silver in South Dakota, by C. W. Henderson, 1927, p. 587-590.
- *ee. Gold, silver, and copper in Wyoming, by C. W. Henderson, 1927, p. 591.
- *ff. Gold, silver, copper, lead, and zinc in New Mexico, by C. W. Henderson, 1927, p. 593-607.
- *gg. Gold, silver, copper, and lead in Texas, by C. W. Henderson, 1927, p. 609.
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- *Part II, Nonmetals. 1927. 750 p.
- *a. Sulphur and pyrites, by H. M. Meyer, 1927, p. 1-6.
- *b. Magnesium and its compounds, by J. M. Hill and G. F. Loughlin, 1927, p. 7-21.
- *c. Strontium, by G. W. Stose, 1927, p. 23-26.
- *d. Fluorspar and cryolite, by H. W. Davis, 1927, p. 27-40.
- *e. Fuel briquets, by W. F. McKenney, 1927, p. 41-48.
- *f. Slate, by G. F. Loughlin and A. T. Coons, 1927, p. 49-61.
- *g. Gypsum, by K. W. Cottrell, 1927, p. 63-68.
- *h. Peat, by K. W. Cottrell, 1927, p. 69-70.
- *i. Clay, by Jefferson Middleton, 1927, p. 71-78.
- *j. Barytes and barium products, by C. E. Siebenthal and E. R. Phillips, 1927, p. 79-88.
- *k. Carbon black produced from natural gas, by G. B. Richardson, 1927, p. 89-90.
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- *m. Fuller's earth, by Jefferson Middleton, 1927, p. 99-107.
- *n. Mineral waters, by W. D. Collins, 1927, p. 109-124.
- *o. Salt, bromine, and calcium chloride, by K. W. Cottrell, 1927, p. 125-134.
- *p. Asphalt and related bitumens, by K. W. Cottrell, 1927, p. 135-142.
- *q. Mica, by B. H. Stoddard, 1927, p. 143-148.
- *r. Sand and gravel, by A. T. Coons, 1927, p. 149-159.
- *s. Talc and soapstone, by B. H. Stoddard, 1927, p. 161-165.
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- *u. Stone, by G. F. Loughlin and A. T. Coons, 1927, p. 205-234.
- *v. Silica, by F. J. Katz, 1927, p. 235-237.
- *w. Phosphate rock, by G. R. Mansfield, 1927, p. 239-273.
- *x. Lime, by G. F. Loughlin and A. T. Coons, 1927, p. 275-284.
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- *z. Cement, by E. F. Burchard and B. W. Bagley, 1927, p. 293-325.
- *aa. Abrasive materials, by F. J. Katz, 1927, p. 327-337.
- *bb. Asbestos, by Edward Sampson, 1927, p. 339-350.
- *cc. Natural gas, by G. B. Richardson, 1927, p. 351-358.
- *dd. Natural-gas gasoline, by G. B. Richardson, 1927, p. 359-364.
- *ee. Petroleum, by G. B. Richardson, 1927, p. 365-426.
- *ff. Coke and by-products, by F. G. Tryon and H. L. Bennit, 1927, p. 427-497.
- *gg. Coal, by F. G. Tryon and L. Mann, 1927, p. 499-746; Index, 1927, p. 747-750.

Note. On July 1, 1925, by Executive order, the Division of Mineral Resources of the Geological Survey was transferred to the United States Department of Commerce, Bureau of Mines. On April 24, 1934, the Bureau was transferred to the Department of the Interior. The series (entitled Mineral Resources during the years 1924-31 and Minerals Yearbook thereafter) is published by the Department of the Interior, Bureau of Mines, to which applications should be addressed.

MONOGRAPHS

[All monographs are out of print, as indicated by asterisks (*).]

- *1. Lake Bonneville, by G. K. Gilbert. 1890. 438 p.
- *2. Tertiary history of the Grand Canyon district, with atlas, by C. E. Dutton. 1882. 264 p. and atlas of 23 sheets folio.
- *3. Geology of the Comstock lode and the Washoe district, with atlas, by G. F. Becker. 1882. 422 p. and atlas of 21 sheets folio.
- *4. Comstock mining and miners, by Eliot Lord. 1883. 451 p.
- *5. The copper-bearing rocks of Lake Superior, by R. D. Irving. 1883. 464 p.
- *6. Contributions to the knowledge of the older Mesozoic flora of Virginia, by W. M. Fontaine. 1883. 144 p.
- *7. Silver-lead deposits of Eureka, Nev., by J. S. Curtis. 1884. 200 p.
- *8. Paleontology of the Eureka district [Nev.], by C. D. Walcott. 1884. 298 p.
- *9. Brachiopoda and Lamellibranchiata of the Raritan clays and greensand marls of New Jersey, by R. P. Whitfield. 1885. 338 p.
- *10. Dinocerata, a monograph of an extinct order of gigantic mammals, by O. C. Marsh. 1886. 243 p.
- *11. Geological history of Lake Lahontan, a Quaternary lake of northwestern Nevada, by I. C. Russell. 1885. 288 p.
- *12. Geology and mining industry of Leadville, Colo., with atlas, by S. F. Emmons. 1886. 770 p. and atlas of 35 sheets folio.
- *13. Geology of the quicksilver deposits of the Pacific slope, with an atlas, by G. F. Becker. 1888. 486 p.
- *14. Fossil fishes and fossil plants of the Triassic rocks of New Jersey and the Connecticut Valley, by J. S. Newberry. 1888. 152 p.
- *15. The Potomac or younger Mesozoic flora, by W. M. Fontaine. 1889. 377 p. (Text and plates bound separately.)
- *16. The Paleozoic fishes of North America, by J. S. Newberry. 1889. 340 p.
- *17. The flora of the Dakota group, by Leo Lesquereux, (a posthumous work, edited by F. H. Knowlton). 1891. 400 p.
- *18. Gasteropoda and Cephalopoda of the Raritan clays and greensand marls of New Jersey, by R. P. Whitfield. 1892. 402 p. (Text and plates bound separately.)
- *19. The Penokee iron-bearing series of Michigan and Wisconsin, by R. D. Irving and C. R. Van Hise. 1892. 534 p.
- *20. Geology of the Eureka district, Nev., by Arnold Hague. 1892. 419 p. and atlas of 13 sheets folio.
- *21. Tertiary rhynchophorous Coleoptera of the United States, by S. H. Scudder. 1893. 206 p.
- *22. A manual of topographic methods, by Henry Gannett, chief topographer. 1893. 300 p. (See also Bulletins 307 and 788.)
- *23. Geology of the Green Mountains in Massachusetts, by Raphael Pumpelly, J. E. Wolff, and T. N. Dale. 1894. 206 p.
- *24. Mollusca and Crustacea of the Miocene formations of New Jersey, by R. P. Whitfield. 1894. 195 p.
- *25. The glacial Lake Agassiz, by Warren Upham. 1895. 658 p. (Published in July, 1896.)
- *26. The flora of the Amboy clays, by J. S. Newberry (a posthumous work, edited by Arthur Hollick). 1895. 260 p. (Published in December, 1896.)
- *27. Geology of the Denver Basin in Colorado, by S. F. Emmons, Whitman Cross, and G. H. Eldridge. 1896. 556 p.
- *28. The Marquette iron-bearing district of Michigan, with atlas, by C. R. Van Hise and W. S. Bayley, including a chapter on the Republic trough, by H. L. Smyth. 1897. 608 p. and atlas of 39 sheets folio.
- *29. Geology of old Hampshire County, Mass., comprising Franklin, Hampshire, and Hampden Counties, by B. K. Emerson. 1898. 790 p.
- *30. Fossil medusae, by C. D. Walcott. 1898. 201 p.
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Part I. General geology (not published).
*Part II. Descriptive geology, petrography, and paleontology by Arnold Hague, J. P. Iddings, W. H. Weed, C. D. Walcott, G. H. Girty, T. W. Stanton, and F. H. Knowlton. 1899. 893 p. and atlas of 27 sheets folio.
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- *34. The glacial gravels of Maine and their associated deposits, by G. H. Stone. 1899. 499 p.
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- *36. The Crystal Falls iron-bearing district of Michigan, by J. M. Clements and H. L. Smyth, with a chapter on the Sturgeon River tongue, by W. S. Bayley, and an introduction, by C. R. Van Hise. 1899. 512 p.
- *37. Fossil flora of the Lower Coal Measures of Missouri, by David White. 1899. 467 p.
- *38. The Illinois glacial lobe, by Frank Leverett. 1899. 817 p.
- *39. The Eocene and lower Oligocene coral faunas of the United States, with descriptions of a few doubtfully Cretaceous species, by T. W. Vaughan. 1900. 263 p.
- *40. Adepagous and clavicorn Coleoptera from the Tertiary deposits at Florissant, Colo., with descriptions of a few other forms and a systematic list of the nonrhynchophorous Tertiary Coleoptera of North America, by S. H. Scudder. 1900. 148 p.
- *41. Glacial formations and drainage features of the Erie and Ohio Basins, by Frank Leverett. 1902. 802 p.
- *42. The Carboniferous ammonoids of America, by J. P. Smith. 1903. 211 p.
- *43. The Mesabi iron-bearing district of Minnesota, by C. K. Leith. 1903. 316 p.
- *44. Pseudoceratites of the Cretaceous, by Alpheus Hyatt, edited by T. W. Stanton. 1903. 351 p.
- *45. The Vermilion iron-bearing district of Minnesota, by J. M. Clements. 1903. 463 p. and atlas of 26 sheets folio.
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- *47. A treatise on metamorphism, by C. R. Van Hise. 1904. 1286 p.
- *48. Status of the Mesozoic floras of the United States (second paper), by L. F. Ward, with the collaboration of W. M. Fontaine, Arthur Bibbins, and G. R. Wieland. 1905. 616 o. (Text and plates bound separately.)
- *49. The Ceratopsia, by J. B. Hatcher, based on preliminary studies, by O. C. Marsh, edited and completed, by R. S. Lull. 1907. 300 p.
- *50. The Cretaceous flora of southern New York and New England, by Arthur Hollick. 1906. 219 p.
- *51. Cambrian Brachiopoda, by C. D. Walcott. 1912. In two parts. Part I, 872 p.; Part II, 363 p.
- *52. The geology of the Lake Superior region, by C. R. Van Hise and C. K. Leith. 1911. 641 p.
- *53. The Pleistocene of Indiana and Michigan and the history of the Great Lakes, by Frank Leverett and F. B. Taylor. 1915. 529 p.
- *54. The Mesozoic and Cenozoic Echinodermata of the United States, by W. B. Clark and M. W. Twitchell. 1915. 341 p.
- *55. The titanotheres of ancient Wyoming, Dakota, and Nebraska, by H. F. Osborn. 1929. In two volumes. Vol. 1, p. 1-701; Vol. 2, p. 703-953.

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[An asterisk (*) indicates that the paper is out of print.]

- *1. Preliminary report on the Ketchikan mining district, Alaska, with an introductory sketch of the geology of southeastern Alaska, by A. H. Brooks, 1902, 120 p.
- *2. A reconnaissance of the northwestern portion of Seward Peninsula, Alaska, by A. J. Collier, 1902, 70 p.
- *3. The geology and petrography of Crater Lake National Park, by J. S. Diller and H. B. Patton, 1902, 167 p.
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- *5. The forests of Washington, a revision of estimates, by Henry Gannett, 1902, 38 p.
- *6. Forest conditions in the Cascade Range, Wash., between the Washington and Mount Rainier forest reserves, by F. G. Plummer, 1902, 42 p.
- *7. Forest conditions in Olympic Forest Reserve, Wash., from notes by Arthur Dodwell and T. F. Rixon, 1902, 110 p.
- *8. Forest conditions in the northern Sierra Nevada, Calif., by J. B. Leiberger, 1902, 194 p.
- *9. Forest conditions in the Cascade Range Forest Reserve, Oreg., by H. D. Langille, F. G. Plummer, Arthur Dodwell, T. F. Rixon, and J. B. Leiberger, with an introduction by Henry Gannett, 1903, 298 p.
- *10. Reconnaissance from Fort Hamlin to Kotzebue Sound, Alaska, by way of Dall, Kanuti, Allen, and Kowak rivers, by W. C. Mendenhall, 1902, 68 p.
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- *14. Chemical analyses of igneous rocks published from 1884 to 1900, with a critical discussion of the character and use of analyses, by H. S. Washington, 1903, 495 p. (See also Professional Paper 99.)
- *15. The mineral resources of the Mount Wrangell district, Alaska, by W. C. Mendenhall and F. C. Schrader, 1903, 71 p.
- *16. The Carboniferous formations and faunas of Colorado, by G. H. Girty, 1903, 546 p.
- *17. Preliminary report on the geology and water resources of Nebraska west of the one hundred and third meridian, by N. H. Darton, 1903, 69 p.
- *18. Chemical composition of igneous rocks expressed by means of diagrams, with reference to rock classification on a quantitative chemico-mineralogical basis, by J. P. Iddings, 1903, 98 p.
- *19. Contributions to the geology of Washington, 1903, 101 p.
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- *20. A reconnaissance in northern Alaska across the Rocky Mountains, along Koyukuk, John, Anaktuvuk, and Colville rivers and the Arctic coast to Cape Lisburne, in 1901, by F. C. Schrader, with notes, by W. J. Peters, 1904, 139 p.
- *21. The geology and ore deposits of the Bisbee quadrangle, Ariz., by F. L. Ransome, 1904, 168 p.
- *22. Forest conditions in the San Francisco Mountains Forest Reserve, Ariz., by J. B. Leiberger, T. F. Rixon, and Arthur Dodwell, with an introduction, by F. G. Plummer, 1904, 95 p.
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- *32. Preliminary report on the geology and underground water resources of the central Great Plains, by N. H. Darton, 1905, 433 p.

- *33. Forest conditions in the Lincoln Forest Reserve, N. Mex., by F. G. Plummer and M. G. Gowsell. 1904. 47 p.
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- *38. Economic geology of the Bingham mining district, Utah, by J. M. Boutwell, with a section on areal geology, by Arthur Keith, and an introduction on general geology, by S. F. Emmons. 1905. 413 p.
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- *45. The geography and geology of Alaska, a summary of existing knowledge, by A. H. Brooks, with a section on climate, by Cleveland Abbe, Jr., and a topographic map and description thereof, by R. U. Goode. 1906. 327 p.
- *46. Geology and underground water resources of northern Louisiana and southern Arkansas, by A. C. Veatch. 1906. 422 p.
- *47. The Tertiary and Quaternary peccans of California, by Ralph Arnold. 1906. 264 p.
- *48. Report on the operations of the coal-testing plant of the United States Geological Survey at the Louisiana Purchase Exposition, St. Louis, Mo., 1904; E. W. Parker, J. A. Holmes, M. R. Campbell, committee in charge. 1906. 1492 p. (In three parts.)
- *49. Geology and mineral resources of part of the Cumberland Gap coal field, Ky., by G. H. Ashley and L. C. Glenn, in cooperation with the State Geological Department of Kentucky, C. J. Norwood, curator. 1906. 239 p.
- *50. The Montana lobe of the Keewatin ice sheet, by F. H. H. Calhoun. 1906. 62 p.
- *51. Geology of the Bighorn Mountains, by N. H. Darton. 1906. 129 p.
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- *56. Geography and geology of a portion of southwestern Wyoming, with special reference to coal and oil, by A. C. Veatch. 1907. 178 p.
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- *58. The Guadalupian fauna, by G. H. Girty. 1908. 651 p.
- *59. Contributions to the Tertiary paleontology of the Pacific coast: I. The Miocene of Astoria and Coos Bay, Oregon, by W. H. Dall. 1909. 278 p.
Includes: The Miocene of Astoria and Coos Bay, Oregon, by W. H. Dall, 1909, p. 5-142; A further account of the fossil sea lion *Pontolis magnus*, from the Miocene of Oregon, by F. W. True, 1909, p. 143-148; Appendices 1-13 [in which the papers by P. P. Carpenter, T. A. Conrad, J. D. Dana, and B. F. Shumard are all reprints of much earlier articles]: 1. Fossil shells from Tertiary deposits on the Columbia River, near Astoria, by T. A. Conrad, 1909, p. 150-151; 2. Fossils from northwestern America, by J. D. Dana, 1909, p. 152-157; 3. Notes on shells, with descriptions of new species, by T. A. Conrad, 1909, p. 158; 4. Descriptions of new fossil shells of the United States, by T. A. Conrad, 1909, p. 159-161; 5. Notes on shells, with descriptions of three recent and one fossil species, by T. A. Conrad, 1909, p. 162; 6. Descriptions of fossil shells from the Eocene and Miocene formations of California, by T. A. Conrad, 1909, p. 163-171; 7. Note on the Miocene and post-Pliocene deposits of California, with descriptions of two new fossil corals, by T. A. Conrad, p. 172; 8. Descriptions of three new genera; twenty-three new species middle Tertiary fossils from California, and one from Texas, by T. A. Conrad, 1909, p. 173-175; 9. Descriptions of the Tertiary fossils collected on the [Pacific Railroad] survey, by T. A. Conrad, 1909, p. 176-179; 10. Report on the paleontology of the [Pacific Railroad] survey, by T. A. Conrad, 1909, p. 180-185; 11. Descriptions of new fossils from the Tertiary formation of Oregon and Washington Territories and the Cretaceous of Vancouver Island, collected by Dr. John Evans, United States geologist, under instructions from the Department of the Interior, by B. F. Shumard, 1909, p. 186-188; 12. On the Pleistocene fossils collected by Col. E. Jewett at Santa Barbara, Cal., with descriptions of new species, by P. P. Carpenter, 1909, p. 189-191; 13. Material toward a bibliography of publications on the post-Eocene marine mollusks of the northwest coast of America, 1865-1908, by W. H. Dall, 1909, p. 192-216; Plates, 1909, p. 217-261; Index, 1909, p. 263-278.
- *60. The interpretation of topographic maps, by R. D. Salisbury and W. W. Atwood. 1908. 84 p.
- *61. Glaciation of the Uinta and Wasatch mountains, by W. W. Atwood. 1909. 96 p.
- *62. The geology and ore deposits of the Coeur d'Alene district, Idaho, by F. L. Ransome and F. C. Calkins. 1908. 203 p.
- *63. Economic geology of the Georgetown quadrangle (together with the Empire district), Colo., by J. E. Spurr and G. H. Garrey, with general geology, by S. H. Ball. 1908. 422 p.

- *64. The Yakutat Bay region, Alaska. 1909. 183 p.
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- *65. Geology and water resources of the northern portion of the Black Hills and adjoining regions in South Dakota and Wyoming, by N. H. Darton. 1909. 105 p.
- *66. The geology and ore deposits of Goldfield, Nev., by F. L. Ransome, assisted in the field by W. H. Emmons and G. H. Garrey. 1909. 258 p.
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(Professional Paper 98 was issued as a single volume, Shorter contributions to general geology, 1916, and also as separate chapters.)
- *99. Chemical analyses of igneous rocks published from 1884 to 1913, inclusive, with a critical discussion of the character and use of analyses (a revision and expansion of Professional Paper 14), by H. S. Washington, 1917, 1201 p.
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- *100-A. General introduction, by M. R. Campbell, 1917, p. 1-33.

- *100-B. The coal fields of Ohio, by J. A. Bownocker, State geologist, with a computation of the original content of the fields, by F. R. Clark, 1918, p. 35-96.
No other chapters will be published.
(Professional Paper 100 was issued as a single volume, The coal fields of the United States, published 1929 [1930], and also as separate chapters.)
- *101. Geology and paleontology of the Raton Mesa and other regions in Colorado and New Mexico, by W. T. Lee and F. H. Knowlton, 1917 [1918], 450 p.
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- *140-F. Correlation of the basal Cretaceous beds of the Southeastern States, by C. W. Cooke, 1926, p. 137-139; Index, 1926, p. 141-143; i-iii (including title page, contents, and list of illustrations of volume).
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- *143. Paleontology and stratigraphy of the Castle Hayne and Trent marls in North Carolina, by L. B. Kellum. 1926. 56 p.
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- *148. Geology and ore deposits of the Leadville mining district, Colo., by S. F. Emmons, J. D. Irving, and G. F. Loughlin. 1927. 368 p.
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- *151. The cephalopods of the Eagle sandstone and related formations in the Western Interior of the United States, by J. B. Reeside, Jr. 1927. 87 p.
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- *154-G. Algae reefs and oolites of the Green River formation, by W. H. Bradley, 1929 [1930], p. 203-223.
- *154-H. A revision of the flora of the Latah formation, by E. W. Berry, 1929 [1930], p. 225-265.
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- *155. The flora of the Denver and associated formations of Colorado, by F. H. Knowlton, a posthumous work, edited by E. W. Berry. 1930. 142 p.
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- *159. The Upper Cretaceous floras of Alaska, by Arthur Hollick, with a description of the plant-bearing beds, by G. C. Martin. 1930. 123 p.
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 - *165-D. Geology of the Big Snowy Mountains, Mont., by Frank Reeves, 1931, p. 135-149.
 - *165-E. The kaolin minerals, by C. S. Ross and P. F. Kerr, 1931, p. 151-176; Index, 1931, p. 177-180; i-iv (including title page, contents, and list of illustrations of volume).
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 - *166. Physiography and Quaternary geology of the San Juan Mountains, Colo., by W. W. Atwood and K. F. Mather. 1932. 176 p.
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 - *171. Geology and ore deposits of the Pioche district, Nev., by L. G. Westgate and Adolph Knopf. 1932. 79 p.
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 - *176. Geology and ore deposits of the Breckenridge mining district, Colo., by T. S. Lovering. 1934. 64 p.
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- *184. Pre-Cambrian rocks of the Lake Superior region, a review of newly discovered geologic features, with a revised geologic map, by C. K. Leith, R. J. Lund, and Andrew Leith. 1935. 34 p.
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- *186-A. New Upper Cretaceous Ostreidae from the Gulf region, by L. W. Stephenson. 1936. p. 1-12.
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- *190. Lower Pliocene mollusks and echinoids from the Los Angeles Basin, Calif., and their inferred environment, by W. P. Woodring. 1938. 67 p.
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- *194. The gold quartz veins of Grass Valley, Calif., by W. D. Johnston, Jr. 1940. 101 p.
- *195. Geology of the Kettleman Hills oil field, Calif.; stratigraphy, paleontology, and structure, by W. P. Woodring, Ralph Stewart, and R. W. Richards. 1940 [1941]. 170 p.
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- *196-D. Part 5, Mollusca, by H. A. Rehder, 1942, p. 107-109; Part 6, Echinodermata, by A. H. Clark, 1942, p. 111-117; Part 7, Miscellaneous fossils and significance of faunal distribution, by L. G. Henbest, 1942, p. 119-133.
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- *197-B. Oligocene Foraminifera near Millry, Ala., by J. A. Cushman and Winnie McGlamery. 1942. p. 65-84.
- *197-C. Lower Pennsylvanian species of *Mariopteris*, *Eremopteris*, *Diplothemna*, and *Aneimites* from the Appalachian region, by David White (a posthumous work); assembled and edited by C. B. Read. 1943. p. 85-140.
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- *200. Geology and ore deposits of the Magdalena mining district, N. Mex., by G. F. Loughlin and A. H. Koschmann. 1942 [1943]. 168 p.
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- *206. Upper Cretaceous Foraminifera of the Gulf coastal region of the United States and adjacent areas, by J. A. Cushman. 1946. 241 p.

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- *3. Sewage irrigation, by G. W. Rafter. 1897. 100 p. (See also Water-Supply Paper 22.)
- *4. A reconnaissance in southeastern Washington, by I. C. Russell. 1897. 96 p.
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- *16. Operations at river stations, 1897, Part II. 1898. p. 101-200.
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- *25. Water resources of the State of New York, Part II, by G. W. Rafter. 1899. 200 p.
- *26. Wells of southern Indiana (continuation of Water-Supply Paper 21), by Frank Leverett. 1899. 64 p.
- *27. Operations at river stations, 1898, Part I. 1899. p. 1-100.
- *28. Operations at river stations, 1898, Part II. 1899. p. 101-200.
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- *36. Operations at river stations, 1899, Part II. 1900. p. 101-198.
- *37. Operations at river stations, 1899, Part III. 1900. p. 199-298.
- *38. Operations at river stations, 1899, Part IV. 1900. p. 299-396.
- *39. Operations at river stations, 1899, Part V. 1900. p. 397-471.
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- *42. The windmill, its efficiency and economic use, Part II, by E. C. Murphy. 1901. p. 73-147.
- *43. Conveyance of water in irrigation canals, flumes, and pipes, by Samuel Fortier. 1901. 86 p.
- *44. Profiles of rivers in the United States, by Henry Gannett. 1901. 100 p.
- *45. Water storage on Cache Creek, Calif., by A. E. Chandler. 1901. 48 p.

¹Many Geological Survey reports on water resources, particularly ground water, are published by State cooperating agencies.

Certain Water-Supply Papers are listed only by number and in tabular form in this section. The tables under which the listings appear and their pages are as follows:

- Table 1. Reports containing records of quality of surface water of the United States, 1941-59, p. 182.
- Table 2. Reports containing records of water levels and artesian pressure in observation wells in the United States, 1935-57, p. 183.
- Table 3. Reports containing records of streamflow in the United States, 1901-06, p. 184.
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- Table 6. Compilation of records of surface waters of the United States to 1950, p. 187.
- Table 7. Reports on quality of surface waters for irrigation, Western United States, 1951-58, p. 187.

- *46. Physical characteristics of Kern River, Calif., by F. H. Olmsted, and Reconnaissance of Yuba River, Calif., by Marsden Manson. 1901. 57 p.
- *47. Operations at river stations, 1900, Part I. 1901. p. 1-99.
- *48. Operations at river stations, 1900, Part II. 1901. p. 101-195.
- *49. Operations at river stations, 1900, Part III. 1901. p. 197-292.
- *50. Operations at river stations, 1900, Part IV. 1901. p. 293-387.
- *51. Operations at river stations, 1900, Part V. 1901. p. 389-487.
- *52. Operations at river stations, 1900, Part VI. 1901. p. 489-575.
- *53. Geology and water resources of Nez Perce County, Idaho, Part I, by I. C. Russell. 1901. p. 1-85.
- *54. Geology and water resources of Nez Perce County, Idaho, Part II, by I. C. Russell. 1901. p. 87-141.
- *55. Geology and water resources of a portion of Yakima County, Wash., by G. O. Smith. 1901. 68 p.
- *56. Methods of stream measurement. 1901. 51 p.
- *57. Preliminary list of deep borings in the United States, Part I, Alabama-Montana, by N. H. Darton. 1902. 60 p. (See also Water-Supply Papers 61 and 149.)
- *58. Storage of water on Kings River, Calif., by J. B. Lippincott. 1902. 101 p.
- *59. Development and application of water near San Bernardino, Colton, and Riverside, Calif., Part I, by J. B. Lippincott. 1902. p. 1-95.
- *60. Development and application of water near San Bernardino, Colton, and Riverside, Calif., Part II, by J. B. Lippincott. 1902. p. 97-141.
- *61. Preliminary list of deep borings in the United States, Part II, Nebraska-Wyoming, by N. H. Darton. 1902. 67 p. (See also Water-Supply Paper 149.)
- *62. Hydrography of the southern Appalachian Mountain region, Part I, by H. A. Pressey. 1902. 95 p.
- *63. Hydrography of the southern Appalachian Mountain region, Part II, by H. A. Pressey. 1902. 95 p.
- *64. Accuracy of stream measurements, by E. C. Murphy. 1902. 99 p. (See also Water-Supply Paper 95.)
- *65. Operations at river stations, 1901, Part I, East of Mississippi River. 1902. 334 p.
- *66. Operations at river stations, 1901, Part II, West of Mississippi River. 1902. 188 p.
- *67. The motions of underground waters, by C. S. Slichter. 1902. 106 p.
- *68. Water storage in the Truckee Basin, Calif.-Nev., by L. H. Taylor. 1902. 90 p.
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- *70. Geology and water resources of the Patrick and Goshen Hole quadrangles, in eastern Wyoming and western Nebraska, by G. I. Adams. 1902. 50 p.
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- *94. Hydrographic manual of the United States Geological Survey, prepared by E. C. Murphy, J. C. Hoyt, and G. B. Hollister. 1904. 76 p.
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- *115. River surveys and profiles made during 1903, arranged by W. C. Hall and J. C. Hoyt. 1905. 115 p.
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- *138. Development of underground waters in the central coastal-plain region of southern California, by W. C. Mendenhall. 1905. 162 p.
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- *143. Experiments on steel-concrete pipes on a working scale, by J. H. Quinton. 1905. 61 p.
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- *340-C. Part III: Ohio River basin, compiled by B. D. Wood, 1916, p. 31-42.
- *340-D. Part IV: St. Lawrence River basin, compiled by B. D. Wood, 1916, p. 43-52.

- *340-E. Part V: Hudson Bay and upper Mississippi River drainage basins, compiled by B. D. Wood, 1916, p. 53-61.
- *340-F. Part VI: Missouri River basin, compiled by B. D. Wood, 1916, p. 63-81.
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- *340-H. Part VIII: Western Gulf of Mexico drainage basins, compiled by B. D. Wood, 1916, p. 95-104.
- *340-I. Part IX: Colorado River basin, compiled by B. D. Wood, 1916, p. 105-116.
- *340-J. Part X: The Great Basin, compiled by B. D. Wood, 1916, p. 117-129.
- *340-K. Part XI: Pacific coast basins in California, compiled by B. D. Wood, 1916, p. 131-146.
- *340-L. Part XII: North Pacific slope drainage basins, compiled by B. D. Wood, 1916, p. 147-195. (Water-Supply Paper 340 was issued as one volume, Stream-gaging stations and publications relating to water resources, 1885-1913, and also as separate chapters.)
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- *345-G. The water resources of Butte, Mont., by O. E. Meinzer, 1915, p. 79-125.
- *345-H. Ground-water resources of the Niles cone and adjacent areas, Cal., by W. O. Clark, 1915, p. 127-168.
- *345-I. Gazetteer of surface waters of Iowa, by W. G. Hoyt and H. J. Ryan, 1915, p. 169-221; Index, 1915, p. 223-225. (Water-Supply Paper 345 was issued as one volume, Contributions to the hydrology of the United States, 1914, and also as separate chapters.)
- *346. Profile surveys in the basin of Clark Fork of Columbia River, Mont.-Idaho-Wash., prepared under the direction of R. B. Marshall, chief geographer, 1914, 6 p.
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- *375-E. A method of correcting river discharge for a changing stage, by Benjamin E. Jones, 1915.
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- *375-G. Ground water in Lasalle and McMullen Counties, Tex., by Alexander Deussen and R. B. Dole, 1916, p. 141-177; index, 1916, p. 179-181.
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- *376. Profile surveys in Chelan and Methow River basins, Wash., prepared under the direction of R. B. Marshall, chief geographer. 1915. 8 p.
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- *425-C. Hydraulic conversion tables and convenient equivalents, 1919, p. 71-94.
- *425-D. Ground water in Reese River basin and adjacent parts of Humboldt River basin, Nev., by G. A. Waring, 1919, p. 95-129.
- *425-E. Ground water in Quincy Valley, Wash., by A. T. Schwennesen and O. E. Meinzer, 1919, p. 131-161, i-iv (including title page, contents, list of illustrations, and index to volume).
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- *426. Southern California floods of January 1916, by H. D. McGlashan and F. C. Ebert. 1918. 80 p.
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- *431-445. Surface water supply of the United States and Hawaii, 1916. See Table 4.
- *446. Geology and ground waters of the western part of San Diego County, Calif., by A. J. Ellis and C. H. Lee. 1919. 321 p.
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- *490-B. Routes to desert watering places in the Mohave Desert region, Calif., by D. G. Thompson, 1921. p. 87-269.
- *490-C. Routes to desert watering places in the lower Gila region, Ariz., by C. P. Ross. 1922. p. 271-315.
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- *500-A. Coeur d'Alene Lake, Idaho, and the overflow lands, by R. W. Davenport, 1922, p. 1-31.
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- *521-535. Surface water supply of the United States and Hawaii, 1921. See Table 4.
- *536. Surface water supply of the New-Kanawha River basin, W. Va., Va., and N. C.; N. C. Grover, chief hydraulic engineer; A. H. Horton and G. C. Stevens, district engineers. 1925. 282 p.
537. A study of coastal ground water, with special reference to Connecticut, by J. S. Brown. 1925. 101 p. [Reprinted.] 60c.
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- *556. Water power and flood control of Colorado River below Green River, Utah, by E. C. La Rue, with a foreword by Hubert Work, Secretary of the Interior, 1925, p. 1-100. [Appendix A, A report on water supply by E. C. La Rue and G. F. Holbrook, 1925, p. 101-123; and Appendix B, A geologic report on the inner gorge of the Grand Canyon of Colorado River by R. C. Moore, 1925, p. 125-171; Index, 1925, p. 173-176].
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- *560-C. Index of analyses of natural waters in the United States, by W. D. Collins and C. S. Howard, 1926, p. 53-85.
- *560-D. Preliminary report on the geology and water resources of the Mud Lake basin, Idaho, by H. T. Stearns and L. L. Bryán, 1926, p. 87-134, i-iv, i-iii (including title page, contents, list of illustrations, and index to volume). (Water-Supply Paper 560 was issued as one volume, Contributions to the hydrology of the United States, 1925, and also as separate chapters.)
- *561-575. Surface water supply of the United States and Hawaii, 1923. See Table 4.
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- *580-B. Water power and irrigation in the Jefferson River basin, Mont., by J. F. Deeds and W. N. White, 1927, p. 41-116, i-ii (including title page, contents, list of illustrations, and index to volume). (Water-Supply Paper 580 was issued as one volume, Contributions to the hydrology of the United States, 1926, and also as separate chapters.)
- *581-595. Surface water supply of the United States and Hawaii, 1924. See Table 4.
- *596-A. Methods of exploring and repairing leaky artesian wells: Preface, by O. E. Meinzer, 1928, p. 1-3; Methods of exploring and repairing leaky artesian wells on the island of Oahu, Hawaii, by John McCombs, 1928, p. 4-24; The Au deep-well current meter and its use in the Roswell artesian basin, N. Mex., by A. G. Fiedler, 1928, p. 24-32.
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- *596-G. Chemical character of waters of Florida, by W. D. Collins and C. S. Howard, 1928, p. 177-233.
- *596-H. Notes on practical water analysis, by W. D. Collins, 1928, p. 235-266, i-v (including title page, contents, list of illustrations, and index to volume). [Two reprints differ slightly from the original. Reprint in 1937 omits volume title page. Reprint in 1945 omits volume title page and volume index; it includes as p. 262, "Correction for determination of nitrate."]

- (Water-Supply Paper 596 was issued as one volume, Contributions to the hydrology of the United States, 1927, and also as separate chapters.)
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 - *597-B. A study of ground water in the Pomperaug basin, Conn., with special reference to intake and discharge, by O. E. Meinzer and N. D. Stearns, 1929, p. 73-146.
 - *597-C. Problems of the soft-water supply of the Dakota sandstone, with special reference to the conditions at Canton, S. Dak., by O. E. Meinzer, 1929, p. 147-170.
 - *597-D. Geology and water resources of the upper McKenzie Valley, Oreg., by H. T. Stearns, 1929, p. 171-188.
 - *597-E. Surface water supply of the Sacramento River basin, Calif., 1895-1927, by H. D. McGlashan, 1929, p. 189-250, i-v (including title page, contents, list of illustrations, and index to volume). (Water-Supply Paper 597 was issued as one volume, Contributions to the hydrology of the United States, 1928, and also as separate chapters.)
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²The plan of issuing a consolidated volume for each of the series published first in chapters was abandoned in 1933.

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 - *866-B. Part 2, Hungry Horse dam and reservoir site, South Fork Flathead River, Flathead County, Mont., by C. E. Erdmann, with a section on Geophysical investigations by B. E. Jones. 1944. p. 37-116.
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1640. Quantity and quality of surface waters of Alaska, 1959, 1961, 114 p. 50c. See Tables 1 and 5.
- 1701-1720. Surface water supply of the United States, 1960. See Table 5.

Table 1. - Reports containing records of quality of surface waters of the United States, 1941-59
[The area included in each part is shown on the map, p. 184.]

Report year	Volume complete prior to 1947	Price	Parts 1-4	Price	Parts 5-6	Price	Parts 7-8	Price	Parts 9-14	Price	Alaska ¹	Price
1941-----	*942	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
1942-----	*950	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
1943-----	*970	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
1944-----	*1022	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
1945-----	*1030	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
1946-----	1050	\$1.25	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
1947-----	1102	1.50	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
1948-----	-----	-----	² 1132	\$1.50	-----	-----	³ *1133	-----	-----	-----	-----	-----
1949-----	-----	-----	² 1162	2.00	-----	-----	³ *1163	-----	-----	-----	-----	-----
1950-----	-----	-----	1186	1.50	1187	\$1.50	1188	\$1.50	*1189	-----	-----	-----
1951-----	-----	-----	1197	1.25	1198	2.00	1199	1.75	*1200	-----	-----	-----
1952-----	-----	-----	1250	1.25	1251	1.50	*1252	-----	*1253	-----	*1466	-----
1953-----	-----	-----	1290	1.25	1291	1.25	1292	1.75	*1293	-----	-----	-----
1954-----	-----	-----	1350	1.50	1351	1.00	1352	1.75	*1353	-----	-----	-----
1955-----	-----	-----	1400	1.75	1401	1.00	1402	1.75	1403	1.50	*1486	-----
1956-----	-----	-----	1450	2.00	1451	1.25	1452	1.50	*1453	-----	-----	-----
1957-----	-----	-----	1520	2.00	1521	1.25	1522	1.75	*1523	-----	1500	\$0.45
1958-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	1570	.50
1959-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	1640	.50

¹ Contains data on quantity of water.

² Report includes parts 1-6.

³ Report includes parts 7-14.

* Asterisk indicates report is out of print.

Table 2. - Reports containing records of water levels and artesian pressure in observation wells in the United States, 1935-57

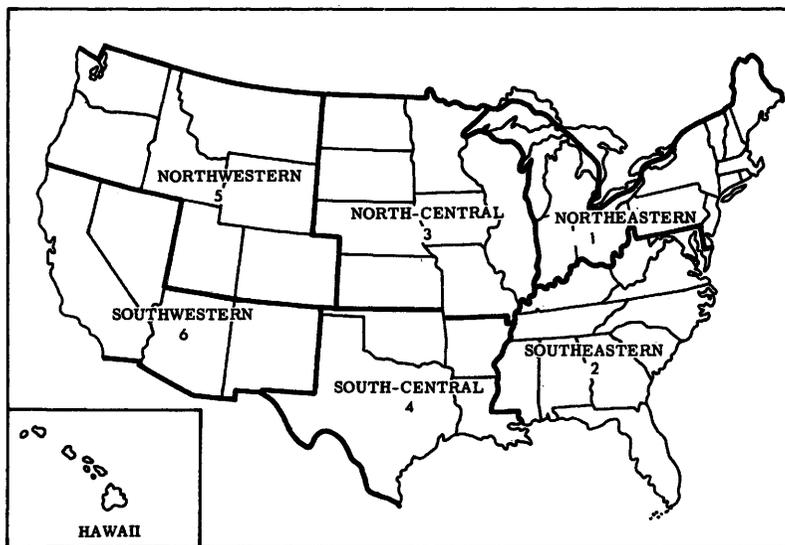
[Asterisk (*) indicates publication out of print. The area included in each part is listed below and shown on the map]

Report year	Part 1		Part 2		Part 3		Part 4		Part 5		Part 6	
	No.	Price										
1935 ¹	*777	----	----	----	----	----	----	----	----	----	----	----
1936 ¹	*817	----	----	----	----	----	----	----	----	----	----	----
1937 ¹	*840	----	----	----	----	----	----	----	----	----	----	----
1938 ¹	*845	----	----	----	----	----	----	----	----	----	----	----
1939 ¹	*886	----	----	----	----	----	----	----	----	----	----	----
1940	*906	----	*907	----	*908	----	*909	----	*910	----	*911	----
1941	*936	----	*937	----	*938	----	*939	----	*940	----	*941	----
1942	*944	----	*945	----	*946	----	*947	----	*948	----	*949	----
1943	*986	----	*987	----	*988	----	*989	----	*990	----	*991	----
1944	*1016	----	*1017	----	*1018	----	*1019	----	*1020	----	*1021	----
1945	*1023	----	*1024	----	*1025	----	*1026	----	*1027	----	*1028	----
1946	*1071	----	*1072	----	*1073	----	*1074	----	*1075	----	*1076	----
1947	*1096	----	1097	\$0.60	1098	\$0.75	1099	\$0.45	1100	\$0.45	*1101	----
1948	1126	\$1.00	1127	.55	1128	.70	1129	.40	1130	.40	1131	\$0.65
1949	1156	1.00	1157	.55	1158	1.00	1159	.55	*1160	----	1161	.65
1950	1165	1.00	1166	.65	1167	.50	1168	.40	1169	.35	1170	.65
1951	1191	1.25	1192	1.00	1193	1.00	1194	.75	1195	.55	1196	1.00
1952	1221	1.00	*1222	----	1223	1.00	1224	.65	*1225	----	*1226	----
1953	*1265	----	1266	1.00	1267	1.00	1268	.75	1269	.65	*1270	----
1954	1321	1.25	1322	1.00	1323	.75	1324	1.00	1325	.60	1326	1.00
1955	1404	1.00	*1405	----	1406	1.00	1407	.75	1408	.60	1409	1.00
1956 ²	1537	.55	----	----	1456	.40	----	----	----	----	----	----
1957 ²	----	----	----	----	----	----	----	----	----	----	----	----

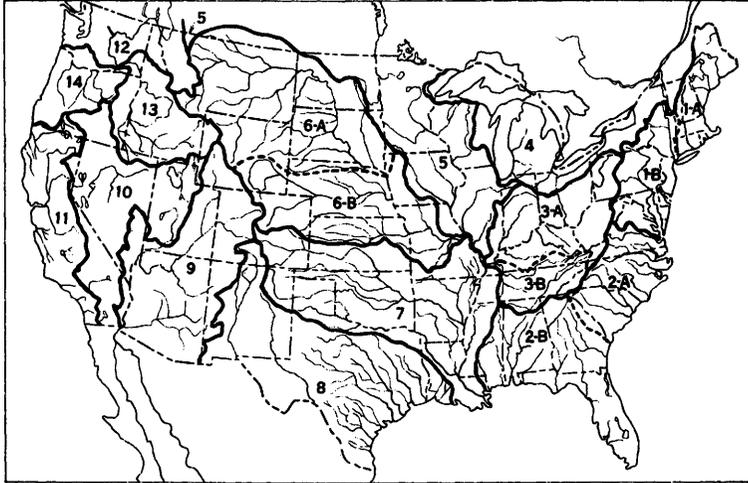
¹Parts were not designated before 1940.

²Records of water levels are reported in Water-Supply Papers entitled, "Ground-Water Levels in the United States," in 6 parts or geographical sections of the country. Formerly an annual series, the current publication program provides for 5 years of record in 1 volume for each geographical section. The calendar years 1956 to 1960 span a transition period whereby 4 of the volumes will not contain 5 years of record. For example, Water-Supply Paper 1456 reports water levels in the North-Central States for 1956, and 1537 in the Northeastern States for 1956-57. Prior to their publication the data are made available for local use after the end of each calendar year.

- Part 1. Northeastern States.
- 2. Southeastern States.
- 3. North-Central States.
- 4. South-Central States.
- 5. Northwestern States.
- 6. Southwestern States and Hawaii.



MAP SHOWING AREAS COVERED BY THE PARTS OF THE PERIODIC REPORTS ON WATER LEVELS AND ARTESIAN PRESSURE IN OBSERVATION WELLS IN THE UNITED STATES



MAP SHOWING AREAS COVERED BY THE PARTS OF THE PERIODIC REPORTS ON SURFACE WATER SUPPLY OF THE UNITED STATES, 1907-60, FOR 1951 AND SUBSEQUENT YEARS, PARTS 1, 2, 3, AND 6 HAVE BEEN DIVIDED INTO PARTS 1A AND 1B, 2A AND 2B, 3A AND 3B, 6A AND 6B, RESPECTIVELY. (SEE TABLES 4 AND 5.)

Table 3. - Reports containing records of stage and discharge of streams in the United States, 1901-6 [Out of print; can be consulted in many libraries. Discharge records in many of these reports are superseded by those in the compilation reports, table 6]

	1901 (No.)	1902 (No.)	1903 (No.)	1904 (No.)	1905 (No.)	1906 (No.)
Atlantic coast and eastern Gulf of Mexico:						
New England rivers - - - - -	65, 75	82	97	124	165	201
Hudson River to Delaware River, inclusive - - - - -	65, 75	82	97	125	166	202
Susquehanna River to York River, inclusive - - - - -	65, 75	82	97	126	167	203
James River to Yadkin River, inclusive - - - - -	65, 75	182, 83	197, 98	126	167	203
Santee River to Pearl River, inclusive - - - - -	65, 75	83	98	127	168	204
St. Lawrence River - - - - -	65, 75	282, 83	97	129	170	206
Hudson Bay - - - - -	66, 75	85	100	130	171	207
Mississippi River						
Ohio River - - - - -	65, 75	83	98	128	169	205
Upper Mississippi River - - - - -	65, 75	83	298, 99	3128, 130	171	207
Missouri River - - - - -	66, 75	84	99	130, 4131	172	208
Lower Mississippi River - - - - -	65, 66, 75	383, 84	398, 99	3128, 131	3169, 173	3205, 209
Western Gulf of Mexico - - - - -	66, 75	84	99	132	174	210
Pacific coast and Great Basin:						
Colorado River - - - - -	66, 75	85	100	133	175, 5177	211, 5213
Great Basin - - - - -	66, 75, 300	85, 6300	100, 6300, 7370	133, 6300, 7370	176, 6300, 7370	212, 6300, 7370
South Pacific coast to Klamath River, inclusive - - - - -	8298, 8299, 6300	8298, 8299, 6300	8298, 8299, 6300	8298, 8299, 6300	8298, 8299, 6300	8298, 8299, 6300
North Pacific coast - - - - -	66, 75, 7370	85, 7370	100, 7370	135, 7370	177, 178, 7370	214, 7370

¹ James River.

² Lake Ontario and tributaries to St. Lawrence River proper.

³ Tributaries of Mississippi River from east.

⁴ Platte and Kansas Rivers.

⁵ Below junction with Gila River.

⁶ Great Basin and Pacific coast basins in California; supersedes earlier reports for this area.

⁷ Stations in Oregon; supersedes earlier reports for this area.

⁸ Sacramento River basin; supersedes earlier reports for this area.

⁹ San Joaquin River basin; supersedes earlier reports for this area.

Table 4. - Reports containing records of streamflow in the United States, 1907-43

[Out of print; can be consulted in many libraries. The area included in each part is given below the table and is shown on the map, p. 184.]

Report year	Water-Supply Papers containing data on numbered part of United States indicated														
	1	2	3	4	5	6	7	8	9	10	11	12	13 ¹	14 ¹	Hawaii
1907--	241	242	243	244	245	246	247	248	249	250	252	252	252	---	
1908--										2300		252	252		
1909--	261	262	263	264	265	266	267	268	269	270	272	272	272	318	
										2300		272	272		
1910--	281	282	283	284	285	286	287	288	289	290	292	292	292	318	
										2300		292	292		
1911--	301	302	303	304	305	306	307	308	309	310	312	312	312		
1912--	321	322	323	324	325	326	327	328	329	330	331	332	332	332	336
1913--	351	352	353	354	355	356	357	358	359	360	361	362	362	362	373
1914--	381	382	383	384	385	386	387	388	389	390	391	392	393	393	430
1915--	401	402	403	404	405	406	407	408	409	410	411	412	413	414	
1916--	431	432	433	434	435	436	437	438	439	440	441	442	443	444	445
1917--	451	452	453	454	455	456	457	458	459	460	461	462	463	464	465
1918--	471	472	473	474	475	476	477	478	479	480	481	482	483	484	485
1919--	501	502	503	504	505	506	507	508	509	510	511	512	513	514	515
1920--															516
1921--	521	522	523	524	525	526	527	528	529	530	531	532	533	534	535
1922--	541	542	543	544	545	546	547	548	549	550	551	552	553	554	555
1923--	561	562	563	564	565	566	567	568	569	570	571	572	573	574	575
1924--	581	582	583	584	585	586	587	588	589	590	591	592	593	594	595
1925--	601	602	603	604	605	606	607	608	609	610	611	612	613	614	615
1926--	621	622	623	624	625	626	627	628	629	630	631	632	633	634	635
1927--	641	642	643	644	645	646	647	648	649	650	651	652	653	654	655
1928--	661	662	663	664	665	666	667	668	669	670	671	672	673	674	675
1929--	681	682	683	684	685	686	687	688	689	690	691	692	693	694	695
1930--	696	697	698	699	700	701	702	703	704	705	706	707	708	709	710
1931--	711	712	713	714	715	716	717	718	719	720	721	722	723	724	725
1932--	726	727	728	729	730	731	732	733	734	735	736	737	738	739	740
1933--	741	742	743	744	745	746	747	748	749	750	751	752	753	754	755
1934--	756	757	758	759	760	761	762	763	764	765	766	767	768	769	770
1935--	781	782	783	784	785	786	787	788	789	790	791	792	793	794	795
1936--	801	802	803	804	805	806	807	808	809	810	811	812	813	814	815
1937--	821	822	823	824	825	826	827	828	829	830	831	832	833	834	835
1938--	851	852	853	854	855	856	857	858	859	860	861	862	863	864	865
1939--	871	872	873	874	875	876	877	878	879	880	881	882	883	884	885
1940--	891	892	893	894	895	896	897	898	899	900	901	902	903	904	905
1941--	921	922	923	924	925	926	927	928	929	930	931	932	933	934	935
1942--	951	952	953	954	955	956	957	958	959	960	961	962	963	964	965
1943--	971	972	973	974	975	976	977	978	979	980	981	982	983	984	985

- Part 1. North Atlantic slope basins (St. John River to York River).
- 2. South Atlantic slope and eastern Gulf of Mexico basins (James River to Pearl River).
- 3. Ohio River basin.
- 4. St. Lawrence River basin.
- 5. Hudson Bay and upper Mississippi River basin.
- 6. Missouri River basin.

- 7. Lower Mississippi River basin.
- 8. Western Gulf of Mexico basins.
- 9. Colorado River basin.
- 10. The Great Basin.
- 11. Pacific slope basins in California.
- 12. Pacific slope basins in Washington and upper Columbia River basin.
- 13. Snake River basin.
- 14. Pacific slope basins in Oregon and lower Columbia River basin.

¹Parts 13 and 14 were so designated beginning with the reports for 1935. Prior to 1935 they were included in Part 12, and from 1914 to 1934 they were designated as Parts 12-B and 12-C.

²Great Basin and Pacific coast basins in California; supersedes earlier reports for this area.

³Stations in Oregon; supersedes earlier reports for this area.

⁴Sacramento River basin; supersedes earlier reports for this area.

⁵San Joaquin River basin; supersedes earlier reports for this area.

Table 5. - Reports containing records of
 [Asterisk (*) indicates publication out of print. The area

Report year	Part 1 ²		Part 2 ²		Part 3 ²		Part 4		Part 5		Part 6 ²		Part 7 ²		Part 8	
	No.	Price	No.	Price	No.	Price	No.	Price	No.	Price	No.	Price	No.	Price	No.	Price
1944-	*1001	----	*1002	----	*1003	----	*1004	----	*1005	----	*1006	----	*1007	----	*1008	----
1945-	*1031	----	*1032	----	*1033	----	*1034	----	*1035	----	*1036	----	*1037	----	*1038	----
1946-	*1051	----	*1052	----	*1053	----	*1054	----	*1055	----	*1056	----	*1057	----	*1058	----
1947-	*1081	----	*1082	----	1083	\$1.75	1084	\$0.60	*1085	----	1086	\$1.75	*1087	----	1088	\$0.65
1948-	*1111	----	1112	\$1.25	*1113	----	1114	.65	1115	\$1.25	1116	1.75	*1117	----	1118	1.00
1949-	*1141	----	*1142	----	1143	1.75	*1144	----	1145	1.25	1146	1.75	1147	\$1.00	1148	1.25
1950-	*1171	----	*1172	----	1173	2.00	1174	.70	1175	1.50	1176	2.25	*1177	----	*1178	----
1951-	*1201	----	1203	.65	*1205	----	1207	1.00	*1208	----	{1209	1.50	1211	1.50	1212	1.25
	*1202	----	*1204	----	1206	.60					*1210	----				
1952-	*1231	----	1233	1.00	1235	1.75	1237	1.25	1238	1.75	{1239	1.50	1241	----	1242	1.25
	*1232	----	1234	2.00	1236	1.00					{1240	1.50				
1953-	*1271	----	1273	1.00	1275	2.00	1277	1.25	*1278	----	{1279	1.50	1281	----	*1282	----
	*1272	----	1274	1.25	1276	1.00					{1280	1.50				
1954-	*1331	----	*1333	----	*1335	----	1337	----	*1338	----	{1339	1.25	1341	1.75	1342	1.50
	*1332	----	*1334	----	1336	1.00					{1340	1.50				
1955-	*1381	----	1383	1.25	*1385	----	1387	1.25	1388	1.75	{1389	1.50	1391	1.50	1392	1.50
	1382	1.75	*1384	----	1386	1.00					{1390	1.50				
1956-	*1431	----	1433	1.25	*1435	----	1437	----	1438	1.75	{1439	1.50	1441	1.75	1442	1.50
	1432	2.00	1434	1.25	1436	1.00					*1440	----				
1957-	1501	1.00	1503	1.25	1505	1.75	1507	1.25	1508	2.00	{1509	1.50	1511	1.75	1512	1.75
	1502	2.00	1504	1.50	1506	1.00					{1510	1.25				
1958-	1551	1.75	1553	1.00	1555	1.75	1557	1.25	1558	2.00	{1559	1.50	1561	1.75	1562	1.50
	*1552	----	*1554	----	1556	1.00					{1560	2.75				
1959-	1621	1.00	1623	1.00	1625	1.75	1627	1.50	1628	1.75	{1629	1.50	1631	1.75	1632	1.75
	1622	1.75	1624	1.75	1626	1.00					{1630	1.50				
1960-	1701	1.00	1703	1.00	----	----	1707	1.50	----	----	{1709	1.50	----	----	----	----
	----	----	----	----	1706	1.00	----	----	----	----	----	----	----	----	----	----

¹Before 1961 this was an annual series, but beginning with 1961-65 a 5-year series is being used. In order to meet interim requirements, streamflow records for individual States are made available for local use after each water year ending September 30.

²For parts that were divided after 1950, A is given above, B below.

- Part 1. North Atlantic slope basins (St. John River to York River).
 A, Maine to Connecticut.
 B, New York to York River.
2. South Atlantic slope and eastern Gulf of Mexico basins (James River to Pearl River).
 A, James River to Savannah River.
 B, Ogeechee River to Pearl River.
3. Ohio River basin.
 A, Ohio River basin except Cumberland and Tennessee River basins.
 B, Cumberland and Tennessee River basins.
4. St. Lawrence River basin.
5. Hudson Bay and upper Mississippi River basins.
6. Missouri River basin.
 A, Missouri River basin above Sioux City, Iowa.
 B, Missouri River basin below Sioux City, Iowa.
7. Lower Mississippi River basin.
8. Western Gulf of Mexico basins.
9. Colorado River basin.
10. The Great Basin.
11. Pacific slope basins in California.
12. Pacific slope basins in Washington and upper Columbia River basin.
13. Snake River basin.
14. Pacific slope basins in Oregon and lower Columbia River basin.

streamflow in the United States, 1944-60¹
 included in each part is given below the table, p. 186]

Report year	Part 9		Part 10		Part 11		Part 12		Part 13		Part 14		Hawaii		Alaska ³	
	No.	Price	No.	Price	No.	Price	No.	Price	No.	Price	No.	Price	No.	Price	No.	Price
1944-	*1009	-----	*1010	-----	*1011	-----	*1012	-----	*1013	-----	*1014	-----	*1015	-----		
1945-	*1039	-----	*1040	-----	*1041	-----	*1042	-----	*1043	-----	*1044	-----	*1045	-----		
1946-	*1059	-----	*1060	-----	*1061	-----	*1062	-----	*1063	-----	*1064	-----	1065	\$0.40		
1947-	1089	\$1.00	1090	\$0.45	*1091	-----	1092	\$0.75	1093	\$0.60	1094	\$0.55	1095	.35		
1948-	1119	1.00	1120	.50	*1121	-----	1122	1.00	1123	.60	1124	.65	1125	.35		
1949-	1149	1.00	1150	.50	*1151	-----	1152	1.00	1153	.60	*1154	-----	1155	.35		
1950-	1179	1.00	1180	.50	*1181	-----	*1182	-----	1183	.60	1184	.75	1185	.40		
1951-	*1213	-----	*1214	-----	*1215	-----	1216	1.00	*1217	-----	1218	1.00	1219	.55		
1952-	*1243	-----	*1244	-----	*1245	-----	1246	1.25	1247	1.50	1248	1.00	1249	.45	1466	
1953-	*1283	-----	*1284	-----	1285	1.75	*1286	-----	1287	1.00	1288	1.00	1289	.45		
1954-	1343	1.50	*1344	-----	1345	1.75	*1346	-----	1347	1.00	*1348	-----	*1349	-----		
1955-	1393	1.75	1394	1.00	*1395	-----	1396	1.25	1397	1.25	1398	1.00	1399	.50	1486	-----
1956-	1443	1.50	*1444	-----	*1445	-----	1446	1.25	1447	1.00	1448	1.00	1449	.60		
1957-	1513	1.75	1514	1.00	*1515	-----	1516	1.00	1517	1.00	1518	1.25	1569	1.00	1500	\$0.45
1958-	1563	1.75	*1564	-----	1565	2.25	1566	1.25	1567	1.00	1568	1.00			1570	.50
1959-	*1633	-----	*1634	-----	*1635	-----	1636	1.50	1637	1.00	1638	1.00	1639	.55	1640	.50
1960-	1713	1.75	1714	1.00	1715	2.25	1716	1.25	1717	1.00	1718	1.50	1719	.75	1720	.50

³ Contains data on quality of surface waters.

Table 6. - Compilation of records of surface waters of the United States to 1950

Part	Water-Supply Paper	Price	Part	Water-Supply Paper	Price
1-A-----	1301	\$1.75	7-----	*1311	
1-B-----	1302	2.50	8-----	1312	2.50
2-A-----	1303	1.75	9-----	*1313	-----
2-B-----	1304	1.75	10-----	1314	2.00
3-A-----	1305	2.25	11-B ¹ -----	1315A	2.00
3-B-----	1306	1.50	11-A ² -----	1315B	2.00
4-----	1307	1.75	12-----	*1316	-----
5-----	1308	3.00	13-----	*1317	-----
6-A-----	1309	2.50	14-----	1318	1.75
6-B-----	1310	2.50	Hawaii-----	1319	2.25
			Alaska ³ -----	1372	1.50

¹ Central Valley, Calif.

² Pacific slope basins in California, except Central Valley.

³ Contains data on quality of surface water.

Table 7. - Reports on quality of surface waters for irrigation, Western United States, 1951-58

Report year	No.	Price	Report year	No.	Price
1951-----	*1264	-----	1955-----	1465	\$1.00
1952-----	1362	\$0.75	1956-----	1485	.75
1953-----	1380	1.00	1957-----	1524	1.00
1954-----	1430	.75	1958-----	1575	1.00

MISCELLANEOUS REPORTS

[An asterisk (*) indicates publications out of print]

WORLD ATLAS OF COMMERCIAL GEOLOGY¹

- *World Atlas of Commercial Geology, Part I. Distribution of mineral production, 1921. 72 p.
- *World Atlas of Commercial Geology, Part II. Water power of the world, 1921. 39 p.

ADMINISTRATIVE PUBLICATIONS

[Sold by the Superintendent of Documents, Government Printing Office, Washington, D. C. 20402.]

- *Extracts from the style manual of the Government Printing Office, designed for the use of typewriter operators engaged in preparing manuscript for printing, compiled by George McLane Wood, 1922. 224 p.
- *Formulas and tables for the transformation of geodetic to plane coordinates on the Lambert and transverse Mercator projections, by J. L. Speert, 2d ed, 1943. 14 p.
- *Stadia tables for obtaining differences of elevation, by C. G. Anderson, 1937. 26 p.
- Suggestions to authors of the reports of the United States Geological Survey, 5th ed, 1958. 255 p. (cloth only) \$1.75.
- The preparation of illustrations for reports of the United States Geological Survey, with brief descriptions of processes of reproduction, by John L. Ridgway, 1920. 101 p. 70c.
- *Topographic instructions of the United States Geological Survey, 1918. 230 p., 3 pl., and 23 pages of conventional signs. (Superseded by Bulletin 788, partially by Circulars 92, 164, 357 and 368, and by the chapters listed below.)
- Topographic instructions of the United States Geological Survey.
Issued only in separate chapters as indicated below:
 - 3C3. Photogrammetric rectification, 1961. 42 p. 40c.
 - 3F4. Multiplex plotter procedures, 1960. 45 p. 45c.
 - 3F5. Kesh plotter procedures, 1960. 29 p. 35c.
 - 3G1. Planimetric map compilation with trimetrogon photographs, 1960. 28 p. 30c.
 - 4B1-4B3. Color-separation scribing, 1961. 31 p. 40c.

SPECIAL PUBLICATIONS

[Publications listed below are available from the Geological Survey, Washington, D. C. 20242, unless wise indicated.]

- Geophysical Abstracts. Now (1964) available on subscription, \$4.25 per year, \$1.00 additional for foreign mailings (12 monthly issues and index). Single copies 35c, index 75c. Available from Superintendent of Documents, Government Printing Office, Washington, D. C. 20402.
- A primer on water, by L. B. Leopold and W. B. Langbein, 1960. 50 p. 35c. Available from Superintendent of Documents, Government Printing Office, Washington, D. C. 20402.
- *Map of Alaska showing known gold-bearing rocks, with descriptive text containing sketches of the geography, geology, and gold deposits and routes to the gold fields, 1898. 44 p.
- *Maps and descriptions of routes of exploration in Alaska in 1898, with general information concerning the Territory, 1899. 138 p.
- *New list of map symbols, prepared by Map Symbol Committee, E. N. Goddard, Chairman, Ernst Cloos, L. B. Pusey, and W. W. Rubey, 1947. 6 sheets, 10c.
- *Preliminary report on the Cape Nome gold region, Alaska, by F. C. Schrader and A. H. Brooks, 1900. 56 p.
- Press releases, preliminary maps, and preliminary reports released by the Geologic Division and Alaskan Branch.
 - [List 1], January 1, 1938 [to] January 1, 1945, compiled by L. S. Kent and R. P. Keroher, 1945. 72 p. [Processed.]
 - List 2, January 1, 1945 [to] January 1, 1946, compiled by W. H. Eckstein, 1947. 46 p. [Processed.]

¹A study of the world's resources and production of essential minerals was begun during World War I as a part of the task of keeping American industries supplied with raw materials. A preliminary world atlas of commercial geology was prepared in manuscript form for the use of the State Department and the Peace Commission, and the matter it contained was later revised for publication to aid in the study of the mineral industry and the commerce of the United States.

Prospecting for uranium. Published by the U. S. Atomic Energy Commission and the U. S. Geological Survey. 1951. (revised January 1957). 128 p. 75c. Available from Superintendent of Documents, Government Printing Office, Washington, D. C. 20402.

Publications of the U. S. Geological Survey relating to coal. 1949. 42 p. Free on application.

- *Reconnaissances in the Cape Nome and Norton Bay regions, Alaska, in 1900: A reconnaissance of the Cape Nome and adjacent gold fields of Seward Peninsula, Alaska, in 1900, by A. H. Brooks, assisted by G. B. Richardson and A. J. Collier; a reconnaissance in the Norton Bay region, Alaska, in 1900, by W. C. Mendenhall. 1901. 222 p.
- *Section of Morgan formation, Pennsylvanian, at Split Mountain in Dinosaur National Monument, Uintah County, Utah, by F. T. McCann, N. D. Ramon, and L. G. Henbest. 1946. 18 p.
- *The geology and mineral resources of a portion of the Copper River district, Alaska, by F. C. Schrader and A. C. Spencer. 1901. 94 p.
- *The texture of Mississippian, Upper Devonian, and Lower Pennsylvanian sandstones in the Appalachian basin, by Gordon Rittenhouse and Elaine Cather. 1946. 28 p.
- *The texture of Paleozoic sandstones and sandy limestones in the Appalachian basin, by Gordon Rittenhouse and Elaine Cather. 1946. 13 p.

MAPS AND CHARTS

General Information

In some commonly used scales on which maps of the United States and of the several States have been published, 1 inch on the map represents the distance on the ground as given below:

Scale:	1 inch equals	Scale:	1 inch equals
1:20,000-----	1,667 feet.	1:500,000-----	7.89 miles.
1:24,000-----	2,000 feet.	1:1,000,000-----	15.78 miles.
1:31,680-----	0.5 mile.	1:2,500,000-----	39.46 miles.
1:48,000-----	4,000 feet.	1:3,168,000-----	50 miles.
1:62,500-----	0.99 mile.	1:5,000,000-----	78.91 miles.
1:63,360-----	1 mile.	1:7,000,000-----	110.46 miles.
1:125,000-----	1.97 miles.	1:7,500,000-----	118.37 miles.
1:250,000-----	3.95 miles.	1:16,500,000-----	260.42 miles.

Ordering instructions are given on page v. The Geological Survey does not supply mounted maps. An asterisk (*) indicates the item is out of print.

GEOLOGIC MAPS

United States

Geologic map of the United States, compiled by G. W. Stose, assisted by O. A. Ljungstedt. 1932. Reprinted 1960. Scale, 1:2,500,000. 4 sheets, 27 by 47 inches. \$1.50 per quarter or \$6 per set.

State maps distributed by the Geological Survey

- Geologic map of Alaska, by J. T. Dutro, Jr., and T. G. Payne. 1954. Scale, 1:2,500,000. \$2.
- Colorado, by W. S. Burban, T. S. Lovering, E. N. Goddard, and E. B. Eckel. 1935. Reprinted 1959. Scale, 1:500,000. \$2.50.
- District of Columbia, by N. H. Darton. 1947. Scale, 1:31,680. \$1. (Sedimentary map).
- Idaho, by C. P. Ross and J. D. Forrester. 1947. Scale, 1:500,000. Reprinted 1959. \$2.50. Also available from the Idaho Bureau of Mines and Geology, Moscow, Idaho.
- *Mississippi, by L. W. Stephenson. 1928. Scale, 1:1,000,000.
- Montana, by C. P. Ross, D. A. Andrews, and I. J. Witkind. 1955. Scale, 1:500,000. 2 sheets, \$3.50 per set.
- New Hampshire, by M. P. Billings. 1955. Scale, 1:250,000. \$2. Copies may also be purchased from the New Hampshire Planning and Development Commission, Concord, N. H.
- *New Mexico,¹ by N. H. Darton. 1928. Scale, 1:500,000.
- Oklahoma, by H. D. Miser. 1954. Scale, 1:500,000. Available with or without a red overprint showing roads. \$2.50. Copies may also be purchased from the Oklahoma Geological Survey, Norman, Okla.
- South Dakota, by N. H. Darton. 1951. Scale, 1:500,000. \$1.50. Copies may also be purchased from the State Geological Survey, Vermillion, S. Dak.
- *Texas,¹ by N. H. Darton, L. W. Stephenson, and J. A. Gardner. 1937. Scale, 1:500,000.
- Wyoming, by J. D. Love, J. L. Weitz, and R. K. Hose. 1955. Scale, 1:500,000. Multicolor. \$2.50. Copies may also be purchased from the Geological Survey of Wyoming, Laramie, Wyo.

¹ These maps were issued as unnumbered parts of the Geologic Atlas.

Maps distributed by the States

Not sold by the Geological Survey, except as noted.

The following State geologic maps, in the preparation and publication of some of which the U. S. Geological Survey has cooperated, are distributed by the respective States. Requests for prices and other correspondence concerning these maps should be addressed to the offices indicated below:

Alabama	Alabama Geological Survey, University, Ala.
Arizona	Arizona Bureau of Mines, Tucson, Ariz.
Arkansas	Arkansas Geological Survey, Little Rock, Ark.
*California	Division of Mines and Geology, California Department of Conservation, San Francisco, Calif.
Connecticut	State Geological and Natural History Survey, Middletown, Conn.
Florida	Florida Geological Survey, Tallahassee, Fla.
Georgia	Georgia Geological Survey, Atlanta, Ga.
Idaho ²	Idaho Bureau of Mines and Geology, Moscow, Idaho
Illinois	Illinois Geological Survey Division, Urbana, Ill.
Indiana	Division of Geology, Indiana Department of Conservation, Indianapolis, Ind.
Iowa	Iowa Geological Survey, State University, Iowa City, Iowa.
Kansas	State Geological Survey, University of Kansas, Lawrence, Kans.
Kentucky	Kentucky Geological Survey, Lexington, Ky.
Louisiana	Shreveport Geological Society, P. O. Box 57, Shreveport, La.
Maine	Department of Economic Development, Augusta, Maine.
Maryland and Delaware	Maryland Geological Survey, Baltimore, Md.
Michigan	Geological Survey Division, State Department of Conservation, Lansing, Mich.
Minnesota	Minnesota Geological Survey, University of Minnesota, Minneapolis 14, Minn.
Mississippi	Mississippi Geological Society, P. O. Box 2253, West Jackson 7, Miss.
Missouri	Missouri Geological Survey and Water Resources, Rolla, Mo.
Nebraska	Nebraska Geological Survey, Lincoln, Nebr.
New Hampshire ²	New Hampshire Planning and Development Commission, Concord, N. H.
New Jersey	New Jersey Geological Survey, Trenton, N. J.
New York	Assistant Director, New York State Museum, Albany, N. Y.
North Carolina	State Department of Conservation and Development, Raleigh, N. C.
North Dakota	North Dakota Geological Survey, Grand Forks, N. Dak.
Ohio	Ohio Geological Survey, Columbus, Ohio.
Oklahoma ²	Oklahoma Geological Survey, Norman Okla.
Pennsylvania	State Geologist, Topographic and Geologic Survey, Harrisburg, Pa.
South Carolina	Research, Planning, and Development Board, Columbia, S. C.
South Dakota ²	State Geological Survey, Vermillion, S. Dak.
Tennessee	Tennessee Geological Survey, Nashville, Tenn.
Virginia	Virginia Geological Survey, University Station, Charlottesville, Va.
Washington	Division of Mines and Geology, State Department of Conservation and Development, Olympia, Wash.
West Virginia	West Virginia Geological Survey, Morgantown, W. Va.
Wisconsin	Wisconsin Geological and Natural History Survey, Madison, Wis.
Wyoming ²	Geological Survey of Wyoming, Laramie, Wyo.

Indexes to geologic mapping in the United States

The geologic map indexes outline in color the areas in the State for which geologic maps have been published. Outline patterns, in four colors, indicate the approximate scale of each geologic map. A text, printed on the margin of the same sheet, gives the source of publication, scale, date, and author of each geologic map, together with a complete list of Geological Survey reports on the State. The map indexes were compiled by Leona Boardman with assistance, for States indicated, from (a) Elaine Watson, (b) Ruth Young, (c) Annabel Brown, (d) Annabel Brown and Elaine Watson, or (e) revised by A. N. Bove, (f) revised by Bettie Smysor, (g) compiled by E. H. Cobb.

² Also available from the Geological Survey, Washington 25, D. C.

PUBLICATIONS OF THE GEOLOGICAL SURVEY

State	Year of Publication	Scale	Price
Alabama (a) - - - - -	1951	1:1,000,000	\$0.40
Alaska (g) - - - - -	1960	1:950,400	(3)
Arizona (e) - - - - -	1958	1:1,000,000	.60
Arkansas (b) - - - - -	1952	1:500,000	.65
California (2 sheets) - - - - -	1951	1:750,000	\$1 per set
Colorado - - - - -	1954	1:750,000	.60
Florida - - - - -	1952	1:1,000,000	.60
Georgia (d) - - - - -	1949	1:750,000	.35
Idaho (f) - - - - -	1959	1:750,000	.60
Illinois (b) - - - - -	1954	1:750,000	.60
Indiana (d) - - - - -	1950	1:750,000	.45
Iowa - - - - -	1948	1:750,000	.35
Kansas (b) - - - - -	1954	1:750,000	.60
Kentucky - - - - -	1952	1:750,000	.50
Louisiana - - - - -	1950	1:1,000,000	.50
Maine (a), (f) - - - - -	1959	1:750,000	.60
Maryland and Delaware - - - - -	1951	1:500,000	.40
Massachusetts, Rhode Island, and Connecticut - - - - -	1952	1:500,000	.40
Michigan - - - - -	1953	1:750,000	.60
Minnesota (b) - - - - -	1955	1:750,000	.60
Mississippi - - - - -	1950	1:1,000,000	.25
Missouri (c) - - - - -	1949	1:750,000	.30
Montana (e) - - - - -	1955	1:750,000	.60
Nebraska (c) - - - - -	1947	1:750,000	.35
Nevada - - - - -	1955	1:750,000	.60
New Hampshire and Vermont - - - - -	1952	1:500,000	.50
New Jersey - - - - -	1951	1:500,000	.40
New Mexico (c), (e) - - - - -	1958	1:750,000	.60
New York - - - - -	1952	1:750,000	.60
North Carolina (a) - - - - -	1950	1:750,000	.50
North Dakota (b) - - - - -	1954	1:750,000	.60
Ohio - - - - -	1949	1:750,000	.60
Oklahoma - - - - -	1953	1:500,000	.60
Oregon (c) - - - - -	1949	1:750,000	.25
Pennsylvania - - - - -	1952	1:500,000	.60
South Carolina - - - - -	1950	1:1,000,000	.25
South Dakota (c), (e) - - - - -	1958	1:750,000	.60
Tennessee - - - - -	1949	1:750,000	.40
Texas - - - - -	1951	1:1,000,000	.60
Utah - - - - -	1954	1:750,000	.60
Virginia (f) - - - - -	1959	1:750,000	.60
Washington - - - - -	1949	1:750,000	.35
West Virginia - - - - -	1949	1:750,000	.25
Wisconsin - - - - -	1953	1:750,000	.60
Wyoming - - - - -	1955	1:750,000	.60

Foreign Countries

Paraguay [South America]. Geology by E. B. Eckel and topographic base by G. H. Benedict 1958. Scale, 1:1,000,000, \$1. (See Professional Paper 327.)

³Free on application to the U. S. Geological Survey, Washington, D. C. 20242.

FOLIOS OF THE GEOLOGIC ATLAS OF THE UNITED STATES¹

[An asterisk (*) indicates that the folio is out of print.]

- *1. Livingston, Mont., by J. P. Iddings and W. H. Weed. 1894. [5] p., 4 maps.
- *2. Ringgold, Ga.-Tenn., by C. W. Hayes. 1894. [5] p., 4 maps.
- *3. Placerville, Calif., by Waldemar Lindgren and H. W. Turner. 1894. 3 p., 4 maps. (See also Folio reprints 3, 5, and 11.)
- *3, 5, and 11. Reprints from Placerville, Sacramento, and Jackson folios, Calif., by Waldemar Lindgren and H. W. Turner. 1894, reprinted 1914. 9 p., 3 maps. (Contains the texts and economic-geology maps from Folios 3, 5, and 11, with errata and addenda.)
- *4. Kingston, Tenn., by C. W. Hayes. 1894. [5] p., 4 maps.
- *5. Sacramento, Calif., by Waldemar Lindgren. 1894. [3] p., 4 maps. (See also Folio reprints 3, 5, and 11.)
- *6. Chattanooga, Tenn., by C. W. Hayes. 1894. [5] p., 4 maps.
- *7. Pikes Peak, Colo., by Whitman Cross. 1894. [8] p., 5 maps.
- *8. Sewanee, Tenn., by C. W. Hayes. 1894. [5] p., 4 maps.
- *9. Anthracite-Crested Butte, Colo., by S. F. Emmons, Whitman Cross, and G. H. Eldridge. 1894. [11] p., 8 maps.
- *10. Harpers Ferry, Va.-W. Va.-Md., by Arthur Keith. 1894. [5] p., 4 maps.
- *11. Jackson, Calif., by H. W. Turner. 1894. [6] p., 4 maps. (See also Folio reprints 3, 5, and 11.)
- *12. Estillville, Ky.-Va.-Tenn., by M. R. Campbell. 1894. [7] p., 4 maps.
- *13. Fredericksburg, Va.-Md., by N. H. Darton. 1894. [6] p., 2 maps.
- *14. Staunton, Va.-W. Va., by N. H. Darton. 1894. [4] p., 4 maps.
- *15. Lassen Peak, Calif., by J. S. Diller. 1895. [4] p., 2 sheets of illus., 3 maps.
- *16. Knoxville, Tenn.-N. C., by Arthur Keith. 1895. [6] p., 4 maps.
- *17. Marysville, Calif., by Waldemar Lindgren and H. W. Turner. 1895. [2] p., 4 maps.
- *18. Smartsville, Calif., by Waldemar Lindgren and H. W. Turner. 1895. [6] p., 4 maps.
- *19. Stevenson, Ala.-Ga.-Tenn., by C. W. Hayes. 1905. [4] p., 4 maps.
- *20. Cleveland, Tenn., by C. W. Hayes. 1895. [5] p., 4 maps.
- *21. Pikesville, Tenn., by C. W. Hayes. 1895. [5] p., 4 maps.
- *22. McMinnville, Tenn., by C. W. Hayes. 1895. [3] p., 4 maps.
- *23. Nomini, Md.-Va., by N. H. Darton. 1896. [4] p., 3 maps.
- *24. Three Forks, Mont., by A. C. Peale. 1896. [7] p., 4 maps.
- *25. Loudon, Tenn., by Arthur Keith. 1896. [7] p., 4 maps.
- *26. Pocahontas, Va.-W. Va., by M. R. Campbell. 1896. [7] p., 4 maps.
- *27. Morristown, Tenn., by Arthur Keith. 1896. [7] p., 4 maps.
- *28. Piedmont, W. Va.-Md., by N. H. Darton and J. A. Taff. 1896. [7] p., 4 maps.
- *29. Nevada City special, Calif., by Waldemar Lindgren. 1896. [7] p., 9 maps.
- *30. Yellowstone National Park, Wyo., by Arnold Hague, W. H. Weed, and J. P. Iddings. 1896. [6] p., 3 sheets of illus., 8 maps.
- *31. Pyramid Peak, Calif., by Waldemar Lindgren. 1896. [8] p., 4 maps.
- *32. Franklin, W. Va.-Va., by N. H. Darton. 1896. [7] p., 4 maps.
- *33. Briceville, Tenn., by Arthur Keith. 1896. [5] p., 4 maps.
- *34. Buckhannon, W. Va., by J. A. Taff and A. H. Brooks. 1896. [5] p., 4 maps.
- *35. Gadsden, Ala., by C. W. Hayes. 1896. [5] p., 4 maps.
- *36. Pueblo, Colo., by G. K. Gilbert. 1897. [9] p., 2 sheets of illus., 5 maps.
- *37. Downieville, Calif., by H. W. Turner. 1897. [8] p., 1 sheet of illus., 4 maps.
- *38. Butte special, Mont., by W. H. Weed, S. F. Emmons, and G. W. Tower. 1897. [8] p., 3 maps.
- *39. Truckee, Calif., by Waldemar Lindgren. 1897. [8] p., 4 maps.
- *40. Wartburg, Tenn., by Arthur Keith. 1897. [4] p., 4 maps.
- *41. Sonora, Calif., by H. W. Turner and F. L. Ransome. 1897. [7] p., 4 maps.
- *42. Nueces, Tex., by R. T. Hill and T. W. Vaughan. 1898. [5] p., 1 sheet of illus., 2 maps.
- *43. Bidwell Bar, Calif., by H. W. Turner. 1898. [6] p., 1 sheet of illus., 3 maps.
- *44. Tazewell, Va.-W. Va., by M. R. Campbell. 1897. [7] p., 4 maps.
- *45. Boise, Idaho, by Waldemar Lindgren. 1898. [7] p., 4 maps.

¹Each folio is named from a city, town, or prominent natural feature within the quadrangle it covers. It includes maps showing the topography, geology, underground structure, and mineral deposits of the area and several pages of descriptive text and illustrations; also maps showing the economic geology, including oil and gas and artesian water, if the conditions in the area mapped warrant their publication. All the folios were published in a library edition, a form measuring 18½ by 22 inches. Folios 164 to 188 and a few bearing higher numbers were published also in a field edition, measuring 6 by 9 inches in which the maps are folded and placed in a pocket. The text, maps, and illustrations are the same in the library and field editions, the only difference being in the form of the publication. The folios are sold by the Geological Survey at the prices given.

All correspondence relating to folios and maps should be addressed to the Geological Survey, Washington, D. C. 20242.

- *46. Richmond, Ky., by M. R. Campbell. 1898. [4] p., 4 maps.
- *47. London, Ky., by M. R. Campbell. 1898. [4] p., 4 maps.
- *48. Tenmile district special, Colo., by S. F. Emmons. 1898. [6] p., 4 maps.
- *49. Roseburg, Oreg., by J. S. Diller. 1898. [4] p., 1 sheet of illus., 4 maps.
- *50. Holyoke, Mass.-Conn., by B. K. Emerson. 1898. [8] p., 5 maps.
- *51. Big Trees, Calif., by H. W. Turner and F. L. Ransome. 1898. [8] p., 1 sheet of illus., 3 maps.
- *52. Absaroka, Wyo. (Crandall and Ishawooa quadrangles), by Arnold Hague. 1899. [7] p., 1 sheet of illus., 4 maps.
- *53. Standingstone, Tenn., by M. R. Campbell. 1899. [6] p., 4 maps.
- *54. Tacoma, Wash., by Bailey Willis and G. O. Smith. 1899. [10] p., [4] p. of illus. and maps, 2 maps.
- *55. Fort Benton, Mont., by W. H. Weed. 1899. [9] p., 4 maps.
- *56. Little Belt Mountains, Mont., by W. H. Weed. 1899. [11] p., 4 maps.
- *57. Telluride, Colo., by Whitman Cross and C. W. Purington. 1899. [19] p., 3 sheets of illus., 4 maps.
- *58. Elmore, Colo., by R. C. Hills. 1899. [6] p., 1 sheet of illus., 5 maps.
- *59. Bristol, Va.-Tenn., by M. R. Campbell. 1899. [12] p., 4 maps.
- *60. La Plata, Colo., by Whitman Cross, A. C. Spencer, and C. W. Purington. 1899 [1901]. 14, [1] p., 2 sheets of illus., 4 maps.
- *61. Monterey, Va.-W. Va., by N. H. Darton. 1899. 9 p., 4 maps.
- *62. Menominee special, Mich., by C. R. Van Hise and W. S. Bayley. 1900. 13 p., 3 maps.
- *63. Mother Lode district, Calif., by F. L. Ransome. 1900. 11 p., 8 maps.
- *64. Uvalde, Tex., by T. W. Vaughan. 1900. 7 p., 3 maps.
- *65. Tintic special, Utah, by G. W. Tower, G. O. Smith, and S. F. Emmons. 1900. 8 p., 8 maps.
- *66. Colfax, Calif., by Waldemar Lindgren. 1900. 10 p., 4 maps.
- *67. Danville, Ill.-Ind., by M. R. Campbell and Frank Leverett. 1900. 10, [1] p., 3 maps.
- *68. Walsenburg, Colo., by R. C. Hills. 1900. 6, [2] p., 6 maps.
- *69. Huntington, W. Va.-Ohio, by M. R. Campbell. 1900. 6 p., 2 sheets of illus., 3 maps.
- *70. Washington, D. C.-Md.-Va., by N. H. Darton and Arthur Keith. 1901. 7 p., 5 maps.
- *71. Spanish Peaks, Colo., by R. C. Hills. 1901. 7, [2] p., 1 sheet of illus., 6 maps.
- *72. Charleston, W. Va., by M. R. Campbell. 1901. 9, [1] p., 2 sheets of illus., 4 maps.
- *73. Coos Bay, Oreg., by J. S. Diller. 1901. 5 p., 2 sheets of illus., 4 maps.
- *74. Coalgate, Ind. T. (Okla.), by J. A. Taff. 1901. 6, [1] p., 4 maps.
- *75. Maynardville, Tenn., by Arthur Keith. 1901. 6, [1] p., 4 maps.
- *76. Austin, Tex., by R. T. Hill and T. W. Vaughan. 1902. 8, [3] p., 2 sheets of illus., 3 maps.
- *77. Raleigh, W. Va., by M. R. Campbell. 1902. 8, [1] p., 2 sheets of illus., 4 maps.
- *78. Rome, Ga.-Ala., by C. W. Hayes. 1902. 6, [3] p., 4 maps.
- *79. Atoka, Ind. T. (Okla.), by J. A. Taff. 1902. 8, [3] p., 4 maps.
- *80. Norfolk, Va.-N. C., by N. H. Darton. 1902. 4, [1] p., 1 sheet of illus., 2 maps.
- *81. Chicago, Ill.-Ind. (Riverside, Chicago, Desplaines, and Calumet quadrangles), by W. C. Alden. 1902. 14 p., 2 sheets of illus., 12 maps.
- *82. Masontown-Uniontown, Pa., by M. R. Campbell. 1902. 21 p., 3 sheets of illus., 8 maps.
- *83. New York City, N. Y.-N. J. (Paterson, Harlem, Staten Island, and Brooklyn quadrangles), by F. J. H. Merrill, N. H. Darton, Arthur Hollick, R. D. Salisbury, R. E. Dodge, Bailey Willis, and H. A. Pressey. 1902. 19 p., 2 sheets of illus., 13 maps.
- *84. Ditney, ind., by M. L. Fuller and G. H. Ashley. 1902. 8 p., 4 sheets of illus., 3 maps.
- *85. Oelrichs, S. Dak.-Nebr., by N. H. Darton. 1902. 6, [1] p., 1 sheet of illus., 4 maps.
- *86. Ellensburg, Wash., by G. O. Smith. 1903. 7 p., 3 maps.
- *87. Camp Clarke, Nebr., by N. H. Darton. 1903. 4, [1] p., 1 sheet of illus., 2 maps.
- *88. Scotts Bluff, Nebr., by N. H. Darton. 1903. 5, [1] p., 1 sheet of illus., 2 maps.
- *89. Port Orford, Oreg., by J. S. Diller. 1903. 6 p., 4 maps.
- *90. Cranberry, N. C.-Tenn., by Arthur Keith. 1903. 9, [1] p., 4 maps.
- *91. Hartville, Wyo., by W. S. T. Smith. 1903. 6, [3] p., 1 sheet of illus., 3 maps.
- *92. Gaines, Pa.-N. Y., by M. L. Fuller and W. C. Alden. 1903. 9, [1] p., 1 sheet of illus., 4 maps.
- *93. Elkland-Tioga, Pa., by M. L. Fuller and W. C. Alden. 1903. 9, [1] p., 1 sheet of illus., 8 maps.
- *94. Brownsville-Connellsville, Pa., by M. R. Campbell. 1903. 19, [1] p., 3 sheets of illus., 8 maps.
- *95. Columbia, Tenn., by C. W. Hayes and E. O. Ulrich. 1903. 6 p., 5 sheets of illus. and tables, 4 maps.
- *96. Olivet, S. Dak., by J. E. Todd. 1903. 6 p., 3 maps.
- *97. Parker, S. Dak., by J. E. Todd. 1903. 6 p., 3 maps. 25c.
- *98. Tishomingo, Ind. T. (Okla.), by J. A. Taff. 1903. 8, [1] p., 3 maps.
- *99. Mitchell, S. Dak., by J. E. Todd. 1903. 7 p., 3 maps. 25c.
- *100. Alexandria, S. Dak., by J. E. Todd and C. M. Hall. 1903. 6 p., 3 maps.
- *101. San Luis, Calif., by H. W. Fairbanks. 1904. 14, [1] p., 2 sheets of illus., 4 maps.
- *102. Indiana, Pa., by G. B. Richardson. 1904. 7 p., 3 sheets of illus., 3 maps.
- *103. Nampa, Idaho-Oreg., by Waldemar Lindgren and N. F. Drake. 1904. 5 p., 2 maps.
- *104. Silver City, Idaho, by Waldemar Lindgren and N. F. Drake. 1904. 6 p., 3 maps.
- *105. Patoka, Ind.-Ill., by M. L. Fuller and F. G. Clapp. 1904. 12, [1] p., 1 sheet of illus., 2 maps.
- *106. Mount Stuart, Wash., by G. O. Smith. 1904. 10, [1] p., 4 maps.
- *107. Newcastle, Wyo.-S. Dak., by N. H. Darton. 1904. 9, [1] p., 1 sheet of illus., 5 maps.
- *108. Edgemont, S. Dak.-Nebr., by N. H. Darton and W. S. T. Smith. 1904. 10, [1] p., 1 sheet of illus., 4 maps.
- *109. Cottonwood Falls, Kans., by C. S. Prosser and J. W. Beede. 1904. 6 p., 2 maps.
- *110. Latrobe, Pa., by M. R. Campbell. 1904. 15, [1] p., 3 sheets of illus., 4 maps.
- *111. Globe, Ariz., by F. L. Ransome. 1905. 17, [1] p., 6 maps.

- *112. Bisbee, Ariz., by F. L. Ransome. 1904. 17, [1] p., 3 sheets of illus., 6 maps. (Reprinted with supplement, 1914. 19, [1] p., 3 sheets of illus., 6 maps.)
- *113. Huron, S. Dak., by J. E. Todd. 1904. 6 p., 3 maps.
- 114. De Smet, S. Dak., by J. E. Todd and C. M. Hall. 1904. 6 p., 3 maps. 25c.
- *115. Kittanning, Pa., by Charles Butts and Frank Leverett. 1904. 15 p., 4 sheets of illus., 3 maps.
- *116. Asheville, N. C.-Tenn., by Arthur Keith. 1904. 10, [1] p., 4 maps.
- *117. Casselton-Fargo, N. Dak.-Minn., by C. M. Hall and D. E. Willard. 1905. 7 p., 6 maps.
- *118. Greeneville, Tenn.-N. C., by Arthur Keith. 1905. 8, [1] p., 3 maps.
- *119. Fayetteville, Ark.-Mo., by G. I. Adams and E. O. Ulrich. 1905. 6 p., 2 maps.
- *120. Silverton, Colo., by Whitman Cross, Ernest Howe, and F. L. Ransome. 1905. 34, [1] p., 1 sheet of illus., 4 maps.
- *121. Waynesburg, Pa., by R. W. Stone. 1905. 12 p., 3 sheets of illus., 3 maps.
- *122. Tahlequah, Ind. T. (Okla.)-Ark., by J. A. Taff. 1905. 7 p., 3 maps.
- *123. Elders Ridge, Pa., by R. W. Stone. 1905. 10 p., 3 sheets of illus., 3 maps.
- *124. Mount Mitchell, N. C.-Tenn., by Arthur Keith. 1905. 10 p., 4 maps.
- *125. Rural Valley, Pa., by Charles Butts. 1905. 12 p., 3 sheets of illus., 3 maps.
- *126. Bradshaw Mountains, Ariz., by T. A. Jaggard, Jr., and Charles Palache. 1905. 11 p., 1 sheet of illus., 4 maps.
- *127. Sundance, Wyo.-S. Dak., by N. H. Darton. 1905. 12, [1] p., 1 sheet of illus., 5 maps.
- *128. Aladdin, Wyo.-S. Dak.-Mont., by N. H. Darton and C. C. O'Harra. 1905. 8, [1] p., 4 maps.
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- GQ-47. Portal, N. Dak. Geology, by R. C. Townsend, with a section on Ground-water resources by G. A. La Rocque, Jr. 1954. Lat 48°45' to 49°, long 102°30' to 102°45'. Scale, 1:62,500. Contour interval, 10 feet. \$1.
- GQ-48. Hay, Wash. Geology, by H. H. Waldron and L. M. Gard, Jr. 1954. Lat 46°30' to 46°45', long 117°45' to 118°. Scale, 1:62,500. Contour interval, 40 feet. \$1.
- GQ-49. Fredonia, Kans. Geology, by H. C. Wagner. 1954 [1955]. Lat 37°30' to 37°45', long 95°45' to 96°. Scale, 1:62,500. Contour interval, 20 feet. \$1.
- GQ-50. Valyermo and vicinity, Calif. Geology, by L. F. Noble. 1954. Lat 34°24' to 34°30', long 117°48' to 117°54'. Scale, 1:24,000. Contour intervals, 5 and 25 feet. \$1.
- GQ-51. Delaware, Mich. Bedrock geology, by H. R. Cornwall. 1954 [1955]. Lat 47°22'30" to 47°30', long 88° to 88°07'30". Scale, 1:24,000. Contour interval, 20 feet. \$1.
- GQ-52. Lake Medora, Mich. Bedrock geology, by H. R. Cornwall. 1954 [1955]. Lat 47°22'30" to 47°30', long 87°52'30" to 88°. Scale, 1:24,000. Contour interval, 20 feet. \$1.
- GQ-53. Oahe, S. Dak. Geology, by D. R. Crandell. 1955. Lat 44°15' to 44°30', long 100°30' to 100°45'. Scale, 1:62,500. Contour interval, 20 feet. \$1.
- GQ-54. Mohawk, Mich. Bedrock geology, by E. S. Davidson, G. H. Espenshade, W. S. White, and J. C. Wright. 1955. Lat 47°15' to 47°22'30", long 88°15' to 88°22'30". Scale, 1:24,000. Contour interval, 20 feet. \$1.
- GQ-55. Gateway, Colo. Geology, by F. W. Cater, Jr. 1955. Lat 38°37'30" to 38°45', long 108°52'30" to 109°. Scale, 1:24,000. Contour interval, 20 feet. \$1.
- GQ-56. Penawawa, Wash. Geology, by H. H. Waldron and L. M. Gard, Jr. 1955. Lat 46°30' to 46°45', long 117°30' to 117°45'. Scale, 1:62,500. Contour interval, 40 feet. \$1.
- GQ-57. Atkinson Creek, Colo. Geology, by E. J. McKay. 1955. Lat 38°22'30" to 38°30', long 108°37'30" to 108°45'. Scale, 1:24,000. Contour interval, 20 feet. \$1.
- GQ-58. Red Canyon, Colo. Geology, by E. J. McKay. 1955. Lat 38°22'30" to 38°30', long 108°45' to 108°52'30". Scale, 1:24,000. Contour interval, 20 feet. \$1.
- GQ-59. Gypsum Gap, Colo. Geology, by F. W. Cater, Jr. 1955. Lat 38° to 38°07'30", long 108°37'30" to 108°45'. Scale, 1:24,000. Contour interval, 20 feet. \$1.

- GQ-60. Pine Mountain, Colo. Geology, by F. W. Cater, Jr. 1955. Lat 38°37'30" to 38°45', long 108°45' to 108°52'30". Scale, 1:24,000. Contour interval, 20 feet. \$1.
- GQ-61. Calamity Mesa, Colo. Geology, by F. W. Cater, Jr. 1955. Lat 38°30' to 38°37'30", long 108°45' to 108°52'30". Scale, 1:24,000. Contour interval, 20 feet. \$1.
- GQ-62. East Greenwich, R. I. Surficial geology, by J. H. Smith. 1955. Lat 40°37'30" to 41°45', long 71°22'30" to 71°30". Scale, 1:31,680. Contour interval, 10 feet. \$1.
- GQ-63. Loon Lake, N. Y. Geology, by A. W. Postel, C. L. Dodson, and L. D. Carswell. 1956. Lat 44°30' to 44°45', long 74° to 74°15'. Scale, 1:62,500. Contour interval, 20 feet. \$1.
- GQ-64. Horse Range Mesa, Colo. Geology, by F. W. Cater, Jr. 1955. Lat 38° to 38°07'30", long 108°52'30" to 109°. Scale, 1:24,000. Contour interval, 20 feet. \$1.
- GQ-65. Naturita NW, Colo. Geology, by F. W. Cater, Jr. 1955. Lat 38°07'30" to 38°15', long 108°37'30" to 108°45'. Scale, 1:24,000. Contour interval, 20 feet. \$1.
- GQ-66. Joe Davis Hill, Colo. Geology, by F. W. Cater, Jr. 1955. Lat 37°52'30" to 38°, long 108°45' to 108°52'30". Scale, 1:24,000. Contour interval, 20 feet. \$1.
- GQ-67. Wolf Point, Mont. Geology, by R. B. Colton. 1955. Lat 48° to 48°15', long 105°30' to 105°45'. Scale, 1:62,500. Contour interval, 20 feet. \$1.
- GQ-68. Egnar, Colo. Geology, by F. W. Cater, Jr. 1955. Lat 37°52'30" to 38°, long 108°52'30" to 109°. Scale, 1:24,000. Contour interval, 20 feet. \$1.
- GQ-69. Hamm Canyon, Colo. Geology, by F. W. Cater, Jr. 1955. Lat 38° to 38°07'30", long 108°45' to 108°52'30". Scale, 1:24,000. Contour interval, 20 feet. \$1.
- GQ-70. Bristol and vicinity, R. I.-Mass. Surficial geology, by J. H. Smith. 1955. Lat 41°37'30" to 41°45', long 71°15' to 71°22'30". Scale, 1:31,680. Contour interval, 10 feet. \$1.
- GQ-71. Davis Mesa, Colo. Geology, by F. W. Cater, Jr. 1955. Lat 38°15' to 38°22'30", long 108°45' to 108°52'30". Scale, 1:24,000. Contour interval, 20 feet. \$1.
- GQ-72. Paradox, Colo. Geology, by C. F. Withington. 1955. Lat 38°15' to 38°22'30", long 108°52'30" to 109°. Scale, 1:24,000. Contour interval, 20 feet. \$1.
- GQ-73. Manitou Island, Mich. Bedrock geology, by H. R. Cornwall and W. S. White. 1955. Lat 47°22'30" to 47°30', long 87°35' to 87°45'. Scale, 1:24,000. Contour interval, 20 feet. \$1.
- GQ-74. Fort Wilkins, Mich. Bedrock geology, by H. R. Cornwall. 1955. Lat 47°22'30" to 47°30', long 87°45' to 87°52'30". Scale, 1:24,000. Contour interval, 20 feet. \$1.
- GQ-75. Flaming Gorge, Utah-Wyo. Geology, by W. R. Hansen. 1955. Lat 40°52'30" to 41°, long 109°30' to 109°37'30". Scale, 1:24,000. Contour interval, 40 feet. \$1.
- GQ-76. Shooks Gap, Tenn. Geology, by J. M. Cattermole. 1955 [1956]. Lat 35°52'30" to 36°, long 83°45' to 83°52'30". Scale, 1:24,000. Contour interval, 20 feet. \$1.
- GQ-77. Anderson Mesa, Colo. Geology, by F. W. Cater, Jr. 1955 [1956]. Lat 38°07'30" to 38°15', long 108°52'30" to 109°. Scale, 1:24,000. Contour interval, 20 feet. \$1.
- GQ-78. Uravan, Colo. Geology, by F. W. Cater, Jr., A. P. Butler, Jr., and E. J. McKay. 1955. Lat 38°15' to 38°22'30", long 108°37'30" to 108°45'. Scale, 1:24,000. Contour interval, 20 feet. \$1.
- GQ-79. Montpelier, Vt. Bedrock geology, by W. M. Cady. 1956. Lat 44°15' to 44°30', long 72°30' to 72°45'. Scale, 1:62,500. Contour interval, 20 feet. \$1.
- GQ-80. Williamsburg, Mass. Surficial geology, by Kenneth Segerstrom. 1955 [1956]. Lat 42°22'30" to 42°30', long 72°37'30" to 72°45'. Scale, 1:31,680. Contour interval, 10 feet. \$1.
- GQ-81. Juanita Arch, Colo. Geology, by E. M. Shoemaker. 1955. Lat 38°30' to 38°37'30", long 108°52'30" to 109°. Scale, 1:24,000. Contour interval, 20 feet. \$1.
- GQ-82. Colrain, Mass.-Vt. Surficial geology, by Kenneth Segerstrom. 1955 [1956]. Lat 42°37'30" to 42°45', long 72°37'30" to 72°45'. Scale, 1:31,680. Contour interval, 10 feet. \$1.
- GQ-83. Roc Creek, Colo. Geology, by E. M. Shoemaker. 1956. Lat 38°22'30" to 38°30', long 108°52'30" to 109°. Scale, 1:24,000. Contour interval, 20 feet. \$1.
- GQ-84. Providence, R. I. Surficial geology, by J. H. Smith. 1956. Lat 41°45' to 41°52'30", long 71°22'30" to 71°30". Scale, 1:31,680. Contour interval, 10 feet. \$1.
- GQ-85. Williamsburg, Mass. Bedrock geology, by M. E. Willard. 1956. Lat 42°22'30" to 42°30', long 72°37'30" to 72°45'. Scale, 1:31,680. Contour interval, 10 feet. \$1.
- GQ-86. Colrain, Mass.-Vt. Bedrock geology, by Kenneth Segerstrom. 1956. Lat 42°37'30" to 42°45', long 72°37'30" to 72°45'. Scale, 1:31,680. Contour interval, 10 feet. \$1.
- GQ-87. Shelburne Falls, Mass. Bedrock geology, by Kenneth Segerstrom. 1956. Lat 42°30' to 42°37'30", long 72°37'30" to 72°45'. Scale, 1:31,680. Contour interval, 10 feet. \$1.
- GQ-88. Hayward, Calif. Geology, by G. D. Robinson. 1956. Lat 37°37'30" to 37°45', long 122° to 122°07'30". Scale, 1:24,000. Contour interval, 25 feet. \$1.
- GQ-89. Medford, Oreg.-Calif. Geology, by F. G. Wells. 1956. Lat 42° to 42°30', long 122°30' to 123°. Scale, 1:96,000. Contour interval, 100 feet. \$1.
- GQ-90. Bernardston, Mass.-Vt. Bedrock geology of the Massachusetts portion of the quadrangle, by Robert Balk. 1956. Lat 42°37'30" to 42°45', long 72°30' to 72°37'30". Scale, 1:31,680. Contour interval, 10 feet. \$1.
- GQ-91. Narragansett Pier, R. I. Bedrock geology, by D. R. Nichols. 1956. Lat 41°22'30" to 41°30', long 71°22'30" to 71°30". Scale, 1:31,680. Contour interval, 10 feet. \$1.
- GQ-92. Northfield, Mass.-N. H.-Vt. Bedrock geology of the Massachusetts portion, by Robert Balk. 1956. Lat 42°37'30" to 42°45', long 72°22'30" to 72°30". Scale, 1:31,680. Contour interval, 10 feet. \$1.
- GQ-93. Millers Falls, Mass. Bedrock geology, by Robert Balk. 1956. Lat 42°30' to 42°37'30", long 72°22'30" to 72°30". Scale, 1:31,680. Contour interval, 10 feet. \$1.
- GQ-94. Crompton, R. I. Surficial geology, by J. H. Smith. 1956. Lat 41°37'30" to 41°45', long 71°30' to 71°37'30". Scale, 1:31,680. Contour interval, 10 feet. \$1.

- GQ-95. Ubehebe Peak, Calif. Geology, by J. F. McAllister. 1956. Lat 36°30' to 36°45', long 117°30' to 117°45'. Scale, 1:62,500. Contour interval, 40 feet. \$1.
- GQ-96. Eden quadrangle, N. Y. Bedrock geology, by Wallace de Witt, Jr. 1956. Lat 42°37'30" to 42°45', long 78°52'30" to 79°. Scale, 1:24,000. Contour interval, 10 feet. \$1.
- GQ-97. Hamburg quadrangle, N. Y. Bedrock geology, by G. W. Colton. 1956. Lat 42°37'30" to 42°45', long 78°45' to 78°52'30". Scale, 1:24,000. Contour interval, 10 feet. \$1.
- GQ-98. Carlsbad Caverns East, N. Mex. Geology, by P. T. Hayes, with a chapter on The geologic development of the Carlsbad Caverns, by B. T. Gale. 1957. Lat 32° to 32°15', long 104°15' to 104°30'. Scale, 1:62,500. Contour interval, 25 feet. \$1.
- GQ-99. Casa Diablo Mountain, Calif. Geology, by C. D. Rinehart and D. C. Ross. 1957. Lat 37°30' to 37°45', long 118°30' to 118°45'. Scale, 1:62,500. Contour interval, 40 feet. \$1.
- GQ-100. Juneau (B-3), Alaska. Geology, by Fred Barker. 1957. Lat 58°15' to 58°30', long 134°40' to 135°. Scale, 1:63,360. Contour interval, 100 feet. \$1.
- GQ-101. Clay Basin, Utah. Geology, by W. R. Hansen. 1957. Lat 40°52'30" to 41°, long 109°07'30" to 109°15'. Scale, 1:24,000. Contour interval, 40 feet. \$1.
- GQ-102. Hyde Park, Vt. Bedrock geology, by A. L. Albee. 1957. Lat 44°30' to 44°45', long 72°30' to 72°45'. Scale, 1:62,500. Contour interval, 20 feet. \$1.
- GQ-103. Golden, Colo. Bedrock geology, by Richard Van Horn. 1957. Lat 39°45' to 39°52'30", long 105°07'30" to 105°15'. Scale, 1:24,000. Contour interval, 10 feet. \$1.
- GQ-104. Portland, Oreg.-Wash. Geology, by D. E. Trimble. 1957. Lat 45°30' to 45°45', long 122°30' to 122°45'. Scale, 1:62,500. Contour interval, 25 feet. \$1.
- GQ-105. Hope Valley, R. I. Bedrock geology, by G. E. Moore, Jr. 1958. Lat 41°30' to 41°37'30", long 71°37'30" to 71°45'. Scale, 1:31,680. Contour interval, 10 feet. \$1.
- GQ-106. Slocum, R. I. Surficial geology, by W. R. Power, Jr. 1957. Lat 41°30' to 41°37'30", long 71°30' to 71°37'30". Scale, 1:31,680. Contour interval, 10 feet. \$1.
- GQ-107. Lawrence, Mass.-N. H. Surficial geology, by R. O. Castle. 1958. Lat 42°37'30" to 42°45', long 71°07'30" to 71°15'. Scale, 1:31,680. Contour interval, 10 feet. \$1.
- GQ-108. Cheshire, Mass. Bedrock geology, by Norman Herz. 1958. Lat 42°30' to 42°37'30", long 73°07'30" to 73°15'. Scale, 1:31,680. Contour intervals, 10 and 20 feet. \$1.
- GQ-109. Bedford, Wyo. Geology, by W. W. Rubey. 1958. Lat 42°45' to 43°, long 110°45' to 111°. Scale, 1:62,500. Contour interval, 100 feet. \$1.
- GQ-110. Fairbanks (D-2), Alaska. Geology, by T. L. Péwé. 1958. Lat 64°45' to 65°, long 147°30' to 148°. Scale, 1:63,360. Contour interval, 50 feet. \$1.
- GQ-111. Duffield, Va. Geology, by L. D. Harris and R. L. Miller. 1958. Lat 36°37'30" to 36°45', long 82°45' to 82°52'30". Scale, 1:24,000. Contour interval, 20 feet. \$1.
- GQ-112. Carlsbad Caverns West, N. Mex.-Tex. Geology, by P. T. Hayes and R. L. Koogale. 1958 [1959]. Lat 32° to 32°15', long 104°30' to 104°45'. Scale, 1:62,500. Contour interval, 50 feet. \$1.
- GQ-113. Epes, Ala. Geology, by W. H. Monroe and J. L. Hunt. 1958. Lat 32°30' to 32°45', long 88° to 88°15'. Scale, 1:62,500. Contour interval, 20 feet. \$1.
- GQ-114. Slocum, R. I. Bedrock geology, by W. R. Power, Jr. 1959. Lat 41°30' to 41°37'30", long 71°30' to 71°37'30". Scale, 1:31,680. Contour interval, 10 feet. \$1.
- GQ-115. Knoxville, Tenn. Geology, by J. M. Cattermole. 1958. Lat 35°52'30" to 36°, long 83°52'30" to 84°. Scale, 1:24,000. Contour interval, 20 feet. \$1.
- GQ-116. Shelburne Falls, Mass. Surficial geology, by Kenneth Segerstrom. 1959. Lat 42°30' to 42°37'30", long 72°37'30" to 72°45'. Scale, 1:31,680. Contour interval, 10 feet. \$1.
- GQ-117. Carolina and Quonochontaug, R. I. Bedrock geology, by G. E. Moore, Jr. 1959. Lat 41°22'30" to 41°30', long 71°37'30" to 71°45'. Scale, 1:31,680. Contour interval, 10 feet. \$1.
- GQ-118. Providence, R. I. Bedrock geology, by A. W. Quinn. 1959. Lat 41°45' to 41°52'30", long 71°22'30" to 71°30'. Scale, 1:24,000. Contour interval, 10 feet. \$1.
- GQ-119. New Britain, Conn. Surficial geology, by H. E. Simpson. 1959. Lat 41°37'30" to 41°45', long 72°45' to 72°52'30". Scale, 1:24,000. Contour interval, 10 feet. \$1.
- GQ-120. Poland, Maine. Surficial geology, by J. B. Hanley. 1959. Lat 44° to 44°15', long 70°15' to 70°30'. Scale, 1:62,500. Contour interval, 20 feet. \$1.
- GQ-121. Roxbury, Conn. Bedrock geology, by R. M. Gates. 1959 [1960]. Lat 41°30' to 41°37'30", long 73°15' to 73°22'30". Scale, 1:24,000. Contour interval, 10 feet. \$1.
- GQ-122. Wilmington, Mass. Surficial geology, by R. O. Castle. 1959. Lat 42°30' to 42°37'30", long 71°07'30" to 71°15'. Scale, 1:31,680. Contour interval, 10 feet. \$1.
- GQ-123. Nicholville, N. Y. Geology, by A. W. Postel, A. E. Nelson, and D. R. Wiesnet. 1959. Lat 44°30' to 44°45', long 74°30' to 74°45'. Scale, 1:62,500. Contour interval, 20 feet. \$1.
- GQ-124. Fairbanks (D-1), Alaska. Geology, by J. R. Williams, T. L. Péwé, and R. A. Paige. 1959. Lat 64°45' to 65°, long 147° to 147°30". Scale, 1:63,360. Contour interval, 50 feet. \$1.
- GQ-125. Buckley, Wash. Geology, by D. R. Crandell and L. M. Gard, Jr. 1959. Lat 47°07'30" to 47°15', long 122° to 122°07'30". Scale, 1:62,500. Contour interval, 20 feet. \$1.
- GQ-126. Bearden, Tenn. Geology, by J. M. Cattermole. 1960. Lat 35°52'30" to 36°, long 84° to 84°07'30". Scale, 1:24,000. Contour interval, 20 feet. \$1.
- GQ-127. Bridgewater, Mass. Geology, by J. H. Hartshorn. 1960. Lat 41°52'30" to 42°, long 70°52'30" to 71°. Scale, 1:24,000. Contour interval, 20 feet. \$1.
- GQ-128. Haunted Canyon, Ariz. Geology, by D. W. Peterson. 1960. Lat 33°22'30" to 33°30', long 111° to 111°07'30". Scale, 1:24,000. Contour interval, 40 feet. \$1.
- GQ-129. Pysht, Wash. Geology, by H. D. Gower. 1960. Lat 48° to 48°15', long 124° to 124°15'. Scale, 1:62,500. Contour interval, 80 feet. \$1.
- GQ-130. Wildwood, Tenn. Geology, by R. B. Neuman. 1960 [1961]. Lat 35°45' to 35°52'30", long 83°45' to 83°52'30". Scale, 1:24,000. Contour interval, 20 feet. \$1.

- GQ-131. Blockhouse, Tenn. Geology, by R. B. Neuman and R. L. Wilson. 1960 [1961]. Lat 35°37'30" to 35°45', long 83°52'30" to 84°. Scale, 1:24,000. Contour interval, 20 feet. \$1.
- GQ-132. Timpanogos Cave, Utah. Geology, by A. A. Baker and M. D. Crittenden, Jr. 1961. Lat 40°22'30" to 40°30', long 111°37'30" to 111°45'. Scale, 1:24,000. Contour interval, 40 feet. \$1.
- GQ-133. Frenchtown, N.J.-Pa. Geology, by A. A. Drake, Jr., D. B. McLaughlin, and R. E. Davis. 1961. Lat 40°30' to 40°37'30", long 75° to 75°07'30". Scale, 1:24,000. Contour interval, 20 feet. \$1.
- GQ-134. Avon, Conn. Geology, by R. W. Schnabel. 1960. Lat 41°45' to 41°52'30", long 72°45' to 72°52'30". Scale, 1:24,000. Contour interval, 10 feet. \$1.
- GQ-135. Geology of the Vaughn quadrangle, Montana, by E. K. Maughan. 1961. Lat 47°30' to 47°45', long 111°30' to 111°45'. Scale, 1:62,500. Contour interval, 20 feet. \$1.
- GQ-136. Surficial geology of the Wickford quadrangle, Rhode Island, by J. P. Schafer. 1961. Lat 41°30' to 41°37'30", long 71°22'30" to 71°30'. Scale, 1:24,000. Contour interval, 10 feet. \$1.
- GQ-137. Windsor Locks, Conn. Surficial geology, by R. B. Colton. 1960 [1961]. Lat 41°52'30" to 42°, long 72°37'30" to 72°45'. Scale, 1:24,000. Contour interval, 10 feet. \$1.
- GQ-138. Uncasville, Conn. Surficial geology, by Richard Goldsmith. 1960 [1961]. Lat 41°22'30" to 41°30' long 72° to 72°07'30". Scale, 1:24,000. Contour interval, 10 feet. \$1.
- GQ-139. Bedrock geology of the North Adams quadrangle, Massachusetts-Vermont, by Norman Herz. 1961. Lat 42°37'30" to 42°45', long 73° to 73°07'30". Contour interval, 20 feet. \$1.
- GQ-140. Surficial geology of the Narragansett Pier quadrangle, Rhode Island, by J. P. Schafer. 1961. Lat 41°22'30" to 41°30', long 71°22'30" to 71°30'. Scale, 1:24,000. Contour interval, 10 feet. \$1.
- GQ-141. Geology of the Boulter Peak quadrangle, Utah, by A. E. Disbrow. 1961. Lat 40° to 40°07'30", long 112°07'30" to 112°15'. Scale, 1:24,000. Contour interval, 25 feet. \$1.
- GQ-142. Geology of the Valdez (A-5) quadrangle, Alaska, by H. W. Coulter and E. B. Coulter. 1961. Lat 61° to 61°15', long 145°30' to 145°52'30". Scale, 1:63,360. Contour interval, 100 feet. \$1.
- GQ-143. Surficial geology of the North Scituate quadrangle, Rhode Island, by C. S. Robinson. 1961. Lat 41°45' to 41°52'30", long 71°30' to 71°37'30". Scale, 1:24,000. Contour interval, 10 feet. \$1.
- GQ-144. Geologic map of the Norwich quadrangle, Connecticut, by G. L. Snyder. 1961. Lat 41°30' to 41°37'30", long 72° to 72°07'30". Scale, 1:24,000. Contour interval, 10 feet. \$1.
- GQ-145. Surficial geology of the Bristol quadrangle, Connecticut, by H. E. Simpson. 1961. Lat 41°37'30" to 41°45', long 72°52'30" to 73°. Scale, 1:24,000. Contour interval, 10 feet. \$1.
- GQ-146. Surficial geology of the Southington quadrangle, Connecticut, by A. M. La Sala, Jr. 1961. Lat 41°30' to 41°37'30", long 72°52'30" to 73°. Scale, 1:24,000. Contour interval, 10 feet. \$1.
- GQ-149. Geology of the Altoona quadrangle, Kansas, by H. C. Wagner. 1961. Lat 37°30' to 37°45', long 95°30' to 95°45'. Scale, 1:62,500. Contour interval, 20 feet. \$1.
- GQ-151. Bedrock geology of the Louisville quadrangle, Colorado, by F. D. Spencer. 1961. Lat 39°52'30" to 40°, long 105°07'30" to 105°15'. Scale, 1:24,000. Contour interval, 10 feet. \$1.
- GQ-155. Geology of the Monroe quadrangle, Utah, by Eugene Callaghan and R. L. Parker. 1961. Lat 38°30' to 38°45', long 112° to 112°15'. Scale, 1:62,500. Contour interval, 50 feet. \$1.
- GQ-157. Geology of the Bare Mountain quadrangle, Nevada, by H. R. Cornwall and F. J. Kleinhampl. 1961. Lat 36°45' to 37°, long 116°30' to 116°45'. Scale, 1:62,500. Contour interval, 40 feet. \$1.
- GQ-158. Geology of the Poverty Bay quadrangle, Washington, by H. H. Waldron. 1961. Lat 47°15' to 47°22'30", long 122°15' to 122°22'30". Scale, 1:24,000. Contour interval, 25 feet. \$1.
- GQ-169. Geology of the Haldeman quadrangle, Kentucky, by S. H. Patterson and J. W. Hosterman. 1961. Lat 38°07'30" to 38°15', long 83°15' to 83°22'30". Scale, 1:24,000. Contour interval, 20 feet. \$1.
- GQ-170. Geology of the Wrigley quadrangle, Kentucky, by J. W. Hosterman, S. H. Patterson, and J. W. Huddle. 1961. Lat 38° to 38°07'30", long 83°15' to 83°22'30". Scale, 1:24,000. Contour interval, 20 feet. \$1.
- GQ-172. Geology of the Ewing quadrangle, Kentucky and Virginia, by K. J. Englund, H. L. Smith, L. D. Harris, and J. G. Stephens. 1961. Lat 36°37'30" to 36°45', long 83°22'30" to 83°30'. Scale, 1:24,000. Contour interval, 20 feet. \$1.
- GQ-173. Geology of the Austin quadrangle, Kentucky, by S. L. Moore. 1961. Lat 36°45' to 36°52'30", long 86° to 86°07'30". Contour interval, 20 feet. \$1.

MISCELLANEOUS GEOLOGIC INVESTIGATIONS MAPS¹

[Distinguishing prefix "I"]

- I-1. Geologic map of Canal Zone and adjoining parts of Panama, compiled by W. P. Woodring. 1955. Scale, 1:75,000. \$1.
- *I-84. Mesozoic and Cenozoic tectonic elements of Alaska, by T. G. Payne. 1955. Reprinted 1959. Scale, 1:5,000,000. (Superseded by Bulletin 1094.)
- I-129. Geology of the Kenilworth quadrangle, Montana, by R. M. Lindvall. 1956. Lat 48° to 48°15', long 110°15' to 110°30'. Scale, 1:62,500. 75c.
- I-130. Geology of the Big Sandy quadrangle, Montana, by R. M. Lindvall. 1956. Lat 48° to 48°15', long 110° to 110°15'. Scale, 1:62,500. 75c.
- I-155. Geology of the Cartersville and Hathaway quadrangles, Montana, by J. Fred Smith, Jr. 1956. Lat 46°15' to 46°30', long 106° to 106°30'. Scale, 1:62,500. 50c.
- I-156. Geology of the Manila quadrangle, Utah-Wyoming, by W. R. Hansen and M. G. Bonilla. 1956. Lat 40°52'30" to 41°, long 109°37'30" to 109°45'. Approximate scale, 1:24,000. 75c.
- I-167. Geologic map of the Malone quadrangle, N. Y., by A. W. Postel, D. R. Wiesnet, and A. E. Nelson. 1956. Lat 44°45' to 45°, long 74°15' to 74°30'. Scale, 1:62,500. 50c.
- I-168. Geologic map of the Chateaugay quadrangle, N. Y., by A. E. Nelson, D. R. Wiesnet, L. D. Carswell, and A. W. Postel. 1956. Lat 44°45' to 45°, long 74° to 74°15'. Scale, 1:62,500. 50c.
- I-175. Paleotectonic maps, Jurassic system, by E. D. McKee and others, with a separate section on Paleogeography, by R. W. Imlay. 1956. Scale, 1:5,000,000. 6 p., 9 pls., 5 figs., 2 charts. \$5.
- I-197. Geologic map and structure sections along part of the lower Yukon River, Alaska, by W. W. Patton, Jr., and R. S. Bickel. 1956. Lat 64°30' to 65°, long 156° to 158°. Approximate scale, 1:200,000 for the map and 4 times the geologic map scale for the structure sections. 50c.
- I-201 B. Geographic map of the Jawf-Sakakah quadrangle, Kingdom of Saudi Arabia, by R. A. Bramkamp and L. F. Ramirez. 1960 [1961]. Lat 28° to 32°, long 39° to 42° E. Scale, 1:500,000. \$1.
- I-202 B. Geographic map of the Darb Zubaydah quadrangle, Kingdom of Saudi Arabia, by R. A. Bramkamp and L. F. Ramirez. 1960. Lat 28° to 32°, long 42° to 45° E. Scale, 1:500,000. \$1.
- I-203 A. Geology of the Wadi Al Batin quadrangle, Kingdom of Saudi Arabia, by R. A. Bramkamp and L. F. Ramirez. 1959 [1960]. Lat 28° to 32°, long 45° to 48° E. Scale, 1:500,000. \$1. [The geology shown is within the borders of the Kingdom of Saudi Arabia and the Neutral Zones.]
- I-203 B. Geographic map of the Wadi Al Batin quadrangle, Kingdom of Saudi Arabia, by R. A. Bramkamp and L. F. Ramirez. 1959. Lat 28° to 32°, long 45° to 48° E. Scale, 1:500,000. \$1.
- I-204 B. Geographic map of the northwestern Hijaz quadrangle, Kingdom of Saudi Arabia, by G. F. Brown, R. O. Jackson, and R. G. Bogue. 1959. Lat 24° to 28°, long 35° to 39° E. Scale, 1:500,000. \$1.
- I-205 B. Geographic map of the northeastern Hijaz quadrangle, Kingdom of Saudi Arabia, by G. F. Brown and R. O. Jackson. 1959. Lat 24° to 28°, long 39° to 42° E. Scale, 1:500,000. \$1.
- I-206 B. Geology of the Wadi Ar Rimah quadrangle, Kingdom of Saudi Arabia, by R. A. Bramkamp, L. F. Ramirez, and G. F. Brown. 1961. Lat 24° to 28°, long 42° to 45° E. Scale, 1:500,000. \$1.
- I-207 A. Geology of the northern Tuwayq quadrangle, Kingdom of Saudi Arabia, by R. A. Bramkamp and L. F. Ramirez. 1958. Lat 24° to 28°, long 45° to 48° E. Scale, 1:500,000. \$1.
- I-207 B. Geographic map of the northern Tuwayq quadrangle, Kingdom of Saudi Arabia, by R. A. Bramkamp and L. F. Ramirez. 1957. Lat 24° to 28°, long 45° to 48° E. Scale, 1:500,000. \$1.
- I-208 A. Geology of the western Persian Gulf quadrangle, Kingdom of Saudi Arabia, by Max Steineke, T. F. Harriss, K. R. Parsons, and E. L. Berg. 1958. Lat 24° to 28°, long 48° to 51° E. Scale, 1:500,000. \$1.
- I-208 B. Geographic map of the western Persian Gulf quadrangle, Kingdom of Saudi Arabia, by Max Steineke, T. F. Harriss, K. R. Parsons, and E. L. Berg. 1958. Lat 24° to 28°, long 48° to 51° E. Scale, 1:500,000. \$1.
- I-209 A. Geology of the central Persian Gulf quadrangle, Kingdom of Saudi Arabia, by R. A. Bramkamp and L. F. Ramirez. 1961. Lat 24° to 28°, long 51° to 54° E. Scale, 1:500,000. \$1.
- I-209 B. Geographic map of the central Persian Gulf quadrangle, Kingdom of Saudi Arabia, by R. A. Bramkamp and L. F. Ramirez. 1959. Lat 24° to 28°, long 51° to 54° E. Scale, 1:500,000. \$1.
- I-210 B. Geographic map of the southern Hijaz quadrangle, Kingdom of Saudi Arabia, by G. F. Brown and R. O. Jackson. 1958. Lat 20° to 24°, long 38° to 42° E. Scale, 1:500,000. \$1.
- I-212 A. Geology of the southern Tuwayq quadrangle, Kingdom of Saudi Arabia, by R. A. Bramkamp, R. D. Gierhart, G. F. Brown, and R. O. Jackson. 1956. Lat 20° to 24°, long 45° to 48° E. Scale, 1:500,000. \$1.
- I-212 B. Geographic map of the southern Tuwayq quadrangle, Kingdom of Saudi Arabia, by R. A. Bramkamp, R. D. Gierhart, G. F. Brown, and R. O. Jackson. 1956. Lat 20° to 24°, long 45° to 48° E. Scale, 1:500,000. \$1.

Missing numbers in the regular numerical sequence of this series, such as I-2—I-83, I-85—I-128, I-131—I-154, I-157—I-166, represent photogeologic maps, which have all been listed together at the end of this section.

- 1-213 A. Geology of the northwestern Rub' Al Khali quadrangle, Kingdom of Saudi Arabia, by R. A. Bramkamp and L. F. Ramirez, 1959. Lat 20° to 24°, long 48° to 51° E. Scale, 1:500,000. \$1.
- 1-213 B. Geographic map of the northwestern Rub' Al Khali quadrangle, Kingdom of Saudi Arabia, by R. A. Bramkamp and L. F. Ramirez, 1959. Lat 20° to 24°, long 48° to 51° E. Scale, 1:500,000. \$1.
- 1-214 A. Geology of the northeastern Rub' Al Khali quadrangle, Kingdom of Saudi Arabia, by R. A. Bramkamp and L. F. Ramirez, 1961. Lat 20° to 24°, long 51° to 54° E. Scale, 1:500,000. \$1.
- 1-214 B. Geographic map of the northeastern Rub' Al Khali quadrangle, Kingdom of Saudi Arabia, by R. A. Bramkamp and L. F. Ramirez, 1959. Lat 20° to 24°, long 51° to 54° E. Scale, 1:500,000. \$1.
- 1-216 A. Geology of the Tihamat Ash Sham quadrangle, Kingdom of Saudi Arabia, by G. F. Brown and R. O. Jackson, 1958 [1959]. Lat 16° to 20°, long 39° to 42° E. Scale, 1:500,000. Available in two editions, with and without shaded-relief base. \$1.
- 1-216 B. Geographic map of the Tihamat Ash Sham quadrangle, Kingdom of Saudi Arabia, by G. F. Brown and R. O. Jackson, 1958. Lat 16° to 20°, long 39° to 42° E. Scale, 1:500,000. \$1.
- 1-217 A. Geology of the Asir quadrangle, Kingdom of Saudi Arabia, by G. F. Brown and R. O. Jackson, 1959. Lat 16° to 20°, long 42° to 45° E. Scale, 1:500,000. Available in one edition only, shaded-relief base. \$1.
- 1-217 B. Geographic map of the Asir quadrangle, Kingdom of Saudi Arabia, by G. F. Brown and R. O. Jackson, 1958. Lat 16° to 20°, long 42° to 45° E. Scale, 1:500,000. \$1.
- 1-223. Geologic reconnaissance in the Yukon-Kuskokwim delta region, Alaska, by W. L. Coonrad, 1957. Lat 59°30' to 62°45', long 162° to 168°. Scale, 1:500,000. 75c.
- *1-224. Preliminary geologic map of the northwestern part of New Mexico, by C. H. Dane and G. O. Bachman, 1957. Lat 34° to 37°, long 106° to 109°. Scale, 1:380,160.
- 1-225. Geologic and structure contour map of the Fort Peck Indian Reservation and vicinity, Montana, by R. B. Colton and A. F. Bateman, Jr. 1956. Lat 48° to 48°30', long 104°30' to 106°30'. Scale, 1:125,000. 75c.
- 1-226. Geologic map and structure sections of the Shaktolik River area, Alaska, by W. W. Patton, Jr., and R. S. Bickel, 1956. Lat 64°30' to 64°45', long 159°30' to 160°30'. Scale, 1:80,000. 50c.
- 1-230. Map of Salt Chuck area, Prince of Wales Island, Alaska, showing linear features as seen on aerial photographs, by C. L. Pillmore and Kathleen McQueen, 1956. Scale, 1:12,000. Contour interval, 500 feet. 50c.
- 1-231. Map of Hollis area, Prince of Wales Island, Alaska, showing linear features as seen on aerial photographs, part 1, by C. L. Pillmore and Kathleen McQueen, 1956. Scale, 1:12,000. Contour interval, 500 feet. 50c.
- 1-232. Map of Hollis area, Prince of Wales Island, Alaska, showing linear features as seen on aerial photographs, part 2, by C. L. Pillmore and Kathleen McQueen, 1956. Scale, 1:12,000. Contour interval, 500 feet. 50c.
- 1-234. Preliminary general geologic map of the Laredo quadrangle, Bearpaw Mountains, Montana, by W. T. Pecora, I. J. Witkind, and D. B. Stewart, 1957. Lat 48°15' to 48°30', long 109°45' to 110°. Scale 1:31,680. 75c.
- 1-235. Preliminary geologic map of the Centennial Mountain quadrangle, Bearpaw Mountains, Mont., by D. B. Stewart, W. T. Pecora, D. B. Engstrom, and H. R. Dixon, 1957. Lat 48° to 48°15', long 109°45' to 110°. Scale, 1:31,680. 75c.
- 1-236. Preliminary geologic map of the Shambo quadrangle, Bearpaw Mountains, Mont., by J. H. Kerr, W. T. Pecora, D. B. Stewart, and H. R. Dixon, 1957. Lat 48°15' to 48°30', long 109°30' to 109°45'. Scale, 1:31,680. 75c.
- 1-237. Preliminary geologic map of the Warrick quadrangle, Bearpaw Mountains, Mont., by W. T. Pecora and others, 1957. Lat 48° to 48°15', long 109°30' to 109°45'. Scale, 1:31,680. 75c.
- 1-239. Areal and engineering geology of the Oakland West quadrangle, California, by D. H. Radbruch, 1957. Lat 37°45' to 37°52'30", long 122°15' to 122°22'30". Scale 1:24,000. Contour interval, 5 feet. \$1.
- 1-243. Reconnaissance geologic map of the Kateel River quadrangle, Alaska, by J. T. Cass, 1957 [1958]. Lat 65° to 66°, long 156° to 159°. Scale, 1:250,000. Contour intervals, 200 and 1,000 feet. 75c.
- 1-249. Preliminary geologic map of the Nulato and Kateel Rivers area, Alaska, by R. S. Bickel and W. W. Patton, Jr. 1957. Lat 64°15' to 65°30', long 158° to 159°30'. Scale, 1:125,000. 50c.
- 1-256. Preliminary geologic map of the southeastern part of New Mexico, by C. H. Dane and G. O. Bachman, 1958. Lat 32° to 34°, long 103° to 106°. Scale, 1:380,160. 75c.
- 1-264. Engineering geology of Islais Creek basin, San Francisco, Calif., by D. H. Radbruch and Julius Schlocker, 1958. Lat 37°43'45" to 37°45'45", long 122°22'30" to 122°25'. Scale, 1:12,000. Contour interval, 25 feet. 75c.
- 1-269. Ground conditions and surficial geology of the Kenai-Kasilof area, Kenai Peninsula, south-central Alaska, by Thor N. V. Karlstrom, 1958. Lat 60°25' to 60°35', long 151° to 151°20'. Scale, 1:63,360. Contour interval, 50 feet. 50c.
- 1-270 B. Arabian Peninsula, by G. F. Brown and others, 1958. Lat 11°30' to 32°, long 33°30' to 61°30' E. Scale, 1:2,000,000. \$1.50.
- 1-271. Glacial features and surficial deposits of the Malaspina district, Alaska, by George Plafker and D. J. Miller, 1958 [1959]. Lat 59°30' to 60°20', long 139°30' to 141°22'30". Scale, 1:125,000. 75c.
- 1-272. Geology of the San Francisco North quadrangle, California, by J. Schlocker, M. G. Bonilla, and D. H. Radbruch, 1958. Lat 37°45' to 37°52'30", long 122°22'30" to 122°30". Scale, 1:24,000. Contour interval, 25 feet. \$1.
- 1-273. Map of a part of Prince William Sound area, Alaska, showing linear geologic features as shown on aerial photographs, by W. H. Condon and J. T. Cass, 1958. Lat 59°45' to 61°, long 147° to 149°. Scale, 1:125,000. Contour interval, 200 feet. 50c.

- *1-276. Progress map of the geology of the Juneau quadrangle, Alaska, by E. H. Lathram, R. A. Loney, W. H. Condon, and H. C. Berg. 1958. Lat 58° to 59°, long 134° to 136°. Scale, 1:250,000. Superseded by map I-303.
- I-284. Preliminary map of landslides in the Pacific Palisades area, city of Los Angeles, Calif., by J. T. McGill. 1959. Scale, 1:4,800. Contour interval, 5 feet. 50c.
- I-285. Geology of the Bethel quadrangle, Alaska, by J. M. Hoare and W. L. Coonrad, 1959 [1960]. Lat 60° to 61°, long 159° to 162°. Scale, 1:250,000. Contour intervals, 200 and 1,000 feet. \$1.
- I-286. Reconnaissance geologic map of the Norton Bay quadrangle, Alaska, by J. T. Cass. 1959. Lat 64° to 65°, long 159° to 162°. Scale, 1:250,000. Contour intervals, 200 and 1,000 feet. 75c.
- I-287. Reconnaissance geologic map of the Candle quadrangle, Alaska, by J. T. Cass. 1959. Lat 65° to 66°, long 159° to 162°. Scale, 1:250,000. Contour intervals, 200 and 1,000 feet. 75c.
- I-288. Reconnaissance geologic map of the Unalakleet quadrangle, Alaska, by J. T. Cass. 1959. Lat 63° to 64°, long 159° to 162°. Scale, 1:250,000. Contour intervals, 200 and 1,000 feet. 75c.
- I-289. Reconnaissance geologic map of the Ruby quadrangle, Alaska, by J. T. Cass. 1959. Lat 64° to 65°, long 153° to 156°. Scale, 1:250,000. Contour intervals, 200 and 1,000 feet. 75c.
- I-290. Reconnaissance geologic map of the Melozitna quadrangle, Alaska, by J. T. Cass. 1959. Lat 65° to 66°, long 153° to 156°. Scale, 1:250,000. Contour intervals, 200 and 1,000 feet. 75c.
- I-291. Reconnaissance geologic map of the Nulato quadrangle, Alaska, by J. T. Cass. 1959. Lat 64° to 65°, long 156° to 159°. Scale, 1:250,000. Contour intervals, 200 and 1,000 feet. 75c.
- I-292. Geology of the Russian Mission quadrangle, Alaska, by J. M. Hoare and W. L. Coonrad. 1959 [1960]. Lat 61° to 62°, long 159° to 162°. Scale, 1:250,000. Contour intervals, 200 and 1,000 feet. 75c.
- I-296. Geologic map of the Bonner quadrangle, Montana, by W. H. Nelson and J. P. Dobell. 1959. Lat 46°45' to 47°, long 113°45' to 114°. Scale, 1:62,500. 2 sheets. 75c per set.
- I-297. Geology of the western part of the Big Delta (D-6) quadrangle, Alaska, by J. R. Williams. 1959. Lat 64°45' to 65°, long 146°30' to 147°. Scale, 1:63,360. 75c.
- I-298. Former shoreline features along the east side of San Francisco Bay, Calif., by D. H. Radbruch. 1959. Lat 37°42'30" to 37°52'30", long 122°12'30" to 122°20'. Scale, 1:48,000. Contour intervals, 5 and 25 feet. 50c.
- I-299. Epigenetic uranium deposits in the United States, by W. I. Finch, I. S. Parrish, and G. W. Walker. 1959 [1960]. Scale, 1:5,000,000. 3 sheets. \$1 per set.
- I-300. Paleotectonic maps, Triassic System, by E. D. McKee and others. 1959 [1960]. 33 p., 9 pls., 32 figs. Scale, 1:5,000,000 for pls. 1-6, 8. \$5.
- I-303. Progress map of the geology of the Juneau quadrangle, Alaska, by E. H. Lathram, R. A. Loney, W. H. Condon, and H. C. Berg. 1959. Lat 58° to 59°, long 134° to 136°. Scale, 1:250,000. Contour interval, 1,000 feet. 50c. Supersedes Map I-276.
- I-307. Engineering and surficial geology of the Nenana-Rex area, Alaska, by Reuben Kachadoorian. 1960. Lat 64°12'30" to 64°35', long 148°40' to 149°20'. Scale, 1:63,360. Contour interval, 50 feet. 75c.
- I-308. Engineering geology of the Katalla area, Alaska, by Reuben Kachadoorian. 1960. Lat 60° to 60°30', long 144° to 144°45'. Scale, 1:63,360. Contour interval, 100 feet. \$1.
- I-309. Geologic map of the igneous and metamorphic rocks of Colorado showing location of uranium deposits, compiled by E. A. Merewether. 1960. Lat 37° to 41°, long 102° to 109°. Scale, 1:500,000. \$1.
- I-310. Geologic map of the igneous and metamorphic rocks of Wyoming showing location of uranium deposits, compiled by E. A. Merewether. 1960. Lat 41° to 45°, long 104° to 111°. Scale, 1:500,000. \$1.
- I-311. Geologic map of the igneous and metamorphic rocks of Montana showing location of uranium deposits, compiled by E. A. Merewether. 1960. Lat 45° to 49°, long 104° to 109° (east half); lat 45° to 49°, long 110° to 115° (west half). Scale, 1:500,000. 2 sheets. \$1.50 per set.
- I-312. Generalized geologic map of the Nelchina area, Alaska, showing igneous rocks and larger faults, by Arthur Grantz. 1960. Lat 61°45' to about 62°19'20", long 147° to about 148°08'. Scale, 1:96,000. Contour interval, 200 feet. 50c.
- I-313. Geologic map of Talkeetna Mountains (A-2) quadrangle, Alaska, and the contiguous area to the north and northwest, by Arthur Grantz. 1960. Lat 62° to 62°20', long 147°30' to 148°20'. Scale, 1:48,000. 50c.
- I-314. Geologic map of Talkeetna Mountains (A-1) quadrangle, and the south third of Talkeetna Mountains (B-1) quadrangle, Alaska, by Arthur Grantz. 1960. Lat 62° to 62°20', long 147° to 147°30'. Scale, 1:48,000. Contour interval, 100 feet. 50c.
- I-316. Glacial map of Ohio, by R. P. Goldthwait, G. W. White, and J. L. Forsyth. 1961. Scale, 1:500,000. 75c.
- I-318. Geology of the Central Aguirre quadrangle, Puerto Rico, by H. L. Berryhill, Jr. 1960 [1961]. Lat 17°52'30" to 18°, long 66°07'30" to 66°15'. Scale, 1:20,000. Contour interval, 10 meters. \$1.
- I-319. Geology of the Cayey quadrangle, Puerto Rico, by H. L. Berryhill, Jr., and Lynn Glover, 3d. 1960 [1961]. Lat 18° to 18°07'30", long 66°07'30" to 66°15'. Scale, 1:20,000. Contour interval, 10 meters. \$1.25.
- I-320. Geology of the Comerio quadrangle, Puerto Rico, by M. H. Pease, Jr., and R. P. Briggs. 1960 [1961]. Lat 18°07'30" to 18°15', long 66°07'30" to 66°15'. Scale, 1:20,000. Contour interval, 10 meters. \$1.25.
- I-321. Geologic map of the Hagemeister Island quadrangle, Alaska, by J. M. Hoare and W. L. Coonrad. 1961. Lat 58° to 59°, long 160° to 162°30'. Scale, 1:250,000. \$1.
- I-322. Geology of the Willow Creek Butte quadrangle, Utah-Colorado, by W. R. Hansen. 1961. Lat 40°52'30" to 41°, long 109° to 109°07'30". Scale, 1:24,000. Contour interval, 40 feet. 75c.
- I-323. Progress map of the geology of Admiralty Island, Alaska, by E. H. Lathram, R. A. Loney, H. C. Berg, and J. S. Pomeroy. 1960. Lat 57° to 58°, long 134° to 134°30'. Scale, 1:250,000. Contour interval, 200 feet. 50c.

- 1-324. Geologic map of the Dutch John Mountain and Goslin Mountain quadrangles, Utah-Wyoming, by W. R. Hansen. 1961. Lat 40°52'30" to 41°, long 109°15' to 109°30'. Scale, 1:24,000. Contour interval, 40 feet. 75c.
- 1-325. Geologic map of Oregon west of the 121st meridian. Prepared under the direction of F. G. Wells and compiled by D. L. Peck. 1961. Scale, 1:500,000. \$2.
- 1-326. Preliminary geologic map showing iron and copper prospects in the Juncos quadrangle, Puerto Rico, by C. H. Broedel. 1961. Lat 18°07'30" to 18°15', long 65°52'30" to 66°. Scale, 1:20,000. Contour interval, 10 meters. \$1.
- 1-327. Glacial map of Montana east of the Rocky Mountains, by R. B. Colton, R. W. Lemke, and R. M. Lindvall. 1961. Lat 47° to 49°, long 104° to 113°. Scale, 1:500,000. \$1.50.
- 1-328. Preliminary geologic map of the Climax stock and vicinity, Nye County, Nev., by F. N. Houser and F. G. Poole. 1960. Scale, 1:4,800. 2 sheets. \$1.50 per set.
- 1-329. Geology of the Huntsville quadrangle, Alabama, by T. H. Sanford, Jr., G. T. Malmberg, and L. R. West. 1961. Lat 34°37'30" to 34°45', long 86°30' to 86°37'30". Scale, 1:24,000. Contour interval, 20 feet. 75c.
- 1-330. Geology of the Moses Lake North quadrangle, Washington, by M. J. Grolier and B. L. Foxworthy. 1961. Lat 47°07'30" to 47°15', long 119°15' to 119°22'30". Scale, 1:24,000. Contour interval, 10 feet. 75c.
- 1-332. Geologic map of a part of southwestern Wyoming and adjacent States, by W. H. Bradley. 1961. Scale, 1:250,000. 75c.
- 1-333. Preliminary geologic map of the Indian Hills quadrangle, Jefferson County, Colo., by G. R. Scott. 1961. Lat 39°30' to 39°37'30", long 105°07'30" to 105°15'. Scale, 1:24,000. Contour interval, 40 feet. 50c.
- 1-335. Preliminary report on the geology of the Coamo quadrangle, Puerto Rico, by Lynn Glover, 3d. 1961. Lat 18° to 18°07'30", long 66°15' to 66°22'30". Scale, 1:20,000. Contour interval, 10 meters. \$1.25.
- 1-337. Preliminary geologic map of the Salinas quadrangle, Puerto Rico, by Lynn Glover, 3d. 1961. Lat 17°52'30" to 18°, long 66°15' to 66°22'30". Scale, 1:20,000. Contour interval, 10 meters. 50c.
- 1-339. Geologic map of the Goodnews quadrangle, Alaska, by J. M. Hoare and W. L. Coonrad. 1961. Lat 59° to 60°, long 159° to 162°. Scale, 1:250,000. \$1.
- 1-340. Geologic map and section of the Fairbanks D-3 quadrangle, Alaska, by T. L. Péwé and N. R. Rivard. 1961. Lat 64°45' to 65°, long 148° to 148°30'. Scale, 1:63,360. Contour interval, 50 feet. 50c.
- 1-342. Geologic map and cross sections of the Anchorage (D-2) quadrangle and northeasternmost part of the Anchorage (D-3) quadrangle, Alaska, by Arthur Grantz. 1961. Lat 61°45' to 62°, long 147°22'30" to 147°45'. Scale, 1:48,000. Contour interval, 100 feet. 50c.
- 1-343. Geologic map of the north two-thirds of Anchorage (D-1) quadrangle, Alaska, by Arthur Grantz. 1961. Lat 61°45' to 62°, long 147° to 147°22'30". Scale, 1:48,000. Contour interval, 100 feet. 50c.
- 1-344. Preliminary geologic map of the southwestern part of New Mexico, by C. H. Dane and G. O. Bachman. 1961. Lat 32° to 34°, long 106° to 109°. Scale, 1:380,160. \$1.25.
- 1-346. Geology of the Franklin and part of the Hamburg quadrangles, New Jersey, by A. F. Buddington and D. R. Baker. 1961. Lat 41° to 41°07'30", long 74°30' to 74°37'30". Scale, 1:24,000. Contour interval, 20 feet. 50c.
- 1-351. Engineer special study of the surface of the moon, by R. J. Hackman and A. C. Mason. 1961. Set of 4 sheets. Sheet 1, Generalized photogeologic map of the moon; sheet 2, Lunar rays; sheet 3, Physiographic divisions of the moon; and sheet 4, Description and evaluation of the physiographic regions. Approximate scale, 1:3,800,000. \$1.50 per set.
- The following maps are photogeologic maps. Each covers a 7½-minute quadrangle at the scale of 1:24,000, unless otherwise noted. 50c each.
- 1-2. Carlisle-13, San Juan and Garfield Counties, Utah, by J. N. Platt. 1954 [1955]. Lat 38° to 38°07'30", long 109°52'30" to 110°.
- 1-3. Tidwell-12, Emery County, Utah, by C. F. Miller. 1954 [1955]. Lat 38°37'30" to 38°45', long 110°22'30" to 110°30'.
- 1-4. Desert Lake-8, San Juan and Garfield Counties, Utah, by P. P. Orkild. 1954 [1955]. Lat 39°15' to 39°22'30", long 110°30" to 110°37'30".
- 1-5. Woodside-5, Emery County, Utah, by P. P. Orkild. 1955. Lat 39°15' to 39°22'30", long 110°22'30" to 110°30'.
- 1-6. Carlisle-14, San Juan County, Utah, by R. J. Hackman. 1955. Lat 38° to 38°07'30", long 109°45' to 109°52'30'.
- 1-7. Elk Ridge-2, San Juan County, Utah, by R. J. Hackman. 1955. Lat 37°52'30" to 38°, long 109°37'30" to 109°45'.
- 1-8. Elk Ridge-14, San Juan County, Utah, by C. F. Miller. 1955. Lat 37°30' to 37°37'30", long 109°45' to 109°52'30".
- 1-9--1-11. Emery-2, -7, and -10. Emery County, Utah. 1955.
- 1-9. Emery-2, by J. S. Dettnerman. Lat 38°52'30" to 39°, long 111°07'30" to 111°15'.
- 1-10. Emery-7, by H. S. Bennett. Lat 38°45' to 38°52'30", long 111°07'30" to 111°15'.
- 1-11. Emery-10, by H. S. Bennett. Lat 38°37'30" to 38°45', long 111°07'30" to 111°15'.
- 1-12. Tidwell-7, Emery and Grand Counties, Utah, by V. H. Sable. 1955. Lat 38°45' to 38°52'30", long 110°07'30" to 110°15'.
- 1-13. Straight Cliffs-3, Kane County, Utah, by B. H. Kent. 1955. Lat 37°22'30" to 37°30", long 111°15' to 111°22'30".
- 1-14. Kaiparowits Peak-8, Garfield County, Utah, by J. S. Dettnerman. 1955. Lat 37°45' to 37°52'30", long 111°30' to 111°37'30".

- 1-15. Kaiparowits Peak-9, Garfield County, Utah, by J. S. Detterman. 1955. Lat 37°37'30" to 37°45', long 111°30' to 111°37'30".
- 1-16. Orange Cliffs-16, San Juan and Garfield Counties, Utah, by J. N. Platt. 1955. Lat 38° to 38°07'30", long 110° to 110°07'30".
- 1-17--1-27. Circle Cliffs, 1-11. Garfield County, Utah, 1955.
- 1-17. Circle Cliffs-1, by J. S. Detterman. Lat 37°52'30" to 38°, long 111° to 111°07'30".
- 1-18. Circle Cliffs-2, by R. J. Hackman. Lat 37°52'30" to 38°, long 111°07'30" to 111°15'.
- 1-19. Circle Cliffs-3, by J. S. Detterman. Lat 37°52'30" to 38°, long 111°15' to 111°22'30".
- 1-20. Circle Cliffs-4, by J. S. Detterman. Lat 37°52'30" to 38°, long 111°22'30" to 111°30".
- 1-21. Circle Cliffs-5, by J. S. Detterman. Lat 37°45' to 37°52'30", long 111°22'30" to 111°30".
- 1-22. Circle Cliffs-6, by R. J. Hackman. Lat 37°45' to 37°52'30", long 111°15' to 111°22'30".
- 1-23. Circle Cliffs-7, by R. J. Hackman. Lat 37°45' to 37°52'30", long 111°07'30" to 111°15'.
- 1-24. Circle Cliffs-8, by J. S. Detterman. Lat 37°45' to 37°52'30", long 111° to 111°07'30".
- 1-25. Circle Cliffs-9, by J. S. Detterman. Lat 37°37'30" to 37°45', long 111° to 111°07'30".
- 1-26. Circle Cliffs-10, by R. J. Hackman. Lat 37°37'30" to 37°45', long 111°07'30" to 111°15'.
- 1-27. Circle Cliffs-11, by R. J. Hackman. Lat 37°37'30" to 37°45', long 111°15' to 111°22'30".
- 1-28--1-31. Circle Cliffs, 12-16. Garfield and Kane Counties, Utah, 1955.
- 1-28. Circle Cliffs-13, by B. H. Kent. Lat 37°30' to 37°37'30", long 111°22'30" to 111°30".
- 1-29. Circle Cliffs-14, by R. J. Hackman. Lat 37°30' to 37°37'30", long 111°15' to 111°22'30".
- 1-30. Circle Cliffs-15, by R. J. Hackman. Lat 37°30' to 37°37'30", long 111°07'30" to 111°15'.
- 1-31. Circle Cliffs-16, by R. J. Hackman. Lat 37°30' to 37°37'30", long 111° to 111°07'30".
- 1-32. Elk Ridge-7, San Juan County, Utah, by R. J. Hackman. 1955. Lat 37°45' to 37°52'30", long 109°37'30" to 109°45'.
- 1-33. White Canyon-1, San Juan and Garfield Counties, Utah, by J. C. Reed, Jr. 1955. Lat 37°52'30" to 38°, long 110° to 110°07'30".
- 1-34. Notom-15, Garfield County, Utah, by R. J. Hackman and G. E. Tolbert. 1955. Lat 38° to 38°07'30" long 110°07'30" to 111°15'.
- 1-35. Elk Ridge-15, San Juan County, Utah, by H. S. Bennett. 1955. Lat 37°30' to 37°37'30", long 109°37'30" to 109°45'.
- 1-36. White Canyon-2, San Juan and Garfield Counties, Utah, by J. C. Reed, Jr. 1955. Lat 37°52'30" to 38°, long 110°07'30" to 110°15'.
- 1-37--1-40. Straight Cliffs-2, -9, -7, and -1. Kane County, Utah, 1955.
- 1-37. Straight Cliffs-2, by J. S. Detterman. Lat 37°22'30" to 37°30', long 111°07'30" to 111°15'.
- 1-38. Straight Cliffs-9, by J. C. Reed, Jr. Lat 37°07'30" to 37°15', long 111° to 111°07'30".
- 1-39. Straight Cliffs-7, by B. H. Kent. Lat 37°15' to 37°22'30", long 111°07'30" to 111°15'.
- 1-40. Straight Cliffs-1, by V. H. Sable. Lat 37°22'30" to 37°30', long 111° to 111°07'30".
- 1-41--1-45. Navajo Mountain-6, -3, -4, -5, and -12. Kane and San Juan Counties, Utah, 1955.
- 1-41. Navajo Mountain-6, by J. S. Detterman. Lat 37°15' to 37°22'30", long 110°45' to 110°52'30".
- 1-42. Navajo Mountain-3, by R. J. Hackman. Lat 37°22'30" to 37°30', long 110°45' to 110°52'30".
- 1-43. Navajo Mountain-4, Kane County, Utah, by J. S. Detterman. Lat 37°22'30" to 37°30', long 110°52'30" to 111°.
- 1-44. Navajo Mountain-5, by H. S. Bennett. Lat 37°15' to 37°22'30", long 110°52'30" to 111°.
- 1-45. Navajo Mountain-12, by H. S. Bennett. Lat 37°07'30" to 37°15', long 110°52'30" to 111°.
- 1-46--1-50. Mt. Pennell-5, -11, -12, -13, and -14. Garfield County, Utah, 1955.
- 1-46. Mt. Pennell-5, by R. J. Hackman. Lat 37°45' to 37°52'30", long 110°52'30" to 111°.
- 1-47. Mt. Pennell-11, by J. S. Detterman. Lat 37°37'30" to 37°45', long 110°45' to 110°52'30".
- 1-48. Mt. Pennell-12, by J. S. Detterman. Lat 37°37'30" to 37°45', long 110°52'30" to 111°.
- 1-49. Mt. Pennell-13, Garfield and Kane Counties, Utah, by J. S. Detterman. Lat 37°30' to 37°37'30", long 110°52'30" to 111°.
- 1-50. Mt. Pennell-14, Garfield and Kane Counties, Utah, by R. J. Hackman. Lat 37°30' to 37°37'30", long 110°45' to 110°52'30".
- 1-51. Clay Hills-1, San Juan County, Utah, by C. H. Marshall. 1955. Lat 37°22'30" to 37°30', long 110° to 110°07'30".
- 1-52. Circle Cliffs-12, Garfield County, Utah, by R. J. Hackman. 1955. Lat 37°37'30" to 37°45', long 111°22'30" to 111°30".
- 1-53. Bluff-6, San Juan County, Utah, by P. P. Orkild. 1955. Lat 37°15' to 37°22'30", long 109°45' to 109°52'30".
- 1-54. Bluff-11, San Juan County, Utah, by C. F. Miller. 1955. Lat 37°07'30" to 37°15', long 109°45' to 109°52'30".
- 1-55. Elk Ridge-10, San Juan County, Utah, by H. S. Bennett. 1955. Lat 37°37'30" to 37°45', long 109°37'30" to 109°45'.
- 1-56. Elk Ridge-11, San Juan County, Utah, by J. C. Reed, Jr. 1955. Lat 37°37'30" to 37°45', long 109°45' to 109°52'30".
- 1-57. Moab-5, Grand County, Utah, by J. S. Detterman. 1955. Lat 38°45' to 38°52'30", long 109°52'30" to 110°.
- 1-58. Clay Hills-8, San Juan County, Utah, by C. H. Marshall. 1955. Lat 37°15' to 37°22'30", long 110° to 110°07'30".
- 1-59--1-61. Bluff-4, -5, and -8. San Juan County, Utah, 1955.
- 1-59. Bluff-4, by J. N. Platt. Lat 37°22'30" to 37°30', long 109°52'30" to 110°.
- 1-60. Bluff-5, by P. P. Orkild. Lat 37°15' to 37°22'30", long 109°52'30" to 110°.
- 1-61. Bluff-8, by C. F. Miller. Lat 37°15' to 37°22'30", long 109°30' to 109°37'30".

- I-62. Clay Hills-7, San Juan County, Utah, by C. H. Marshall. 1955. Lat 37°15' to 37°22'30", long 110°07'30" to 110°15'.
- I-63. Elk Ridge-16, San Juan County, Utah, by C. F. Miller. 1955. Lat 37°30' to 37°37'30", long 109°30' to 109°37'30".
- I-64. Bluff-1, San Juan County, Utah, by C. F. Miller. 1955. Lat 37°22'30" to 37°30', long 109°30' to 109°37'30".
- I-65. Clay Hills-11, San Juan County, Utah, by C. H. Marshall. 1955. Lat 37°07'30" to 37°15', long 110°15' to 110°22'30".
- I-66. Navajo Mountain-2, Kane and San Juan Counties, Utah, by H. S. Bennett. 1955. Lat 37°22'30" to 37°30', long 110°37'30" to 110°45'.
- I-67--1-76. Carlisle, 2-7, 10-12, 15, San Juan County, Utah, 1955.
- I-67. Carlisle-2, by J. S. Detterman. Lat 38°22'30" to 38°30', long 109°37'30" to 109°45'.
- I-68. Carlisle-3, by C. E. Bates. Lat 38°22'30" to 38°30', long 109°45' to 109°52'30".
- I-69. Carlisle-4, Wayne and San Juan Counties, Utah, by V. H. Sable. Lat 38°22'30" to 38°30', long 109°52'30" to 110°.
- I-70. Carlisle-5, Wayne and San Juan Counties, Utah, by V. H. Sable. Lat 38°15' to 38°22'30", long 109°52'30" to 110°.
- I-71. Carlisle-6, by C. E. Bates. Lat 38°15' to 38°22'30", long 109°45' to 109°52'30".
- I-72. Carlisle-7, by V. H. Sable. Lat 38°15' to 38°22'30", long 109°37'30" to 109°45'.
- I-73. Carlisle-10, by J. S. Detterman. Lat 38°07'30" to 38°15', long 109°37'30" to 109°45'.
- I-74. Carlisle-11, by J. N. Platt. Lat 38°07'30" to 38°15', long 109°45' to 109°52'30".
- I-75. Carlisle-12, Wayne, San Juan, and Garfield Counties, Utah, by J. N. Platt. Lat 38°07'30" to 38°15', long 109°52'30" to 110°.
- I-76. Carlisle-15, by R. J. Hackman. Lat 38° to 38°07'30", long 109°37'30" to 109°45'.
- I-77. Navajo Mountain-7, Kane and San Juan Counties, Utah, by H. S. Bennett. 1955. Lat 37°15' to 37°22'30", long 110°37'30" to 110°45'.
- I-78. Clay Hills-10, San Juan County, Utah, by C. H. Marshall. 1955. Lat 37°07'30" to 37°15', long 110°07'30" to 110°15'.
- I-79. Clay Hills-9, San Juan County, Utah, by P. P. Orkild. 1955. Lat 37°07'30" to 37°15', long 110° to 110°07'30".
- I-80. Bluff-12, San Juan County, Utah, by P. P. Orkild. 1955. Lat 37°07'30" to 37°15', long 109°52'30" to 110°.
- I-81. Straight Cliffs-8, Kane County, Utah, by B. H. Kent. 1955. Lat 37°15' to 37°22'30", long 111° to 111°07'30".
- I-82. Elk Ridge-1, San Juan County, Utah, by C. F. Miller. 1955. Lat 37°52'30" to 38°, long 109°30' to 109°37'30".
- I-83, I-85, I-86. Moab-16, -4, and -6, Grand County, Utah, 1955.
- I-83. Moab-16, by W. R. Hemphill. Lat 38°30' to 38°37'30", long 109°30' to 109°37'30".
- I-85. Moab-4, by J. S. Detterman. Lat 38°52'30" to 39°, long 109°52'30" to 110°.
- I-86. Moab-6, by J. S. Detterman. Lat 38°45' to 38°52'30", long 109°45' to 109°52'30".
- I-87. Tidwell-1, Grand County, Utah, by V. H. Sable. 1955. Lat 38°52'30" to 39°, long 110° to 110°07'30".
- I-88. Tidwell-3, Emery County, Utah, by C. H. Marshall. 1955. Lat 38°52'30" to 39°, long 110°15' to 110°22'30".
- I-89. Tidwell-8, Grand and Emery Counties, Utah, by V. H. Sable. 1955. Lat 38°45' to 38°52'30", long 110° to 110°07'30".
- I-90--1-97. Aneth, 1-8, San Juan County, Utah, by R. J. Hackman. 1955.
- I-90. Aneth-1, San Juan County, Utah, and Montezuma County, Colo. Lat 37°22'30" to 37°30', long 109° to 109°07'30".
- I-91. Aneth-2. Lat 37°22'30" to 37°30', long 109°07'30" to 109°15'.
- I-92. Aneth-3. Lat 37°22'30" to 37°30', long 109°15' to 109°22'30".
- I-93. Aneth-4. Lat 37°22'30" to 37°30', long 109°22'30" to 109°30'.
- I-94. Aneth-5. Lat 37°15' to 37°22'30", long 109°22'30" to 109°30'.
- I-95. Aneth-6. Lat 37°15' to 37°22'30", long 109°15' to 109°22'30".
- I-96. Aneth-7. Lat 37°15' to 37°22'30", long 109°07'30" to 109°15'.
- I-97. Aneth-8, San Juan County, Utah, and Montezuma County, Colo. Lat 37°15' to 37°22'30", long 109° to 109°07'30".
- I-98. Elk Ridge-6, San Juan County, Utah, by J. S. Detterman and J. C. Reed, Jr. 1955. Lat 37°45' to 37°52'30", long 109°45' to 109°52'30".
- I-99--1-106. Desert Lake, 1-2, 6-7, 9-12, Emery County, Utah, 1955.
- I-99. Desert Lake-1, Emery and Carbon Counties, Utah, by J. S. Detterman. Lat 39°22'30" to 39°30', long 110°30' to 110°37'30".
- I-100. Desert Lake-2, Emery and Carbon Counties, Utah, by C. F. Miller. Lat 39°22'30" to 39°30', long 110°37'30" to 110°45'.
- I-101. Desert Lake-6, by C. F. Miller. Lat 39°15' to 39°22'30", long 110°45' to 110°52'30".
- I-102. Desert Lake-7, by W. H. Condon and C. F. Miller. Lat 39°15' to 39°22'30", long 110°37'30" to 110°45'.
- I-103. Desert Lake-9, by J. T. Cass. Lat 39°07'30" to 39°15', long 110°30' to 110°37'30".
- I-104. Desert Lake-10, by W. H. Condon. Lat 39°07'30" to 39°15', long 110°37'30" to 110°45'.
- I-105. Desert Lake-11, by B. H. Kent. Lat 39°07'30" to 39°15', long 110°45' to 110°52'30".
- I-106. Desert Lake-12, by C. F. Miller. Lat 39°07'30" to 39°15', long 110°52'30" to 111°.
- I-107. Moab-11, Grand County, Utah, by C. E. Bates. 1955. Lat 38°37'30" to 38°45', long 109°45' to 109°52'30".

- I-108--I-115 (except I-110 and I-111). Tidwell-6, -15, -4, -5, -9, and -16. Emery County, Utah, 1955.
- I-108. Tidwell-6, by H. S. Bennett. Lat 38°45' to 38°52'30", long 110°15' to 110°22'30".
- I-109. Tidwell-15, by V. H. Sable. Lat 38°30' to 38°37'30", long 110°07'30" to 110°15'.
- I-112. Tidwell-4, by P. P. Orkild. Lat 38°52'30" to 39°, long 110°22'30" to 110°30".
- I-113. Tidwell-5, by P. P. Orkild. Lat 38°45' to 38°52'30", long 110°22'30" to 110°30'.
- I-114. Tidwell-9, Emery and Grand Counties, Utah, by C. E. Bates and V. H. Sable. Lat 38°37'30" to 38°45', long 110° to 110°07'30".
- I-115. Tidwell-16, Emery and Grand Counties, Utah, by P. P. Orkild. Lat 38°30' to 38°37'30", long 110° to 110°07'30".
- I-110. Woodside-4, Emery and Carbon Counties, Utah, by V. H. Sable. 1955. Lat 39°22'30" to 39°30', long 110°22'30" to 110°30".
- I-111. Woodside-12, Emery County, Utah, by P. P. Orkild. 1955. Lat 39°07'30" to 39°15', long 110°22'30" to 110°30".
- I-116--I-119. Moab, 10-14. Grand County, Utah, 1955.
- I-116. Moab-10, by C. E. Bates. Lat 38°37'30" to 38°45', long 109°37'30" to 109°45'.
- I-117. Moab-12, by V. H. Sable. Lat 38°37'30" to 38°45', long 109°52'30" to 110°.
- I-118. Moab-13, Grand and Emery Counties, Utah, by W. E. Bergquist. Lat 38°30' to 38°37'30", long 109°52'30" to 110°.
- I-119. Moab-14, by V. H. Sable. Lat 38°30' to 38°37'30", long 109°45' to 109°52'30".
- I-120--I-122. Desert Lake, 14-16. Emery County, Utah, 1956.
- I-120. Desert Lake-14, by B. H. Kent. Lat 39° to 39°07'30", long 110°45' to 110°52'30".
- I-121. Desert Lake-15, by W. R. Hemphill and C. R. Lewis. Lat 39° to 39°07'30", long 110°37'30" to 110°45'.
- I-122. Desert Lake-16, by C. H. Marshall. Lat 39° to 39°07'30", long 110°30' to 110°37'30".
- I-123. Woodside-13, Emery County, Utah, by P. P. Orkild. 1956. Lat 39° to 39°07'30", long 110°22'30" to 110°30".
- I-124. Castle Dale-16, Emery County, Utah, by J. S. Detterman. 1956. Lat 39° to 39°07'30", long 111° to 111°07'30".
- I-125--I-127. Elk Ridge-3, -8, and -9. San Juan County, Utah, 1956.
- I-125. Elk Ridge-3, by C. L. Pillmore and J. C. Reed, Jr. Lat 37°52'30" to 38°, long 109°45' to 109°52'30".
- I-126. Elk Ridge-8, by C. F. Miller. Lat 37°45' to 37°52'30", long 109°30' to 109°37'30".
- I-127. Elk Ridge-9, by C. F. Miller. Lat 37°37'30" to 37°45', long 109°30" to 109°37'30".
- I-128. Moab-15, Grand County, Utah, by V. H. Sable. 1956. Lat 38°30' to 38°37'30", long 109°37'30" to 109°45'.
- I-131. Springdale SE, Kane County, Utah, by C. L. Pillmore. 1956. Lat 37° to 37°07'30", long 112°45' to 112°52'30".
- I-132. Springdale SW, Kane and Washington Counties, Utah, and Mohave County, Ariz., by C. L. Pillmore. 1956. Lat 37° to 37°07'30", long 112°52'30" to 113°.
- I-133. Fredonia NW, Mohave County, Ariz., by W. R. Hemphill. 1956. Lat 36°52'30" to 37°, long 112°37'30" to 112°45'.
- I-134--I-136. Kaiparowits Peak-1, -2, and -7, Garfield County, Utah, by J. S. Detterman. 1956.
- I-134. Kaiparowits Peak-1. Lat 37°52'30" to 38°, long 111°30' to 111°37'30".
- I-135. Kaiparowits Peak-2. Lat 37°52'30" to 38°, long 111°37'30" to 111°45'.
- I-136. Kaiparowits Peak-7. Lat 37°45' to 37°52'30", long 111°37'30" to 111°45'.
- I-137. Kanab SE, Kane County, Utah, and Mohave and Coconino Counties, Ariz., by J. S. Detterman. 1956. Lat 37° to 37°07'30", long 112°30' to 112°37'30".
- I-138. Kanab SW, Kane County, Utah, and Mohave County, Ariz., by C. L. Pillmore. 1956. Lat 37° to 37°07'30", long 112°37'30" to 112°45'.
- I-139. Shinarump NW, Coconino County, Ariz., by R. H. Morris. 1956. Lat 36°52'30" to 37°, long 112°22'30" to 112°30".
- I-140--I-142. Short Creek SW, NW, and NE. Mohave County, Ariz. 1956.
- I-140. Short Creek SW, by C. H. Marshall. Lat 36°45' to 36°52'30", long 112°52'30" to 113°.
- I-141. Short Creek NW, by C. H. Marshall and C. L. Pillmore. Lat 36°52'30" to 37°, long 112°52'30" to 113°.
- I-142. Short Creek NE, by C. L. Pillmore. Lat 36°52'30" to 37°, long 112°45' to 112°52'30".
- I-143. Heaton Knolls NW, Mohave County, Ariz., by C. H. Marshall. 1956. Lat 36°37'30" to 36°45', long 112°52'30" to 113°.
- I-144--I-146. Lost Spring Mountain SE, NE, and NW, Mohave County, Ariz., by C. H. Marshall. 1956.
- I-144. Lost Spring Mountain SE. Lat 36°45' to 36°52'30", long 113° to 113°07'30".
- I-145. Lost Spring Mountain NE. Lat 36°52'30" to 37°, long 113° to 113°07'30".
- I-146. Lost Spring Mountain NW. Lat 36°52'30" to 37°, long 113°07'30" to 113°15'.
- I-147. Virgin SW, Washington County, Utah, by C. H. Marshall. 1956. Lat 37° to 37°07'30", long 113°07'30" to 113°15'.
- I-148. Springdale NE, Kane County, Utah, by C. L. Pillmore. 1956. Lat 37°07'30" to 37°15', long 112°45' to 112°52'30".
- I-149. Virgin NW, Washington County, Utah, by C. H. Marshall. 1956. Lat 37°07'30" to 37°15', long 113°07'30" to 113°15'.
- I-150. White Canyon-8, San Juan County, Utah, by P. P. Orkild. 1956. Lat 37°45' to 37°52'30", long 110° to 110°07'30".
- I-151. Elk Ridge-4, San Juan County, Utah, by J. S. Detterman and J. N. Platt. 1956. Lat 37°52'30" to 38°, long 109°52'30" to 110°.

- 1-152. Elk Ridge-5, San Juan County, Utah, by V. H. Sable. 1956. Lat 37°45' to 37°52'30", long 109°52'30" to 110°.
- 1-153. Short Creek SE, Mohave County, Ariz., by C. H. Marshall. 1956. Lat 36°45' to 36°52'30", long 112°45' to 112°52'30".
- 1-154. Desert Lake-13, Emery County, Utah, by C. H. Marshall. 1956. Lat 39° to 39°07'30", long 110°52'30" to 111°.
- 1-157--1-159. Mount Peale, 9-11, San Juan County, Utah, 1956.
- 1-157. Mount Peale-9, San Juan County, Utah, and Montrose and San Miguel Counties, Colo., by R. J. Hackman. Lat 38°07'30" to 38°15', long 109° to 109°07'30".
- 1-158. Mount Peale-10, by R. J. Hackman. Lat 38°07'30" to 38°15', long 109°07'30" to 109°15'.
- 1-159. Mount Peale-11, by R. J. Hackman and G. E. Tolbert. Lat 38°07'30" to 38°15', long 109°15' to 109°22'30".
- 1-160. Fredonia SW, Mohave County, Ariz., by C. H. Marshall. 1956. Lat 36°45' to 36°52'30", long 112°37'30" to 112°45'.
- 1-161. Virgin NE, Washington County, Utah, by C. H. Marshall. 1956. Lat 37°07'30" to 37°15', long 113° to 113°07'30".
- 1-162. Tidwell-2, Emery and Grand Counties, Utah, by V. H. Sable. 1956. Lat 38°52'30" to 39°, long 110°07'30" to 110°15'.
- 1-163. White Canyon-7, San Juan County, Utah, by P. P. Orkild. 1956. Lat 37°45' to 37°52'30", long 110°07'30" to 110°15'.
- 1-164. Johnson SW, Kane County, Utah, and Coconino County, Ariz., by J. S. Detterman. 1956. Lat 37° to 37°07'30", long 112°22'30" to 112°30".
- 1-165. Mount Peale-1, San Juan County, Utah, and Montrose County, Colo., by R. J. Hackman. 1956. Lat 38°22'30" to 38°30', long 109° to 109°07'30".
- 1-166. Emery-1, Emery County, Utah, by P. P. Orkild. 1956. Lat 38°52'30" to 39°, long 111° to 111°07'30".
- 1-169. Lees Ferry SE, Coconino County, Ariz., by Kathleen McQueen. 1956. Lat 36°45' to 36°52'30", long 111°30' to 111°37'30".
- 1-170. White Canyon-4, San Juan and Garfield Counties, Utah, by P. P. Orkild. 1956. Lat 37°52'30" to 38°, long 110°22'30" to 110°30'.
- 1-171. Paria Plateau SW, Coconino County, Ariz., by J. P. Minard. 1956. Lat 36°45' to 36°52'30", long 111°52'30" to 112°.
- 1-172--1-176. Mount Peale-4, -6, -8, and -16, San Juan County, Utah, by R. J. Hackman. 1956.
- 1-172. Mount Peale-4. Lat 38°22'30" to 38°30', long 109°22'30" to 109°30'.
- 1-173. Mount Peale-6. Lat 38°15' to 38°22'30", long 109°15' to 109°22'30".
- 1-174. Mount Peale-8, San Juan County, Utah, and Montrose County, Colo. Lat 38°15' to 38°22'30", long 109° to 109°07'30". [1-175 is not a photogeologic map.]
- 1-176. Mount Peale-16, San Juan County, Utah, and San Miguel County, Colo. Lat 38° to 38°07'30", long 109° to 109°07'30".
- 1-177. Emery-8, Emery County, Utah, by W. H. Condon. 1956. Lat 38°45' to 38°52'30", long 111° to 111°07'30".
- 1-178. Orange Cliffs-13, Garfield County, Utah, by R. G. Ray. 1956. Lat 38° to 38°07'30", long 110°22'30" to 110°30'.
- 1-179. Virgin SE, Washington County, Utah, and Mohave County, Ariz., by C. L. Pillmore. 1956. Lat 37° to 37°07'30", long 113° to 113°07'30".
- 1-180. Carlisle-1, San Juan County, Utah, by G. E. Tolbert. 1956. Lat 38°22'30" to 38°30', long 109°30' to 109°37'30".
- 1-181. Bluff-3, San Juan County, Utah, by C. H. Marshall. 1956. Lat 37°22'30" to 37°30', long 109°45' to 109°52'30".
- 1-182. Paria Plateau NW, Coconino County, Ariz., by J. P. Minard. 1956. Lat 36°52'30" to 37°, long 111°52'30" to 112°.
- 1-183. Mount Peale-7, San Juan County, Utah, by R. J. Hackman. 1956. Lat 38°15' to 38°22'30", long 109°07'30" to 109°15'.
- 1-184. Navajo Mountain-13, Kane and San Juan Counties, Utah, and Coconino County, Ariz., by R. J. Hackman. 1956. Lat 37° to 37°07'30", long 110°52'30" to 111°.
- 1-185. Navajo Mountain-15, San Juan County, Utah, and Navajo County, Ariz., by R. J. Hackman. 1956. Lat 37° to 37°07'30", long 110°37'30" to 110°45'.
- 1-186. Tidwell-10, Emery County, Utah, by A. B. Olson. 1956. Lat 38°37'30" to 38°45', long 110°07'30" to 110°15'.
- 1-187. Orange Cliffs-11, Wayne and Garfield Counties, Utah, by R. G. Ray. 1956. Lat 38°07'30" to 38°15', long 110°15' to 110°22'30".
- 1-188. Orderville Canyon NW, Kane and Washington Counties, Utah, by C. L. Pillmore. 1956. Lat 37°22'30" to 37°30', long 112°52'30" to 113°.
- 1-189. Lees Ferry SW, Coconino County, Ariz., by J. S. Detterman. 1956. Lat 36°45' to 36°52'30", long 111°37'30" to 111°45'.
- 1-190. Emmett Wash NE, Coconino County, Ariz., by J. S. Detterman. 1956. Lat 36°37'30" to 36°45', long 111°45' to 111°52'30".
- 1-191. Paria Plateau SE, Coconino County, Ariz., by C. H. Marshall. 1956. Lat 36°45' to 36°52'30", long 111°45' to 111°52'30".
- 1-192. Emmett Wash NW, Coconino County, Ariz., by J. P. Minard. 1956. Lat 36°37'30" to 36°45', long 111°52'30" to 112°.
- 1-193. Tanner Wash NW, Coconino County, Ariz., by J. P. Minard. 1956. Lat 36°37'30" to 36°45', long 111°37'30" to 111°45'.

- 1-194. Jacob Lake NE, Coconino County, Ariz., by C. H. Marshall, 1956. Lat 36°37'30" to 36°45', long 112° to 112°07'30".
- 1-195. White Canyon-3, San Juan and Garfield Counties, Utah, by P. P. Orkild, 1956. Lat 37°52'30" to 38°, long 110°15' to 110°22'30".
- 1-196. Lees Ferry NW, Coconino County, Ariz., by Kathleen McQueen, 1957. Lat 36°52'30" to 37°, long 111°37'30" to 111°45'.
- 1-198. House Rock Spring NE, Coconino County, Ariz., by J. P. Minard, 1956. Lat 36°52'30" to 37°, long 112° to 112°07'30".
- 1-199. House Rock Spring SE, Coconino County, Ariz., by Kathleen McQueen, 1956. Lat 36°45' to 36°52'30", long 112° to 112°07'30".
- 1-221. Navajo Mountain-8, San Juan County, Utah, by A. B. Olson, 1957. Lat 37°15' to 37°22'30", long 110°30' to 110°37'30".
- 1-222. Lees Ferry NE, Coconino County, Ariz., by Kathleen McQueen, 1957. Lat 36°52'30" to 37°, long 111°30' to 111°37'30".
- 1-227. Tidwell-11, Emery County, Utah, by A. B. Olson, 1956. Lat 38°37'30" to 38°45', long 110°15' to 110°22'30".
- 1-228. Paria Plateau NE, Coconino County, Ariz., by Kathleen McQueen, 1956. Lat 36°52'30" to 37°, long 111°45' to 111°52'30".
- 1-229. Navajo Mountain-1, San Juan County, Utah, by A. B. Olson, 1956. Lat 37°22'30" to 37°30', long 110°30' to 110°37'30".
- 1-233. Navajo Mountain-10, San Juan County, Utah, by R. J. Hackman, 1957. Lat 37°07'30" to 37°15', long 110°37'30" to 110°45'.
- 1-238. Navajo Mountain-14, San Juan County, Utah, and Coconino County, Ariz., by R. J. Hackman, 1957. Lat 37° to 37°07'30" long 110°45' to 110°52'30".
- 1-240--I-242. Mount Peale-5, -12, and -13, San Juan County, Utah, by G. E. Tolbert, 1957.
- 1-240. Mount Peale-5, Lat 38°15' to 38°22'30", long 109°22'30" to 109°30'.
- 1-241. Mount Peale-12, Lat 38°07'30" to 38°15', long 109°22'30" to 109°30'.
- 1-242. Mount Peale-13, Lat 38° to 38°07'30", long 109°22'30" to 109°30'.
- 1-244. Buckskin Gulch SW, Kane County, Utah, and Coconino County, Ariz., by R. J. Hackman, 1957. Lat 37° to 37°07'30", long 112°07'30" to 112°15'.
- 1-245. Johnson NE, Kane County, Utah, by R. J. Hackman, 1957. Lat 37°07'30" to 37°15', long 112°15' to 112°22'30".
- 1-246. Desert Lake-3, Emery and Carbon Counties, Utah, by C. H. Marshall, 1957. Lat 39°22'30" to 39°30', long 110°45' to 110°52'30".
- 1-247. Fredonia NE, Coconino and Mohave Counties, Ariz., by R. H. Morris, 1957. Lat 36°52'30" to 37°, long 112°30' to 112°37'30".
- 1-248. Johnson SE, Kane County, Utah, and Coconino County, Ariz., by J. S. Dettnerman and R. J. Hackman, 1957. Lat 37° to 37°07'30", long 112°15' to 112°22'30".
- 1-250. Mount Ellen-5, Wayne County, Utah, by W. R. Hemphill, 1958. Lat 38°15' to 38°22'30", long 110°52'30" to 111°.
- 1-251. Buckskin Gulch NW, Kane County, Utah, by R. J. Hackman, 1957. Lat 37°07'30" to 37°15', long 112°07'30" to 112°15'.
- 1-252. Hurricane Cliffs-2 NE, Mohave County, Ariz., by C. H. Marshall, 1957. Lat 36°52'30" to 37°, long 113°15' to 113°22'30".
- 1-253. House Rock Spring NW, Coconino County, Ariz., by J. P. Minard, 1957. Lat 36°52'30" to 37°, long 112°07'30" to 112°15'.
- 1-254. House Rock Spring SW, Coconino County, Ariz., by J. S. Pomeroy, 1957. Lat 36°45' to 36°52'30", long 112°07'30" to 112°15'.
- 1-255. Shinarump NE, Coconino County, Ariz., by Kathleen McQueen, 1957. Lat 36°52'30" to 37°, long 112°15' to 112°22'30".
- 1-257. Rainbow Point SW, Kane County, Utah, by P. P. Orkild, 1957. Lat 37°15' to 37°22'30", long 112°07'30" to 112°15'.
- 1-258. Rainbow Point SE, Kane County, Utah, by J. S. Pomeroy, 1957. Lat 37°15' to 37°22'30", long 112° to 112°07'30".
- 1-259. Buckskin Gulch NE, Kane County, Utah, by R. J. Hackman, 1957. Lat 37°07'30" to 37°15', long 112° to 112°07'30".
- 1-260. Buckskin Gulch SE, Kane County, Utah, and Coconino County, Ariz., by J. P. Minard, 1957. Lat 37° to 37°07'30", long 112° to 112°07'30".
- 1-261. Emery-15, Emery County, Utah, by D. Bunnag and G. Moustafa, 1957. Lat 38°30' to 38°37'30", long 111°07'30" to 111°15'.
- 1-262. Notom-8, Wayne County, Utah, by W. R. Hemphill, 1957. Lat 38°15' to 38°22'30", long 111° to 111°07'30".
- 1-263--I-268 (except 264 and 267). Paria SW, SE, NE, and NW, Kane County, Utah.
- 1-263. Paria SW, Kane County, Utah, and Coconino County, Ariz., by A. B. Olson, 1957. Lat 37° to 37°07'30", long 111°52'30" to 112°.
- 1-265. Paria SE, Kane County, Utah, and Coconino County, Ariz., by Kathleen McQueen, 1958. Lat 37° to 37°07'30", long 111°45' to 111°52'30".
- 1-266. Paria NE, by Kathleen McQueen, 1958. Lat 37°07'30" to 37°15', long 111°45' to 111°52'30".
- 1-268. Paria NW, by Kathleen McQueen and R. G. Ray, 1958. Lat 37°07'30" to 37°15', long 111°52'30" to 112°.
- 1-267. Johnson NW, Kane County, Utah, by J. S. Pomeroy, 1958. Lat 37°07'30" to 37°15', long 112°22'30" to 112°30'.

- I-274. Escalante Forks, Mesa, Montrose, and Delta Counties, Colo., by R. J. Hackman. 1958. Lat 38°30' to 38°45', long 108°15' to 108°30'. Scale, 1:62,500.
- I-275. Cockscomb SE, Kane County, Utah, by W. L. McIntosh. 1958. Lat 37°15' to 37°22'30", long 111°45' to 111°52'30".
- I-277. Iris SE and Doyleville SW, Saguache County, Colo., by Kathleen McQueen. 1958. Lat 38°15' to 38°22'30", long 106°37'30" to 106°52'30". Scale, 1:31,680.
- I-278--I-279. Coach Creek SE and NE, Grand County, Utah, and Mesa County, Colo., by R. J. Hackman. 1959.
 I-278. Coach Creek SE. Lat 38°45' to 38°52'30", long 109° to 109°07'30".
 I-279. Coach Creek NE. Lat 38°52'30" to 39°, long 109° to 109°07'30".
- I-280. Mount Ellen-4, Wayne County, Utah, by W. R. Hemphill. 1959. Lat 38°22'30" to 38°30', long 110°52'30" to 111°.
- I-281. Yellow Jacket, Montezuma and Dolores Counties, Colo., by R. J. Hackman. 1959. Lat 37°30' to 37°45', long 108°30' to 108°45'. Scale, 1:62,500.
- I-282. Delta, Montrose and Delta Counties, Colo., by C. H. Marshall. 1959. Lat 38°30' to 38°45', long 108° to 108°15'. Scale, 1:62,500.
- I-283. Norwood-1, Montrose and Ouray Counties, Colo., by C. H. Marshall. 1959. Lat 38°15' to 38°30', long 108° to 108°15'. Scale, 1:62,500.
- I-293. Hurricane Cliffs-2 NW, Mohave County, Ariz., by J. S. Pomeroy. 1959. Lat 36°52'30" to 37°, long 113°22'30" to 113°30'.
- I-294. Notom-1, Wayne County, Utah, by W. R. Hemphill. 1959. Lat 38°22'30" to 38°30', long 111° to 111°07'30".
- I-295. Desert Lake-4, Emery and Carbon Counties, Utah, by C. H. Marshall. 1959. Lat 39°22'30" to 39°30', long 110°52'30" to 111°.
- I-301. Flat Top Mountain NE, Carbon County, Wyo., by A. B. Olson. 1959 [1960]. Lat 40°07'30" to 41°15', long 107°45' to 107°52'30".
- I-302. Notom-2, Wayne County, Utah, by W. R. Hemphill. 1959 [1960]. Lat 38°22'30" to 38°30', long 111°07'30" to 111°15'.
- I-304--I-305. Crooks Creek SE and SW, Fremont and Sweetwater Counties, Wyo., by C. H. Marshall. 1959 [1960].
 I-304. Crooks Creek SE. Lat 42°15' to 42°22'30", long 107°45' to 107°52'30".
 I-305. Crooks Creek SW. Lat 42°15' to 42°22'30", long 107°52'30" to 108°.
- I-306. Split Rock SW, Fremont and Sweetwater Counties, Wyo., by C. H. Marshall. 1959 [1960]. Lat 42°15' to 42°22'30", long 107°37'30" to 107°45'.
- I-315. Chaco Canyon-2, McKinley County, N. Mex., by A. N. Kover. 1960. Lat 35°45' to 36°, long 107°45' to 108°. Scale, 1:62,500.
- I-317. Cabezon-3, McKinley and Sandoval Counties, N. Mex., by A. F. Holzle. 1960. Lat 35°30' to 35°45', long 107°15' to 107°30'. Scale, 1:62,500.
- I-351. Engineer special study of the surface of the moon, by R. J. Hackman and A. C. Mason. 1961. Set of 4 sheets. Sheet 1, Generalized photogeologic map of the moon; sheet 2, Lunar rays; sheet 3, Physiographic divisions of the moon; and sheet 4, Description and evaluation of the physiographic regions. Scale, 1:3,800,000. Each sheet 39 by 52½ inches. Price per set, \$1.50.

MINERAL RESOURCES MAPS AND CHARTS

United States

Coal Maps

[Asterisk (*) indicates map out of print.]

- *Coal fields of the United States, prepared by Paul Averitt, 1942. Scale, 1:2,500,000. 2 sheets.
- Coal fields of the United States: Sheet 1, prepared by J. V. A. Trumbull, 1959 [1960]. Scale, 1:500,000. \$1.50; Sheet 2, Alaska, prepared by F. F. Barnes, 1961. Scale, 1:5,000,000. \$1.

Oil and Gas Maps

- *Oil and gas fields of the United States, by Paul Averitt, Jane Hanna, and J. T. Carlton, 1946. Scale, 1:2,500,000. 2 sheets.
- *Oil and gas fields of the United States, by G. V. Cohee, S. W. Welch, and Sophie Drakoulis, 1951. Scale, 1:2,500,000. 2 sheets.
- Oil and gas fields of the United States, compiled by A. C. Coe, L. C. Conant, and Sophie Drakoulis, 1955 [1956]. Scale, 1:2,500,000. 2 sheets. \$2 per set.

States

Oil and Gas Maps

- Oil and gas fields of California, compiled by G. B. Richardson, assisted by Jane Hanna, 1939. Scale, 1:500,000. 50c.
 - *Map of Kansas showing oil and gas fields and geologic ages of the producing formations in the fields, prepared by O. C. Postley, assisted by Jane Hanna, 1940. Scale, 1:500,000.
 - Oil and gas fields of the State of Louisiana, prepared by O. C. Postley, assisted by Jane Hanna, 1939. Scale, 1:500,000. 50c.
 - Oil and gas fields of the State of Oklahoma, prepared by G. B. Richardson, assisted by Jane Hanna, 1939. Scale, 1:500,000. 50c.
 - *Oil and gas fields of the State of Texas, prepared by G. B. Richardson, assisted by Jane Hanna, 1938. Scale, 1:750,000.
 - *Map of Wyoming showing test wells for oil and gas, anticlinal axes, oil and gas fields, pipelines, unit areas, and land district boundaries, prepared by E. K. Keefer, J. D. Love, R. M. Larsen, and M. W. Allen, 1949. Scale, 1:500,000. 2 sheets.
- See also Oil and Gas Maps OM-116, 130, 159, 170, 175, 198, 200, 201, and 207.

MISSOURI BASIN STUDIES

The maps listed below are the result of geologic mapping and mineral-resource investigations conducted by the Geological Survey as a part of the program of the Department of the Interior for study and development of the Missouri River Basin.

1. Mineral resources of the Missouri Valley region, compiled by D. H. Dow, D. M. Larrabee, and S. E. Clabaugh, 1945-46. Set of 4 parts. Part 1, Metallic mineral resources; part 2, Nonmetallic mineral resources; part 3, Fuel resources; part 4, Construction materials. Scale, 1:250,000. 40c a sheet, or \$1.50 a set. [Reprinted 1957.]
2. Preliminary map showing sand and gravel deposits of Colorado, compiled by Helen Varnes and D. M. Larrabee, 1946. Scale, 1:500,000. 50c.
3. Preliminary map showing sand and gravel deposits of North Dakota, compiled by D. M. Larrabee, L. C. Huff, and C. Ahlman, 1946. Scale, 1:500,000. 35c.
4. Preliminary map showing sand and gravel deposits of South Dakota, compiled by D. M. Larrabee, 1946. Scale, 1:500,000. 35c.
5. Preliminary map showing sand and gravel deposits of Wyoming, compiled by D. M. Larrabee and A. F. Shride, 1946. Scale, 1:500,000. 50c.
6. Preliminary map showing sand and gravel deposits of Montana, compiled by D. M. Larrabee and A. F. Shride, 1946. Scale, 1:500,000. 2 sheets. 70c a set.
7. Preliminary map showing sand and gravel deposits of Nebraska, compiled by R. A. Weeks and D. M. Larrabee, 1948. Scale, 1:750,000. 55c.
- *8. Map showing mineral deposits of Colorado, compiled by R. P. Fischer, Wilbur Burbank, Helen Cannon, and others, 1946. Scale, 1:1,000,000. [Reprinted 1956.]
9. Map showing construction materials and nonmetallic mineral resources of Wyoming, compiled by S. E. Clabaugh, D. M. Larrabee, W. R. Griffiths, and others, 1946. Scale, 1:500,000. 70c.
10. Map showing construction materials and nonmetallic mineral resources of Colorado, compiled by D. M. Larrabee, S. E. Clabaugh, W. R. Griffiths, and others, 1947. Scale, 1:500,000. 80c.

11. Map showing construction materials and nonmetallic mineral resources of Montana, compiled by M. M. Knechtel, D. M. Larrabee, E. C. Fischer, and others. 1948. Scale, 1:750,000. 2 sheets. 90c per set.
12. Map showing construction materials and nonmetallic mineral resources of South Dakota, compiled by R. P. Bryson, E. L. Fox, D. M. Larrabee, and others. 1947. Scale, 1:500,000. 60c.
13. Map showing metallic mineral deposits of South Dakota, compiled by R. P. Fischer. 1947. Scale, 1:1,000,000. 25c.
14. Map showing construction materials and nonmetallic mineral resources of North Dakota, compiled by A. F. Shride, E. C. Fischer, D. M. Larrabee, and others. 1947. Scale, 1:500,000. 50c.
15. Map showing construction materials and nonmetallic mineral resources of Nebraska, compiled by R. W. Richards, R. A. Weeks, and D. M. Larrabee. 1948. Scale, 1:750,000. 40c.
16. Map showing metallic mineral deposits of Montana, compiled by F. M. Chace, Fred Cater, Virginia Byers, and others. 1947. Scale, 1:1,000,000. 30c.
17. Map showing metallic mineral deposits of Wyoming, compiled by R. P. Fischer, A. B. Griggs, Helen Cannon, and M. H. Krieger. 1947. Scale, 1:1,000,000. 20c.
18. Map showing metallic mineral deposits of Missouri, compiled by V. S. Neuschel and E. T. McKnight. 1948. Scale, 1:1,000,000. 20c.
20. Reconnaissance map showing locations of possible sources of riprap in western North Dakota and in northwestern South Dakota, by P. E. Truesdell and G. S. Hilton. 1947. Scale, 1:500,000. 50c.

TENNESSEE RIVER BASIN

- Tennessee River Basin (base map). 1933. Lat 34° to 38°, long 81° to 89°30'. Scale, 1:500,000. \$1.
 Tennessee River Basin (hydraulic map). 1933. Lat 34° to 38°, long 81° to 89°30'. Scale, 1:500,000. \$1.50.
 *Tennessee River Basin (mineral resources map). 1933. Lat 34° to 38°, long 81° to 89°30'. Scale, 1:500,000.

OIL AND GAS INVESTIGATIONS

Maps

Nos. 1-109 of this series are "preliminary maps." Oil and gas investigations maps from 110 on carry the distinguishing prefix "CM."

- *1. Geology of the Black Knob Ridge area, Atoka County, Okla., by T. A. Hendricks. 1943. Scale, 1 inch to 2/3 mile [1:42,240]. [Superseded by map 66.]
2. Sierra Diablo region, Hudspeth and Culberson Counties, Tex., by P. B. King and J. B. Knight. 1944. Lat 31°05' to 31°35', long 104°45' to 105°15'. Scale, 1:62,500. 40c.
- *3. Structure contour map of the Big Horn Basin, Wyoming and Montana, by D. A. Andrews, W. G. Pierce, and J. J. Kirby. 1944. Scale, 1 inch to 3 miles [1:190,080]. [Superseded by map 74.]
4. Oil and gas possibilities of the plains adjacent to the Little Rocky Mountains, Mont., by M. M. Knechtel. 1944. Scale, 1:48,000. 30c.
- *5. Map of the Second Berea sand in Gallia, Meigs, Athens, Morgan, and Muskingum Counties, Ohio, by J. F. Pepper, D. F. Demarest, R. D. Holt, and others. 1944. Lat 38°45' to 40°15', long 81°30' to 82°15'. Scale, 1 inch to 3 miles [1:190,080]. [Superseded by map 79.]
6. Reconnaissance geologic map of the Quitman fault zone, Clarke and Wayne Counties, Miss., and Choctaw County, Ala., by H. A. Tourtelot. 1944. Scale, 1 inch to 1½ miles [1:95,040]. 25c.
- *7. Structure contour map of the exposed rocks in the Rangely anticline, Rio Blanco and Moffat Counties, Colo., by C. R. Thomas and others. 1944. Scale, 1 inch to ½ mile [1:31,680]. Contour interval, 100 feet. [Superseded in part by map 67.]
- *8. Geology of a part of the upper Pecos River and Rio Galisteo region, New Mexico, by C. B. Read and D. A. Andrews. 1944. Scale, 1 inch to 1½ miles [1:95,040]. [Superseded by map 21.]
- *9. Map of the First Berea sand in southeastern Ohio and western West Virginia, by J. F. Pepper, Paul Averitt, D. F. Demarest, and others. 1944. Lat 39°00' to 40°15', long 81°30' to 83°30'. Scale, 1 inch to 3 miles [1:190,080]. [See Professional Paper 259.]
10. Map showing thickness and general character of the Cretaceous deposits in the western interior of the United States, by J. B. Reeside, Jr. 1944. Scale, 1 inch to 220 miles [1:13,939,200]. 25c.
11. Geology and oil and gas possibilities of south-central Michigan, by G. V. Cohee. 1944. Scale, 1 inch to 10 miles [1:633,600]. 25c.
12. Geologic map and structure sections of the Batesville district, Independence County, Ark., by Mackenzie Gordon, Jr., and D. M. Kinney. 1944. Lat 35°45'00" to 35°48'45", long 91°37'30" to 91°45'00". Scale, 1:20,000. 40c.
13. Geologic and structure contour map of the Maverick Springs area, Fremont County, Wyo., by D. A. Andrews. 1944. Scale, 1:48,000. 40c.
14. Geologic map of Santa Maria district, Santa Barbara County, Calif., by W. P. Woodring, M. N. Bramlette, K. E. Lohman, and R. P. Bryson. 1944 [1945]. Lat 34°50' to 35°00', long 120°30' to 120°40'. Scale, 1 inch to 2,000 feet [1:24,000]. 6 sheets. \$3 a set. (See Professional Paper 222.)
15. Geologic map of the Dougherty asphalt area, Murray County, Okla., by J. M. Gorman and G. M. Flint, Jr. 1944. Scale, 1 inch to 300 feet [1:3,600]. Contour interval, 20 feet. 25c.
16. Geology of the bituminous sandstone deposits near Edna, San Luis Obispo County, Calif., by B. M. Page, M. D. Williams, E. L. Henrickson, and others. 1944. Scale, 1 inch to 2,000 feet [1:24,000]. 60c.
17. Maps and sections of the Berea sandstone in eastern Michigan, by G. V. Cohee and L. B. Underwood. 1944. Scale, 1 inch to 20 miles [1:1,267,200]. 35c.

18. Geologic map of southern Guadalupe Mountains, Hudspeth and Culberson Counties, Tex., by P. B. King, 1944. Lat 31°45' to 32°00', long 104°40' to 105°00'. Scale, 1 inch to 4,000 feet [1:48,000]. 40c.
- *19. Map of Wyoming showing test wells for oil and gas, anticlinal axes, and oil and gas fields, by H. H. R. Sharkey, J. D. Love, and Jewell Kirby, 1945. Lat 41° to 45°, long 104° to 111°. Scale, 1:500,000. [Superseded by maps 107 and 175.]
- *20. Geology of the Rose Hill oil field, Lee County, Va., by R. L. Miller and J. O. Fuller, 1945. Lat 36° 37'30" to 36°40'00", long 83°20' to 83°27'30". Scale, 1:18,000. [Superseded by map 76.]
21. Geologic map and stratigraphic sections of Permian and Pennsylvanian rocks of parts of San Miguel, Santa Fe, Sandoval, Bernalillo, Torrance, and Valencia Counties, north-central New Mexico, by C. B. Read, R. H. Wilpolt, D. A. Andrews, and others, 1944 [1945]. Scale, 1 inch to 3 miles [1:190,080]. 60c. [Supersedes map 8.]
22. Geologic map of the Sulphur asphalt area, Murray County, Okla., by J. M. Gorman, G. M. Flint, Jr., C. E. Decker, and W. E. Ham, 1944 [1945]. Scale, 1 inch to 300 feet [1:3,600]. Contour interval, 10 feet. 40c.
23. Stratigraphy and oil possibilities of Puente and San Jose Hills, Calif., by A. O. Woodford, J. S. Shelton, and T. G. Moran, 1944 [1945]. Lat 33°55' to 34°05', long 117°40' to 117°55'. Scale, 1 inch to 2,000 feet [1:24,000]. 60c.
24. Stratigraphy as related to oil possibilities of the Salinas Valley, California, by M. N. Bramlette and S. N. Daviess, 1945. Scale, 1 inch to 2 miles [1:126,720]. 35c.
- *25. Geologic map of Montana, by D. A. Andrews, G. S. Lambert, and G. W. Stose, 1944 [1945]. Scale, 1:500,000. 2 sheets. [Superseded by Geologic Map of Montana, 1955.]
26. Geology of Santa Rosa Hills, eastern Purisima Hills district, Santa Barbara County, Calif., by W. P. Woodring, J. S. Loofbrouow, Jr., and M. N. Bramlette, 1945. Lat 34°35' to 34°40', long 120°10' to 120°20'. Scale, 1 inch to 4,000 feet [1:48,000]. 35c.
27. Geology of the bituminous sandstone deposits near Santa Cruz, Santa Cruz County, Calif., by B. M. Page, M. D. Williams, E. L. Henrickson, and others, 1945. Scale, 1 inch to 300 feet [1:3,600]. Contour interval, 20 feet. 60c.
- *28. Geology and oil and gas possibilities of the Devonian Sylvania and Bois Blanc formations in Michigan, by K. K. Landes, 1945. Scale, 1 inch to 16 miles [1:1,013,760].
- *29. Map of the Berea sand of southeastern Ohio, northern West Virginia, and southwestern Pennsylvania, by J. F. Pepper, D. F. Demarest, R. D. Holt, and others, 1945. Lat 38°45' to 40°15', long 79°45' to 81°30'. Scale, 1 inch to 3 miles [1:190,080]. [See Professional Paper 259.]
30. Southeastern part of the Midway-Sunset oil field, Kern County, Calif., by W. T. Woodward, 1945 [1947]. Scale, 1 inch to 2,000 feet [1:24,000]. 50c.
31. Geology and oil possibilities at the northwest end of the Wind River Mountains, Sublette County, Wyo., by G. M. Richmond, 1945. Lat 43°10' to 43°20', long 109°50' to 110°00'. Scale, 1 inch to 1 mile [1:63,360]. [Reprinted 1957.] 60c.
32. Geology of the Washakie Basin, Sweetwater and Carbon Counties, Wyo., and Moffat County, Colo., by W. H. Bradley, 1945. Lat 40°45' to 41°45', long 108°00' to 108°30'. Scale, 1 inch to 3 miles [1:190,080]. [Reprinted 1954.] 40c.
- *33. Structure contour map of the Powder River Basin, Wyoming and Montana, by W. G. Pierce and Roselle Girard, 1945. Lat 43° to 45°, long 104°30' to 107°00'. Scale, 1 inch to 4 miles [1:253,440]. [Superseded by OM-133.]
34. Geology of oil-impregnated diatomaceous rock near Casmalia, Santa Barbara County, Calif., by M. D. Williams and C. N. Holmes, 1945. Scale, 1 inch to 300 feet [1:3,600]. Contour interval, 20 feet. 40c.
35. Asphalt and bituminous sandstone deposits of part of the McKittrick district, Kern County, Calif., by B. M. Page, Eiler Henrickson, M. D. Williams, and T. G. Moran, 1945. Scale, 1 inch to 250 feet [1:3,000]. 50c.
36. Geology of Hueco Mountains, El Paso and Hudspeth Counties, Tex., by P. B. King, R. E. King, and J. B. Knight, 1945. Lat 31°40' to 32°00', long 105°45' to 106°10'. Scale, 1 inch to 1 mile [1:63,360]. [Reprinted 1955.] 2 sheets. 75c a set.
37. Geologic map of Tuscaloosa and Cottondale quadrangles, Alabama, showing areal geology and structure of Upper Cretaceous formations, by L. C. Conant, D. H. Eargle, W. H. Monroe, and J. H. Morris, 1945. Lat 33°00' to 33°15', long 87°15' to 87°45'. Scale, 1 inch to 1 mile [1:63,360]. 55c.
38. Lithology and thickness of the Dundee formation and the Rogers City limestone in the Michigan basin, by G. V. Cohee and L. B. Underwood, 1945. Scales, 1 inch to 16 miles [1:1,013,760] and 1 inch to 25 miles [1:1,584,000]. 40c.
- *39. Map of the Berea sand of northern Ohio, by J. F. Pepper, D. F. Demarest, Wallace de Witt, Jr., and others, 1945. Lat 40°15' to 41°45', long 81°00' to 82°45'. Scale, 1 inch to 3 miles [1:190,080]. 2 sheets. [See Professional Paper 259.]
- *40. The Salina and Bass Island rocks in the Michigan basin, by K. K. Landes, 1945. Scale, 1 inch to 23 miles [1:1,457,280].
- *41. Structure contour maps of the Rangely anticline, Rio Blanco and Moffat Counties, Colo., by C. R. Thomas and others, 1945. Scale, 1 inch to ½ mile [1:31,680]. [Superseded by map 67.]
42. Geology of northwestern Oregon west of Willamette River and north of latitude 45°15', by W. C. Warren, Hans Norbistrath, and R. M. Grivetti, 1945. Lat 45°15' to 46°00', long 123°00' to 123°45'. Scale, 1 inch to about 2.3 miles [1:145,728]. Contour interval, 300 feet. 70c.
43. Maps showing thickness and general distribution of Mesozoic and Paleozoic rocks in south-central Montana, by C. P. Rogers, Jr., L. S. Gardner, and H. D. Hadley, 1945. Lat 45° to 47°, long 108° to 111°. Scale, 1 inch to 21 miles [1:1,330,560]. 40c.

44. Geology and asphalt deposits of north-central Guadalupe County, N. Mex., by J. M. Gorman and R. C. Robeck. 1946. Lat 35°00' to 35°15', long 104°30' to 105°05'. Scale, 1 inch to 1 mile [1:63,360]. 60c.
45. Geologic map of the Tertiary formations of Alabama, by F. S. MacNeil. 1946. Lat 31° to 33°, long 85° to 88°. Scale, 1:500,000. 40c.
46. Magnetic maps of Worcester County and part of Wicomico County, Md., by J. R. Balsley, Jr., M. S. Walton, D. L. Rossman, and others. 1946. Lat 38°00' to 38°25', long 75°00' to 75°45'. Scale, 1 inch to 2 miles [1:126,720]. 30c.
47. Geology of the Lucero uplift, Valencia, Socorro, and Bernalillo Counties, N. Mex., by V. C. Kelley and G. H. Wood. 1946. Lat 34°15' to 35°00', long 107°00' to 107°15'. Scale, 1 inch to 1 mile [1:63,360]. [Reprinted.] 60c.
48. Structural development of the Forest City basin of Missouri, Kansas, Iowa, and Nebraska, by Wallace Lee and others. 1946. Scale, 1 inch to 12 miles [1:760,320]. 7 sheets. \$2 a set.
49. Map of the Berea and Murrysville sands of northeastern Ohio, western Pennsylvania, and northernmost West Virginia, by D. F. Demarest. 1946. Lat 40°15' to 41°45', long 79°00' to 81°00'. Scale, 1 inch to 3 miles [1:190,080]. 60c. [See Professional Paper 259.]
50. Geologic map of the Aliceville, Mantua, and Eutaw quadrangles, Alabama, showing pre-Selma Upper Cretaceous formations, by D. H. Eargle, W. H. Monroe, and J. H. Morris. 1946. Lat 32°45' to 33°15', long 87°45' to 88°00'. Scale, 1 inch to 2 miles [1:126,720]. 50c.
51. Geologic map of the southeastern part of the Wind River Basin and adjacent areas in central Wyoming, by C. J. Hares and others. 1946. Scale, 1 inch to 2 miles [1:126,720]. [Reprinted 1955.] 50c.
52. Maps of northeastern Oklahoma and parts of adjacent States showing the thickness and subsurface distribution of Lower Ordovician and Upper Cambrian rocks below the Simpson group, by H. A. Ireland and J. H. Warren. 1946. Lat 36° to 37°, long 94° to 96°. Scale, 1 inch to 8 miles [1:506,880]. 60c.
53. Geologic and structure contour map of Sage Creek dome, Fremont County, Wyo., by H. H. R. Sharkey, Alfred Zapp, C. O. Johnson, and others. 1946. Scale, 1 inch to ½ mile [1:31,680]. 50c.
54. Geologic maps of a part of the Las Vegas Basin and of the foothills of the Sangre de Cristo Mountains, San Miguel and Mora Counties, N. Mex., by S. A. Northrup, H. H. Sullwold, Jr., A. J. MacAlpin, and C. P. Rogers, Jr. 1946. Lat 35°20' to 35°40', long 104°40' to 105°10'. Scales, 1 inch to 3 miles [1:190,080] and 1 inch to 2/3 mile [1:42,240]. 60c.
55. Areal geologic map of the Green River Desert-Cataract Canyon region, Emery, Wayne, and Garfield Counties, Utah, by A. A. Baker. 1946. Scale, 1 inch to 2 miles [1:126,720]. 40c. (See also Bulletin 951.)
56. Geology of the Bargee area, Fremont County, Wyo., by M. D. Williams and H. H. R. Sharkey. 1946. Scales, 1 inch to 1 mile [1:63,360] and 1 inch to 2,000 feet [1:24,000]. 40c.
57. Geology of the Nacimiento Mountains, San Pedro Mountain, and adjacent plateaus in parts of Sandoval and Rio Arriba Counties, N. Mex., by G. H. Wood and S. A. Northrup. 1946. Lat 35°20' to 36°15', long 106°45' to 107°00'. Scale, 1 inch to 1½ miles [1:95,040]. 60c.
- *58. The distribution of several types of Berea sand in West Virginia, eastern Ohio, and western Pennsylvania, by Gordon Rittenhouse. 1946. Scale, 1 inch to 16 miles [1:1,013,760]. [See Professional Paper 259.]
59. Map of the Berea sand of southern West Virginia, by C. W. Merrels, 2d. 1946. Lat 37°15' to 38°45', long 79°30' to 81°45'. Scale, 1 inch to 3 miles [1:190,080]. 50c. [See Professional Paper 259.]
60. Geologic map of the southern part of the Wind River Basin and adjacent areas in central Wyoming, by C. J. Hares and others. 1946. Scale, 1 inch to 2 miles [1:126,720]. [Reprinted 1955.] 50c.
61. Geologic map and stratigraphic sections of Paleozoic rocks of Joyita Hills, Los Pinos Mountains, and northern Chupadera Mesa, Valencia, Torrance, and Socorro Counties, N. Mex., by R. H. Wilpolt, A. J. MacAlpin, R. L. Bates, and Georges Vorbe. 1946. Lat 34°15' to 34°30', long 106°00' to 106°55'. Scale, 1 inch to 1 mile [1:63,360]. 65c.
62. Geology of northwestern Quay County, N. Mex., by Ernest Dobrovolny, C. H. Summerson, and R. L. Bates. 1947. Scale, about 1 inch to 1 mile [1:62,500]. 2 sheets. 75c a set.
63. Geology of northeast margin of San Gabriel Basin, Los Angeles County, Calif., by J. S. Shelton. 1946. Lat 34°08' to 34°10', long 117°46' to 118°00'. Scale, 1 inch to 2,000 feet [1:24,000]. 60c.
64. Pre-Selma Upper Cretaceous stratigraphy in the McCrary, McShan, Gordo, Samantha, and Searles quadrangles, Alabama and Mississippi, by L. C. Conant and D. H. Eargle. 1947. Lat 33°15' to 33°30', long 87°15' to 87°45'. Scale, 1 inch to 1 mile [1:63,360]. 70c.
65. Geology of the outcropping formations of the Jackson area, Mississippi, by W. H. Monroe. 1947. Lat 32°15' to 32°30', long 89°45' to 90°15'. Scale, 1 inch to 1 mile [1:63,360]. 50c.
66. Geology of the western part of the Ouachita Mountains, Okla., by T. A. Hendricks, L. S. Gardner, M. M. Knechtel, and Paul Averitt. 1947. Scale, 1 inch to 2/3 mile [1:42,240]. 3 sheets. \$1 a set. [Supersedes map 1.]
67. Subsurface maps of the Rangely anticline, Rio Blanco County, Colo., by N. W. Bass. 1946. Scale, 1 inch to ½ mile [1:31,680]. 25c. [Supersedes maps 7 and 41.]
68. Structure contour map of the surface rocks of the Model anticline, Las Animas County, Colo., by N. W. Bass. 1947. Scale, 1 inch to 2/3 mile [1:42,240]. Contour interval, 25 feet. 25c.
- *69. Map of the Berea sand of southern Ohio, eastern Kentucky, and southwestern West Virginia, by J. F. Pepper, D. F. Demarest, C. W. Merrels, 2d, and Wallace de Witt, Jr. 1946. Lat 37°15' to 38°45', long 81°45' to 83°30'. Scale, 1 inch to 3 miles [1:190,080]. [See Professional Paper 259.]
70. Geologic map of eastern and southern Utah, compiled by D. A. Andrews and C. B. Hunt. 1948. Lat 37° to 42°, long 109° to 114°. Scale, 1:500,000. [Reprinted 1956.] 50c.
71. Geologic map of the Big Horn Basin, Wyoming and Montana, showing terrace deposits and physiographic features, by D. A. Andrews, W. G. Pierce, and D. H. Eargle. 1947. Lat 44° to 45°, long 108° to 109°. Scale, 1 inch to 2 miles [1:126,720]. 50c.

72. Geologic map of the Tertiary and Quaternary formations of Georgia, by F. S. MacNeil. 1947. Lat 31° to 33°, long 81° to 85°. Scale, 1 inch to 8 miles [1:506,880]. 40c.
- *73. Map of Colorado showing dry holes and oil and gas fields, by F. K. Demok, H. R. Castor, and N. W. Bass. 1947. Lat 37° to 41°, long 102° to 109°. Scale, 1:500,000. [Superseded by map OM-116.]
74. Structure contour map of the Big Horn Basin, Wyoming and Montana, by W. G. Pierce, D. A. Andrews, and J. K. Kercher. 1947. Lat 44° to 45°, long 107°30' to 109°00'. Scale, 1 inch to 3 miles [1:190,080]. 50c. [Supersedes map 3.]
75. Pre-Tertiary geology of the Duchesne River area, Wasatch and Duchesne Counties, Utah, by J. W. Huddle and F. T. McCann. 1947. Lat 40°22'30" to 40°30'00", long 110°45' to 111°00". Scale, 1 inch to 1 mile [1:63,360]. 60c.
76. Geologic and structure contour maps of the Rose Hill oil field, Lee County, Va., by R. L. Miller and J. O. Fuller. 1947. Lat 36°37'30" to 36°40'00", long 83°20'00" to 83°27'30". Scale, 1 inch to 1,500 feet [1:18,000]. 2 sheets. \$1 per set.
77. Geologic and structure contour map of the Basin-Greybull area, Big Horn County, Wyo., by W. G. Pierce. 1948. Lat 44°15' to 44°30', long 107°45' to 108°00'. Scale, 1 inch to 4,000 feet [1:48,000]. 60c.
78. Geology and oil possibilities of the eastern side of San Juan Basin, Rio Arriba County, N. Mex., by C. H. Dane. 1948. Scale, 1 inch to 1 mile [1:63,360]. [Reprinted 1957.] \$1.
79. Map of the First and Second Berea sands of southeastern Ohio and western West Virginia, by Wallace de Witt, Jr., D. F. Demarest, and others. 1947. Lat 38°45' to 40°15', long 81°30' to 83°00'. Scale, 1 inch to 3 miles [1:190,080]. 60c. [See Professional Paper 259.]
80. Rocks of Permian(?) age in the Colorado River Valley, north-central Texas, by R. C. Moore. 1949. Lat 31°25' to 31°50', long 99°15' to 100°00'. Scale, 1 inch to 1 mile [1:63,360]. [Reprinted 1958.] 2 sheets. \$1 per set.
81. Geology of the southern part of Archuleta County, Colo., by G. H. Wood, V. C. Kelley, and A. J. MacAlpin. 1948. Lat 37°00' to 37°15', long 106°45' to 107°30'. Scale, 1 inch to 1 mile [1:63,360]. \$1.
82. Pre-Tertiary geology of the White rocks River-Ashley Creek area, Uintah County, Utah, by D. M. Kinney and J. F. Rominger. 1947. Lat 40°30' to 40°45', long 109°30' to 110°00'. Scale, 1 inch to 1 mile [1:63,360]. 60c.
83. Geology of the northwestern Puente Hills, Los Angeles County, Calif., by S. N. Daviess and A. O. Woodford. 1949. Lat 33°58' to 34°00', long 117°56' to 118°02'. Scale, 1 inch to 2,000 feet [1:24,000]. 2 sheets. \$1 per set.
84. Geology of the Worland-Hyattsville area, Big Horn and Washakie Counties, Wyo., by C. P. Rogers, Jr., P. W. Richards, L. C. Conant, and others. 1948. Lat 44°00' to 44°15', long 107°30' to 108°00'. Scale, 1 inch to 4,000 feet [1:48,000]. 90c.
85. Tertiary geology of the coastal plains of Puerto Rico, by A. D. Zapp, H. R. Bergquist, and C. R. Thomas. 1948. Lat 18°17'30" to 18°30'00", long 65°45'00" to 67°15'00". Scale, 1:60,000. [Reprinted 1956.] 2 sheets. \$1 per set.
86. Geology of the bituminous sandstone deposits near Sunnyside, Carbon County, Utah, by C. N. Holmes, B. M. Page, and Paul Averitt. 1948. Lat 39°15' to 39°40', long 110°20' to 110°25'. Scale, 1 inch to 2,000 feet [1:24,000]. [Reprinted 1955.] 50c.
87. Geology of the Lothair area, Liberty County, Mont., by C. E. Erdmann. 1948. Scale, 1 inch to 4,000 feet [1:48,000]. 60c.
- *88. Geology of the Newport-Waldport area, Lincoln and Lane Counties, Oreg., by H. E. Vokes, Hans Norbierath, and P. D. Snively, Jr. 1949. Lat 44°15' to 44°45', long 123°45' to 124°10'. Scale, 1:62,500.
89. Map of the Berea and Murrysville sands of southeastern Ohio, northern West Virginia, and southwestern Pennsylvania, by J. F. Pepper, D. F. Demarest, R. D. Holt, and others. 1948. Lat 38°45' to 40°15', long 79°30' to 81°30'. Scale, 1 inch to 3 miles [1:190,080]. 60c. [See Professional Paper 259.]
90. Regional geologic map of parts of Culberson and Hudspeth Counties, Tex., by P. B. King. 1949. Lat 31° to 32°, long 104°00' to 105°30'. Scale, 1:150,000. [Reprinted 1960]. 75c.
91. Geology of the Boysen area, central Wyoming, by H. A. Tourtelot and R. M. Thompson. 1948. Lat 43°15' to 43°30', long 108°00' to 108°30'. Scale, 1 inch to 4,000 feet [1:48,000]. [Reprinted 1955.] 2 sheets. \$1 per set.
92. Geology of the Glendo area, Wyo., by J. D. Love, N. M. Denson, and Theodore Botinelly. 1949. Scale, 1 inch to 4,000 feet [1:48,000]. 2 sheets. 80c per set.
- *93. Geology of the Egnar-Gypsum Valley area, San Miguel and Montrose Counties, Colo., by W. L. Stokes and D. A. Phoenix. 1948. Lat 38°00' to 38°15', long 108°37'30" to 108°52'30". Scale, 1 inch to 4,000 feet [1:48,000].
94. Geology of Naval Oil Shale Reserves 1 and 3, Garfield County, Colo., by D. C. Duncan and N. M. Denson. 1949. Lat 39°27'30" to 39°37'30", long 107°50' to 108°07'30". Scale, 1 inch to ½ mile [1:31,680]. Contour interval, 100 feet. 2 sheets. \$1 per set.
95. Geology of the Inislin Peninsula, Alaska, by C. E. Kirschner and D. L. Minard. 1949. Lat 59°40' to 59°50', long 153°00' to 153°25'. Scale, 1 inch to 4,000 feet [1:48,000]. 75c.
96. Stratigraphy and geologic structure in the Piedra River Canyon, Archuleta County, Colo., by C. B. Read, G. H. Wood, A. A. Wanek, and Pedro Verastegui Mackee. 1949. Scale, 1 inch to about ½ mile [1:48,000]. 80c.
97. Geology of the coastal area from Cape Kiwanda to Cape Foulweather, Oreg., by P. D. Snively, Jr. and H. E. Vokes. 1949. Lat 44°45' to 45°15', long 123°45' to 124°55'. Scale, 1:62,500. 50c.
98. Geology of the Woodbine formation of Cooke, Grayson, and Fannin Counties, Tex., by H. R. Bergquist. 1949. Scale, 1:63,360. 2 sheets. \$1 per set.
99. Map of the Berea sand of northern Ohio, by Wallace de Witt, Jr. 1949. Lat 40°15' to 41°30', long 81°00' to 83°00'. Scale, 1 inch to 3 miles [1:190,080]. 50c. [See Professional Paper 259.]

- *100. Early Silurian rocks of the northern Appalachian Basin, by Gordon Rittenhouse, 1949. Lat 37° to 44°, long 75° to 84°. Scale, 1 inch to about 40 miles [1:2,500,000].
101. Pre-Pennsylvanian geology of southwestern Kansas, southeastern Colorado, and the Oklahoma Panhandle, by J. C. Maher and J. B. Collins, 1949. Scale, 1 inch to 16 miles [1:1,013,760]. 4 sheets. \$1 per set.
102. Geology of the Hartville uplift, eastern Wyoming, by N. M. Denson and Theodore Botinelly, 1949. Scale, 1:48,000. 2 sheets. \$1 per set.
103. Geology of the Mush Creek and Osage oil fields and vicinity, Weston County, Wyo., by C. E. Dobbins and G. H. Horn, 1949. Scale, 1 inch to 2 miles [1:126,720]. 50c.
104. Geology of the Jonesville district, Lee County, Va., by R. L. Miller and W. P. Brosgé, 1950. Lat 36°37'30" to 36°45', long 83°00' to 83°15'. Scale, 1 inch to ½ mile [1:31,680]. 2 sheets. \$1 per set. (See also Bulletin 990.)
105. Geologic map of the Selma group in eastern Alabama, by D. H. Eargle, 1950. Scale, 1 inch to about 4 miles [1:250,000]. 50c.
106. Geology of the Button Butte-Forestgrove area, Fergus County, Mont., by L. S. Gardner, 1950. Lat 46°45' to 47°00', long 108°45' to 109°15'. Scale, 1:63,360. 60c.
- *107. Map of Wyoming showing test wells for oil and gas, anticlinal axes, oil and gas fields, pipelines, unit areas, and land district boundaries, compiled by E. K. Keefer, J. D. Love, R. M. Larsen, and M. W. Allen, 1949. Lat 41° to 45°, long 104° to 111°. Scale, 1:500,000. 2 sheets. [Superseded by map OM-175.]
108. Geology of the Hobson area, central Montana, by J. D. Vine and W. J. Hail, Jr., 1950. Lat 46°50' to 47°10', long 109°40' to 110°00'. Scale, 1 inch to 1 mile [1:63,360]. 50c.
109. Geology and coal resources of the Durango area, La Plata and Montezuma Counties, Colo., by A. D. Zapp, 1949. Lat 37°12'30" to 37°20', long 107°40' to 108°10'. Scale, 1 inch to ¼ mile [1:31,680]. 2 sheets. \$1 per set.
- OM-110. Geology of the southern and southwestern border area of the Willamette Valley, Oreg., by H. E. Vokes, P. D. Snively, Jr., and D. A. Myers, 1951. Lat 43°45' to 44°15', long 123°00' to 123°30'. Scale, 1:62,500. 60c.
- OM-111. Geology of the Hardin area, Big Horn and Yellowstone Counties, Mont., by P. W. Richards and C. P. Rogers, Jr., 1951. Lat 45°15' to 45°45', long 107°30' to 108°00'. Scale, 1:63,360. 2 sheets. \$1 per set.
- OM-112. Geology of the Lander area, central Wyoming, by R. M. Thompson, M. L. Troyer, V. L. White, and G. N. Pippingos, 1950. Lat 42°40' to 43°10', long 108°30' to 109°10'. Scale, 1:63,360. [Reprinted 1957]. 2 sheets. \$1 per set.
- *OM-113. Tertiary stratigraphy of the western part of the Beaver Divide area, Fremont County, Wyo., by F. B. Van Houten, 1950. Scale, 1:31,680. [Superseded by map OM-140.]
- OM-114. Geology of DeBeque oil-shale area, Garfield and Mesa Counties, Colo., by F. R. Waldron, J. R. Donnell, and J. C. Wright, 1951. Lat 39°20' to 39°35', long 108°05' to 108°30'. Scale, 1:62,500. 2 sheets. \$1.25 per set.
- OM-115. Geology of the Moon Lake area, Duchesne County, Utah, by J. W. Huddle, W. J. Mapel, and F. T. McCann, 1951. Lat 40°22'30" to 40°37'30", long 110°15' to 110°45'. Scale, 1:63,360. 50c.
- OM-116. Map of Colorado showing test wells for oil and gas, pipelines, oil, and gas fields, and areas of pre-Cambrian rocks, compiled by F. K. Walker and N. W. Bass, 1951. Lat 37° to 41°, long 102° to 109°. Scale, 1:500,000. 2 sheets. \$1 per set. [Supersedes map 73.]
- OM-117. The floor of the Los Angeles basin, Los Angeles, Orange, and San Bernardino Counties, Calif., by J. E. Schoellhamer and A. O. Woodford, 1951. Lat 33°40' to 34°10', long 117°42' to 118°32'. Scales, 1 inch to 1 mile [1:63,360] and 1 inch to 2 miles [1:126,720]. 2 sheets, 75c per set.
- OM-118. Geologic map of the Spread Creek-Gros Ventre River area, Teton County, Wyo., by J. D. Love, W. R. Keefer, D. C. Duncan, H. R. Bergquist, and R. K. Hose, 1951. Scale, 1:48,000. 2 sheets. \$1 per set.
- OM-119. Geology of the eastern part of the Piceance Creek basin, Rio Blanco and Garfield Counties, Colo., by D. C. Duncan and Carl Belser, 1950. Lat 39°45'00" to 39°52'30", long 107°52'30" to 108°22'30". Scale, 1:96,000. 50c.
- OM-120. Geology of Dove Creek area, Dolores and Montezuma Counties, Colo., by E. A. Finley, 1951. Scale, 1:48,000. [Reprinted 1955.] 50c.
- OM-121. Geology of the region from Socorro and San Antonio east to Chupadera Mesa, Socorro County, N. Mex., by R. H. Wilpolt and A. A. Wanek, 1951. Lat 33°45' to 34°15', long 106°02' to 106°55'. Scale, 1:63,360. 2 sheets. 80c per set.
- OM-122. Geologic map of the Powder River basin and adjacent areas, Wyoming, by J. D. Love and J. L. Weitz, 1951. Lat 43° to 45°, long 104°30' to 107°45'. Scale, 1 inch to 5 miles [1:316,800]. 50c.
- OM-123. Geology of the Uinta River and Brush Creek-Diamond Mountain areas, Duchesne and Uintah Counties, Utah, by D. M. Kinney, 1951. Lat 43°30' to 43°45', long 110°00' to 110°15'. Scale, 1:63,360. [Reprinted 1957.] 75c. (See also Bulletin 1007.)
- OM-124. Geology of the Badwater area, central Wyoming, by H. A. Tourtelot, 1953. Lat 43°15' to 43°30', long 107°30' to 108°00'. Scale, 1:48,000. 2 sheets. \$1 per set.
- OM-125. Bituminous sandstone deposits of Point Arena, Mendocino County, Calif., by C. N. Holmes, B. M. Page, and D. C. Duncan, 1951. Scale, 1 inch to 1,200 feet [1:14,400]. Contour interval, 100 feet. 50c.
- OM-126. Geology of the Arctic slope of Alaska, by T. G. Payne and others, 1952. Lat 68° to 71°, long 144° to 166°. Scale, 1:1,000,000. 3 sheets. \$1.50 per set.
- OM-127. Geology of the Riverton area, central Wyoming, by R. M. Thompson and V. L. White, 1954. Lat 42°45' to 43°00', long 108°15' to 108°45'. Scale, 1:63,360. 2 sheets. \$1 per set.

- OM-128. Geology of a part of Tumeay and Panoche Hills, Fresno County, Calif., by J. E. Schoellhamer and D. M. Kinney, 1953. Scale, 1:24,000. 60c.
- OM-129. Geology of the Spirit Mountain quadrangle, northwestern Oregon, by E. M. Baldwin and A. E. Roberts. Lat 45°00' to 45°15', long 123°30' to 123°45'. Scale, 1:48,000. 60c.
- *OM-130. Map of Montana showing oil and gas fields and test wells for oil and gas, compiled by J. D. Vine and C. E. Erdmann, 1952. Lat 45° to 49°, long 104° to 110°. Scale, 1:500,000. 2 adjoining sheets. [Superseded by map OM-170.]
- OM-131. Geologic map of the Henry Mountains region, Utah, by C. B. Hunt and others, 1952. Scale, 1:125,000. \$1. (See Professional Paper 228.)
- OM-132. Geology of the Gilbert area, Searcy County, Ark., by J. C. Maher and R. J. Lantz, 1953. Lat 35°56' to 36°00', long 92°40' to 92°45'. Scale, 1:12,000. 40c.
- OM-133. Structure contour map of the Powder River Basin, Wyoming and Montana, by W. G. Pierce and R. M. Girard, 1945. Revised by A. D. Zapp, 1951 [1952]. Lat 43° to 45°, long 104°30' to 107°00'. Scale, 1 inch to 5 miles [1:316,800]. 75c. [Supersedes map 33.]
- OM-134. Geology of the Cathedral Bluffs oil-shale area, Rio Blanco and Garfield Counties, Colo., by J. R. Donnell, W. B. Cashion, and J. H. Brown, Jr., 1953. Lat 39°37'30" to 40°00', long 108°30' to 108°37'30". Scale, 1:62,500. 50c.
- OM-135. Permian and Pennsylvanian rocks of southeastern Colorado and adjacent areas, by J. C. Maher and J. B. Collins, 1953. Lat 37° to 39°, long 102° to 105°. Scale, 1 inch to 18 miles [1:1,143,180]. 75c.
- OM-136. Map of the northern part of the Appalachian Basin showing locations of selected deep wells, compiled by G. M. Everhart, 1953. Lat 37° to 44°, long 73° to 87°. Scale, 1:1,000,000. 75c.
- OM-137. Geology of a part of northwestern Mora County, N. Mex., by G. O. Bachman, 1953. Lat 36°00' to 36°15', long 105°00' to 105°15'. Scale, 1:148,000. 50c.
- OM-138. Geology of the Ignacio area, Ignacio and Pagosa Springs quadrangles, La Plata and Archuleta Counties, Colo., by Harley Barnes, 1953. Lat 37°15' to 37°20', long 107°25' to 107°40'. Scale, 1:63,360. 50c.
- OM-139. Geology of the Stanford area, Judith Basin and Fergus Counties, Mont., by J. D. Vine and W. D. Johnson, Jr., 1954. Lat 47°00' to 47°20', long 109°40' to 110°30'. Scale, 1:63,360. 50c.
- OM-140. Geology of the Long Creek-Beaver Divide area, Fremont County, Wyo., by F. B. Van Houten, 1954. Lat 42°35' to 42°50', long 108°00' to 108°15'. Scale, 1:48,000. 2 sheets. 75c per set. [Supersedes map OM-113.]
- OM-141. Geology and stratigraphy of Koehler and Mount Laughlin quadrangles and parts of Abbott and Springer quadrangles, eastern Colfax County, N. Mex., by G. H. Wood, Jr., S. A. Northrop, and R. L. Griggs, 1953. Lat 36°15' to 36°45', long 104°00' to 104°45'. Scale, 1:63,360. 2 sheets. \$1 per set.
- OM-142. Geology of the Crazy Woman Creek area, Johnson County, Wyo., by R. K. Hose, 1954. Lat 44°00' to 44°15', long 106°35' to 106°50'. Scale, 1:48,000. 2 sheets, 75c per set. (See also Bulletin 1027-B.)
- OM-143. Preliminary report on the geology of the Scurry Reef in Scurry County, Tex., by H. E. Rothrock, R. E. Bergenback, D. A. Myers, P. T. Stafford, and R. T. Terriere, 1953. Scale, 1:48,000. 50c.
- OM-144. Geology and fuel resources of the Upper Cretaceous rocks of the Barker dome-Fruitland area, San Juan County, N. Mex., by P. T. Hayes and A. D. Zapp, 1955. Lat 36°45' to 37°00', long 108°10' to 108°35'. Scale, 1:62,500. 2 sheets, 50c per set.
- OM-145. Geology of the Kaibito and Moenkopi Plateaus and parts of the Painted Desert, Coconino County, Ariz., by A. A. Wanek and J. G. Stephens, 1953. Lat 35°45' to 37°00', long 110°45' to 111°45'. Scale, 1:150,000. 2 sheets. 50c per set.
- OM-146. Geology of the La Veta area, Huerfano County, Colo., by R. B. Johnson and J. G. Stephens, 1954. Lat 37°30'30" to 37°45'00", long 104°55'00" to 105°07'30". Scale, 1:31,680. 50c.
- OM-147. Preliminary geologic map of the Beautiful Mountain anticline, San Juan County, N. Mex., by E. C. Beaumont, 1954. Lat 36°15' to 36°37'30", long 108° to 109°. Scale, 1:48,000. 50c.
- OM-148. Geologic map of the Square Buttes district, Oliver and Mercer Counties, N. Dak., by W. D. Johnson, Jr. and R. P. Kunkel, 1954. Lat 47°00' to 47°15', long 101°00' to 101°45'. Scale, 1:63,360. 50c.
- OM-149. Geology and fuel resources of the Red Mesa area, La Plata and Montezuma Counties, Colo., by Harley Barnes, E. H. Baltz, Jr., and P. T. Hayes, 1954. Lat 37°00' to 37°20', long 107°52'30" to 108°20'. Scale, 1:62,500. 50c.
- OM-150. Geology of the west-central border area of the Willamette Valley, Oregon, by H. E. Vokes, D. A. Myers, and Linn Hoover, 1954. Lat 44°15' to 44°45', long 123°15' to 123°30'. Scale, 1:62,500. 50c.
- OM-151. Geology of the Steamboat Butte-Pilot Butte area, Fremont County, Wyo., by J. F. Murphy and R. W. Roberts, 1954. Lat 43°07'30" to 43°22'30", long 108°45' to 109°00'. Scale, 1:48,000. 50c.
- OM-152. Geologic map of the Mesa Verde area, Montezuma County, Colo., by A. A. Wanek, 1954. Lat 37°00' to 37°20', long 108°20' to 108°45'. Scale, 1:63,360. 50c. (See also Bulletin 1072-M.)
- OM-153. Geology of the Boranza-Dragon oil-shale area, Uintah County, Utah, and Rio Blanco County, Colo., by W. B. Cashion and J. H. Brown, Jr., 1956. Scale, 1:62,500. 2 sheets. 75c per set.
- OM-154. Geologic map of the northern Santa Ana Mountains, Orange and Riverside Counties, Calif., by J. E. Schoellhamer, D. M. Kinney, R. F. Yerkes, and J. G. Vedder, 1954. Lat 33°42'30" to 33°52'30", long 117°37'30" to 117°52'30". Scale, 1:24,000. Contour intervals, 5 and 20 feet, 75c.
- OM-155. Geology of the Sheridan and McMinville quadrangles, Oregon, by E. M. Baldwin, R. D. Brown, Jr., J. E. Gair, and M. H. Pease, Jr., 1955. Lat 45°00' to 45°15', long 123°00' to 123°30'. Scale, 1:62,500. Contour intervals, 25 and 100 feet. 50c.

- OM-156. Structure and stratigraphy of the outcropping Pennsylvanian rocks in the White Oak quadrangle, Magoffin and Morgan Counties, Ky., by W. L. Adkison. 1954. Lat 37°45' to 37°52'30", long 83°07'30" to 83°15'00". Scale, 1:24,000. 50c. (See also Bulletin 1047-A.)
- OM-157. Tectonic map of a part of the upper Rio Grande area, New Mexico, by V. C. Kelley. 1954. Lat 33°50' to 36°30', long 105°30' to 107°10'. Scale, 1:190,080. 50c.
- OM-158. Map showing geologic structure of the southern part of the San Juan Basin, including parts of San Juan, McKinley, Sandoval, Valencia, and Bernalillo Counties, N. Mex., compiled by C. B. Hunt and C. H. Dane. 1954. Scale, 1:126,720. 50c.
- *OM-159. Map of New Mexico showing test wells for oil and gas, oil and gas fields, and pipelines, compiled by G. H. Dixon, D. H. Baltz, and T. F. Stipp of the U. S. Geological Survey, and R. A. Bieberman of the New Mexico Bureau of Mines and Mineral Resources. 1955. Lat 32° to 37°, long 103° to 109°. Scale, 1:500,000. (Superseded by Map OM-207.)
- OM-160. Geology of the Carrizo Mountains area in northeastern Arizona and northwestern New Mexico, by J. D. Strobell, Jr. 1956. Lat 36°30' to 37°00', long 109°00' to 109°30'. Scale, 1:48,000. 2 sheets. \$1 per set.
- OM-161. Geologic map of the Walsenburg area, Huerfano County, Colo., by R. B. Johnson and J. G. Stephens. 1955. Lat 37°30' to 37°45', long 104°40' to 104°55'. Scale, 1:31,680. 50c. (See also Bulletin 1042-O.)
- OM-162. Geology of the Marys Peak and Alsea quadrangles, Oregon, by E. M. Baldwin. 1955. Lat 44°15' to 44°45', long 123°30' to 123°45'. Scale, 1:62,500. 50c.
- OM-163. Structure and stratigraphy of the outcropping Pennsylvanian rocks in the Tiptop quadrangle, Breathitt, Magoffin, and Knott Counties, Ky., by S. W. Welch. 1955. Lat 37°30' to 37°37'30", long 83°00' to 83°07'30". Scale, 1:24,000. 50c. (See also Bulletin 1042-P.)
- OM-164. Geologic and structure map of the Sussex and Meadow Creek oilfields and vicinity, Johnson and Natrona Counties, Wyo., by G. H. Horn. 1955. Scale, 1:31,680. 50c.
- OM-165. Structure contour map of the base of Mississippian rocks in the Williston basin and adjoining areas of Montana, North Dakota, South Dakota, and Wyoming, by R. P. Kunkel. 1954 [1955]. Lat 43° to 49°, long 98° to 109°. Scale, 1:1,000,000. 50c.
- OM-166. Geologic map of the Du Noir area, Fremont County, Wyo., by W. R. Keefer. 1955 [1956]. Lat 43°30' to 43°45', long 109°30' to 109°50'. Scale, 1:48,000. 50c. (See also Professional Paper 294-E.)
- OM-167. Preliminary geologic map of the northwestern part of the Epes quadrangle, Sumter and Greene Counties, Ala., by W. H. Monroe. 1955. Lat 32°30' to 32°45', long 88°05' to 88°15'. Scale, 1:31,680. 50c.
- OM-168. Preliminary map showing geologic structure of the Monument Valley-Navajo Mountain region, San Juan County, Utah, by A. A. Baker, L. W. Clark, L. A. Kelley, L. G. Snow, and R. M. Larsen. 1954. Scale, 1:126,720. [Reprinted 1957]. 50c. (See also Bulletin 865.)
- OM-169. Preliminary map showing geologic structure of parts of Grand and San Juan Counties, Utah, by A. A. Baker, C. H. Dane, and E. T. McKnight. 1954. Scale, 1:126,720. 50c.
- OM-170. Map of Montana showing oil and gas fields and test wells for oil and gas, compiled by J. D. Vine and C. E. Erdmann. 1952. Revised by H. R. Smith. 1954 [1956]. Lat 45° to 49°, long 104° to 116°. Scale, 1:500,000. 2 sheets. \$1 per set. [Supersedes map OM-130.]
- OM-171. Stratigraphy and photogeology of the southwestern part of Uinta Basin, Duchesne and Uintah Counties, Utah, by R. G. Ray, B. H. Kent, and C. H. Dane. 1956. Lat 39°50' to 40°10', long 109°55' to 110°45'. Scale, 1:63,360. 2 sheets. \$1.50 per set.
- OM-172. Geology of the Shotgun Butte area, Fremont County, Wyo., by M. L. Troyer and W. R. Keefer. 1955 [1956]. Lat 43°15' to 43°30', long 108°30' to 108°45'. Scale, 1:48,000. 50c.
- *OM-173. Structure and stratigraphy of the Pennsylvanian rocks exposed in the Seitz quadrangle, Breathitt, Magoffin, Morgan, and Wolfe Counties, Ky., by M. J. Bergin. 1956. Lat 37°37'30" to 37°45'00", long 83°07'30" to 83°15'00". Scale, 1:24,000.
- OM-174. Geology of the Trinidad-Aguilar area, Las Animas and Huerfano Counties, Colo., by R. L. Harbour and G. H. Dixon. 1956. Lat 37°10'00" to 37°30'00", long 104°30'00" to 104°45'00". Scale, 1:31,680. 50c. (See also Bulletin 1072-G.)
- OM-175. Map of Wyoming showing test wells for oil and gas, anticlines, oil and gas fields, and pipelines, compiled by L. W. McGrew. 1955 [1956]. Lat 41° to 45°, long 104° to 111°. Scale, 1:500,000. 75c. [Supersedes map 107.]
- OM-176. Preliminary structure contour map of the Colorado Plains, by E. A. Finley, C. E. Dobbin, and E. E. Richardson. 1955 [1956]. Lat 37° to 41°, long 102° to 105°. Scale, 1:500,000. 50c.
- OM-177. Preliminary structure contour map of a part of southeastern New Mexico showing oil and gas development, by T. F. Stipp and L. B. Haigler. 1956 [1957]. Scale, 1:126,720. 75c.
- OM-178A. Structure contour map of the Montana Plains, by C. E. Dobbin and C. E. Erdmann. 1955. Lat 45° to 49°, long 104° to 114°. Scale, 1:500,000. 50c.
- OM-178B. Structure contour map of the Montana Plains, by C. E. Dobbin and C. E. Erdmann. 1955. Lat 45° to 49°, long 104° to 114°. Scale, 1:1,000,000. 25c.
- OM-179. Structure contour map on top of the middle member of the Piper formation of Middle Jurassic age in the Williston basin and adjacent areas in Montana, North Dakota, and South Dakota, by D. T. Sandberg. 1959. Lat 45° to 49°, long 109° to 110°. Scale, 1:760,320. 75c.
- OM-180. Geologic map of the eastern Beaver Divide-Gas Hills area, Fremont and Natrona Counties, Wyo., by F. B. Van Houten and J. L. Weitz. 1956. Lat 42°40' to 42°50', long 107°30' to 109°00". Scale, 1:63,360. 50c.
- OM-181. Geology of the Sheldon-Little Dome area, Fremont County, Wyo., by J. F. Murphy, N. C. Privrasky, and G. A. Moerlein. 1956. Lat 43°22'30" to 43°30'00", long 108°52'30" to 109°07'30". Scale, 1:48,000. 50c.

- OM-182. Structure contour map of the Tensleep sandstone in the Big Horn Basin, Wyo. and Mont., by A. D. Zapp. 1956. Lat 43°30' to 45°00', long 107°30' to 109°00'. Scale, 1:250,000. 50c.
- OM-183. Preliminary geologic map of the northern part of the Raton Mesa region and Huerfano Park in parts of Las Animas, Huerfano, and Custer Counties, Colo., by R. B. Johnson, G. H. Wood, Jr., and R. L. Harbour. 1958. Lat 37°30'00" to 37°52'30", long 104°37'30" to 105°22'30". Scale, 1:63,360. 2 sheets. \$1.50 per set. (See also Bulletin 1071-D).
- OM-184. Index map of central midcontinent region giving lines of sections that show detailed lithology of Paleozoic and Mesozoic rocks, by Jeannette Fox and M. G. Sheldon. 1957. Lat 33° to 46°, long 89° to 106°. Scale, 1:2,500,000. 50c.
- OM-185. Geologic and structure map of the southeastern part of the Powder River Basin, Wyo., by C. E. Dobbins, W. B. Kramer, and G. H. Horn. 1957. Lat 43° to 44°, long 104°30' to 105°00'. Scale, 1:125,000. 75c.
- OM-186. Geologic map of the lower Siuslaw River area, Oregon, by E. M. Baldwin. 1956. Lat 43°45' to 44°15', long 123°30' to 124°15'. Scale, 1:62,500. Contour interval, 50 feet. 50c.
- OM-187. Geology of the southeastern part of the Robinson Mountains, Yakutatga district, Alaska, by D. J. Miller. 1957. Lat 59°55' to 60°15', long 141°22'30" to 142°30'00". Scale, 1:63,360. 2 sheets. Contour interval, 100 feet. \$1.50 per set.
- OM-188. Geology of the Doty-Minot Peak area, Washington, by M. H. Pcase, Jr. and Linn Hoover. 1957. Lat 46°30' to 47°00', long 123°10' to 123°30'. Scale, 1:62,500. Contour intervals, 40 and 80 feet. 75c.
- OM-189. Reconnaissance geology of the Malaspina district, Alaska, by George Plafker and D. J. Miller. 1957. Lat 59°30' to 60°20', long 139°30' to 141°22'30". Scale, 1:125,000. 75c.
- OM-190. Preliminary geologic map of western San Juan Basin, San Juan and McKinley Counties, N. Mex., by R. B. O'Sullivan and E. C. Beaumont. 1957. Lat 35°30' to 37°00', long 108°15' to 109°00'. Scale, 1:125,000. 75c.
- OM-191. Geologic and structure contour map of the northern and western flanks of the Black Hills, Wyo., Mont., and S. Dak., by W. J. Mapel, C. S. Robinson, and P. K. Theobald. 1959. Lat 44°15' to 44°30', long 104°30' to 105°30'. Scale, 1:96,000. 2 sheets. \$1.50 per set.
- OM-192. Preliminary geologic map of the Waldron quadrangle and adjacent areas, Scott County, Ark., by J. A. Reinemund and Walter Danilchik. 1957. Lat 34°45' to 35°00', long 94°00' to 94°15'. Scale, 1:48,000. Contour interval, 20 feet. 75c.
- OM-193. Geologic map of the San Joaquin Hills-San Juan Capistrano area, Orange County, Calif., by J. G. Vedder, R. F. Yerkes, and J. E. Schoellhamer. 1957. Lat 33°30' to 33°40', long 117°37'30" to 117°55'00". Scale, 1:24,000. Contour intervals, 5, 10, and 20 feet. 75c.
- OM-194. Geologic and structure contour map of the Tisdale anticline and vicinity, Johnson and Natrona Counties, Wyo., by E. E. Richardson. 1957. Scale, 1:31,680. 50c.
- OM-195. Geologic map of the eastern Puente Hills, Los Angeles basin, California, by D. L. Durham and R. F. Yerkes. 1959. Lat 33°52'30" to 34°00'00", long 117°37'30" to 117°52'30". Scale, 1:24,000. Contour interval, 25 feet. 75c.
- OM-196. Geologic map of a part of the Ventura basin, Los Angeles County, Calif., by E. L. Winterer and D. L. Durham. 1958. Lat 34°20' to 34°26', long 118°28' to 118°42'. Scale, 1:24,000. Contour intervals, 5 and 25 feet. 75c.
- OM-197. Preliminary map showing geologic structure of parts of Emery, Wayne, and Garfield Counties, Utah, by A. A. Baker and others. 1957. Scale, 1:126,720. Contour intervals, 50 and 100 feet. 50c. [Originally printed in 1933; format revision only.]
- OM-198. Map of Nebraska showing areal distribution of pre-Pennsylvanian rocks, anticlines and basins, oil and gas fields, pipelines, and unsuccessful test wells, by E. C. Reed, R. F. Svoboda, G. E. Prichard, and Jeannette Fox. 1958. Lat 40° to 43°, long 96° to 104°. Scale, 1:500,000. \$1.
- OM-199. Geologic map of the Lewistown area, Fergus County, Mont., by L. S. Gardner. 1959. Scale, 1:63,360. 75c.
- OM-200. Map of Mississippi showing oil and gas fields, unsuccessful test wells, salt domes, and pipelines, by H. M. Beikman and Sophie Drakoulis. 1958. Lat 31° to 35°, long 89° to 91°. Scale, 1:500,000. 75c. (See also Bulletin 1072-A).
- OM-201. Map of Arizona showing oil, gas, and exploratory wells, pipelines, and areas of igneous and metamorphic rocks, by T. F. Stipp and H. M. Beikman. 1959. Scale, 1:500,000. \$1.50.
- OM-202. The Big Horn dolomite and correlative formations in southern Montana and northern Wyoming, by P. W. Richards and C. L. Nieschmidt. 1961. Lat 44° to 46°, long 105° to 111°. Scale, 1 inch to about 12 miles [1:750,000]. 2 sheets. 75c per set.
- OM-203. Geology of the Port Angeles-Lake Crescent area, Clallam County, Wash., by R. D. Brown, Jr., H. G. Gower, and P. D. Snively, Jr. 1960 [1961]. Lat 48° to 48°15', long 123°15' to 124°00'. Scale, 1:62,500. 75c.
- OM-204. Geologic map of the lower Umpqua River area, Oregon, by E. M. Baldwin. 1961. Lat 43°30' to 43°45', long 123°30' to 124°15'. Scale, 1:62,500. Contour interval, 80 feet. 75c.
- OM-206. Geologic and structure map of the North Fork oil field, Kaycee dome, and vicinity, Johnson County, Wyo., by E. E. Richardson. 1961. Lat 43°40' to approximately 43°50', long 106°35' to 106°52'. Scale, 1:24,000. 75c.
- OM-207. Map of New Mexico showing oil and gas fields, unsuccessful test wells, Precambrian rocks, and pipelines, by S. D. Vlissides and R. A. Bieberman. 1961. Lat 32° to 37°, long 103° to 109°. Scale, 1:500,000. \$1.50.
- OM-209. Preliminary structure contour map on top of salt in the Paradox member of the Hermosa formation in the salt anticline region, Colorado and Utah, by D. P. Eliston and E. M. Shoemaker. 1961. Lat 37°45' to 39°, long 108° to 110°. Scale, 1:250,000. 50c.
- OM-210. Geologic map of the Lodoga quadrangle, Glenn and Colusa Counties, Calif., by R. D. Brown, Jr. and E. I. Rich. 1961. Lat 39°15' to 39°30', long 122°15' to 122°30'. Scale, 1:48,000. Contour interval, 50 feet. 50c.

CHARTS

Nos. 1-39 of this series are "preliminary charts." As of February 20, 1950, the designation "preliminary" was dropped; oil and gas investigations charts from 40 on carry the distinguishing prefix "OC."

1. Eocene formations and fossils of Coalinga anticline, California, by Ralph Stewart. 1944. 10c.
2. Stratigraphic distribution of Pennsylvanian Fusulinidae in a part of the Sierra Nacimiento of Sandoval and Rio Arriba Counties, N. Mex., by L. G. Henbest and C. B. Read, 1944. Vertical scale, 1 inch to 50 feet [1:600]. 25c.
3. Correlation of Lower Cretaceous formations of the Coastal Plain of Texas, Louisiana and Arkansas, by Ralph W. Imlay. 1944. Vertical scale, 1 inch to 400 feet [1:4,800]. 50c.
- *4. Thickness and character of the Traverse group and Dundee formation in southwestern Michigan, by G. V. Cohee. 1944.
5. Correlation and subdivision of subsurface Lower Ordovician and Upper Cambrian rocks in northeastern Oklahoma, by H. A. Ireland and others. 1944. Horizontal scale, 1 inch to 4 miles [1:253,440]. 35c.
6. Tertiary and late Upper Cretaceous stratigraphy of west border of San Joaquin Valley, north of Panoche Creek, Fresno, Merced, and Stanislaus Counties, Calif., by Ralph Stewart, W. P. Popenoe, and P. D. Snaveley, Jr. 1944. Horizontal and vertical scales, 1 inch to 4,000 feet [1:48,000]. 50c.
7. Correlation of basal Permian and older rocks in southwestern Colorado, northwestern New Mexico, northeastern Arizona, and southeastern Utah, by N. W. Bass. 1944. 40c.
8. Correlation of subsurface Lower Cretaceous formations of east and south Texas, by R. W. Imlay. 1945. Vertical scale, 1 inch to about 400 feet [1:4,800]. 50c.
9. Sections and maps of Lower Ordovician and Cambrian rocks in the Michigan basin, Michigan and adjoining areas, by G. V. Cohee. 1945. Vertical scale, 1 inch to 200 feet [1:2,400]. [Reprinted 1957.] 40c.
10. Late Paleozoic stratigraphy and oil and gas possibilities of central and northeastern Arizona, by J. W. Huddle and Ernest Dobrovoiny. 1945. 40c.
- *11. Geology and oil and gas possibilities of Trenton and Black River limestones of the Michigan basin, Michigan and adjacent areas, by G. V. Cohee. 1945. Vertical scale, 1 inch to 200 feet [1:2,400]. Horizontal scale, 1 inch to 75 miles [1:4,752,000].
12. Paleocene and Eocene stratigraphy of the northwestern Santa Ana Mountains, Orange County, Calif., by W. P. Woodring and W. P. Popenoe. 1945. Vertical scale, 1 inch to 150 feet [1:1,800]. 40c.
13. Stratigraphic sections and thickness maps of Lower Cretaceous and non-marine Jurassic rocks of central Wyoming, by J. D. Love, R. M. Thompson, C. O. Johnson, and others. 1945. Vertical scale, 1 inch to 400 feet [1:4,800]. [Reprinted 1955.] 40c.
14. Stratigraphic sections and thickness maps of Jurassic rocks in central Wyoming, by J. D. Love, H. A. Tourtelot, C. O. Johnson, and others. 1945. Vertical scale, 1 inch to 100 feet [1:1,200]. 40c.
15. Mississippian and Devonian stratigraphy of northwestern Montana, by L. L. Sloss and W. M. Laird. 1945. 30c.
16. Mesozoic and Paleozoic stratigraphy in northwestern Colorado and northeastern Utah, by C. R. Thomas, F. T. McCann, and N. D. Ramon. 1945. Vertical scale, 1 inch to 200 feet [1:2,400]. Horizontal scale, 1 inch to about 11 miles [1:696,960]. [Reprinted 1957.] 2 sheets. 75c per set.
17. Stratigraphic sections and thickness maps of Triassic rocks in central Wyoming, by J. D. Love, C. O. Johnson, H. L. Nace, and others. 1945. Vertical scale, 1 inch to 100 feet [1:1,200]. [Reprinted 1955.] 40c.
18. Columnar sections of Mesozoic and Paleozoic rocks in the mountains of south-central Montana, by L. S. Gardner, T. A. Hendricks, H. D. Hadley, and C. P. Rogers, Jr. 1945. Vertical scale, 1 inch to 125 feet [1:1,500]. 40c.
19. Subsurface stratigraphy of Lower Mesozoic and Upper Paleozoic formations in the basin area of south-central Montana, by H. D. Hadley, L. S. Gardner, and C. P. Rogers, Jr. 1945. Vertical scale, 1 inch to 120 feet [1:1,440]. 40c.
20. Correlation of the pre-Selma Upper Cretaceous formations between Tuscaloosa County, Ala., and Neshoba County, Miss., by D. H. Eargle. 1946. 30c.
21. The stratigraphic relationship of the Berea, Corry, and Cussewago sandstones in northeastern Ohio and northwestern Pennsylvania, by Wallace de Witt, Jr. 1946. Vertical scale, 1 inch to about 22 feet [1:264]. 40c.
22. Tertiary stratigraphy and its bearing on oil and gas possibilities in the northeastern part of the Wind River Basin, Wyoming, by H. A. Tourtelot and others. 1946. Vertical scale, 1 inch to 50 feet [1:600]. 40c.
23. Correlation of the outcropping Upper Cretaceous formations in Alabama and Texas, by W. H. Monroe. 1946. [Reprinted 1958.] 20c.
24. Stratigraphic relations of Eocene, Paleocene, and latest Cretaceous formations of eastern side of San Juan Basin, New Mexico, by C. H. Dane. 1946. Vertical scale, 1 inch to 100 feet [1:1,200]. 35c.
25. Devonian stratigraphy of central and northwestern Montana, by L. L. Sloss and W. M. Laird. 1946. Vertical scale, 1 inch to 100 feet [1:1,200]. 35c.
26. Regional subsurface stratigraphy, structure, and correlation of middle and early Upper Cretaceous rocks in Alabama, Georgia, and north Florida, by P. L. Applin and E. R. Applin. 1947. 3 sheets. 90c per set.
27. The Tertiary stratigraphy and its bearing on oil and gas possibilities in the Jackson Hole area, northwestern Wyoming, by J. D. Love. 1947. Vertical scale, 1 inch to 200 feet [1:2,400]. 60c.
- *28. Lithology and thickness of the Traverse group in the Michigan basin, by G. V. Cohee. 1947. Vertical scale, 1 inch to 80 feet [1:960]. Horizontal scale, 1 inch to 10 miles [1:633,600].
29. Correlation chart for the outcropping Tertiary formations of the eastern Gulf Coastal Plain, by F. S. MacNeil. 1947. [Reprinted 1955.] 20c.

30. Stratigraphy of the Wasatch Mountains in the vicinity of Provo, Utah, by A. A. Baker. 1947. Vertical scale, 1 inch to 500 feet [1:6,000]. 50c.
31. Profiles showing geology along highways in the vicinity of Tuscaloosa, Ala., by D. H. Eargle. 1947. 50c.
32. Marine Jurassic formations of Montana, by R. W. Imlay, L. S. Gardner, C. P. Rogers, Jr., and H. D. Hadley. 1948. Vertical scale, 1 inch to 100 feet [1:1,200]. 50c.
33. Thickness and lithology of Upper Ordovician and Lower and Middle Silurian rocks in the Michigan basin, by G. V. Cohee. 1948. 2 sheets. 75c per set.
34. Lower Tertiary stratigraphy of Mount Diablo, Marysville Buttes, and west border of lower Central Valley of California, by Ralph Stewart. 1949. Vertical scale, 1 inch to 200 feet [1:2,400]. 2 sheets. \$1 per set.
35. Correlation of pre-Selma Upper Cretaceous rocks in northeastern Mississippi and northwestern Alabama, by D. H. Eargle. 1948. Vertical scale, 1 inch to 150 feet [1:1,800]. 50c.
36. Stratigraphic sections of pre-Cody Upper Cretaceous rocks in central Wyoming, by R. M. Thompson, J. D. Love, and H. A. Tourtelot. 1949. 2 sheets. Vertical scale, 1 inch to 100 feet [1:1,200]. 2 sheets. 75c per set.
37. Stratigraphy of the Upper Devonian Wiscoy sandstone and the equivalent Hanover shale in western and central New York, by J. F. Pepper and Wallace de Witt, Jr. 1950. 2 sheets. 60c per set.
38. Upper Mississippian rocks of southwestern Virginia, southern West Virginia, and eastern Kentucky, by R. H. Wilpolt and D. W. Marden. 1949. 3 sheets. \$1 per set. (See Bulletin 1072-K.)
39. Pre-Pennsylvanian rocks along the Front Range of Colorado, by J. C. Maher. 1950. Horizontal scale, 1 inch to 3 miles [1:190,080], and 1 inch to 12 miles [1:760,320]. 50c.
- OC-40. Subsurface stratigraphy of Paleozoic rocks in southeastern Montana and adjacent parts of Wyoming and South Dakota, by Constance Leatherock. 1950. Vertical, 1 inch to 300 feet [1:3,600]. 50c.
- OC-41. Thickness and lithology of Upper Devonian and Carboniferous rocks in Michigan, by G. V. Cohee, Carol Macha, and Margery Holk. 1951. 5 sheets. \$1 per set.
- OC-42. Subsurface geologic cross sections of Mesozoic rocks in northeastern Colorado, by R. W. Blair. 1951. Horizontal scale, 1 inch to 10 miles [1:633,600]. 2 sheets. 50c per set.
- OC-43. Stratigraphic sections of Cretaceous rocks in northeastern Teton County, Wyo., by J. D. Love, R. K. Hose, J. L. Weitz, D. C. Duncan, and H. R. Bergquist. 1951. Vertical scale, 1 inch to 300 feet [1:3,600]. 2 sheets. 75c per set.
- OC-44. Stratigraphy and paleontology of Paleozoic rocks, Hartville area, eastern Wyoming, by J. D. Love, L. G. Henbest, and N. M. Denson. 1953. Vertical scale, 1 inch to 40 feet [1:480]. 2 sheets. \$1 per set.
- OC-45. The stratigraphy of the Perrysburg formation of Late Devonian age in western and west-central New York, by J. F. Pepper and Wallace de Witt, Jr. 1951. 40c.
- OC-46. Correlation of Permian and Pennsylvanian rocks from western Kansas to the Front Range of Colorado, by J. C. Maher and J. B. Collins. 1952. Vertical scale, 1 inch to 200 feet [1:2,400]. Horizontal scale, 1 inch to about 6 miles [1:375,000]. 3 sheets. [Reprinted.] \$1 per set.
- OC-47. Subsurface cross sections of pre-Pennsylvanian rocks from Morton County, Kans., to Gray County, Tex., by J. B. Collins. 1952. Horizontal scale, 1 inch to 6 miles [1:380,160]. 40c.
- OC-48. Stratigraphy of the outcropping Pennsylvanian rocks of the Fredonia quadrangle, Kansas, by H. C. Wagner and L. D. Harris. 1953. Vertical scale, 1 inch to 40 feet [1:480]. Horizontal scale, 1 inch to 4,000 feet [1:48,000]. 50c.
- OC-49. The Cody shale and younger Cretaceous and Paleocene rocks in the Wind River Basin, Fremont County, Wyo., by K. A. Yenne and G. N. Pipiringos. 1954. Vertical scale, 1 inch to 300 feet [1:3,600]. 50c.
- OC-50. Subsurface stratigraphy of the Heath shale and Amsden formation in central Montana, by C. L. Nieschmidt. 1953. Vertical scale, 1 inch to 100 feet [1:1,200]. 50c.
- OC-51. Correlation of pre-Atoka rocks in the Arkansas Valley, Arkansas, by J. C. Maher and R. J. Lantz. 1953. Horizontal scale, 1 inch to 6 miles [1:380,160]. 50c.
- OC-52. Stratigraphic and facies relationships of the upper part of the Green River formation and the lower part of the Uinta formation in Duchesne, Uintah, and Wasatch Counties, Utah, by C. H. Dane. 1955. Vertical scale, 1 inch to about 50 feet [1:600]. Horizontal scale, 1 inch to about 2 miles [1:125,000]. 2 sheets. 75c per set.
- OC-53. Zonation of the late Paleozoic Horseshoe Atoll in Scurry and southern Kent Counties, Tex., by P. T. Stafford. 1955. Vertical scale, 1 inch to about 140 feet [1:1,680]. Horizontal scale, 1 inch to about 650 feet [1:7,800]. 50c. (See also Professional Paper 315-A.)
- OC-54. Stratigraphy of the Sonyea formation of Late Devonian age in western and west-central New York, by G. W. Colton and Wallace de Witt, Jr. 1958. Vertical scale, 1 inch to 20 feet [1:240]. 50c.
- OC-55. Stratigraphy of the West Falls formation of Late Devonian age in western and west-central New York, by J. F. Pepper, Wallace de Witt, Jr., and G. W. Colton. 1956. Vertical scale, 1 inch to 50 feet [1:600]. 50c.
- OC-56. Stratigraphy of the Upper Cretaceous and lower Tertiary rocks of the Shotgun Butte area, Fremont County, Wyo., by W. R. Keefer and M. L. Troyer. 1956. Vertical scale, 1 inch to 250 feet [1:3,000]. 50c.
- OC-57. Stratigraphy and foraminiferal zonation in some of the Tertiary rocks of southwestern Washington, by W. W. Rau. 1958. Vertical scale, 1 inch to 300 feet [1:3,600]. 2 sheets. 75c per set.
- OC-58. Stratigraphy of Upper Mississippian rocks above the Tuscumbia limestone in northern Alabama and northeastern Mississippi, by S. W. Welch. 1958. Vertical scale, 1 inch to 40 feet [1:480]. 50c.

- OC-59. Stratigraphy of Paleozoic rocks in northwestern Colorado, by W. E. Hallgarth, 1959 [1960]. Vertical scale, 1 inch to 200 feet [1:2,400]. 50c.
- OC-60. Stratigraphy of the Dakota group along the northern Front Range foothills, Colorado, by K. M. Waagé, 1959. Vertical scale, 1 inch to 20 feet [1:240]. 50c.
- OC-61. Subsurface cross section of Paleozoic rocks from Barber County, Kans., to Caddo County, Okla., by W. L. Adkison, 1960. Vertical scale, 1 inch to 200 feet [1:2,400]. Horizontal scale, 1 inch to 6 miles [1:380,160]. 2 sheets, 75c per set.
- OC-62. Mississippian rocks of the northern part of the Black Warrior basin, Alabama and Mississippi, by S. W. Welch, 1959 [1960]. Vertical scale, 1 inch to 100 feet [1:1,200]. 50c.

COAL INVESTIGATIONS

Early maps in this series are unnumbered. As of February 20, 1950, they are numbered consecutively, with the distinguishing prefix "C".

MAPS AND CHARTS

[Asterisk (*) indicates map is out of print.]

- Coal maps of five areas in southeastern Oklahoma, 1935. Scale, 1 inch to $\frac{1}{2}$ mile [1:31,680]. \$1 each map. (See also Bulletin 874):
 Howe district, Le Flore and Latimer Counties, by T. A. Hendricks and others.
 Lehigh district, Coal and Atoka Counties, by T. A. Hendricks and others.
 McAlester district, Pittsburg and Latimer Counties, by T. A. Hendricks and others.
 *Stigler-Poteau district, Pittsburg, Haskell, and Le Flore Counties, by W. T. Thom and Pat Rose.
 Wilburton district, Latimer County, by T. A. Hendricks and others.
- Geologic map of the Lehigh district, Coal, Atoka, and Pittsburg Counties, Okla., by M. M. Knechtel and others, 1935. Scale, 1 inch to 1 mile [1:63,360]. 25c.
- The Mount Pleasant coal field, Sanpete County, Utah, by D. C. Duncan, 1944. Scale, 1 inch to 3,000 feet [1:36,000]. Free on application to the Geological Survey, Washington, D. C. 20242.
- *Willow Creek coal area, Lincoln County, Wyo., by D. A. Andrews, 1944. Scale, 1 inch to 4,000 feet [1:48,000].
- Northern Le Flore County, Okla., by M. M. Knechtel, 1944. Scale, 1 inch to 4,000 feet [1:48,000]. 50c.
- The coal fields of King County, Wash., by W. C. Warren, H. Norbirsath, R. M. Grivetti, and S. P. Brown, 1945. Scale, 1 inch to $\frac{1}{2}$ mile [1:31,680]. 50c.
- Coal deposits on Sand and Lookout Mountains, Dade and Walker Counties, Ga., by V. H. Johnson, 1946. Scale, 1 inch to 4,000 feet [1:48,000]. [Reprinted 1959.] 55c.
- Geology of the Paonia coal field, Delta and Gunnison Counties, Colo., by V. H. Johnson, 1948. Scale, 1 inch to 4,000 feet [1:48,000]. 50c.
- Geology of the Coal City and Fairview Basins, Coosa coal field, St. Clair County, Ala., by H. E. Rothrock, 1948. Scale, 1 inch to $\frac{1}{2}$ mile [1:31,680]. 2 sheets, \$1 per set.
- Geology of the Deep River coal field, Chatham, Lee, and Moore Counties, N. C., by J. A. Reinemund, 1949. Scale, 1:24,000, 2 sheets, 60c per set. (See also Professional Paper 246.)
- C-1. Geology and coal deposits of the Jasonville quadrangle, Clay, Greene, and Sullivan Counties, Ind., by C. E. Wier, 1950. Scale, 1:24,000. \$1.
- C-2. Coal resources of Montana, by J. X. Combo, C. N. Holmes, and H. R. Christner, 1950. Scale, 1:500,000. 2 sheets, \$1 per set.
- C-3. Geology of anthracite in the west-central part of the Mount Carmel quadrangle, Pa., by H. E. Rothrock, H. C. Wagner, and B. R. Haley, 1950. Scale, 1:6,000. 3 sheets, \$1.50 per set.
- C-4. Geology and coal resources of the Stonewall-Tercio area, Las Animas County, Colo., by G. H. Wood, R. B. Johnson, and others, 1951. Scale, 1:31,680. 2 sheets, \$1 per set.
- C-5. The Fire Clay and Whitesburg coals in the Hyden quadrangle, Leslie, Clay, and Perry Counties, Ky., by J. E. Johnston and W. E. Heck, 1950. Scale, 1:62,500. \$1.
- C-6. Coal resources map of Wyoming, by H. L. Berryhill, Jr., D. M. Brown, R. N. Burns, and J. X. Combo, 1951. Scale, 1:500,000. \$1.
- C-7. Geology of anthracite in the southwestern part of the Mount Carmel quadrangle, Pa., by H. E. Rothrock, H. C. Wagner, B. R. Haley, and H. H. Arndt, 1951. Scale, 1:6,000. 3 sheets, \$1.50 per set.
- C-8. Geology of the eastern part of the Centralia-Chehalis coal district, Lewis and Thurston Counties, Wash., by P. D. Snavelly, Jr., A. E. Roberts, Linn Hoover, Jr., and M. H. Pease, Jr., 1951. Scale, 1:31,680. 2 sheets, 75c per set. (See also Bulletin 1053.)
- C-9. Geology and coal deposits of the Linton quadrangle, Greene and Sullivan Counties, Ind., by C. E. Wier, 1951. Scale, 1:24,000. \$1.50.
- C-10. Geology of anthracite in the east-central part of the Mount Carmel quadrangle, Pa., by H. E. Rothrock, H. C. Wagner, B. R. Haley, and H. H. Arndt, 1951. Scale, 1:6,000. 3 sheets, \$1.50 per set.
- C-11. Geology and coal deposits of the Dugger quadrangle, Sullivan County, Ind., by F. E. Kottlowski, 1954. Scale, 1:24,000. \$1.50.
- C-12. Geology of anthracite in the southeastern part of the Mount Carmel quadrangle, Pa., by H. E. Rothrock, H. C. Wagner, B. R. Haley, and H. H. Arndt, 1953. Scale, 1:6,000. 3 sheets, \$1.50 per set.

- C-13. Geology of anthracite in the western part of the Ashland quadrangle, Pennsylvania, by B. R. Haley, H. H. Arndt, H. E. Rothrock, and H. C. Wagner. 1953. Scale, 1:12,000. 2 sheets. \$1.50 per set.
- C-14. Geology of anthracite in the eastern part of Ashland quadrangle, Pennsylvania, by B. R. Haley, H. H. Arndt, H. E. Rothrock, and H. C. Wagner. 1954. Scale, 1:12,000. 2 sheets. \$1 per set.
- C-15. Principal coal beds in the Buckhorn quadrangle, Breathitt, Leslie, and Perry Counties, Ky., by P. T. Stafford and K. J. Englund. 1953. Scale, 1:63,360. \$1.
- C-16. Geology and coal deposits of the Hymera quadrangle, Sullivan County, Ind., by C. E. Wier. 1954. Scale, 1:24,000. \$2.
- C-17. Geology and coal deposits of the Shelburn quadrangle, Sullivan County, Ind., by Courtney Waddell. 1954. Scale, 1:24,000. \$1.50.
- C-18. Coal beds of the Troublesome quadrangle, Breathitt, Knott, and Perry Counties, Ky., by A. D. Williamson and W. L. Adkison. 1953. Scale, 1:62,500. \$1.25.
- C-19. Geology of anthracite in the eastern part of the Shenandoah quadrangle, Pennsylvania, by T. M. Kehn and H. C. Wagner. 1955 [1956]. Scale, 1:12,000. 2 sheets. \$1 per set.
- C-20. Coal resources of the La Veta area, Huerfano County, Colo., by R. B. Johnson and J. G. Stephens. 1954. Scale, 1:31,680. 50c.
- C-21. Geology of anthracite in the western part of the Shenandoah quadrangle, Pennsylvania, by Walter Danilchik, H. E. Rothrock, and H. C. Wagner. 1955. Scale, 1:12,000. 2 sheets. \$1 per set.
- C-22. Preliminary coal map of the Cornettsville quadrangle, Perry, Knott, Letcher, Harlan, and Leslie Counties, Ky., by J. E. Johnston, P. T. Stafford, and S. W. Welch. 1955. Scale, 1:62,500. 2 sheets. \$1 per set.
- C-23. Geology and coal resources of the Lake De Smet area, Johnson County, Wyo., by W. J. Mapel. 1954 [1955]. Scale, 1:48,000. 50c. (See also Bulletin 1078.)
- C-24. Geology of the northern part of the Girard coal field, Richland County, Mont., by G. E. Prichard and E. R. Landis. 1955. Scale, 1:48,000. 2 sheets. 75c per set.
- C-25. Geology of anthracite in the western part of the Delano quadrangle, Pennsylvania, by J. A. Maxwell and H. E. Rothrock. 1955 [1956]. Scale, 1:12,000. 2 sheets. \$1 per set.
- C-26. Geology and coal resources of the Gulnare, Cuchara Pass, and Stonewall area, Huerfano and Las Animas Counties, Colo., by G. H. Wood, Jr., R. B. Johnson, and G. H. Dixon. 1956. Scale, 1:31,680. 2 sheets. 75c per set.
- C-27. Geology and coal deposits of the Seelyville quadrangle, Vigo County, Ind., by H. C. Hutchinson. 1958. Lat 39°22'30" to 39°30', long 87°15' to 87°22'30". Scale, 1:24,000. \$1.
- C-28. Geology and coal deposits of the Coal City quadrangle, Greene, Clay and Owen Counties, Ind., by F. E. Kottlowski. 1959 [1960]. Lat 39°07'30" to 39°15', long 87° to 87°07'30". Scale, 1:24,000. \$1.
- C-29. Preliminary geologic map of the Ship Rock and Hogback quadrangles, San Juan County, N. Mex., by E. C. Beaumont. 1955. Scale, 1:48,000. 50c.
- C-30. Preliminary geologic map of the Toadlena quadrangle, San Juan County, N. Mex., by D. L. Ziegler. 1955. Scale, 1:62,500. 50c.
- C-31. Preliminary geologic map of the Naschitti quadrangle, San Juan and McKinley Counties, N. Mex., by R. B. O'Sullivan. 1955. Scale, 1:62,500. 50c.
- C-32. Preliminary geologic map of the Kirtland quadrangle, San Juan County, N. Mex., by E. C. Beaumont and R. B. O'Sullivan. 1955. Scale, 1:62,500. 50c.
- C-33. Uraniferous coal beds in parts of North Dakota, South Dakota, and Montana, by N. M. Denson and others. 1955. Scales, 1:31,680 and 1:63,360. 50c.
- C-34. Geologic map of Cave Hills and Table Mountain area, Harding County, S. Dak., by N. M. Denson, G. O. Bachman, and H. D. Zeller. 1955. Scale, 1:63,360. 50c.
- C-35. Geologic map of the Slim Buttes area, Harding County, S. Dak., by N. M. Denson, G. O. Bachman, and H. D. Zeller. 1955. Scale, 1:63,360. 50c.
- C-36. Geologic map of the southern part of the Slim Buttes area, Harding County, S. Dak., by G. W. Moore and J. R. Gill. 1955. Scale, 1:31,680. 50c.
- C-37. Geologic map of the Bar H area, Slim Buttes, Harding County, S. Dak., by H. D. Zeller. 1955. Scale, 1:20,000. 50c.
- C-38. Preliminary geologic map of the Chalky Buttes area, Slope County, N. Dak., by G. W. Moore, R. E. Melin, and R. C. Kepferle. 1956. Scale, 1:31,680. 50c.
- C-39. Geology and coal resources of the Pioneer quadrangle, Scott and Campbell Counties, Tenn., by K. J. Englund. 1957. Scale, 1:24,000. 75c.
- C-40. Geology and coal resources of the Ivydell quadrangle, Campbell County, Tenn., by K. J. Englund. 1958. Scale, 1:24,000. 75c.
- C-41. Geology and coal deposits of the Switz City quadrangle, Greene County, Ind., by F. E. Kottlowski. 1960. Lat 39° to 39°07'30", long 87° to 87°07'30". Scale, 1:24,000. \$1.
- C-42. Coal resources of the Campton quadrangle, Wolfe, Lee, and Breathitt Counties, Ky., by R. P. Briggs. 1957. Scale, 1:24,000. 75c.
- C-43. Geology of the northern half of the Minersville quadrangle and a part of the northern half of the Tremont quadrangle, Schuylkill County, Pa., by G. H. Wood, Jr., J. P. Trexler, Andy Yelenosky, and Julian Soren. 1958. Scale, 1:12,000. 2 sheets. \$1.50 per set.
- C-44. Geology and coal deposits of the Terre Haute and Dennison quadrangles, Vigo County, Ind., by S. A. Friedman. 1961. Lat 39°22'30" to 39°30', long 87°22'30" to 87°30". Scale, 1:24,000. \$2.
- C-49. Geology and fuels resources of the Orderville-Glendale area, Kane County, Utah, by W. B. Cashion. 1961. Scale, 1:62,500. \$1.

MINERAL INVESTIGATIONS

During World War II and the years immediately preceding it, information was needed quickly concerning the extent and mode of occurrences of domestic deposits of strategic minerals. In order to avoid delays attendant upon formal publication, maps were issued in preliminary form, and accompanying texts were mimeographed. The editions were limited, and many of the maps and reports are no longer available for sale. Some have been superseded by reports and maps in the regular publications of the Geological Survey. Others may be consulted in open files of the Survey, as indicated in Circulars 56, 64, 149, 227, 283, 337, 364, 379, 401, 403, 412, 428, 448, and 463. Circulars 56 and 64 include lists of preliminary reports and maps available for limited distribution. As of February 20, 1950, the series of preliminary maps was superseded by two series of numbered maps--Mineral Investigations Field Studies and Mineral Investigations Resource. These maps may be supplemented by sections, diagrams, charts or tables, and a short text printed at the side of the map; they carry the distinguishing prefix "MF" or "MR" and are primarily interim reports on continuing projects.

PRELIMINARY STRATEGIC MAPS
[Asterisk (*) indicates maps out of print]

- 3-163. Geologic map of the Gouverneur talc district, New York, by James Gilluly. 1945. Scale, 1:48,000. 50c.
- 3-173. Geologic map of the Gateway area, Mesa County, Colo., and adjoining part of Grand County, Utah, by W. L. Stokes, R. T. Russell, R. P. Fischer, and A. P. Butler, Jr. 1945. Scale, 1 inch to 1 mile [1:63,360]. 25c.
- *3-180. Geologic map of the San Manuel area, Arizona, showing approximate outline of ore body, by G. M. Schwartz, D. H. Kupfer, E. E. Gould, and N. P. Peterson. 1945. 5 sheets. Scale, 1 inch to 200 feet [1:2,400]. (See plate 1 of Professional Paper 256.)
- 3-181. Geology of the Crystal Falls-Alpha iron-bearing district, Iron County, Mich., by F. J. Pettijohn and L. D. Clark. 1946. Scale, 1 inch to 12,000 feet [1:144,000]. 50c.
- 3-195. The Midway and Wilcox stratigraphy of Alabama and Mississippi, by F. S. MacNeil. 1946. Scale, 1 inch to 6 miles [1:380,160]. 50c.
- 3-197. High-alumina clays of the Santa Ana Mountain region, California, by C. R. Stauffer. 1945 [1946]. Scale, 1 inch to 1 mile [1:63,360]. 25c.
- 3-198. Map of Permian phosphate deposits of Montana, Wyoming, Idaho, and Utah, by P. S. Clabaugh. 1946. Scale, 1 inch to 16 miles [1:1,013,760]. [Reprinted 1954]. 30c.
- 3-211. Geologic and topographic map, eastern Gallinas Mountains, Lincoln County, N. Mex., by V. C. Kelley. 1947. Scale, 1 inch to $\frac{1}{2}$ mile [1:15,840]. [Reprinted 1956.] 30c.
- *3-212. Iron-ore deposits of the Western United States, by C. E. Dutton and M. S. Carr. 1947. Scale, 1:5,000,000.
- 3-213. Magnetic survey and geology of the Ice Lake-Chicagon Creek area, Iron County, Mich., by H. L. James, L. D. Clark, and L. E. Smith. 1947. 6 plates. \$1.10.
- 3-226. Vanadium region of southwestern Colorado and southeastern Utah, by R. P. Fischer. 1944. Scale, 1 inch to nearly 3 miles [1:187,500]. 30c.
- The Arkansas bauxite district, Saline and Pulaski Counties, by R. P. Bryson and Mackenzie Gordon, Jr. 1944. Scale, 1:48,000. 50c. (See also Professional Paper 299.)
- *Harry workings, New Almaden mine, Santa Clara County, Calif., by R. E. Brown and others. 1944. Scale, 1:480. 3 plates.
- Zinc-lead deposits in part of the Picher field, Ottawa County, Okla., and Cherokee County, Kans., by E. T. McKnight, R. P. Fischer, and others. 1944. 6 sheets. Scale, 1 inch to 500 feet [1:6,000]. \$2 per set.
- Geologic and topographic map of the eastern part of the Matanuska Valley coal field, Alaska, by Ralph Tuck, T. N. Scott, F. F. Barnes, and F. M. Byers, Jr. 1945. Scale, 1 inch to 500 feet [1:6,000]. 50c.
- *Geologic and topographic map and sections of the Katalla area, Alaska, by D. J. Miller, D. L. Rossman, and C. A. Hickox. 1945. Scale, 1 inch to $\frac{1}{2}$ mile [1:31,680].
- Geologic map of the Yellow Pine district, Valley County, Idaho, by D. E. White. 1945. Scale, 1:48,000. 20c.
- Geology and oil possibilities of the southwestern part of the Wide Bay anticline, Alaska, by L. B. Kellum, S. N. Daviss, and C. M. Swinney. 1945. Sections and geol. map (scale, 1:48,000). 60c per set. (Accompanying 17 p. pamphlet is out of print.)
- Surface geology of the Pine Creek area, Shoshone County, Idaho, by V. E. Nelson, J. F. Smith, Jr., and others. 1945. Scale, 1 inch to 1,000 feet [1:12,000]. 60c.
- Geologic map of Fort Knox and vicinity, by L. L. Ray, A. P. Butler, Jr., and C. S. Denny. 1946. Scale, 1:50,000. 25c.

FIELD STUDIES MAPS

[Distinguishing prefix, "MF"]

- MF-1. Geologic map of the central part of the Batesville manganese district, Independence and Izard Counties, Ark., by J. A. Straczek and D. M. Kinney. 1950 [1951]. Lat 35°47'30" to 30°55', long 91°32'30" to 91°50'. Scale, 1:31,680. Contour interval, 20 feet, 50c.
- MF-2. Geologic map of the western Kentucky fluorspar district, by Stuart Weller and A. H. Sutton. 1951. Lat 37° to 37°30', long 88° to 88°30'. Scale, 1:62,500. Contour interval, 20 feet, 50c.

- MF-3. Geologic structure map of the Beetown lead-zinc area, Grant County, Wis., by A. V. Heyl, Jr., E. J. Lyons, and J. J. Theiler. 1952. Scale, 1:12,000. 40c.
- MF-4. Geologic map of bastnaesite deposits of the Birthday claims, San Bernardino County, Calif., by W. N. Sharp and L. C. Pray. 1952. Scale, 1:600. Contour interval, 5 feet. 75c.
- MF-5. Manganese, iron, and barite deposits of the James River-Roanoke River district, Virginia, by G. H. Espenshade. 1952. Lat 37°05' to 37°45', long 78°40' to 79°25'. Scale, 1:96,000. 75c.
- MF-6. Magnetite deposits and magnetic anomalies of the Brandy Brook and Silver Pond belts, St. Lawrence County, N. Y., by B. F. Leonard. 1952. 35c.
- MF-7. Geologic map of the Barnes Hill talc prospect, Waterbury, Vt., by A. H. Chidester, G. W. Stewart, and D. C. Morris. 1952. Scale, 1:1,200. Contour interval, 5 feet. 40c.
- MF-8. Geologic map of the Rousseau talc prospect, Cambridge, Vt., by A. H. Chidester, G. W. Stewart, and D. C. Morris. 1952. Scale, 1:1,200. 40c.
- MF-9. Geologic map of the Lake Valley manganese district, Sierra County, N. Mex., by S. C. Creasey and A. E. Granger. 1953. Scale, 1:2,400. Contour interval, 10 feet. 50c.
- MF-10. Magnetite deposits and magnetic anomalies of the Spruce Mountain tract, St. Lawrence County, N. Y., by B. F. Leonard. 1953. Scale, 1:6,000. 50c.
- MF-11. Geology of the talc deposits, Sterling Pond area, Stowe, Vt., by A. H. Chidester. 1953. Scale, 1:75,000. Contour interval, 10 feet. 50c.
- MF-12. Geologic map of the Pando area, Eagle and Summit Counties, Colo., by Ogden Tweto. 1953. [1954]. Lat 39°25' to 39°30', long 106°12'30" to 106°22'30". Scale, 1:14,400. Contour interval, 50 feet. \$2.50.
- MF-13. Geology of the Noringate fluorspar district, Colorado, by T. A. Steven. 1954. Scale, 1:24,000. 2 sheets. \$1.50 per set. (See also Bulletin 1082-F).
- MF-14. Geology and iron ore deposits of the Granite Mountain area, Iron County, Utah, by J. Hoover Mackin. 1954. Lat 37°42' to 37°45', long 113°12'30" to 113°17'30". Scale, 1:12,000. Contour interval, 20 feet. \$1.
- MF-15. Geology and zinc-lead-barite deposits in the area east of Cuba City, Wis., by A. F. Agnew, A. E. Flint, and R. P. Crumpton. 1954. Scale, 1:12,000. 75c.
- MF-16. Preliminary geologic map showing the distribution of uranium deposits and principal ore-bearing formations of the Colorado Plateau region, compiled by W. I. Finch. 1955. Lat 35° to 40°, long 107° to 113°. Scale, 1:500,000. 50c.
- MF-17--MF-32. Preliminary geologic maps. Scale, 1:24,000. 25c each.
- MF-17. Red Canyon quadrangle, Colorado, by E. J. McKay. 1954. Lat 38°22'30" to 38°30', long 108°45' to 108°52'30". [See GQ-58.]
- MF-18. Atkinson Creek quadrangle, Colorado, by E. J. McKay and D. A. Jobin. 1954. Lat 38°22'30" to 38°30', long 108°37'30" to 108°45'. [See GQ-57.]
- MF-19. Gypsum Gap quadrangle, Colorado, by F. W. Cater, Jr. 1954 [1955]. Lat 38° to 38°07'30", long 108°37'30" to 108°45'. [See GQ-59.]
- MF-20. Pine Mountain quadrangle, Colorado, by F. W. Cater, Jr. 1954. Lat 38°37'30" to 38°45', long 108°45' to 108°52'30". [See GQ-60.]
- MF-21. Hamm Canyon quadrangle, Colorado, by F. W. Cater, Jr. 1955. Lat 38° to 38°07'30", long 108°45' to 108°52'30". [See GQ-69.]
- MF-22. Paradox quadrangle, Colorado, by C. F. Withington. 1955. Lat 38°15' to 38°22'30", long 108°52'30" to 109°. [See GQ-72.]
- MF-23. Roc Creek quadrangle, Colorado, by E. M. Shoemaker. 1955. Lat 38°22'30" to 38°30', long 108°52'30" to 109°. 50c. [See GQ-83.]
- MF-24. Uravan quadrangle, Colorado, by F. W. Cater, Jr., and E. J. McKay. 1955. Lat 38°15' to 38°22'30", long 108°37'30" to 108°45'. 50c. [See GQ-78.]
- MF-25. Anderson Mesa quadrangle, Colorado, by F. W. Cater, Jr. 1955. Lat 38°07'30" to 38°15', long 108°52'30" to 109°. 50c. [See GQ-77.]
- MF-26. Egnar quadrangle, Colorado, by F. W. Cater, Jr. 1955. Lat 37°52'30" to 38°, long 108°52'30" to 109°. [See GQ-68.]
- MF-27. Joe Davis Hill quadrangle, Colorado, by F. W. Cater, Jr. 1955. Lat 37°52'30" to 38°, long 108°45' to 108°52'30". [See GQ-66.]
- MF-28. Juanita Arch quadrangle, Colorado, by E. M. Shoemaker. 1955. Lat 38°30' to 38°37'30", long 108°52'30" to 109°. 50c. [See GQ-81.]
- MF-29. Horse Range Mesa quadrangle, Colorado, by F. W. Cater, Jr. 1954 [1955]. Lat 38° to 38°07'30", long 108°52'30" to 109. [See GQ-64.]
- MF-30. Naturita NW quadrangle, Colorado, by F. W. Cater, Jr. 1955. Lat 38°07'30" to 38°15', long 108°37'30", to 108°45'. [See GQ-65.]
- MF-31. Davis Mesa quadrangle, Colorado, by F. W. Cater, Jr., and E. J. McKay. 1955. Lat 38°15' to 38°22'30", long 108°45' to 108°52'30". [See GQ-71.]
- MF-32. Calamity Mesa quadrangle, Colorado, by F. W. Cater, Jr. 1955. Lat 38°30' to 38°37'30", long 108°45' to 108°52'30". [See GQ-61.]
- MF-33. Geology and zinc-lead deposits in the Durango area, Dubuque County, Iowa, by A. E. Flint and C. E. Brown. 1955. Scale, 1:12,000. 50c.
- MF-34. Geologic map of the Tennessee Pass area, Eagle and Lake Counties, Colo., by Ogden Tweto. 1956. Lat 39°20' to 39°25', long 106°15' to 106°22'30". Scale, 1:14,400. Contour interval, 50 feet. \$3.50.
- MF-35. Geologic map of the Gabbs magnesite and brucite deposits, Nye County, Nev., by C. J. Vitaliano and Eugene Callaghan. 1956. Scale, 1:2,400. Contour interval, 10 feet. \$1.75.
- MF-36. Bentonite deposits of the northern Black Hills district, Montana-Wyoming, and South Dakota, by M. M. Knechtel and S. H. Patterson. 1955 [1956]. Scale, 1:48,000. 2 sheets. \$1.50 per set.

- MF-37. Geologic and radiometric maps of the McKinley Mountain area, Wet Mountains, Colorado, by Q. D. Singewald and others. 1955. Lat 38°14' to 38°16', long 105°17' to 105°22'. Scale, 1:7,200. Contour interval, 100 feet. 4 sheets. \$1 per set.
- MF-38. Preliminary geologic map of southwestern Oregon west of meridian 122° west and south of parallel 43° north, by F. G. Wells. 1955. Lat 42° to 43°, long 122° to 124°20'. Scale, 1:250,000. 50c.
- MF-39. Map showing distribution and occurrences of uranium deposits in part of the Edgemont mining district, Fall River County, S. Dak., by W. A. Braddock. 1955. Lat 43°17'30" to 43°25', long 103°37'30" to 103°52'30". Scale, 1:48,000. 50c.
- MF-40. Zinc and lead deposits of the Sinsinawa River area, Grant County, Wis., by J. W. Allingham, A. E. Flint, and A. F. Agnew. 1955. Scale, 1:12,000. 50c.
- MF-41. Preliminary geologic map of the Paris-Bloomington vanadium area, Bear Lake County, Idaho, by V. E. McKelvey and J. D. Strobell, Jr. 1955. Scales, 1:12,000 and 1:4,800. Contour interval, 20 feet. 4 sheets, 60c per set.
- MF-42. Geology and zinc-lead deposits in the Couler Valley area, Dubuque County, Iowa, by C. E. Brown, L. G. Collins, and Percy Crosby. 1955. Scale, 1:12,000. 50c.
- MF-43. Geologic map of the Chassell quadrangle, Michigan, by W. S. White. 1956. Lat 47° to 47°07'30", long 88°30' to 88°37'30". Scale, 1:24,000. 50c.
- MF-44. Geologic map of the Triangle A pegmatite, Custer County, S. Dak., by A. J. Lang, Jr. 1955 [1956]. Scale, 1:600. Contour interval, 10 feet. 50c.
- MF-45. Preliminary geologic map of the Allens Ranch quadrangle, Utah, by P. D. Proctor and others. 1956. Lat 40° to 40°07'30", long 112° to 112°07'30". Scale, 1:12,000. 50c.
- MF-46. Geologic map of the Hancock quadrangle, Michigan, by H. R. Cornwall and J. C. Wright. 1956. Lat 47°07'30" to 45°15', long 88°30' to 88°37'30". Scale, 1:24,000. Contour interval, 20 feet. 50c.
- MF-47. Geologic map of the Laurium quadrangle, Michigan, by H. R. Cornwall and J. C. Wright. 1956. Lat 47°07'30" to 47°05', long 88°22'30" to 88°30". Scale, 1:24,000. Contour interval, 20 feet. 50c.
- MF-48. Geologic map of the South Range quadrangle, Michigan, by W. S. White and J. C. Wright. 1956. Lat 47° to 47°07'30", long 88°37'30" to 88°45'. Scale, 1:24,000. Contour interval, 20 feet. 50c.
- MF-49. Preliminary geologic map of the Aldrich Mountain quadrangle, Oregon, by T. P. Thayer. 1956. Lat 44°15' to 44°30', long 119°15' to 119°30'. Scale, 1:62,500. 50c.
- MF-50. Preliminary geologic map of the Mt. Vernon quadrangle, Oregon, by T. P. Thayer. 1956. Lat 44°15' to 44°30', long 119° to 119°15'. Scale, 1:62,500. 50c.
- MF-51. Preliminary geologic map of the John Day quadrangle, Oregon, by T. P. Thayer. 1956. Lat 44°15' to 44°30', long 118°45' to 119°. Scale, 1:62,500. 50c.
- MF-52. Geology of Gabbs and vicinity, Nye County, Nev., by C. J. Vitaliano, Eugene Callaghan, and N. L. Silberling. 1957. Lat 38°50' to 39°00', long 117°50' to 117°55'. Scale, 1:24,000. Contour interval, 40 feet. \$1.
- MF-53. Map of bedrock geology of Magnet Cove igneous area, Hot Spring County, Ark., by R. L. Erickson and L. V. Blade. 1956. Scale, 1:6,000. 50c.
- MF-54. Uranium and vanadium deposits of the Colorado Plateau that produced more than 1,000 tons of ore through June 30, 1955, by R. T. Chew, 3d. 1956. Lat 35° to 40°, long 107° to 113'. Scale, 1:750,000. 50c.
- MF-55--MF-78 (except MF-76). Preliminary geologic maps. Scale, 1:7,200. Contour interval, 10 feet. 50c each.
- MF-55. Northwest part of the Edgemont NE quadrangle, Custer and Fall River Counties, S. Dak., by G. B. Gott and R. W. Schnabel. 1956. Lat 43°27'30" to 43°30', long 103°48'45" to 103°52'30".
- MF-56. Northeast part of the Edgemont NE quadrangle, Custer and Fall River Counties, S. Dak., by G. B. Gott and R. W. Schnabel. 1956. Lat 43°27'30" to 43°30', long 103°45' to 103°48'45".
- MF-57. East-central part of the Edgemont NE quadrangle, Fall River County, S. Dak., by G. B. Gott and R. W. Schnabel. 1956. Lat 43°25' to 43°27'45", long 103°45' to 103°48'45".
- MF-58. West-central part of the Edgemont NE quadrangle, Fall River County, S. Dak., by G. B. Gott and R. W. Schnabel. 1956. Lat 43°25' to 43°27'45", long 103°48'45" to 103°52'30".
- MF-59. Southwest part of the Edgemont NE quadrangle, Fall River County, S. Dak., by G. B. Gott and R. W. Schnabel. 1956. Lat 43°22'30" to 43°25', long 103°48'45" to 103°52'30".
- MF-60. Southeast part of the Edgemont NE quadrangle, Fall River County, S. Dak., by G. B. Gott and R. W. Schnabel. 1956. Lat 43°22'30" to 43°25', long 103°45' to 103°48'45".
- MF-61. Northwest part of the Flint Hill quadrangle, Fall River County, S. Dak., by Henry Bell and E. V. Post. 1957. Lat 43°20' to 43°22'30", long 103°41'15" to 103°45".
- MF-62. Northeast part of the Flint Hill quadrangle, Fall River County, S. Dak., by Henry Bell and E. V. Post. 1957. Lat 43°20' to 43°22'30", long 103°37'30" to 103°41'15".
- MF-63. East-central part of the Flint Hill quadrangle, Fall River County, S. Dak., by Henry Bell and E. V. Post. 1957. Lat 43°17'30" to 43°20', long 103°37'30" to 103°41'15".
- MF-64. West-central part of the Flint Hill quadrangle, Fall River County, S. Dak., by Henry Bell and E. V. Post. 1957. Lat 43°17'30" to 43°20', long 103°41'15" to 103°45".
- MF-65. Southwest part of the Flint Hill quadrangle, Fall River County, S. Dak., by Henry Bell and E. V. Post. 1957. Lat 43°15' to 43°17'30", long 103°41'15" to 103°45".
- MF-66. Southeast part of the Flint Hill quadrangle, Fall River County, S. Dak., by Henry Bell and E. V. Post. 1957. Lat 43°15' to 43°17'30", long 103°37'30" to 103°41'15".
- MF-67. West-central part of the Minnekahta quadrangle, Fall River County, S. Dak., by V. R. Wilmarth and R. D. Smith. 1957. Lat 43°25' to 43°27'30", long 103°41'15" to 103°45".
- MF-68. East-central part of the Minnekahta quadrangle, Fall River County, S. Dak., by V. R. Wilmarth and R. D. Smith. 1957. Lat 43°25' to 43°27'30", long 103°37'30" to 103°41'15".
- MF-69. Southeast part of the Minnekahta quadrangle, Fall River County, S. Dak., by V. R. Wilmarth and R. D. Smith. 1957. Lat 43°22'30" to 43°25', long 103°37'30" to 103°41'15".

- MF-70. Southwest part of the Minnekahta quadrangle, Fall River County, S. Dak., by V. R. Wilmarth and R. D. Smith, 1957. Lat 43°22'30" to 43°25', long 103°41'15" to 103°45'.
- MF-71. West-central part of the Burdock quadrangle, Fall River County, S. Dak., by R. W. Schnabel and L. J. Charlesworth, Jr. 1958. Lat 43°25' to 43°27'30", long 103°57'30" to 104°.
- MF-72. Northeast part of the Burdock quadrangle, Fall River and Custer Counties, S. Dak., by R. W. Schnabel and L. J. Charlesworth, Jr. 1958. Lat 43°27'30" to 43°30', long 103°52'30" to 103°55'.
- MF-73. Northwest part of the Burdock quadrangle, Fall River and Custer Counties, S. Dak., by R. W. Schnabel and L. J. Charlesworth, Jr. 1958. Lat 43°27'30" to 43°30', long 103°57'30" to 104°.
- MF-74. East-central part of the Burdock quadrangle, Fall River County, S. Dak., by R. W. Schnabel, 1958. Lat 43°25' to 43°27'30", long 103°52'30" to 103°55'.
- MF-75. Southeast part of the Burdock quadrangle, Fall River and Custer Counties, S. Dak., by R. W. Schnabel and L. J. Charlesworth, Jr. 1958. Lat 43°22'30" to 43°25', long 103°52'30" to 103°55'.
- MF-77. Northeast part of the Dewey quadrangle, Custer County, S. Dak., and Weston County, Wyo., by D. A. Brobst, 1958. Lat 43°35' to 43°37'30", long 104° to 104°02'30". Contour interval, 20 feet.
- MF-78. East-central part of the Dewey quadrangle, Custer County, S. Dak., by D. A. Brobst, 1958. Lat 43°32'30" to 43°35', long 104°00' to 104°02'30". Contour interval, 20 feet.
- MF-76. Geologic map of the Lancaster quadrangle, Los Angeles County, Calif., by T. W. Dibblee, Jr. 1960 [1961]. Lat 34°30' to 34°45', long 118° to 118°15'. Scale, 1:62,500. Contour interval, 40 feet. 50c.
- MF-79. Geologic map of the Bouquet Reservoir quadrangle, Los Angeles County, Calif., by T. W. Dibblee, Jr. 1961. Lat 34°30' to 34°45', long 118°15' to 118°30'. Scale, 1:62,500. Contour interval, 80 feet. 50c.
- MF-80. Preliminary geologic map of Lyon, Douglas, Ormsby, and part of Washoe Counties, Nev., by J. G. Moore. 1961. Lat 38°30' to 39°30', long 118°45' to 120°. Scale, 1:200,000. Contour interval, 200 feet. 50c.
- MF-81. Preliminary geologic map of the Pinal Ranch quadrangle, Arizona, by N. P. Peterson. 1961. Lat 33°15' to 33°22'30", long 110°52'30" to 111°. Scale, 1:24,000. Contour interval, 25 feet. 50c.
- MF-82. Reconnaissance geologic map of the Izee and Logdell quadrangles, Oregon, by R. E. Wallace and J. A. Calkins, 1956. Lat 44° to 44°15', long 119° to 119°30'. Scale, 1:62,500. 50c.
- MF-83. Preliminary geologic map of the Gas Hills uranium district, Fremont and Natrona Counties, Wyo., by H. D. Zeller, P. E. Soister, and H. J. Hyden. 1956. Lat 42°45' to 42°52'30", long 107°30' to 107°45'. Scale, 1:31,680. 2 sheets. 75c per set.
- MF-84--MF-96. Preliminary geologic maps. Scale, 1:24,000. Contour interval, 40 feet. 50c each.
- MF-84. Boot Mesa NW quadrangle, Arizona-Utah, by I. J. Witkind and others. 1957. Lat 36°52'30" to 37°, long 110°22'30" to 110°30'.
- MF-85. Boot Mesa NE quadrangle, Arizona-Utah, by I. J. Witkind and others. 1957. Lat 36°52'30" to 37°, long 110°15' to 110°22'30'.
- MF-86. Boot Mesa SE quadrangle, Arizona, by I. J. Witkind and others. 1957. Lat 36°45' to 36°52'30", long 110°15' to 110°22'30'.
- MF-87. Boot Mesa SW quadrangle, Arizona, by I. J. Witkind and others. 1957. Lat 36°45' to 36°52'30", long 110°22'30" to 110°30'.
- MF-88. Agathla Peak NW quadrangle, Arizona-Utah, by I. J. Witkind and others. 1957. Lat 36°52'30" to 37°, long 110°07'30" to 110°15'.
- MF-89. Agathla Peak NE quadrangle, Arizona-Utah, by I. J. Witkind and others. 1957. Lat 36°52'30" to 37°, long 110° to 110°07'30'.
- MF-90. Agathla Peak SE quadrangle, Arizona, by I. J. Witkind and others. 1957. Lat 36°45' to 36°52'30", long 110° to 110°07'30'.
- MF-91. Agathla Peak SW quadrangle, Arizona, by I. J. Witkind and others. 1957. Lat 36°45' to 36°52'30", long 110°07'30" to 110°15'.
- MF-92. Dinnehotsso NW quadrangle, Arizona-Utah, by I. J. Witkind and others. 1956 [1957]. Lat 36°52'30" to 37°, long 109°52'30" to 110°.
- MF-93. Dinnehotsso NE quadrangle, Arizona-Utah, by I. J. Witkind and others. 1956 [1957]. Lat 36°52'30" to 37°, long 109°52'30" to 110°.
- MF-94. Dinnehotsso SE quadrangle, Arizona, by I. J. Witkind and others. 1956 [1957]. Lat 36°45' to 36°52'30", long 109°45' to 109°52'30'.
- MF-95. Dinnehotsso SW quadrangle, Arizona, by I. J. Witkind and others. 1956 [1957]. Lat 36°45' to 36°52'30", long 109°52'30" to 110°.
- MF-96. Placerville quadrangle, Colorado, by A. L. Bush, C. S. Bromfield, and C. T. Pierson. 1956. Lat 38° to 38°07'30", long 108° to 108°07'30'.
- MF-97. Geology of the Bakersville-Plumtree area, Spruce Pine district, North Carolina, by J. L. Kulp and D. A. Brobst, 1956. Approx. coordinates, Lat 35°57'30" to 36°02'30", long 82° to 82°10'. Scale, 1:24,000. Contour interval, 500 feet. 50c.
- MF-98. Preliminary geologic map of the Pumpkin Buttes area, Campbell and Johnson Counties, Wyo., showing location of uranium occurrences, by W. N. Sharp and A. M. White. 1957. Lat 43°50' to 44°, long 105°45'00" to 106°07'30". Scale, 1:24,000. Contour interval, 20 feet. 3 sheets. \$1 per set.
- MF-99. Bedrock geology at the south-central part of the North Range, Cuyuna district, Minnesota, by R. G. Schmidt and C. E. Dutton. 1957. Scale, 1:7,200. 3 sheets. 75c per set.
- MF-100--MF-115. Preliminary geologic maps, by J. F. Smith, Jr., L. C. Huff, E. N. Hinrichs, and R. G. Luedke. 1957. Scale, 1:24,000. Contour interval, 40 feet. 50c each.
- MF-100. Loa 1 NE quadrangle, Utah. Lat 38°22'30" to 38°30', long 111°30' to 111°37'30'.
- MF-101. Loa 1 SE quadrangle, Utah. Lat 38°15' to 38°22'30", long 111°30' to 111°37'30'.
- MF-102. Loa 4 NE quadrangle, Utah. Lat 38°07'30" to 38°15', long 111°30' to 111°37'30'.

- MF-103. Notom 1 SW quadrangle, Utah, Lat 38°15' to 38°22'30", long 111°07'30" to 111°15'.
 MF-104. Notom 2 NE quadrangle, Utah, Lat 38°22'30" to 38°30', long 111°15' to 111°22'30".
 MF-105. Notom 2 NW quadrangle, Utah, Lat 38°22'30" to 38°30', long 111°22'30" to 111°30'.
 MF-106. Notom 2 SW quadrangle, Utah, Lat 38°15' to 38°22'30", long 111°22'30" to 111°30'.
 MF-107. Notom 2 SE quadrangle, Utah, Lat 38°15' to 38°22'30", long 111°15' to 111°22'30".
 MF-108. Notom 3 NE quadrangle, Utah, Lat 38°07'30" to 38°15', long 111°15' to 111°22'30".
 MF-109. Notom 3 NW quadrangle, Utah, Lat 38°07'30" to 38°15', long 111°22'30" to 111°30'.
 MF-110. Notom 3 SW quadrangle, Utah, Lat 38° to 38°07'30", long 111°22'30" to 111°30'.
 MF-111. Notom 3 SE quadrangle, Utah, Lat 38° to 38°07'30", long 111°15' to 111°22'30".
 MF-112. Notom 4 NE quadrangle, Utah, Lat 38°07'30" to 38°15', long 111° to 111°07'30".
 MF-113. Notom 4 NW quadrangle, Utah, Lat 38°07'30" to 38°15', long 111°07'30" to 111°15'.
 MF-114. Notom 4 SW quadrangle, Utah, Lat 38° to 38°07'30", long 111°07'30" to 111°15'.
 MF-115. Notom 4 SE quadrangle, Utah, Lat 38° to 38°07'30", long 111° to 111°07'30".
- MF-116. Geology and zinc-lead deposits in the Catfish Creek area, Dubuque County, Iowa, by C. E. Brown, J. W. Whitlow, and Percy Crosby, 1957. Scale, 1:12,000. 50c.
- MF-117. Preliminary geologic map and sections of the magnesite belt, Stevens County, Wash., by Ian Campbell and J. S. Loofbourou, 1957. Scale, 1:36,000. Contour interval, 100 feet. 50c.
- MF-118. Preliminary geologic map of the Snowdrift Mountain quadrangle, Caribou County, Idaho, by E. R. Cressman, 1957. Lat 42°30' to 42°37'30", long 111°07'30" to 111°15'. Scale, 1:24,000. Contour interval, 20 feet. 50c.
- MF-119. Geologic map of anorthosite areas, southern part of Laramie Range, Wyo., by W. H. Newhouse and A. F. Hagner, 1957. Lat 41°20' to 41°55', long 105°12' to 105°30'. Scale, 1:63,360. 50c.
- MF-120. Uranium deposits and principal ore-bearing formations of the central Cordilleran foreland region, by T. L. Finnell and I. S. Parrish, 1958. Lat 40° to 48°, long 101° to 111°. Approximate scale, 1:750,000. 2 sheets. 75c per set. (See also Bulletin 1087-1.)
- MF-121. Preliminary geologic map of the Hulett Creek uranium mining area, Crook County, Wyo., by C. S. Robinson and H. D. Goode, 1957. Scale, 1 inch to 500 feet [1:6,000]. Contour interval, 10 feet. 50c.
- MF-122--MF-124. Preliminary geologic maps, 1957. Scale, 1:24,000. Contour interval, 40 feet. 50c each.
- MF-122. Sections of the western part of the Gateway district, Mesa County, Colo., and Grand County, Utah, by L. J. Eicher, D. C. Hedlund, and G. A. Miller. Lat 38°36'15" to 38°45', long 109° to 109°10'.
- MF-123. Mount Peale 1 SE quadrangle, Montrose County, Colo., and San Juan County, Utah, by W. D. Carter and J. L. Gualtieri. Lat 38°15' to 38°22'30", long 109° to 109°07'30".
- MF-124. Mount Peale 1 SW quadrangle, San Juan County, Utah, by W. D. Carter and J. L. Gualtieri. Lat 38°15' to 38°22'30", long 109°07'30" to 109°15'.
- MF-125--MF-130. Preliminary tectonic maps, showing distribution of uranium deposits, compiled by F. W. Osterwald and B. A. Dean. Scale, 1:500,000. 50c each.
- MF-125. Western North Dakota, 1957. Lat 46° to 49°, long 101° to 104°.
- MF-126. Eastern Montana, 1958. Lat 47° to 49°, long 105° to 107°. 2 sheets. 50c per set.
- MF-127. Wyoming east of the overthrust belt, 1958. Lat 41° to 45°, long 104° to 111°.
- MF-128. Western South Dakota, 1957. Lat 43° to 45°55', long 101° to 104°.
- MF-129. Western Nebraska and northwestern Kansas, 1958. Lat 42° to 43°, long 101° to 104°. 2 sheets. 50c per set.
- MF-130. Northern Colorado and northeastern Utah, 1958. Lat 40° to 41°, long 107° to 111°. 2 sheets. 50c per set.
- MF-131--MF-135. Preliminary geologic maps, 1957. Scale, 1:24,000. (Except as otherwise indicated,) 50c each.
- MF-131. Fivemile Pass quadrangle, Tooele and Utah Counties, Utah, by A. E. Disbrow. Lat 40°07'30" to 40°15', long 112°07'30" to 112°15'. Contour interval, 25 feet.
- MF-132. Sentinel Peak NW quadrangle, Montezuma County, Colo., by E. B. Ekren and F. N. Houser. Lat 37°07'30" to 37°15', long 108°52'30" to 109°.
- MF-133. Laguna 4 NW quadrangle, Bernalillo, Sandoval, and Valencia Counties, N. Mex., by R. H. Moench and W. P. Puffett. Lat 35°07'30" to 35°15', long 107°07'30" to 107°15'.
- MF-134. Laguna 4 SW quadrangle, Bernalillo and Valencia Counties, N. Mex., by R. H. Moench and W. P. Puffett. Lat 35° to 35°07'30", long 107°07'30" to 107°15'.
- MF-135. Part of the Turtle Lake quadrangle, Lincoln and Stevens Counties, Wash., by G. E. Becraft and P. L. Weis. Lat 47°45' to 48°, long 118° to 118°15'. Scale, 1:48,000. Contour interval, 40 feet.
- MF-136. Geologic map and sections of the Pioche Hills, Lincoln County, Nev., by C. F. Park, Jr., Paul Gemmill, and C. M. Tschanz, 1958. Scale, 1:12,000. Contour interval, 25 feet. 50c.
- MF-137. Preliminary geologic map of the Leadpoint quadrangle, Stevens County, Wash., by R. G. Yates and J. F. Robertson, 1958. Lat 48°52'30" to 49°, long 117°30' to 117°37'30". Scale, 1:24,000. Contour interval, 40 feet. 50c.
- MF-138. Geologic map of Clark County, Nev., by Ben Bowyer, E. H. Pampeyan, and C. R. Longwell, 1958. Lat 35° to 36°45', long 114°45' to 115°45'. Scale, 1:200,000. Contour interval, 500 feet. 50c.
- MF-139--MF-158. Preliminary geologic maps. Scale, 1:24,000. Contour interval, 40 feet. 50c each.
- MF-139. Mount Peale 1 NE quadrangle, San Juan County, Utah, and Montrose County, Colo., by W. D. Carter, J. L. Gualtieri, and E. M. Shoemaker, 1958. Lat 38°22'30" to 38°30', long 109° to 109°07'30".
- MF-140. Mount Peale 1 NW quadrangle, San Juan County, Utah, by W. D. Carter and J. L. Gualtieri, 1958. Lat 38°22'30" to 38°30', long 109°07'30" to 109°15'.

- MF-141. and sections of the Mount Peale 2 NE quadrangle, San Juan County, Utah, by G. W. Weir and W. P. Puffett, 1960 [1961]. Lat 38°22'30" to 38°30', long 109°15' to 109°22'30".
- MF-142. Mount Peale 2 SW quadrangle, San Juan County, Utah, by G. W. Weir and V. C. Kennedy, 1958. Lat 38°15' to 38°22'30", long 109°22'30" to 109°30'.
- MF-143. and section of the Mount Peale 2 SE quadrangle, San Juan County, Utah, by G. W. Weir, C. L. Dodson, and W. P. Puffett, 1960. Lat 38°15' to 38°22'30", long 109°15' to 109°22'30".
- MF-144. Mount Peale 3 NW quadrangle, San Juan County, Utah, by G. W. Weir and C. L. Dodson, 1958. Lat 38°07'30" to 38°15', long 109°22'30" to 109°30".
- MF-145. Mount Peale 3 NE quadrangle, San Juan County, Utah, by G. W. Weir and C. L. Dodson, 1958. Lat 38°07'30" to 38°15', long 109°15' to 109°22'30".
- MF-146. Mount Peale 3 SW quadrangle, San Juan County, Utah, by G. W. Weir and C. L. Dodson, 1958. Lat 38° to 38°07'30", long 109°22'30" to 109°30".
- MF-147. Mount Peale 3 SE quadrangle, San Juan County, Utah, by G. W. Weir and C. L. Dodson, 1958. Lat 38° to 38°07'30", long 109°15' to 109°22'30".
- MF-148. Mount Peale 4 SW quadrangle, San Juan County, Utah, by G. W. Weir and C. L. Dodson, 1958. Lat 38° to 38°07'30", long 109°07'30" to 109°15'.
- MF-149. Mount Peale 4 SE quadrangle, San Juan County, Utah, and San Miguel County, Colo., by G. W. Weir and W. P. Puffett, 1960 [1961]. Lat 38° to 38°07'30", long 109° to 109°07'30".
- MF-150. and section of the Mount Peale 4 NE quadrangle, San Juan County, Utah, and Montrose and San Miguel Counties, Colo., by G. W. Weir, W. D. Carter, W. P. Puffett, and J. L. Gualtieri, 1960 [1961]. Lat 38°07'30" to 38°15', long 109° to 109°07'30".
- MF-151. and section of the Mount Peale 4 NW quadrangle, San Juan County, Utah, by G. W. Weir, W. P. Puffett, and C. L. Dodson, 1961. Lat 38°07'30" to 38°15', long 109°07'30" to 109°15'.
- MF-152. and section of the Mount Peale 2 NW quadrangle, San Juan County, Utah, by G. W. Weir, V. C. Kennedy, W. P. Puffett, and C. L. Dodson, 1961. Lat 38°22'30" to 38°30' long 109°22'30" to 109°30'.
- MF-153. Circle Cliffs 1 NE quadrangle, Garfield County, Utah, by E. S. Davidson and R. A. Cadigan, 1959. Lat 37°52'30" to 38°, long 111° to 111°07'30".
- MF-154. Circle Cliffs 1 NW quadrangle, Garfield County, Utah, by L. D. Carswell and E. S. Davidson, 1958. Lat 37°52'30" to 38°, long 111°07'30" to 111°15'.
- MF-155. Circle Cliffs 1 SW quadrangle, Garfield County, Utah, by L. D. Carswell, E. S. Davidson, and G. A. Miller, 1958. Lat 37°45' to 37°52'30", long 111°07'30" to 111°15'.
- MF-156. Circle Cliffs 1 SE quadrangle, Garfield County, Utah, by E. S. Davidson, D. A. Brew, and L. D. Carswell, 1958. Lat 37°45' to 37°52'30", long 111° to 111°07'30".
- MF-157. Circle Cliffs 2 NE quadrangle, Garfield County, Utah, by G. A. Miller and R. A. Cadigan, 1958. Lat 37°52'30" to 38°, long 111°15' to 111°22'30".
- MF-158. Circle Cliffs 4 NE quadrangle, Garfield County, Utah, by E. S. Davidson, D. A. Brew, and L. D. Carswell, 1958. Lat 37°37'30" to 37°45', long 111° to 111°07'30".
- MF-159. Reconnaissance geologic map of the Cedar Mountains, Grant and Luna Counties, N. Mex., by C. S. Bromfield and C. T. Wrucke, 1961. Approx. coordinates, Lat 31°47' to 32°, long 108° to 108°15'. Scale, 1:62,500. Contour intervals, 10, 25, 100, and 200 feet, 50c.
- MF-160. Reconnaissance geologic map of part of the southern Peloncillo Mountains, Hidalgo County, N. Mex., by C. T. Wrucke and C. S. Bromfield, 1961. Lat 31°30' to 31°45', long 108°50' to 109°. Scale, 1:62,500. Contour intervals, 25 and 80 feet, 50c.
- MF-161. Preliminary geologic map and sections of the Osgood Mountains quadrangle, Humboldt County, Nev., by P. E. Hotz and Ronald Willden, 1960 [1961]. Lat 41° to 41°15', long 117°15' to 117°30'. Scale, 1:48,000. Contour interval, 50 feet, 50c.
- MF-162--MF-168. Preliminary geologic maps. Scale, 1:24,000. Contour interval, 40 feet, 50c each.
- MF-162. Verdure 2 NW quadrangle, San Juan County, Utah, by I. J. Witkind, 1958. Lat 37°52'30" to 38°, long 109°22'30" to 109°30".
- MF-163. Verdure 2 SE quadrangle, San Juan County, Utah, by L. C. Huff and F. G. Lesure, 1958. Lat 37°45' to 37°52'30", long 109°15' to 109°22'30".
- MF-164. Verdure 1 SW quadrangle, San Juan County, Utah, by L. C. Huff and F. G. Lesure, 1958. Lat 37°45' to 37°52'30", long 109°07'30" to 109°15'.
- MF-165. Verdure 3 NE quadrangle, San Juan County, Utah, by F. G. Lesure, L. C. Huff, and Frederick Stugard, Jr, 1958. Lat 37°37'30" to 37°45', long 109°15' to 109°22'30".
- MF-166. Verdure 4 NW quadrangle, San Juan County, Utah, by L. C. Huff and F. G. Lesure, 1958. Lat 37°37'30" to 37°45', long 109°07'30" to 109°15'.
- MF-167. Verdure 3 SE quadrangle, San Juan County, Utah, by L. C. Huff and F. G. Lesure, 1958. Lat 37°30' to 37°37'30", long 109°15' to 109°22'30".
- MF-168. Verdure 4 SW quadrangle, San Juan County, Utah, by F. G. Lesure and Frederick Stugard, Jr, 1958. Lat 37°30' to 37°37'30", long 109°07'30" to 109°15'.
- MF-169. Exploration for uranium-vanadium deposits by the U. S. Geological Survey in the Club Mesa area, Uravan district, Montrose County, Colo., by R. L. Boardman, L. R. Litsey, and H. E. Bowers, 1958. Scale, 1:7,200. Contour interval, 100 feet, 75c.
- MF-170. Geologic map of the Castle Butte quadrangle, Kern County, Calif., by T. W. Dibblee, Jr, 1958. Lat 35° to 35°15', long 117°45' to 118°. Scale, 1:62,500. Contour interval, 25 feet, 50c.
- MF-171--MF-176. Preliminary geologic maps (except MF-174). Scale, 1:24,000. Contour interval, 40 feet, 50c each.
- MF-171. Northern half of the Jefferson City quadrangle, Jefferson and Lewis and Clark Counties, Mont., by G. E. Becraft, 1960 [1961]. Lat 46°22' to 46°30', long 112° to 112°15'.
- MF-172. Southern half of the Jefferson City quadrangle, Jefferson County, Mont., by G. E. Becraft, 1960 [1961]. Lat 46°15' to 46°22', long 112° to 112°15'.

- MF-173. Orange Cliffs 3 NE quadrangle, Wayne and Garfield Counties, Utah, by F. A. McKeown, C. C. Hawley, and P. P. Orkild. 1958. Lat 38°07'30" to 38°15', long 110°15' to 110°22'30".
- MF-176. Gray Head quadrangle, San Miguel County, Colo., by A. L. Bush, C. S. Bromfield, O. T. Marsh, and R. B. Taylor. 1961. Lat 37°52'30" to 38°, long 107°52'30" to 108°.
- MF-174. Reconnaissance geologic map of the Deer Lodge quadrangle, Powell, Deer Lodge, and Jefferson Counties, Mont., by E. T. Ruppel. 1961. Lat 46°15' to 46°30', long 112°30' to 112°45'. Scale, 1:48,000. 50c.
- MF-177. Preliminary geologic map and sections of the Bullfrog quadrangle, Nevada-California, by H. R. Cornwall and F. J. Kleinhampl. 1961. Lat 36°45' to 37°, long 116°45' to 117°. Scale, 1:48,000. Contour interval, 40 feet. 50c.
- MF-178. Preliminary geologic map of Eureka County, Nevada, by R. E. Lehner, K. M. Tagg, M. M. Bell, and R. J. Roberts. 1961. Approx. coordinates, Lat 39°9'30" to 41°, long 115°54'20" to 116°35'40". Scale, 1:200,000. Contour interval, 200 feet. 50c.
- MF-179. Preliminary map of bedrock geology of the Ralston Buttes quadrangle, Jefferson County, Colo., by D. M. Sheridan, C. H. Maxwell, A. L. Albee, and Richard Van Horn. 1958. Lat 39°45' to 39°52'30", long 105°15' to 105°22'30". Scale, 1:24,000. Contour interval, 50 feet. 50c.
- MF-180. Preliminary geologic map of the southwest part of the Clifton quadrangle, Weston County, Wyo., by N. P. Cuppels and F. R. Conwell. 1958. Lat 43°37'30" to 43°40', long 104°03'45" to 104°07'30". Scale, 1:7,200. Contour interval, 20 feet. 50c.
- MF-181. Bedrock geology of the southwestern part of the North Range, Cuyuna district, Minnesota, by R. G. Schmidt. 1958. Scale, 1:7,200. 3 sheets. \$1 per set.
- MF-182. Bedrock geology of the northern and eastern parts of the North Range, Cuyuna district, Minnesota, by R. G. Schmidt. 1959. Scale, 1:7,200. 5 sheets. \$1.50 per set.
- MF-183--MF-201. Preliminary geologic maps. Scale, 1:24,000. Contour interval, 40 feet. 50c each.
- MF-183. Northwest quarter of the Boulder quadrangle, Montana, by G. E. Becraft, and D. M. Pinckney. 1961. Lat 46°07'30" to 46°15', long 112°07'30" to 112°15'.
- MF-184. Clay Hills 2 NE quadrangle, San Juan County, Utah, by T. E. Mullens. 1958. Lat 37°22'30" to 37°30', long 110°15' to 110°22'30".
- MF-185. Clay Hills 2 NW quadrangle, San Juan County, Utah, by T. E. Mullens. 1959. Lat 37°22'30" to 37°30', long 110°22'30" to 110°30'.
- MF-186. Clay Hills 2 SW quadrangle, San Juan County, Utah, by T. E. Mullens. 1959. Lat 37°15' to 37°22'30", long 110°22'30" to 110°30'.
- MF-187. Southwest quarter of the Boulder quadrangle, Montana, by D. M. Pinckney and G. E. Becraft. 1961. Lat 46° to 46°07'30", long 112°07'30" to 112°15'.
- MF-188. House Rock Spring NE quadrangle, Coconino County, Ariz., by J. D. Wells. 1958. Lat 36°52'30" to 37°, long 112° to 112°07'30".
- MF-189. House Rock Spring SE quadrangle, Coconino County, Ariz., by J. D. Wells. 1959. Lat 36°45' to 36°52'30", long 112° to 112°07'30".
- MF-190. Elk Ridge 2 NE quadrangle, San Juan County, Utah, by R. Q. Lewis, Sr. and R. H. Campbell. 1958 [1959]. Lat 37°52'30" to 38°, long 109°45' to 109°52'30".
- MF-191. Elk Ridge 2 NW quadrangle, San Juan County, Utah, by R. Q. Lewis, Sr. and R. H. Campbell. 1958 [1959]. Lat 37°52'30" to 38°, long 109°52'30" to 110°.
- MF-192. Elk Ridge 2 SW quadrangle, San Juan County, Utah, by R. Q. Lewis, Sr. and R. H. Campbell. 1958 [1959]. Lat 37°45' to 37°52'30", long 109°52'30" to 110°.
- MF-193. Elk Ridge 2 SE quadrangle, San Juan County, Utah, by R. Q. Lewis, Sr. and R. H. Campbell. 1958 [1959]. Lat 37°45' to 37°52'30", long 109°45' to 109°52'30".
- MF-194. Elk Ridge 3 NE quadrangle, San Juan County, Utah, by R. Q. Lewis, Sr. and R. H. Campbell. 1959. Lat 37°37'30" to 37°45', long 109°45' to 109°52'30".
- MF-195. Elk Ridge 3 NW quadrangle, San Juan County, Utah, by R. Q. Lewis, Sr. and R. H. Campbell. 1958 [1959]. Lat 37°37'30" to 37°45', long 109°52'30" to 110°.
- MF-196. Paria Plateau SE quadrangle, Coconino County, Ariz., by R. G. Petersen. 1961. Lat 36°45' to 36°52'30", long 111°45' to 111°52'30".
- MF-197. Emmett Wash NW quadrangle, Coconino County, Ariz., by R. G. Petersen and J. D. Wells. 1960 [1961]. Lat 36°37'30" to 36°45', long 111°52'30" to 112°.
- MF-198. Elk Ridge 4 SW quadrangle, San Juan County, Utah, by R. Q. Lewis, Sr. and R. H. Campbell. 1959. Lat 37°30' to 37°37'30", long 109°37'30" to 109°45'.
- MF-199. Elk Ridge 4 NW quadrangle, San Juan County, Utah, by R. Q. Lewis, Sr. and R. H. Campbell. Lat 37°37'30" to 37°45', long 109°37'30" to 109°45'.
- MF-200. Elk Ridge 1 SW quadrangle, San Juan County, Utah, by R. Q. Lewis, Sr. and R. H. Campbell. 1959. Lat 37°45' to 37°52'30", long 109°37'30" to 109°45'.
- MF-201. Elk Ridge 1 NW quadrangle, San Juan County, Utah, by R. Q. Lewis, Sr. and R. H. Campbell. 1958 [1959]. Lat 37°52'30" to 38°, long 109°37'30" to 109°45'.
- MF-202. Geologic map of part of the Beaver quadrangle, Utah, by Eugene Callaghan and R. L. Parker. 1961. Lat 38°19' to 38°30', long 112°30' to 112°38'. Scale, 1:62,500. Contour interval, 50 feet. 50c.
- MF-203. Preliminary geologic map of the Slick Rock district, San Miguel and Dolores Counties, Colo., by D. R. Shawe, G. C. Simmons, and W. B. Rogers. 1961. Lat 37°45' to 38°07'30", long 108°37'30" to 109°. Scale, 1:48,000. Contour interval, 200 feet. 50c. (See also Bulletin 1107-B).
- MF-204. Geologic map of the Boron quadrangle, Kern and San Bernardino Counties, Calif., by T. W. Dibblee, Jr. 1958. Lat 35° to 35°15', long 117°30' to 117°45'. Scale, 1:62,500. Contour interval, 20 feet. 50c.
- MF-206. Preliminary geologic map of Lincoln County, Nev., by C. M. Tschanz and E. H. Pampeyan. 1961. Scale, 1:200,000. Contour interval, 200 feet. 2 sheets. \$1 per set.

- MF-207--MF-212. Preliminary geologic and structure maps. 1959. Scale, 1:7,200. Contour interval, 10 feet, 50c each.
- MF-207. Northwest part of the Cascade Springs quadrangle, Fall River County, S. Dak., by E. V. Post and N. P. Cuppels. Lat 43°20' to 43°22'30", long 103°33'45" to 103°37'30".
- MF-208. Northeast part of the Cascade Springs quadrangle, Fall River County, S. Dak., by E. V. Post and D. W. Lane. Lat 43°20' to 43°22'30", long 103°30' to 103°33'45".
- MF-209. West-central part of the Cascade Springs quadrangle, Fall River County, S. Dak., by E. V. Post and N. P. Cuppels. Lat 43°17'30" to 43°20', long 103°33'45" to 103°37'30".
- MF-210. East-central part of the Cascade Springs quadrangle, Fall River County, S. Dak., by E. V. Post and D. W. Lane. Lat 43°17'30" to 43°20', long 103°30' to 103°33'45".
- MF-211. Southwest part of the Cascade Springs quadrangle, Fall River County, S. Dak., by E. V. Post. Lat 43°15' to 43°17'30", long 103°33'45" to 103°37'30".
- MF-212. Southeast part of the Cascade Springs quadrangle, Fall River County, S. Dak., by E. V. Post. Lat 43°15' to 43°17'30", long 103°30' to 103°33'45".
- MF-213. Reconnaissance geologic map of southeastern Cochise County, Ariz., by J. R. Cooper. 1959. Lat 31°15' to 32°, long 109° to 109°45'. Scale, 1:125,000. Contour interval, 100 feet, 50c.
- MF-214--MF-217. Preliminary geologic maps, 1959. Scale, 1:24,000. Contour interval, 40 feet, 50c each.
- MF-214. Paria Plateau NE quadrangle, Coconino County, Ariz., by R. G. Petersen and D. A. Phoenix. Lat 36°52'30" to 37°, long 111°45' to 111°52'30".
- MF-215. Emmett Wash NE quadrangle, Coconino County, Ariz., by R. G. Petersen. Lat 36°37'30" to 36°45', long 111°45' to 111°52'30".
- MF-216. Moqui SW quadrangle, Montezuma County, Colo., by F. N. Houser and E. B. Ekren. Lat 37°15' to 37°22'30", long 108°52'30" to 109°.
- MF-217. Cortez SW quadrangle, Montezuma County, Colo., by E. B. Ekren and F. N. Houser. Lat 37°15' to 37°22'30", long 108°37'30" to 108°45'.
- MF-218. Diagrammatic restored section of the Inyan Kara group, Morrison formation, and Unkpapa sandstone of the western side of the Black Hills, Wyoming and South Dakota, by W. J. Mapel and G. B. Gott. 1959. Scale, 1:253,440, 50c.
- MF-219. Preliminary geologic map of the Mojave quadrangle, California, by T. W. Dibblee, Jr. 1959. Lat 35° to 35°15', long 118° to 118°15'. Scale, 1:62,500. Contour interval, 100 feet, 50c.
- MF-220. Preliminary geologic map of the Buffalo Mountain quadrangle, Nevada, by R. E. Wallace, N. J. Silberling, W. P. Irwin, and D. B. Tatlock. 1959. Lat 40° to 40°15', long 118° to 118°15'. Scale, 1:48,000. Contour interval, 40 feet, 50c.
- MF-221. Preliminary geologic map of the Moqui SE quadrangle, Montezuma County, Colo., by E. B. Ekren and F. N. Houser. 1959. Lat 37°15' to 37°22'30", long 108°45' to 108°52'30". Scale, 1:24,000, 50c.
- MF-222. Geologic map of the Alpine Butte quadrangle, California, by T. W. Dibblee, Jr. 1959. Lat 34°30' to 34°45', long 117°45' to 118°. Scale, 1:62,500. Contour interval, 100 feet, 50c.
- MF-223. Preliminary geologic map of the Little Cone quadrangle, San Miguel County, Colo., by A. L. Bush, O. T. Marsh, and R. B. Taylor. 1959. Lat 37°52'30" to 38°, long 108° to 108°07'30". Scale, 1:24,000. Contour interval, 40 feet, 50c.
- MF-224. Preliminary geologic map of the Sentinel Peak NE quadrangle, Montezuma County, Colo., by E. B. Ekren and F. N. Houser. 1959. Lat 37°07'30" to 37°15', long 108°45' to 108°52'30". Scale, 1:24,000, 50c.
- MF-225. Geologic map of the Iron River-Crystal Falls district, Iron County, Mich., by H. L. James, C. E. Dutton, F. J. Pettijohn and K. L. Wier. 1959 [1960]. Lat 46° to 46°07'30", long 88°30' to 88°45'. Scale, 1:24,000, 3 sheets, \$1 per set.
- MF-226. Geologic map of the Hawes quadrangle, San Bernardino County, Calif., by T. W. Dibblee, Jr. 1960. Lat 34°45' to 35°, long 117°15' to 117°30'. Scale, 1:62,500. Contour interval, 20 feet, 50c.
- MF-227. Preliminary geologic map of the Shadow Mountains quadrangle, Los Angeles and San Bernardino Counties, Calif., by T. W. Dibblee, Jr. 1960. Lat 34°30' to 34°45', long 117°30' to 117°45'. Scale, 1:62,500. Contour interval, 25 feet, 50c.
- MF-228. Preliminary geologic map of the NW¼ Mayer quadrangle, Yavapai County, Ariz., by C. A. Anderson. 1959. Lat 34°22'30" to 34°30', long 112°07'30" to 112°15'. Scale, 1:24,000. Contour interval, 50 feet, 50c.
- MF-229. Preliminary geologic map of the Victorville quadrangle, California, by T. W. Dibblee, Jr. 1960. Lat 34°30' to 34°45', long 117°15' to 117°30'. Scale, 1:62,500. Contour interval, 40 feet, 50c.
- MF-230. Geologic and alteration maps of the East Tintic district, Utah, by T. S. Lovering and others. 1960. Lat 39°55' to 40°, long 112° to 112°05'30". Scale, 1:9,600. Contour interval, 25 feet, 2 sheets, \$1.50 per set.
- MF-231. Reconnaissance map of the Willcox, Fisher Hills, Cochise and Dos Cabezas quadrangles, Cochise and Graham Counties, Ariz., by J. R. Cooper. 1960. Lat 32° to 32°30', long 109°30' to 110°. Scale, 1:62,500. Contour interval, 50 feet, 50c.
- MF-232. Preliminary geologic map of the Apple Valley quadrangle, California, by T. W. Dibblee, Jr. 1960. Lat 34°30' to 34°45', long 117° to 117°15'. Scale, 1:62,500. Contour interval, 40 feet, 50c.
- MF-233. Geologic map of the Barstow quadrangle, San Bernardino County, Calif., by T. W. Dibblee, Jr. 1960. Lat 34°45' to 35°, long 117° to 117°15'. Scale, 1:62,500. Contour interval, 40 feet, 50c.
- MF-234. Geochemical and heavy-mineral reconnaissance of the Concord quadrangle, Cabarrus County, N. C., by Henry Bell, 3d and W. C. Overstreet. 1960. Lat 35°22'30" to 35°30', long 80°30' to 80°37'30". Scale, 1:24,000, 50c.
- MF-235. Geochemical and heavy-mineral reconnaissance of the Concord SE quadrangle, Cabarrus County, N. C., by W. C. Overstreet and Henry Bell, 3d. 1960. Lat 35°15' to 35°22'30", long 80°30' to 80°37'30". Scale, 1:24,000, 50c.

- MF-236. Preliminary geologic map of Humboldt County, Nev., by Ronald Willden. 1961. Lat 40°45' to 42°, long 117° to 119°15'. Scale, 1:200,000. Contour interval, 200 feet. \$1.
- MF-237. Preliminary geologic map of the Deep Lake quadrangle, Stevens and Pend Orielle Counties, Wash., by R. G. Yates and A. E. Ford. 1960. Lat 48°45' to 48°52'30", long 117°30' to 117°37'30". Scale, 1:24,000. Contour interval, 40 feet. 50c.
- MF-238. Reconnaissance geologic map of parts of the San Pedro and Aravaipa Valleys, south-central Arizona, by S. C. Creasy, E. D. Jackson, and R. A. Gulbrandsen. 1961. Lat 32°15' to 33°15', long 110° to 111°. Scale, 1:125,000. Contour interval, 200 feet. 50c.
- MF-239. Preliminary geologic map of the Bare Mountain quadrangle, Nye County, Nev., by H. R. Cornwall and F. J. Kleinhampl. 1960. Lat 36°45' to 37°, long 116°30' to 116°45'. Scale, 1:48,000. Contour interval, 40 feet. 50c.
- MF-240. Preliminary geologic map and sections of the north end of the Oquirrh Range (Mills Junction, Garfield, and Magna 7½-minute quadrangles), Tooele and Salt Lake Counties, Utah, by E. W. Tooker and R. J. Roberts. 1961. Lat 40°37'30" to 40°45', long 112° to 112°20'. Scale, 1:24,000. Contour intervals, 10, 20, and 40 feet. 50c.

RESOURCE MAPS

[Distinguishing prefix, "MR"]

- MR-1. Geologic environment map of alumina resources of the Columbia Basin, by I. G. Sohn. 1952. Scale, 1:1,500,000. 80c.
- MR-2. The uranium deposits of the United States, compiled by R. W. Schnabel. 1955. Scale, 1:5,000,000. 50c.
- MR-3. Potash occurrences in the United States, by M. F. Byrd. 1955. Scale, 1:5,000,000. 50c.
- MR-4. Mineral deposits and occurrences in Massachusetts and Rhode Island, exclusive of clay, sand and gravel, and peat, compiled by N. C. Pearre. 1956. Scale, 1:500,000. 50c.
- MR-5. Mineral deposits and occurrences in Vermont, exclusive of clay, sand and gravel, and peat, compiled by N. C. Pearre and J. A. Calkins. 1957. Scale, 1:500,000. 50c.
- MR-6. Mineral deposits and occurrences in New Hampshire, exclusive of clay, sand and gravel, and peat, compiled by N. C. Pearre and J. A. Calkins. 1957. Scale, 1:500,000. 50c.
- MR-7. Mineral deposits and occurrences in Connecticut, exclusive of clay, sand and gravel, and peat, compiled by N. C. Pearre. 1957. Scale, 1:500,000. 50c.
- MR-8. Chromite, cobalt, nickel, and platinum occurrences in Alaska, by E. H. Cobb. 1960. Scale, 1:2,500,000. 50c.
- MR-9. Copper, lead, and zinc occurrences in Alaska, by E. H. Cobb. 1960. Scale, 1:2,500,000. 50c.
- MR-10. Molybdenum, tin, and tungsten occurrences in Alaska, by E. H. Cobb. 1960. Scale, 1:2,500,000. 50c.
- MR-11. Antimony, bismuth, and mercury occurrences in Alaska, by E. H. Cobb. 1960. Scale, 1:2,500,000. 50c.
- MR-12. Mineral deposits of Maryland, excluding fuels, sand, and gravel, compiled by N. C. Pearre. 1961. Scale, 1:250,000. 60c.

GENERAL MINERAL RESOURCE MAPS

[Asterisk (*) indicates map out of print]

- *Geologic map of Kettleman Hills, Calif., and generalized stratigraphic sections of exposed formations, by W. P. Woodring and others. 1934 [1940]. Scale, 1:31,680. (See Professional Paper 195.)
- Preliminary map showing geologic structure of the Quinton-Scipio district, Pittsburg, Haskell, and Latimer Counties, Okla., by C. H. Dane and others. 1935. Scale, 1 inch to 1 mile [1:63,360]. 25c.
- Osage County, Okla., and adjacent areas. 3 maps (4 sheets), with accompanying text. 1935. 15 pages. \$3.50.
- Geologic and structure contour map of the Cedar Creek anticline, Dawson, Prairie, Wilboux, and Fallon Counties, Mont., and Bowman County, N. Dak., by C. E. Dobbin and R. M. Larsen. 1936. Scale, 1 inch to 1 mile [1:63,360]. 2 sheets. 25c per set.
- Preliminary geologic map of west slope of Mosquito Range in the vicinity of Leadville, Colo., by C. H. Behre, Jr., E. N. Goddard, and A. E. Sandberg. 1939. Scale, 1:12,000. \$1.
- Preliminary map showing geologic structure of part of Rio Arriba County, N. Mex., by C. H. Dane and R. P. Bryson. 1938. Scale, 1:62,500. 25c.
- Preliminary map showing structure of Byron-Frannie area, Big Horn and Park Counties, Wyo., by D. A. Andrews, C. E. Dobbin, and others. 1938. Scale, 1:63,360. 15c.
- *Boulder County tungsten district, Colorado, by T. S. Lovering, E. B. Eckel, and Ogden Tweto:
 *Beaver Creek area. 1942.
 *Nederland area. 1942.
- Geologic map and sections of the Oregon Basin anticline, Park County, Wyo., by W. B. Kramer, J. M. Cattermole, and B. F. Curtis. 1943. Scale, 1 inch to 1 mile [1:63,360]. Free on application to the Geological Survey, Washington 25, D. C.
- Geologic map and sections of Lance Creek oil and gas field and vicinity, Niobrara County, Wyo., by W. B. Kramer, C. E. Dobbin, and Robert McMillan. 1943. Scale, 1 inch to 1 mile [1:63,360]. 75c.
- *Geologic and structure map of the Elk Basin oil and gas field and vicinity, Park County, Wyo., and Carbon County, Mont., by C. E. Dobbin, W. B. Kramer, J. C. Miller, and Harvey French. 1945. Scale, 1 inch to ½ mile [1:31,680].
- Geologic and structure contour map of the Clay Basin gas field and vicinity, Daggett County, Utah, and Sweetwater County, Wyo., by C. E. Dobbin and Robert Davison. 1945. Scale, 1 inch to ½ mile [1:31,680]. 15c.

- Geologic and structure map of the Little Buffalo Basin oil and gas field and vicinity, Park and Hot Springs Counties, Wyo., by T. F. Stipp and H. F. French. 1945. Scale, 1 inch to $\frac{1}{2}$ mile [1:31,680]. 15c.
- Preliminary geologic map of the Comstock lode district, Nev., by F. C. Calkins and T. P. Thayer. 1945. Scale, 1:24,000. 75c.
- *Geologic and structure contour map of Garland and Byron anticlines, Big Horn and Park Counties, Wyo., by C. E. Dobbin, J. C. Miller, and K. L. Walter. 1946. Scale, 1 inch to $\frac{3}{4}$ mile [1:47,520].
- Structure contour map of the Montana plains, by C. E. Dobbin and C. E. Erdmann. 1946. Scale, 1 inch to 10 miles [1:633,600]. 25c. [Superseded by OM-178.]
- Preliminary structure contour map of the Cut Bank-West Kevin border districts, Glacier, Toole, and Pondera Counties, Mont., by C. E. Erdmann, N. A. Davis, William Beer, and J. W. Nordquist. 1946. Scale, 1 inch to 2 miles [1:126,720]. 25c.
- Map of the areal and structural geology of T.35N., R.4W., Toole County, Montana, showing high gravity pool, Kevin-Sunburst oil field and part of Cut Bank gas field, by C. E. Erdmann, A. B. Cozzens, J. T. Gist, and J. W. Nordquist. 1946. Scale, 1:63,360. 2 sheets. 10c per sheet.
- Map of the areal and structural geology of T.35N., R.3W., Toole County, Montana, showing oil pools in West Kevin district, Kevin-Sunburst oil field, by C. E. Erdmann, J. T. Gist, J. W. Nordquist, and G. W. Beer. 1947. Scale, 1:63,360. 2 sheets. 10c per sheet.
- Map of the areal and structural geology of T.35N., R.3W., Toole County, Montana, showing Thorpe pool and north end of West Kevin district, Kevin-Sunburst oil field, by C. E. Erdmann, J. T. Gist, and J. W. Nordquist. 1947. Scale, 1:63,360. 2 sheets. 10c per sheet.
- Geologic and structure contour map of the Mush Creek area, Weston County, Wyo., by G. H. Horn and J. Alliger. 1947. Scale, 1 inch to 5,000 feet [1:60,000]. 10c.
- Geologic map of the Front Range mineral belt, Colorado, by T. S. Lovering and E. N. Goddard. 1950 [1951]. Scale, 1:62,500. 2 sheets. \$2 per set (Issued as plate 2 of Professional Paper 223.)
- *Veins, faults, and mines of the Front Range mineral belt, Colorado, by T. S. Lovering and E. N. Goddard. 1950 [1951]. Scale, 1:62,500. 2 sheets. (Issued as plate 3 of Professional Paper 223.)
- Geologic map of North Dakota southwest of the Missouri River, by W. E. Benson. 1951. Scale, 1:500,000. 25c.
- Structure contour map of the Knife River area, North Dakota, by W. E. Benson and others. 1951. Scale, 1:106,000. 25c.
- Systematic microchemical analysis, by F. M. Chace. 1951. 15c.
- Sedimentary formations of Washington, D. C., and vicinity, by N. H. Darton. 1947. Scale, 1 inch to $\frac{1}{2}$ mile [1:31,680]. \$1.
- *Paleocene deposits of the Rocky Mountains and Plains, by R. W. Brown. Preliminary map. 1949. Scale, 1:1,000,000.
- Structure sections of the Santa Maria district, Santa Barbara County, Calif., by W. P. Woodring, M. N. Bramlette, K. E. Lohman, and R. P. Bryson. 1950. Scale, 1:24,000. 50c. (Issued as plate 2 of Professional Paper 222.)
- Geologic map of the Santa Maria district, Santa Barbara County, Calif., by W. P. Woodring, M. N. Bramlette, K. E. Lohman, and R. P. Bryson. 1950. Scale, 1:24,000. 5 sheets. \$1.50 per set. (Issued as plate 1 of Professional Paper 222.)
- *Chart correlating various grain-size definitions of sedimentary materials, by P. E. Truesdell and D. J. Varnes. 1950 [1951].
- Interpreting geologic maps for engineering purposes--Hollidaysburg quadrangle, Pennsylvania. Prepared by Engineering Geology and Ground Water Branches. 1953 [1954]. Six maps, bound with covers. Lat 40°15' to 40°30', long 78°15' to 78°30'. Scale, 1:62,500. Contour interval, 20 feet. \$1.75 per set.

GEOPHYSICAL INVESTIGATIONS¹

[Distinguishing prefix "GP" used since 1950.]

1. Aeromagnetic map showing total intensity 1000 feet above the surface of part of the Oswegatchie quadrangle, St. Lawrence County, N. Y., by H. E. Hawkes, Jr., J. R. Balsley, Jr., and others. 1946. Scale, 1 inch to ½ mile [1:31,680]. Contour intervals, 100 and 500 gammas. 40c.
2. Aeromagnetic survey at three levels over Benson Mines, St. Lawrence County, N. Y., by H. E. Hawkes, Jr., J. R. Balsley, Jr., and others. 1946. Scale, 1 inch to ½ mile [1:31,680]. Contour interval, 100 gammas. 35c.

*The airborne magnetometer, by J. R. Balsley, Jr. 1946, 8 p., 3 plates.

*Preliminary report on an experimental aeromagnetic survey in northwestern Indiana, by H. R. Joesting and J. R. Henderson, Jr. 1948, 11 p., 2 plates.

Aeromagnetic survey of parts of Baraga, Iron, and Houghton Counties, Mich., with preliminary geologic interpretation by J. R. Balsley, Jr., H. L. James, and K. L. Wier. 1949. Horizontal scale, 1 inch to 3 miles [1:190,080]. Vertical scale, 1 inch to about 600 gammas. 30c.

Total intensity aeromagnetic maps and accompanying magnetic profiles, by J. R. Henderson, Jr., M. E. Hill, and J. L. Meuschke. 1949. Scale, 1 inch to 1 mile [1:63,360] (map), 1 inch to 2 miles [1:126,720] (profiles). Contour interval 50 gammas. 35c for each set.

Southern part of Beltrami County, Minn. 3 sheets.

Central part of Cass County, Minn. 2 sheets.

Northern part of Cass County, Minn. 2 sheets.

Southern part of Cass County, Minn. 2 sheets.

Northern part of Crow Wing County and part of Cass County, Minn. 2 sheets.

Southern part of Crow Wing County, Minn. 2 sheets.

Part of Hubbard County, Minn. 2 sheets.

Western part of Itasca County, Minn. 2 sheets.

Eastern part of Morrison County, Minn. 2 sheets.

Western part of Morrison County, Minn. 2 sheets.

Todd County, Minn., by J. R. Balsley, Jr., M. E. Hill, and J. L. Meuschke, 2 sheets.

Wadena County and part of Hubbard County, Minn., by J. R. Balsley, Jr., M. E. Hill, and J. L. Meuschke, 2 sheets.

Total intensity aeromagnetic maps, by W. J. Dempsey and R. T. Duffner. 1949. Scale, 1 inch to ½ mile [1:31,680]. Contour interval, 50 gammas. 20c each.

Coldwater quadrangle, Missouri. Lat 37°15' to 37°30', long 90°15' to 90°30'.

Des Arc quadrangle, Missouri. Lat 37°15' to 37°30', long 90°30' to 90°45'.

De Soto quadrangle, Missouri. Lat 38° to 38°15', long 90°30' to 90°45'.

Farmington quadrangle and part of Crystal City quadrangle, Missouri. Lat 37°45' to 38°05', long 90°15' to 90°30'.

Fredericktown quadrangle, Missouri. Lat 37°30' to 37°45', long 90°15' to 90°30'.

Ironton quadrangle, Missouri. Lat 37°30' to 37°45', long 90°30' to 90°45'.

Richwoods quadrangle, Missouri. Lat 38° to 38°15', long 90°45' to 91°.

St. Clair quadrangle, Missouri. Lat 38°15' to 38°25', long 90°45' to 91°.

Total intensity aeromagnetic maps, by W. J. Dempsey, J. R. Henderson, Jr., and R. T. Duffner. 1949. Scale, 1 inch to 1 mile [1:63,360]. Contour interval, 10 gammas. 15c each.

Benton County, Ind.

Fulton County, Ind.

Jasper County, Ind.

Lake County, Ind.

La Porte County, Ind.

Newton County, Ind.

Pulaski County, Ind. Contour intervals, 10 and 50 gammas.

St. Joseph County, Ind.

Starke County, Ind.

White County, Ind.

Total intensity aeromagnetic map of Posey County, Ind., by J. R. Henderson, Jr. and J. L. Meuschke. 1949. Scale, 1 inch to 1 mile [1:63,360]. Contour interval, 10 gammas. 15c.

*Airborne radioactivity survey of parts of Marquette, Dickinson, and Baraga Counties, Mich., by J. R. Balsley, Jr., F. J. Davis, R. A. Nelson, P. W. Reinhardt, and F. W. Stead. 1950. Scale, 1 inch to 2 miles [1:126,720].

¹This series includes maps showing the results of field studies by one or more geophysical methods. Except for numbers 1 and 2, maps were originally unnumbered. Since Feb. 20, 1950, the maps have been numbered consecutively and have carried the distinguishing prefix "GP." Maps 5, 6, and 19 were not published.

- Total intensity aeromagnetic maps, by W. J. Dempsey, J. R. Henderson, Jr., and R. T. Duffner. 1950. Scale, 1 inch to 1 mile [1:63,360]. Contour interval, 10 gammas. 15c each.
Cass County, Ind.
Elkhart County, Ind. Contour intervals, 10 and 50 gammas.
Marshall County, Ind.
- GP-7--GP-45. Total intensity aeromagnetic maps, by J. R. Henderson, Jr. and J. L. Meuschke. 1950. Scale, 1 inch to 1 mile [1:63,360]. Contour interval, 10 gammas, 15c each. (Except where otherwise indicated.)
GP-7. Daviess County, Ind.
GP-8. Dubois County, Ind.
GP-9. Martin County, Ind.
GP-10. Pike County, Ind.
GP-11. Spencer County, Ind.
GP-12. Warrick County, Ind.
GP-13. Potosi quadrangle, Missouri, by W. J. Dempsey, R. T. Duffner, Fred Keller, Jr., and J. R. Henderson, Jr. Lat 37°45' to 38°, long 90°45' to 91°. Contour interval, 50 gammas. 20c.
GP-14. Bonne Terre quadrangle, Missouri, by W. J. Dempsey, R. T. Duffner, Fred Keller, Jr., and J. R. Henderson, Jr. Lat 37°45' to 38°, long 90°30' to 90°45'. Contour interval, 50 gammas. 20c.
GP-15. Parts of Guadalupe and De Baca Counties, N. Mex. (R. 21 E.-R. 26 E. and T. 3 N.-T. 6 N.), by W. J. Dempsey and M. E. Hill. [Reprinted 1960.] 20c.
GP-16. Parts of Guadalupe and De Baca Counties, N. Mex. (R. 16 E.-R. 21 E. and T. 3 N.-T. 6 N.), by W. J. Dempsey and M. E. Hill. 20c.
GP-17. Parts of San Miguel and Guadalupe Counties, N. Mex. (R. 21 E.-R. 25 E. and T. 6 N.-T. 12 N.), by W. J. Dempsey and M. E. Hill. 20c.
GP-18. Parts of San Miguel and Guadalupe Counties, N. Mex. (R. 16 E.-R. 21 E. and T. 6 N.-T. 10 N. and part of Anton Chico grant), by W. J. Dempsey and M. E. Hill. 20c.
GP-20. Adams County, Ind.
GP-21. Allen County, Ind. Contour intervals, 10 and 50 gammas.
GP-22. Carroll County, Ind., by W. J. Dempsey, J. R. Henderson, Jr., and R. T. Duffner.
GP-23. De Kalb County, Ind., by W. J. Dempsey, J. R. Henderson, Jr., and R. T. Duffner.
GP-24. Howard County, Ind., by W. J. Dempsey, J. R. Henderson, Jr., and R. T. Duffner.
GP-25. Huntington County, Ind., by W. J. Dempsey, J. R. Henderson, Jr., and R. T. Duffner. Contour intervals, 10 and 50 gammas.
GP-26. Kosciusko County, Ind., by W. J. Dempsey, J. R. Henderson, Jr., and R. T. Duffner. Contour intervals, 10 and 50 gammas.
GP-27. Lagrange County, Ind., by W. J. Dempsey, J. R. Henderson, Jr., and R. T. Duffner. Contour intervals, 10 and 50 gammas.
GP-28. Miami County, Ind., by W. J. Dempsey, J. R. Henderson, Jr., and R. T. Duffner. Contour intervals, 10 and 50 gammas.
GP-29. Noble County, Ind., by W. J. Dempsey, J. R. Henderson, Jr., and R. T. Duffner. Contour intervals, 10 and 50 gammas, 15c.
GP-30. Porter County, Ind., by W. J. Dempsey, J. R. Henderson, Jr., and R. T. Duffner.
GP-31. Steuben County, Ind., by W. J. Dempsey, J. R. Henderson, Jr., and R. T. Duffner.
GP-32. Wabash County, Ind., by W. J. Dempsey, J. R. Henderson, Jr., and R. T. Duffner.
GP-33. Wells County, Ind., by W. J. Dempsey, J. R. Henderson, Jr., and R. T. Duffner. Contour intervals, 10 and 50 gammas.
GP-34. Whitley County, Ind., by W. J. Dempsey, J. R. Henderson, Jr., and R. T. Duffner. Contour intervals, 10 and 50 gammas.
GP-35. Boone County, Ind.
GP-36. Clinton County, Ind.
GP-37. Gibson County, Ind.
GP-38. Hendricks County, Ind.
GP-39. Montgomery County, Ind.
GP-40. Perry County, Ind.
GP-41. Putnam County, Ind.
GP-42. Tippecanoe County, Ind.
GP-43. Vanderburgh County, Ind.
GP-44. Vermillion County, Ind.
GP-45. Warren County, Ind.
- GP-46--GP-51. Total intensity aeromagnetic map and accompanying aeromagnetic profiles, by J. R. Balsley, Jr., M. E. Hill, and J. L. Meuschke. 1951. Scale, 1 inch to 1 mile [1:63,360]. Contour intervals, 50 and 250 gammas. 2 sheets, 35c for each set.
GP-46. Parts of Clearwater, Polk, and Red Lake Counties, Minn.
GP-47. Parts of Clearwater and Mahnomon Counties, Minn.
GP-48. Part of Becker County, Minn. Contour intervals, 50, 250, and 1,000 gammas. 3 sheets.
GP-49. Northern part of Otter Tail County, Minn. Contour intervals, 50, 250, and 1,000 gammas.
GP-50. Southern part of Otter Tail County, Minn.
GP-51. Douglas County and part of Grant County, Minn. Contour interval, 50 gammas.
- GP-52. Total intensity aeromagnetic map of Blackford County, Ind., by W. J. Dempsey, J. R. Henderson, Jr., and R. T. Duffner. 1951. Scale, 1 inch to 1 mile [1:63,360]. Contour interval, 10 gammas. 15c.
- GP-53--GP-90. Total intensity aeromagnetic maps, by J. R. Henderson, Jr., and J. L. Meuschke. 1951. Scale, 1 inch to 1 mile [1:63,360]. Contour interval, 10 gammas. 15c each.

- GP-53. Brown County, Ind.
 GP-54. Clark County, Ind.
 GP-55. Crawford County, Ind.
 GP-56. Decatur County, Ind.
 GP-57. Delaware County, Ind.
 GP-58. Floyd County, Ind.
 GP-59. Grant County, Ind., by W. J. Dempsey, J. R. Henderson, Jr., and R. T. Duffner. Contour intervals, 10 and 50 gammas.
 GP-60. Hamilton County, Ind. Contour intervals, 10 and 50 gammas.
 GP-61. Hancock County, Ind. Contour intervals, 10 and 50 gammas.
 GP-62. Harrison County, Ind. Contour intervals, 10 and 50 gammas.
 GP-63. Henry County, Ind.
 GP-64. Jefferson County, Ind.
 GP-65. Jennings County, Ind.
 GP-66. Lawrence County, Ind.
 GP-67. Madison County, Ind.
 GP-68. Morgan County, Ind.
 GP-69. Orange County, Ind.
 GP-70. Owen County, Ind.
 GP-71. Parke County, Ind.
 GP-72. Ripley County, Ind.
 GP-73. Scott County, Ind.
 GP-74. Shelby County, Ind.
 GP-75. Tipton County, Ind.
 GP-76. Washington County, Ind.
 GP-77. Berryman quadrangle, Missouri, by W. J. Dempsey and J. L. Meuschke. Lat 37°45' to 38°, long 91° to 91°15'. Scale, 1 inch to ½ mile [1:31,680]. Contour interval, 50 gammas.
 GP-78. Sullivan quadrangle and part of Union quadrangle, Missouri, by W. J. Dempsey and J. L. Meuschke. 1951. Scale, 1 inch to ½ mile [1:31,680]. Contour intervals, 50 and 250 gammas.
 GP-79. Part of Marquand quadrangle, Missouri, by W. J. Dempsey and J. L. Meuschke. Contour interval, 50 gammas.
 GP-80. Part of Higdon quadrangle, Missouri, by W. J. Dempsey and J. L. Meuschke. Scale, 1 inch to ½ mile [1:31,680]. Contour interval, 50 gammas.
 GP-81. Part of Weingarten quadrangle, Missouri, by W. J. Dempsey and J. L. Meuschke. Scale, 1 inch to ½ mile [1:31,680]. Contour interval, 50 gammas.
 GP-82. Bartholomew County, Ind.
 GP-83. Dearborn County, Ind.
 GP-84. Fayette County, Ind.
 GP-85. Jackson County, Ind.
 GP-86. Jay County, Ind.
 GP-87. Monroe County, Ind.
 GP-88. Chio County, Ind.
 GP-89. Rush County, Ind.
 GP-90. Switzerland County, Ind.
- GP-91--GP-102. Total intensity aeromagnetic and geologic map [and accompanying aeromagnetic profiles], by J. L. Meuschke and J. R. Henderson, Jr. Scale, 1 inch to 1 mile [1:63,360]. Contour intervals, 50 and 250 gammas. 2 sheets. 70c for each set.
 GP-91. Part of southeastern St. Louis County, Minn. 1952.
 GP-92. East-central St. Louis County, Minn. 1952. Contour intervals, 50, 250, and 1,000 gammas.
 GP-93. Part of northeastern St. Louis County, Minn. 1952. Contour intervals, 50, 250, 500, and 1,000 gammas.
 GP-94. Part of southwestern St. Louis County, Minn. 1952. Contour interval, 50 gammas.
 GP-95. West-central St. Louis County, Minn. 1952.
 GP-96. Part of northwestern St. Louis County, Minn. 1952. Contour interval, 50 gammas.
 GP-97. Northeastern Itasca and southeastern Koochiching Counties, Minn. 1953 [1954]. Contour intervals, 50, 250, and 500 gammas.
 GP-98. East-central Itasca County, Minn. 1953. Contour intervals, 50, 250, 500, 1,000 and 5,000 gammas.
 GP-99. Southeastern Itasca County, Minn. 1953.
 GP-100. Northern Aitkin County, Minn. 1953.
 GP-101. Southern Aitkin County and northern Mille Lacs County, Minn. 1953 [1954].
 GP-102. Parts of Kanabec, Mille Lacs, and Pine Counties, Minn. 1953. Contour interval, 50 gammas.
- GP-103--GP-114. Total intensity aeromagnetic maps, by J. R. Henderson, Jr., and J. L. Meuschke. Scale, 1 inch to 1 mile [1:63,360]. Contour interval, 10 gammas. 15c each.
 GP-103. Clay County, Ind. 1952.
 GP-104. Fountain County, Ind. 1951 [1952].
 GP-105. Franklin County, Ind. 1951 [1952].
 GP-106. Green County, Ind. 1951 [1952].
 GP-107. Johnson County, Ind. 1951 [1952].
 GP-108. Knox County and part of Lawrence County, Ind. 1951 [1952].
 GP-109. Marion County, Ind. 1951 [1952].

- GP-110. Randolph County, Ind. 1951 [1952]. Contour intervals, 10 and 50 gammas.
 *GP-111. Sullivan County, Ind. 1951 [1952].
 GP-112. Union County, Ind. 1951 [1952].
 GP-113. Vigo County, Ind., by J. R. Henderson, Jr., J. L. Meuschke, and D. Stuart. 1951 [1952].
 GP-114. Wayne County, Ind. 1951 [1952]. Contour intervals, 10 and 50 gammas.
 GP-115. Aeromagnetic survey of part of Dickinson County, Mich., with preliminary geologic interpretation, by K. L. Wier, J. R. Balsley, Jr., and W. P. Pratt. 1952 [1953]. Horizontal scale, 1 inch to 3 miles [1:190,080]. Vertical scale, 1 inch to about 600 gammas. 70c.
 GP-116. Aeromagnetic survey and geologic reconnaissance of part of Piscataquis County, Me., by J. R. Balsley, Jr. and E. P. Kaiser. 1954. Scale, 1 inch to about a mile [1:62,500]. Contour interval, 20 gammas. 75c.
 GP-117. Total aeromagnetic intensity and geologic map of Stark, Childwold, and part of Russell quadrangles, New York: Aeromagnetic survey, by J. R. Balsley, Jr., M. E. Hill, and H. E. Hawkes; geology, by A. F. Buddington and B. F. Leonard. 1954 [1955]. Lat $44^{\circ}15'$ to $44^{\circ}30'$, long $74^{\circ}30'$ to $75^{\circ}10'$. Scale, 1 inch to 1 mile [1:63,360]. Contour interval, 100 gammas. 75c.
 GP-118. Aeromagnetic survey and geologic map of the Cranberry Lake quadrangle, New York: Aeromagnetic survey, by J. R. Balsley, Jr., M. E. Hill, and H. E. Hawkes; geology, by A. F. Buddington and B. F. Leonard. 1954. Lat 44° to $44^{\circ}15'$, long $74^{\circ}45'$ to 75° . Scale, 1 inch to about 1 mile [1:62,500]. Contour interval, 100 gammas. 60c.
 GP-119--GP-127. Airborne radioactivity surveys. Scale, 1 inch to about 1 mile [1:62,500]. 50c each.
 GP-119. Folkston area, Charlton County, Ga., and Nassau County, Fla., by R. M. Moxham. 1954.
 GP-120. Painted Desert area, Coconino and Navajo Counties, Ariz., by J. L. Meuschke. 1955.
 GP-121. Fort Myers area, Charlotte and Lee Counties, Fla., by J. L. Meuschke. 1954 [1955].
 GP-122. Gardner area, DeSoto, Hardee, Manatee, and Sarasota Counties, Fla., by J. L. Meuschke. 1955.
 GP-123. Edisto Island area, Berkeley, Charleston, Colleton, and Dorchester Counties, S. C., by J. L. Meuschke. 1955.
 GP-124. Pinto-Chinle area, Apache County, Ariz., by J. L. Meuschke. 1955.
 GP-125. Part of Moffat County, Colo., north of $40^{\circ}45'$, by R. W. Johnson. 1955.
 GP-126. Part of Moffat County, Colo., south of $40^{\circ}45'$, by R. W. Johnson. 1955.
 GP-127. Myton area, Duchesne and Uintah Counties, Utah, by R. W. Johnson. 1955.
 GP-128--GP-134. Aeromagnetic and geologic maps, by J. L. Meuschke, K. G. Books, J. R. Henderson, Jr., and G. M. Schwartz. 1957. Scale, 1 inch to 1 mile [1:63,360]. \$1 each.
 GP-128. Northern Lake of the Woods and northeastern Roseau Counties, Minn.
 GP-129. Northern Beltrami and southern Lake of the Woods Counties, Minn.
 GP-130. North-central Beltrami and northeastern Clearwater Counties, Minn.
 GP-131. Northwestern Koochiching County, Minn.
 GP-132. Southwestern Koochiching County, Minn.
 GP-133. Northeastern Koochiching County, Minn.
 GP-134. Southeastern Koochiching County, Minn.
 GP-135. Reconnaissance total intensity aeromagnetic map of the southern part of Prince of Wales Island, Alaska, by D. L. Rossman, J. R. Henderson, Jr., and M. S. Walton, Jr. 1956. Scale, 1:126,720. Contour interval, 100 gammas. 50c.
 GP-136. Aeromagnetic map of the Alton quadrangle, New Hampshire, by R. W. Bromery, G. L. Zandle, and others. 1956. Lat $43^{\circ}15'$ to $43^{\circ}30'$, long 71° to $71^{\circ}15'$. Scale, 1:62,500. Contour intervals, 20 and 100 gammas. 50c.
 GP-137. Aeromagnetic map of the Berwick quadrangle, Maine and New Hampshire, by R. W. Bromery, G. L. Zandle, and others. 1956. Lat $43^{\circ}15'$ to $43^{\circ}30'$, long $70^{\circ}45'$ to 71° . Scale, 1:62,500. Contour intervals, 20 and 100 gammas. 50c.
 GP-138. Aeromagnetic map of Umbagog Lake and vicinity, New Hampshire, by R. W. Bromery, J. R. Kirby, J. L. Vargo, and others. 1957. Scale, 1:62,500. Contour intervals, 50 and 250 gammas. 50c.
 GP-139. Aeromagnetic map of Berlin and vicinity, New Hampshire, by R. W. Bromery, J. R. Kirby, J. L. Vargo, and others. 1957. Scale, 1:62,500. Contour intervals, 50 and 250 gammas. 50c.
 GP-140--GP-148. Aeromagnetic maps, by K. G. Books, G. M. Schwartz, J. L. Meuschke, and W. J. Dempsey. 1958. Scale, 1:63,360. Contour intervals, to and 250 gammas. 2 sheets, \$1 for each set.
 GP-140. Eastern Roseau County, Minn.
 GP-141. Western Roseau County, Minn.
 GP-142. Kittson County, Minn.
 GP-143. Eastern Marshall and northwestern Beltrami Counties, Minn.
 GP-144. Central Marshall and western Pennington Counties, Minn.
 GP-145. Western Marshall and northwestern Polk Counties, Minn.
 GP-146. Parts of Pennington, Red Lake, Beltrami, Clearwater, and Polk Counties, Minn.
 GP-147. Western Red Lake and central Polk Counties, Minn.
 GP-148. Western Polk County, Minn.
 GP-149. Simple Bouguer gravity and generalized geologic map of the northwestern part of the Los Angeles basin, California, by T. H. McCulloh. 1957. Scale, 1:48,000. 75c.
 GP-150--GP-153. Aeromagnetic maps, by J. R. Balsley, Jr., F. P. Gilbert, G. B. Mangan, and others. 1957. Scale, 1:31,680. Contour intervals, 20 and 100 gammas. 50c each.
 GP-150. Laredo quadrangle, Bearpaw Mountains, Mont. Lat $48^{\circ}15'$ to $48^{\circ}30'$, long $109^{\circ}45'$ to 110° .
 GP-151. Shambo quadrangle, Bearpaw Mountains, Mont. Lat $48^{\circ}15'$ to $48^{\circ}30'$, long $109^{\circ}30'$ to $109^{\circ}45'$.

- GP-152. Part of the Centennial Mountain quadrangle, Bearpaw Mountains, Mont. Lat 48° to 48°15', long 109°45' to 110°. Contour intervals, 20, 100, and 200 gammas.
- GP-153. Part of the Warrick quadrangle, Bearpaw Mountains, Mont. Lat 48° to 48°15', long 109°30' to 109°45'. Contour intervals, 20, 100, and 200 gammas.
- GP-154. Aeromagnetic map of the Jo-Mary Mountain area, Piscataquis and Penobscot Counties, Maine, by J. R. Balsley, Jr., Jean Blanchett, J. R. Kirby, and others. 1957. Lat 45°30' to 45°50', long 68°50' to 69°07'. Scale, 1:62,500. Contour intervals, 20 and 100 gammas. 50c.
- GP-155. Aeromagnetic map of the Harrington Lake quadrangle, Piscataquis County, Maine, by J. R. Balsley, Jr., Jean Blanchett, J. R. Kirby, and others. 1957. Lat 45°45' to 46°, long 69° to 69°15'. Scale, 1:62,500. Contour intervals, 20 and 100 gammas. 50c.
- GP-156. Aeromagnetic map of the Copper River basin, Alaska, by G. E. Andreason, W. J. Dempsey, J. R. Henderson, Jr., and F. P. Gilbert. 1958. Lat 61°45' to 63°, long 145° to 147°30'. Scale, 1:125,000. Contour intervals, 20 and 100 gammas. 75c.
- GP-157--GP-172. Aeromagnetic maps, by J. R. Henderson, Jr., Natalie S. Tyson, May Wilson, and others. 1957. Scale, 1:31,680. Contour intervals, 50 and 250 gammas. 50c each.
- GP-157. Warwick quadrangle, Orange County, N. Y. 1958 [1957]. Lat 41°15' to 41°22'30", long 74°15' to 74°22'30".
- GP-158. Part of the Hamburg quadrangle, Sussex County, N. J., by J. R. Henderson, Jr., Natalie S. Tyson, and others. Lat 41°07'30" to 41°15', long 74°30' to 74°37'30".
- GP-159. Wawayanda and part of the Pine Island quadrangles, Sussex and Passaic Counties, N. J., and Orange County, N. Y., by J. R. Henderson, Jr., Natalie S. Tyson, and others. Lat 41°07'30" to 41°20', long 74°22'30" to 74°30".
- GP-160. Greenwood Lake quadrangle, Passaic County, N. J., and Orange County, N. Y. Lat 41°07'30" to 41°15', long 74°15' to 74°22'30".
- GP-161. Part of the Newton east quadrangle, Sussex County, N. J., by J. R. Henderson, Jr., Natalie S. Tyson, and others. Lat 41° to 41°07'30", long 74°37'30" to 74°45'.
- GP-162. Franklin quadrangle, Sussex and Morris Counties, N. J., by J. R. Henderson, Jr., Natalie S. Tyson, and others. Lat 41° to 41°07'30", long 74°30' to 74°37'30". Contour intervals, 50, 250, and 1,000 gammas.
- GP-163. Newfoundland quadrangle, Passaic, Morris, and Sussex Counties, N. J., by J. R. Henderson, Jr., Natalie S. Tyson, and others. Lat 41° to 41°07'30", long 74°22'30" to 74°30".
- GP-164. Wanaque quadrangle, Passaic and Bergen Counties, N. J. 1958 [1957]. Lat 41° to 41°07'30", long 74°15' to 74°22'30".
- GP-165. Stanhope quadrangle, Sussex and Morris Counties, N. J., by J. R. Henderson, Jr., Natalie S. Tyson, and others. 1958 [1957]. Lat 40°52'30" to 41°, long 74°37'30" to 74°45'.
- GP-166. Dover quadrangle, Morris County, N. J. 1958 [1957]. Lat 40°52'30" to 41°, long 74°30' to 74°37'30".
- GP-167. Boonton quadrangle, Morris County, N. J., by J. R. Henderson, Jr., Natalie S. Tyson, and others. 1958 [1957]. Lat 40°52'30" to 41°, long 74°22'30" to 74°30".
- GP-168. Pompton Plains quadrangle, Morris, Passaic, and Essex Counties, N. J. 1958 [1957]. Lat 40°52'30" to 41°, long 74°15' to 74°22'30".
- GP-169. Chester quadrangle, Morris County, N. J. 1958 [1957]. Lat 40°45' to 40°52'30", long 74°37'30" to 74°45'.
- GP-170. Mendham quadrangle, Morris County, N. J., by J. R. Henderson, Jr., Natalie S. Tyson, and others. 1958 [1957]. Lat 40°45' to 40°52'30", long 74°30' to 74°37'30".
- GP-171. Morristown quadrangle, Morris County, N. J. 1958 [1957]. Lat 40°45' to 40°52'30", long 74°22'30" to 74°30".
- GP-172. Caldwell quadrangle, Essex and Morris Counties, N. J. 1958 [1957]. Lat 40°45' to 40°52'30", long 74°15' to 74°22'30".
- GP-173--GP-175. Aeromagnetic maps, by J. R. Henderson, Jr., Natalie S. Tyson, Sybil Gilchrist, and others. 1958. Scale, 1:31,680. Contour intervals, 50 and 250 gammas. 50c each.
- GP-173. Gladstone quadrangle, Somerset, Morris, and Hunterdon Counties, N. J. 1958 [1957]. Lat 40°37'30" to 40°45', long 74°37'30" to 74°45'.
- GP-174. Bernardsville and part of the Bound Brook quadrangles, Middlesex, Somerset, and Morris Counties, N. J. Lat 40°32'30" to 40°45', long 74°30' to 74°37'30".
- GP-175. Chatham and parts of the Roselle and Plainfield quadrangles, Morris, Union, Essex, and Somerset Counties, N. J. Lat 40°37'30" to 40°45', long 74°15' to 74°30".
- GP-176--GP-189. Aeromagnetic maps, by J. R. Henderson, Jr., Natalie S. Tyson, E. F. McGowan and others. 1958. Scale, 1:62,500. Contour interval, 50 gammas. 50c each.
- GP-176. Grayland quadrangle, Grays Harbor and Pacific Counties, Wash. Lat 46°45' to 47°, long 124° to 124°15'.
- GP-177. Aberdeen quadrangle, Grays Harbor and Pacific Counties, Wash. Lat 46°45' to 47°, long 123°45' to 124°.
- GP-178. Montesano quadrangle, Grays Harbor and Pacific Counties, Wash. Lat 46°45' to 47°, long 123°30' to 123°45'.
- GP-179. Malone quadrangle, Grays Harbor, Pacific, and Lewis Counties, Wash. Lat 46°45' to 47°, long 123°15' to 123°30".
- GP-180. Rochester quadrangle, Thurston, Grays Harbor, and Lewis Counties, Wash. Lat 46°45' to 47°, long 123° to 123°15'. Contour intervals, 50 and 250 gammas.

- GP-181. Tenino quadrangle, Thurston and Lewis Counties, Wash. Lat 46°45' to 47°, long 122°45' to 123°.
- GP-182. Part of the Yelm quadrangle, Thurston and Lewis Counties, Wash., by J. R. Henderson, Jr., Natalie S. Tyson, S. A. Gilchrist, and others. Lat 46°45' to 47°, long 122°30' to 122°45'.
- GP-183. Cape Shoalwater quadrangle, Pacific County, Wash. Lat 46°30' to 46°45', long 124° to 124°15'.
- GP-184. South Bend quadrangle, Pacific County, Wash. Lat 46°30' to 46°45', long 123°45' to 124°.
- GP-185. Willapa quadrangle, Pacific County, Wash. Lat 46°30' to 46°45', long 123°30' to 123°45'.
- GP-186. Pe Ell quadrangle, Pacific and Lewis Counties, Wash. Lat 46°30' to 46°45', long 123°15' to 123°30'. Contour intervals, 50 and 250 gammas.
- GP-187. Adna quadrangle, Lewis County, Wash. Lat 46°30' to 46°45', long 123° to 123°15'.
- GP-188. Centralia quadrangle, Lewis County, Wash. Lat 46°30' to 46°45', long 122°45' to 123°.
- GP-189. Onalaska quadrangle, Lewis County, Wash., by J. R. Henderson, Jr., Natalie S. Tyson, S. A. Gilchrist, and others. Lat 46°30' to 46°45', long 122°30' to 122°45'.
- GP-190--GP-193. Aeromagnetic and geologic maps, by J. R. Balsley, Jr., A. F. Buddington, and others. 1959. Scale, 1:62,500. Contour intervals, 100 and 500 gammas, 75c each. (Except where otherwise indicated.)
- GP-190. Santa Clara quadrangle and part of the St. Regis quadrangle, Franklin County, N. Y. Lat 44°25' to 44°45', long 74°15' to 74°30'.
- GP-191. Loon Lake quadrangle and part of the Chateaugay quadrangle, Franklin County, N. Y., by J. R. Balsley, Jr., A. W. Postel, and others. Lat 44°30' to 44°53'20", long 74° to 74°15'.
- GP-192. Oswegatchie quadrangle, St. Lawrence, Herkimer, and Lewis Counties, N. Y. Lat 44° to 44°15', long 75° to 75°15'. 50c each.
- GP-193. Tupper Lake quadrangle, St. Lawrence, Hamilton, and Franklin Counties, N. Y. Lat 44° to 44°15', long 74°30' to 74°45'. 50c each.
- GP-194--GP-196. Aeromagnetic maps, by R. W. Bromery, F. P. Gilbert, and others. 1958. Scale, 1:62,500. Contour intervals, 10 and 50 gammas. 50c each.
- GP-194. Littleton and vicinity, New Hampshire and Vermont. Lat 44° to 44°25', long 71°35' to 72°.
- GP-195. Woodsville and vicinity, New Hampshire and Vermont. Lat 44° to 44°25', long 72° to 72°15'.
- GP-196. Lake Tarleton and vicinity, New Hampshire and Vermont. Lat 43°50' to 44°, long 71°50' to 72°15'.
- GP-197. Aeromagnetic map of the Kerby and part of the Grants Pass quadrangles, Josephine and Curry Counties, Oreg., by J. R. Balsley, Jr., R. W. Bromery, E. W. Remington, and others. 1960. Lat 42° to 42°30', long 123°25' to 124°. Scale, 1:96,000. Contour intervals, 50 and 250 gammas. 50c.
- GP-198. Airborne radioactivity and geologic map of the Coastal Plain area, southeast Texas, by R. M. Moxham and D. H. Eargle. 1961. Lat 28° to 29°45', long 97° to 99°15'. Scale, 1:250,000. 75c.
- GP-200--GP-210. Aeromagnetic maps, by R. W. Bromery, G. L. Zandle, and others. 1959. Scale, 1:24,000. Contour interval, 50 gammas. 50c each.
- GP-200. Valley Forge quadrangle, Chester, Montgomery, and Delaware Counties, Pa. Lat 40° to 40°07'30", long 75°22'30" to 75°30'.
- GP-201. Part of the Norristown quadrangle, Philadelphia, Chester, Delaware, and Montgomery Counties, Pa. Lat 40° to 40°07'30", long 75°15' to 75°22'30".
- GP-202. Malvern quadrangle, Chester County, Pa., by R. W. Bromery, B. L. Bennett, and others. Lat 40° to 40°07'30", long 75°30' to 75°37'30".
- GP-203. Part of the West Chester quadrangle, Chester and Delaware Counties, Pa. Lat 39°52'30" to 40°, long 75°30' to 75°37'30".
- GP-204. Part of the Media quadrangle, Chester and Delaware Counties, Pa. Lat 39°52'30" to 40°, long 75°22'30" to 75°30'.
- GP-205. East Greenville quadrangle, Berks, Lehigh, and Montgomery Counties, Pa. Lat 40°22'30" to 40°30', long 75°30' to 75°37'30". Contour intervals, 50 and 250 gammas.
- GP-206. Milford Square quadrangle, Bucks, Lehigh, and Montgomery Counties, Pa. Lat 40°22'30" to 40°30', long 75°22'30" to 75°30'.
- GP-207. Sassamansville quadrangle, Montgomery and Berks Counties, Pa. Lat 40°15' to 40°22'30", long 75°30' to 75°37'30".
- GP-208. Perkiomenville quadrangle, Montgomery and Bucks Counties, Pa. Lat 40°15' to 40°22'30", long 75°22'30" to 75°30'.
- GP-209. Phoenixville quadrangle, Chester and Montgomery Counties, Pa., by R. W. Bromery, B. L. Bennett, and others. Lat 40°07'30" to 40°15', long 75°30' to 75°37'30".
- GP-210. Collegeville quadrangle, Montgomery County, Pa. 1960. Lat 40°07'30" to 40°15', long 75°22'30" to 75°30'. Contour interval, 25 gammas.
- GP-211. Reconnaissance airborne magnetometer survey off southern California, by R. W. Bromery, K. O. Emery, and J. R. Balsley, Jr. 1960. Lat 31°20' to 34°30', long 117° to 121°. Scale, 1 inch to about 15 miles [about 1:937,500]. Contour intervals, 50 and 250 gammas. 50c.
- GP-213. Aeromagnetic map of the Allentown quadrangle, Northampton, Lehigh, and Bucks Counties, Pa., by R. W. Bromery, B. L. Bennett, and others. 1959. Lat 40°30' to 40°45', long 75°15' to 75°30'. Scale, 1:24,000. Contour intervals, 50 and 250 gammas. 75c.
- GP-214--GP-222. Aeromagnetic maps, by R. W. Bromery, G. L. Zandle, and others. 1959. Scale, 1:24,000. Contour interval, 50 gammas. 50c each.
- GP-214. Quakertown quadrangle, Bucks County, Pa. Lat 40°22'30" to 40°30', long 75°15' to 75°22'30".
- GP-215. Buckingham quadrangle, Bucks County, Pa., by R. W. Bromery, J. R. Henderson, Jr., G. L. Zandle, and others. Lat 40°15' to 40°22'30", long 75° to 75°07'30".

- GP-216. Parts of the Lambertville and Stockton quadrangles, Bucks County, Pa., and Hunterdon and Mercer Counties, N. J., by R. W. Bromery, J. R. Henderson, Jr., B. L. Bennett, and others. Lat 40°15' to 40°25', long 74°52'30" to 75°.
- GP-217. Safe Harbor quadrangle, Lancaster and York Counties, Pa. Lat 39°52'30" to 40°, long 76°22'30" to 76°30'.
- GP-218. Conestoga quadrangle, Lancaster County, Pa. Lat 39°52'30" to 40°, long 76°15' to 76°22'30".
- GP-219. Quarryville quadrangle, Lancaster County, Pa. Lat 39°52'30" to 40°, long 76°07'30" to 76°15'.
- GP-220. Morgantown quadrangle, Berks, Lancaster, and Chester Counties, Pa. Lat 40°07'30" to 40°15', long 75°52'30" to 76°.
- GP-221. Elverson quadrangle, Berks and Chester Counties, Pa., by R. W. Bromery, J. R. Henderson, Jr., G. L. Zandle, and others. Lat 40°07'30" to 40°15', long 75°45' to 75°52'30". Contour intervals, 50 and 250 gammas.
- GP-222. Pottstown quadrangle, Berks, Chester, and Montgomery Counties, Pa. 1960. Lat 40°07'30" to 40°15', long 75°37'30" to 75°45'.
- GP-223--GP-238. Aeromagnetic maps, by R. W. Bromery, J. R. Henderson, Jr., G. L. Zandle, and others. 1960. Scale, 1:24,000. Contour interval, 50 gammas. 50c each.
- GP-223. Wagontown quadrangle, Chester County, Pa. Lat 40° to 40°07'30", long 75°45' to 75°52'30".
- GP-224. Downingtown quadrangle, Chester County, Pa., by R. W. Bromery, G. L. Zandle, and others. Lat 40° to 40°07'30", long 75°37'30" to 75°45'.
- GP-225. Part of the Coatesville quadrangle, Chester County, Pa. Lat 39°52'30" to 40°, long 75°45' to 75°52'30".
- GP-226. Part of the Unionville quadrangle, Chester County, Pa., by R. W. Bromery, G. L. Zandle, and others. Lat 39°52'30" to 40°, long 75°37'30" to 75°45'.
- GP-227. Temple quadrangle, Berks County, Pa. Lat 40°22'30" to 40°30', long 75°52'30" to 76°.
- GP-228. Fleetwood quadrangle, Berks County, Pa. Lat 40°22'30" to 40°30', long 75°45' to 75°52'30".
- GP-229. Manatawny quadrangle, Berks County, Pa., by R. W. Bromery, G. L. Zandle, and others. Lat 40°22'30" to 40°30', long 75°37'30" to 75°45'. Contour intervals, 50 and 250 gammas.
- GP-230. Reading quadrangle, Berks County, Pa. Lat 40°15' to 40°22'30", long 75°52'30" to 76°.
- GP-231. Birdsboro quadrangle, Berks County, Pa. Lat 40°15' to 40°22'30", long 75°45' to 75°52'30".
- GP-232. Boyertown quadrangle, Berks and Montgomery Counties, Pa., by R. W. Bromery, G. L. Zandle, and others. Lat 40°15' to 40°22'30", long 75°37'30" to 75°45'.
- GP-233. Honey Brook quadrangle, Chester and Lancaster Counties, Pa. Lat 40° to 40°07'30", long 75°52'30" to 76°.
- GP-234. Parkesburg quadrangle, Chester and Lancaster Counties, Pa. Lat 39°52'30" to 40°, long 75°52'30" to 76°.
- GP-235. Part of the Easton quadrangle, Northampton County, Pa., and Warren County, N. J. Lat 40°37'30" to 40°45', long 75°07'30" to 75°15'.
- GP-236. Part of the Riegelsville quadrangle, Bucks and Northampton Counties, Pa., and Hunterdon and Warren Counties, N. J. Lat 40°30' to 40°37'30", long 75°07'30" to 75°15'.
- GP-237. Part of the Harbor quadrangle, Bucks, Montgomery, and Philadelphia Counties, Pa. Lat 40°07'30" to 40°15', long 75° to 75°07'30".
- GP-238. Langhorne quadrangle, Bucks County, Pa. 1960. Lat 40°07'30" to 40°15', long 74°52'30" to 75°.
- GP-239--GP-245. Aeromagnetic maps, by R. W. Bromery, G. L. Zandle, and others. 1961. Scale, 1:24,000. Contour interval, 50 gammas. 50c each.
- GP-239. Womelsdorf quadrangle, Berks, Lebanon, and Lancaster Counties, Pa. Lat 40°15' to 40°22'30", long 76°07'30" to 76°15'.
- GP-240. Sinking Spring quadrangle, Berks and Lancaster Counties, Pa. Lat 40°15' to 40°22'30", long 76° to 76°07'30".
- GP-241. Ephrata quadrangle, Lancaster County, Pa. Lat 40°07'30" to 40°15', long 76°07'30" to 76°15'.
- GP-242. Terre Hill quadrangle, Lancaster and Berks Counties, Pa. Lat 40°07'30" to 40°15', long 76° to 76°07'30".
- GP-243. Leola quadrangle, Lancaster County, Pa. Lat 40° to 40°07'30", long 76°07'30" to 76°15'.
- GP-244. New Holland quadrangle, Lancaster County, Pa. Lat 40° to 40°07'30", long 76° to 76°07'30".
- GP-245. Gap quadrangle, Lancaster County, Pa. Lat 39°52'30" to 40°, long 76° to 76°07'30".
- GP-246--GP-253. Preliminary aeroradioactivity and geologic maps, by D. H. Eargle, J. V. A. Trumbull, and R. M. Moxham. 1961. Scale, 1:31,680. Contour interval, 50 feet. 50c each.
- GP-246. Floresville SE quadrangle, Karnes and Wilson Counties, Tex. Lat 29° to 29°07'30", long 98° to 98°07'30".
- GP-247. Stockdale SW quadrangle, Karnes and Wilson Counties, Tex., by J. V. A. Trumbull, D. H. Eargle, and R. M. Moxham. Lat 29° to 29°07'30", long 97°52'30" to 98°.
- GP-248. Stockdale SE quadrangle, Karnes, De Witt, and Wilson Counties, Tex. Lat 29° to 29°07'30", long 97°45' to 97°52'30".
- GP-249. Falls City NW quadrangle, Atascosa, Karnes, and Wilson Counties, Tex., by R. D. Brown, Jr., D. H. Eargle, and R. M. Moxham. Lat 28°52'30" to 29°, long 98°07'30" to 98°15'.
- GP-250. Falls City NE quadrangle, Karnes and Wilson Counties, Tex., by R. D. Brown, Jr., D. H. Eargle, and R. M. Moxham. Lat 28°52'30" to 29°, long 98° to 98°07'30". Contour interval, 20 feet.

- GP-251. Karnes City NW quadrangle, Karnes County, Tex. Lat 28°52'30" to 29°, long 97°52'30" to 98°. Contour interval, 20 feet.
- GP-252. Falls City SW quadrangle, Atascosa, Karnes, and Live Oak Counties, Tex., by D. H. Eargle, R. D. Brown, Jr., and R. M. Moxham. Lat 28°45' to 28°52'30", long 98°07'30" to 98°15'. Contour interval, 20 feet.
- GP-253. Falls City SE quadrangle, Atascosa, Karnes, and Live Oak Counties, Tex., by D. H. Eargle and R. M. Moxham. Lat 28°45' to 28°52'30", long 98° to 98°07'30". Contour interval, 20 feet.
- GP-254--GP-283. Aeromagnetic maps, by R. W. Bromery, G. L. Zandle, and others. 1961. Scale, 1:24,000. Contour interval, 50 gammas, 50c each.
- GP-254. Lebanon quadrangle, Lebanon County, Pa. Lat 40°15' to 40°22'30", long 76°22'30" to 76°30'.
- GP-255. Richland quadrangle, Lebanon and Lancaster Counties, Pa. Lat 40°15' to 40°22'30", long 76°15' to 76°22'30". Contour interval, 25 gammas.
- GP-256. Manheim quadrangle, Lancaster and Lebanon Counties, Pa. Lat 40°07'30" to 40°15', long 76°22'30" to 76°30'. Contour interval, 25 gammas.
- GP-257. Lititz quadrangle, Lancaster and Lebanon Counties, Pa. Lat 40°07'30" to 40°15', long 76°15' to 76°22'30". Contour interval, 25 gammas.
- GP-258. Columbia east quadrangle, Lancaster County, Pa. Lat 40° to 40°07'30", long 76°22'30" to 76°30'. Contour interval, 25 gammas.
- GP-259. Lancaster quadrangle, Lancaster County, Pa. Lat 40° to 40°07'30", long 76°15' to 76°22'30". Contour intervals, 25 and 125 gammas.
- GP-260. Part of the Bedminster quadrangle, Bucks County, Pa. 1960. Lat 40°22'30" to 40°30', long 75°07'30" to 75°15'. Contour interval, 25 gammas.
- GP-261. Part of the Lumberville quadrangle, Bucks County, Pa., and Hunterdon County, N. J. 1960. Lat 40°22'30" to 40°30', long 75° to 75°07'30".
- GP-262. Telford quadrangle, Montgomery and Bucks Counties, Pa. 1960. Lat 40°15' to 40°22'30", long 75°15' to 75°22'30". Contour interval, 25 gammas.
- GP-263. Part of the Doylestown quadrangle, Bucks and Montgomery Counties, Pa. 1960. Lat 40°15' to 40°22'30", long 75°07'30" to 75°15'. Contour interval, 25 gammas.
- GP-264. Lansdale quadrangle, Montgomery County, Pa. 1960. Lat 40°07'30" to 40°15', long 75°15' to 75°22'30". Contour interval, 25 gammas.
- GP-265. Part of the Ambler quadrangle, Montgomery and Bucks Counties, Pa. 1960. Lat 40°07'30" to 40°15', long 75°07'30" to 75°15'. Contour interval, 25 gammas.
- GP-266. Part of the Alburtis quadrangle, Lehigh, Berks, and Northampton Counties, Pa. Lat 40°30' to 40°45', long 75°30' to 75°45'.
- GP-267. Part of the Hummelstown quadrangle, Dauphin County, Pa. Lat 40°15' to 40°22'30", long 76°37'30" to 76°45'.
- GP-268. Part of the Palmyra quadrangle, Dauphin and Lebanon Counties, Pa. Lat 40°15' to 40°22'30", long 76°30' to 76°37'30".
- GP-269. Middletown quadrangle, Dauphin, Lancaster, Lebanon, and York Counties, Pa., by R. W. Bromery, N. C. Natof, and others. Lat 40° to 40°15', long 76°30' to 76°45'.
- GP-270. York quadrangle, York County, Pa. Lat 39°52'30" to 40°, long 76°37'30" to 76°45'.
- GP-271. Red Lion quadrangle, York County, Pa. Lat 39°52'30" to 40°, long 76°30' to 76°37'30".
- GP-272. Glen Rock and part of the New Freedom quadrangles, York County, Pa. Lat 39°42'30" to 39°52'30", long 76°37'30" to 76°45'.
- GP-273. Part of the Bernville quadrangle, Berks County, Pa. Lat 40°22'30" to 40°30', long 76° to 76°07'30". Contour interval, 25 gammas.
- GP-274. Part of the Mechanicsburg quadrangle, Cumberland and York Counties, Pa. Lat 40°07'30" to 40°15', long 77° to 77°07'30".
- GP-275. New Cumberland quadrangle, Cumberland, Dauphin, and York Counties, Pa. Lat 40° to 40°15', long 76°45' to 77°.
- GP-276. Part of the Mount Holly Springs quadrangle, Adams, Cumberland and York Counties, Pa. Lat 40° to 40°07'30", long 77°07'30" to 77°15'.
- GP-277. Part of the Dillsburg quadrangle, Adams, York, and Cumberland Counties, Pa. Lat 40° to 40°07'30", long 77° to 77°07'30".
- GP-278. Part of the Arendtsville quadrangle, Adams and Cumberland Counties, Pa. Lat 39°52'30" to 40°, long 77°15' to 77°22'30".
- GP-279. Biglerville quadrangle, Adams County, Pa. Lat 39°52'30" to 40°, long 77°07'30" to 77°15'.
- GP-280. Hampton quadrangle, Adams and York Counties, Pa. Lat 39°52'30" to 40°, long 77° to 77°07'30".
- GP-281. Abbottstown quadrangle, Adams and York Counties, Pa. Lat 39°52'30" to 40°, long 76°52'30" to 77°.
- GP-282. West York quadrangle, York County, Pa. Lat 39°52'30" to 40°, long 76°45' to 76°52'30".
- GP-283. Part of the Fairfield quadrangle and part of the Emmitsburg quadrangle, Adams County, Pa., and Frederick County, Md., by R. W. Bromery, B. L. White, and others. Lat 39°42'30" to 39°52'30", long 77°15' to 77°22'30".
- GP-284--GP-287. Aeromagnetic maps, by R. W. Bromery, N. C. Natof, and others. 1961. Scale, 1:24,000. Contour interval, 50 gammas, 50c each.
- GP-284. Gettysburg quadrangle and part of the Taneytown quadrangle, Adams County, Pa. Lat 39°42'30" to 39°52'30", long 77°07'30" to 77°15'.
- GP-285. McSherrystown quadrangle and part of the Littlestown quadrangle, Adams County, Pa. Lat 39°42'30" to 39°52'30", long 77° to 77°07'30".

- GP-286. Hanover quadrangle and part of the Manchester quadrangle, Adams and York Counties, Pa. Lat $39^{\circ}42'30''$ to $39^{\circ}52'30''$; long $76^{\circ}52'30''$ to 77° .
- GP-287. Seven Valleys quadrangle and part of the Lineboro quadrangle, York County, Pa. Lat $39^{\circ}42'30''$ to $39^{\circ}52'30''$, long $76^{\circ}45'$ to $76^{\circ}52'30''$.
- GP-306. Natural gamma aeroradioactivity of the Savannah River Plant area, South Carolina and Georgia, by R. G. Schmidt. 1961. Scale, 1:250,000. 50c.
- GP-307. Aeroradioactivity of the Hanford Plant area, Washington and Oregon, by R. G. Schmidt. 1961. Scale, 1:250,000. 50c.

HYDROLOGIC INVESTIGATIONS ATLASES

[Maps or charts on one or more sheets, giving information obtained from hydrologic investigations. Distinguishing prefix "HA".]

- HA-1. Hydrology of the San Bernardino and eastern San Gabriel Mountains, California, by H. C. Troxell and others. 1954. 13 pls., incl. maps and diag. \$3.50.
- HA-2. Areas of principal ground-water investigations in the Arkansas, White, and Red River basins, by S. W. Lohman and V. M. Burtis. 1953 [1954]. Lat 31° to 39°, long 91° to 106°. Scale, 1:2,500,000. 40c.
- HA-3. General availability of ground water and depth to water level in the Arkansas, White, and Red River basins, by S. W. Lohman, V. M. Burtis, and others. 1953 [1954]. Lat 31° to 39°, long 91° to 106°. Scale, 1:2,500,000. 25c.
- HA-4. Configuration of the water table in Nebraska, by R. L. Schreurs. 1954. Scale, 1 inch to 20 miles [1:1,267,200]. 25c.
- HA-5. Map of the Louisville area, Kentucky, showing contours on the bedrock surface, compiled by L. M. MacCary. 1955. Lat 38°04' to 38°21', long 85°38' to 85°55'. Scale, 1 inch to about 4,700 feet [1:55,400]. Contour interval, 10 feet. 50c.
- HA-6. Reconnaissance of the geology and ground-water resources of southern Stou County, Nebr., by Edward Bradley, with a section on The chemical quality of the ground water, by F. H. Rainwater. 1956. 50c.
- HA-7. Average annual runoff and precipitation in the New England-New York area, by C. E. Knox and T. J. Nordenson. 1955. Lat 41° to 46°, long 70° to 77°15'. Scale, 1 inch to about 16 miles [1:1,000,000]. 75c.
- HA-8. Availability of ground water for domestic use in Jefferson County, Ky., by L. M. MacCary. 1956. Lat 38°00' to 38°22'00", long 82°25' to 85°55'. Scale, 1 inch to about 1½ miles [1:93,750]. 75c.
- HA-9. Ground-water resources of part of Weld, Logan, and Morgan Counties, Colo., by L. J. Bjorklund, with a section on The chemical quality of the ground water, by F. H. Rainwater. 1957 [1958]. 75c.
- HA-10. Summary of occurrence of ground water in Kentucky, by G. E. Hendrickson. 1958. Scale, 1:750,000. 3 p. 75c.
- HA-11. Precipitation, water loss, and runoff in the Delaware River basin and New Jersey, by A. G. Hely, T. J. Nordenson, and others. 1961. 11 p. \$1.50.
- HA-12. Ground-water reconnaissance of the North Loup Division of the lower Platte River basin, Nebraska, by C. F. Keech and M. P. Carlson. 1959. 11 p. \$1.
- HA-14. Floods of the Kansas River, Topeka, Kansas, in 1935 and 1951. 1959. Lat 39° to 39°07'30", long 95°37'30" to 95°45'. Scale, 1:24,000. Contour interval, 10 feet. 75c.
- HA-15. ¹Availability of ground water in Boone, Campbell, Grant, Kenton, and Pendleton Counties, Ky., (County group 15), by W. N. Palmquist, Jr., and F. R. Hall. 1960. Lat 38°30' to 39°05', long 84°15' to 84°50'. Scale, 1:125,000. 3 sheets. \$1 per set.
- HA-16. Availability of ground water in Bracken, Harrison, Mason, Nicholas, and Robertson Counties, Ky., (County group 16), by W. N. Palmquist, Jr., and F. R. Hall. 1960. Lat 38°15' to 38°50', long 83°40' to 84°30'. Scale, 1:125,000. 3 sheets. \$1 per set.
- HA-17. Availability of ground water in Lewis and Rowan Counties, Ky., (County group 17), by W. N. Palmquist, Jr., and F. R. Hall. 1960. Lat 38°05' to 38°40', long 83°05' to 83°40'. Scale, 1:125,000. 3 sheets. \$1 per set.
- HA-18. Availability of ground water in Bath, Fleming, and Montgomery Counties, Ky., (County group 18), by F. R. Hall and W. N. Palmquist, Jr. 1960. Lat 37°55' to 38°30', long 83°30' to 84°05'. Scale, 1:125,000. 3 sheets. \$1 per set.
- HA-19. Availability of ground water in Clark, Estill, Madison, and Powell Counties, Ky., (County group 19), by F. R. Hall and W. N. Palmquist, Jr. 1960. Lat 37°35' to 38°05', long 83°40' to 84°30'. Scale, 1:125,000. 3 sheets. \$1 per set.
- HA-20. Availability of ground water in Boyle, Garrard, Lincoln, and Mercer Counties, Ky., (County group 20), by W. N. Palmquist, Jr., and F. R. Hall. 1960. Lat 37°15' to 38°, long 84°20' to 85°. Scale, 1:125,000. 3 sheets. \$1 per set.
- HA-21. Availability of ground water in Marion, Nelson, and Washington Counties, Ky., (County group 21), by F. R. Hall and W. N. Palmquist, Jr. 1960. Lat 37°25' to 37°55', long 85°05' to 85°40'. Scale, 1:125,000. 3 sheets. \$1 per set.
- HA-22. Availability of ground water in Bullitt, Jefferson, and Oldham Counties, Ky., (County group 22), by W. N. Palmquist, Jr., and F. R. Hall. 1960. Lat 37°50' to 38°30', long 85°20' to 85°55'. Scale, 1:125,000. 3 sheets. \$1 per set.

¹Hydrologic Investigations Atlases HA-15 to HA-25, scale 1:125,000, include geologic maps and maps showing the availability of ground water in the Blue Grass region, Kentucky. U. S. Geological Survey Water-Supply Paper 1533 contains a text description and illustrations providing further information on the occurrence and quality of the ground water in the Blue Grass region.

- HA-23. Availability of ground water in Carroll, Gallatin, Henry, Owen, and Trimble Counties, Ky., (County group 23), by F. R. Hall and W. N. Palmquist, Jr. 1960. Lat 38°25' to 38°50', long 84°35' to 85°25'. Scale, 1:125,000. 3 sheets. \$1 per set.
- HA-24. Availability of ground water in Anderson, Franklin, Shelby, Spencer, and Woodford Counties, Ky., (County group 24), by F. R. Hall, and W. N. Palmquist, Jr. 1960. Lat 37°55' to 38°20', long 84°40' to 85°30'. Scale, 1:125,000. 3 sheets. \$1 per set.
- HA-25. Availability of ground water in Bourbon, Fayette, Jessamine, and Scott Counties, Ky., (County group 25), by W. N. Palmquist, Jr., and F. R. Hall. 1960. Lat 37°45' to 38°25', long 84° to 84°40'. Scale, 1:125,000. 3 sheets. \$1 per set.
- HA-39. Floods in the Little Calumet River basin near Chicago Heights, Illinois, in 1954 and 1957. 1960 [1961]. Lat 41°30' to 41°37'30", long 87°30' to 87°37'30". Scale, 1:24,000. Contour interval, 5 feet. 75c.
- HA-40. Floods on the Kokosing River, Dry Creek, and Center Run, at Mount Vernon, Ohio, in 1959. 1961. Scale, 3 inches to about 1 mile [1:21,120.] 50c.
- HA-42. Geologic map of White Sands Missile Range headquarters area, Dona Ana County, New Mexico, showing location of wells, contours on the water table, and location of proposed dams, reservoirs and recharge-discharge wells, by E. H. Herrick. 1961. Scale, 1:31,680. Contour interval, 100 feet. 50c.
- HA-43. Floods at Springfield, Ohio, in 1913 and 1959. 1961. Lat 39°52'30" to 40°, long 83°45' to 83°52'30". Scale, 1:24,000. Contour interval, 10 feet. 75c.

TOPOGRAPHIC MAPS
NATIONAL TOPOGRAPHIC MAP SERIES

Quadrangle Maps

The National Topographic Map Series is a term used to designate collectively the several quadrangle map series of the United States, its Territories and possessions. Each individual series is intended to fulfill a specific type of map requirement and is classified generally according to its publication scale. Large-scale maps (1:20,000, 1:24,000, 1:30,000, and 1:31,680) are especially suitable for densely settled areas and other areas where detailed map information is needed for engineering planning and similar purposes. Medium-scale maps (1:62,500 and 1:63,360) are considered adequate for general use where detailed planning is not contemplated. Small-scale maps (1:125,000, 1:250,000, and 1:1,000,000) cover large areas on a single sheet and are useful in planning statewide and nationwide projects. A few special maps are published on other scales. The contour interval differs according to the scale of the map and the relief of the country. Under the general plan adopted in 1882 for the production of a standard series of topographic maps each map covers a quadrangle area bounded by lines of latitude and longitude, by which the location of any point on the surface of the earth is readily determined. Maps with these standard boundaries are usually referred to as quadrangle maps. These maps and their essential specifications as to size are given in the following table:

Series	Scale	1 inch equals	Quadrangle size (lat-long)	Quadrangle size (sq mi)	Paper size
United States:					
7½-minute	1:24,000	2,000 ft	7½' x 7½'	49-70	22 x 27 23 x 27
7½-minute	1:31,680	0.50 mile	7½' x 7½'	49-68	17 x 21
15-minute	1:62,500	0.98 mile	15' x 15'	197-282	17 x 21 19 x 21
1:63,360 (Alaska)	1:63,360	1.00 mile	15' x 20'-30'	207-281	17 x 21 18 x 21
30-minute	1:125,000	1.97 miles	30' x 30'	789-1,082	17 x 21
1-degree	1:250,000	3.94 miles	1° x 1°	3,173-4,335	17 x 21
1:250,000	1:250,000	3.94 miles	1° x 2°	6,346-8,669	22 x 29 22 x 32 22 x 34
Reconnaissance (Alaska)	1:250,000	3.94 miles	1° x 2°-3°	4,580-7,310	23 x 30
1:250,000 (Alaska)	1:250,000	3.94 miles	1° x 2°-3°	4,580-7,310	23 x 30
1:250,000 (Hawaii)	1:250,000	3.94 miles	1° x 1°30'-1°35'	6,730-7,104	24 x 29
1:1,000,000	1:1,000,000	15.78 miles	4° x 6°	73,734-102,759	27 x 27
1:1,000,000	1:1,000,000	15.78 miles	4° x 12°	78,960-122,066	26 x 30
Puerto Rico:					
7½-minute	1:20,000	0.31 mile	7½' x 7½'	71	31 x 36
7½-minute	1:30,000	0.47 mile	7½' x 7½'	71	20 x 22
Virgin Islands:					
1:24,000	1:24,000	2,000 ft	7½' x 6'	56	20 x 27
7½-minute	1:24,000	2,000 ft	7½' x 7½'	71	23 x 27

Each quadrangle is designated by the name of a city, town, or prominent feature within it, and on the margins of the map are printed the names of adjoining quadrangle maps that have been published.

The maps are generally printed in three or more colors. The cultural features, such as roads, railroads, cities, and towns, as well as the lettering, are in black; the water features are in blue; and the features of relief, such as hills, mountains, and valleys, are shown by contour lines in brown. Additional information, such as woodland, is shown in green; highway classification, urban areas, and United States land lines are shown in red. Copies with the woodland overprint are supplied where available unless non-woodland copies are specifically requested. A topographic map index for each State and a folder describing topographic maps and symbols are available on request.

METROPOLITAN AREA MAPS

In some metropolitan areas several topographic quadrangle maps have been combined to form a single-sheet map. The maps published before 1962, with the price of each map, are listed on pages 251-252.

SHADED-RELIEF MAPS

Certain topographic quadrangle maps showing physiographic features of special interest have been published in a shaded-relief edition. Also, selected maps of the 1:250,000 scale series, state maps, and some national parks and monuments maps are published in a shaded-relief edition. The shading accentuates the physical features, thereby giving the map the appearance of a model of the surface. Maps for which a shaded-relief edition is available, and their prices, are listed on the indexes to topographic mapping in each state. State maps and maps of national parks and monuments for which this edition has been published are listed on pages 252-255.

UNITED STATES 1:250,000 SCALE SERIES

The maps in this series are published generally in units of one degree in latitude by two or three degrees in longitude, and cover areas of from 4,580 to 8,669 square miles, depending upon the latitude of the individual areas. The contour interval ranges from 25 feet in areas where the terrain is flat to 500 feet in some mountainous areas. (The physical features are further accentuated on most of the Alaska maps in this series by the addition of shaded relief.) Copies with a woodland overprint are supplied where available unless maps without this information are specifically requested. The maps in this series are 50 cents each. An index is available on request.

UNITED STATES 1:1,000,000 SCALE SERIES

The maps in this series are published in units of four degrees of latitude by six degrees of longitude (twelve degrees for Alaska). The area covered by each map ranges from 73,734 to 122,066 square miles, depending on the latitude.

Two editions of some of these maps are available. The initial edition of 14 maps was published as the United States contribution to the International Map of the World (IMW) and was prepared by the Geological Survey in accordance with standard specifications for that series. The preparation of new maps strictly in accord therewith has been discontinued for the present; however, a second edition is being published based on a series of 1:1,000,000 scale maps compiled by the Army Map Service for military use. The maps of the second edition, distributed by the Geological Survey for civil use, usually contain more recent information than maps of the IMW series. Although they do not conform to the IMW specifications in all respects, the maps of the second edition will satisfy the same general purposes. In both editions, each map is numbered in accordance with the designation system adopted for the IMW series and is named for one of the principal localities or natural features within its area.

The maps show the principal cities and towns, railroads, and political boundaries in black; the roads in red; the water features in blue (water depths in blue on the IMW series only); and topographic features by brown contour lines and gradient tints. Contour intervals vary from 50 meters where the terrain is relatively flat to 500 meters in mountainous regions. The price of each map is \$1. An index is available on request.

ALASKA

Areas of particular economic importance in Alaska are covered by topographic maps published at the scale of 1:63,360. Unlike the "15-minute" quadrangle series published for the other States, those of Alaska are published in units of either 15 minutes of latitude by 20 minutes of longitude, or 15 minutes of latitude by 30 minutes of longitude. These maps are 30 cents each.

HAWAII

Single sheet maps at 1:62,500 scale are available for Kauai, Oahu, Niihau, Molokai, Kahoolawe, and Maui Islands. Twenty-two 15-minute quadrangles covering Hawaii Island have been published at 1:62,500 scale. A new series of topographic maps of the Hawaiian Islands at the scale of 1:24,000 is in preparation; maps of Oahu, Molokai, and Maui at this scale have been completed. The price of the maps of Hawaii ranges from 30 to 75 cents each.

PUERTO RICO

Puerto Rico has been completely mapped and the maps published at 1:20,000 scale. Sixty-five quadrangles cover Puerto Rico and Culebra Islands. The maps are 30 cents each. The single-sheet map of Vieques Island is 50 cents.

VIRGIN ISLANDS

The Virgin Islands have also been completely mapped and the maps have been published at 1:24,000 scale. Eight maps are required to cover the island group. The maps are 30 cents each.

AERIAL PHOTOGRAPHS

Aerial photographs are obtained by the Geological Survey in connection with its geologic and topographic mapping activities. These photographs range in scale from 1:15,000 to 1:60,000, the scale being governed by the contour interval, the nature of the terrain, and the type of stereoplottting equipment to be used.

Reproductions of these photographs at contact print size (9 x 9 inches) or enlargements up to four diameters (36 x 36 inches) are available at moderate prices. Puerto Rico, the Virgin Islands, and American Samoa have been photographed by various agencies of the Federal Government (see Status Maps, p. 256).

Aerial mosaics of some areas are prepared for special investigations. The areas for which they are available for sale to the public by various Federal Government agencies are shown on the status map described on p. 256.

ANTARCTICA RECONNAISSANCE SERIES

These are shaded-relief maps of certain areas in Antarctica, prepared from aerial photography flown by the U. S. Navy. The maps, which are published at the scale of 1:250,000, carry a basic contour interval of 200 meters, and are 26 by 30 inches.

Shaded-relief maps at the scale of 1:500,000, showing coastal areas of Wilkes Land, are also available. They carry a basic contour interval of 1,000 feet, with supplemental 500-foot contours in some areas, and are 25 by 33 inches. Price of each Antarctic map is 50 cents.

GEODETTIC CONTROL DIAGRAMS

The Geological Survey in cooperation with the Coast and Geodetic Survey is publishing a series of geodetic control diagrams on a planimetric base of the 1:250,000 scale maps. The diagrams show the location of level, and transit-traverse lines, electronic distance measurements, and triangulation stations established by the Two agencies. The work of the Geological Survey is shown in red and that of the Coast and Geodetic Survey in black. The price of each diagram is 50 cents.

INDEXES TO PUBLISHED QUADRANGLE MAPS

Index maps of each State, and of Puerto Rico and the Virgin Islands, showing the areas covered by published topographic maps, may be obtained free on request to the Geological Survey, Washington, D. C. 20242. The text of the index map contains a brief description of the topographic quadrangle map series, special maps of areas within the State, and maps of the United States published at various scales. Also included are a list of map reference libraries where the published maps of the Geological Survey may be consulted, and a list of the local agents from whom topographic maps may be purchased.

Further information concerning maps and related material may be obtained from the Map Information Office, Geological Survey, Washington, D. C. 20242.

LIST OF TOPOGRAPHIC MAPS

[Asterisk (*) indicates map out of print]

UNITED STATES

Contour Maps

Scale, 1:7,000,000. 30c.

Shaded Relief Maps

*Scale, 1:3,168,000.

*Scale, 1:7,000,000.

STATES

Contour Maps

Altitude shown by brown lines. See following table for "New Series" of contour maps.

*Colorado. Scale, 1:500,000.

*Connecticut. Scale, 1:125,000.

*Massachusetts-Rhode Island. Scale, 1:250,000.

*Texas. Scale, 1:500,000, 4 sheets.

Shaded Relief Maps

Relative altitude shown by brown shading. See following table for "New Series" of relief maps.

*Arizona. Scale, 1:500,000.

Idaho. Scale, 1:760,320. 75c.

*Kentucky. Scale, 1:500,000.

*Ohio. Scale, 1:380,160.

Elevation Map

Reconnaissance and elevation of southeastern New Mexico, by W. B. Lang, shows hachures in brown and spot elevations in red. Scale, 1:253,440. \$1.50.

Base Maps

Show counties, principal cities and towns, railroads and streams. See following table for State base maps showing additional features.

Scale, 1:1,600,000. California, 50c; Texas, 75c; all others, 20c.

Scale, 1:500,000. See following table (p. 250.)

Scale: 1:500,000	Base only	Base with highways	Topographic (base, highways and contours)	Shaded relief on modified base	Size in inches, overall
Alabama ¹	\$0.50		²		30 x 46
Arizona	1.00		\$2.00	\$2.00	44 x 56
Arkansas ¹	.50				34 x 39
California:					
North half	1.00		2.00		46 x 64
South half	1.00		² 2.00		46 x 64
Colorado	1.00		² 2.00	2.00	44 x 53
Florida ¹	.50				44 x 60
Georgia ¹	.50				34 x 41
Idaho ¹	.50				44 x 64
Illinois	1.00		2.00		32 x 53
Indiana	1.00	\$2.00			27 x 42
Iowa	1.00	2.00			32 x 46
Kansas ¹	.50				34 x 56
Kentucky	1.00		² 2.00	2.00	27 x 56
Louisiana ¹	.50				40 x 44
Maine	1.00		² 2.00	2.00	30 x 44
Maryland-Delaware-District of Columbia	.75		³ 1.50	1.50	23 x 36
Massachusetts-Rhode Island-Connecticut	.75		³ 1.50	1.50	24 x 32
Michigan (two sheets) ¹	1.00	set			52 x 66
Minnesota (two sheets) ¹	.50	set			50 x 60
Mississippi	1.00	2.00			31 x 52
Missouri	1.00		2.00	2.00	47 x 54
Montana (two sheets) ¹	.50	set			47 x 47
Nebraska ¹	.50				31 x 59
Nevada ¹	.50				44 x 64
New Hampshire-Vermont	.75		1.50	1.50	22 x 28
New Jersey	.75		³ 1.50	1.50	23 x 28
New Mexico	1.00		2.00		52 x 54
New York	1.00		² 2.00	2.00	44 x 56
North Carolina	1.00		² 2.00	2.00	29 x 66
North Dakota ¹	.50				32 x 50
Ohio	1.00		2.00	2.00	34 x 47
Oklahoma	1.00	2.00			35 x 54
Oregon	1.00	² 2.00			44 x 55
Pennsylvania	1.00		² 2.00	2.00	29 x 44
South Carolina ¹	.50				32 x 39
South Dakota ¹	.50				34 x 52
Tennessee	1.00		² 2.00	2.00	19 x 65
Texas (four sheets) ¹	2.00	set			44 x 54
Utah	1.00		² 2.00	2.00	41 x 50
Virginia	1.00		² 2.00	2.00	30 x 64
Washington ¹	.50				37 x 52
West Virginia ¹	.50				33 x 38
Wisconsin (two sheets) ¹	.50				43 x 45
Wyoming	1.00	2.00			41 x 52

¹ "Old Series" State base maps; prepared during the period 1910-1932. All others listed in this table are "New Series" maps compiled since 1948.

² Also show urban areas, national parks, national forests, and Indian reservations.

³ Topographic with shaded relief.

METROPOLITAN AREA MAPS

[Metropolitan area maps are composed of several quadrangle maps of the National Topographic Map Series covering selected cities and adjacent areas. Except as noted, they are published at the scale of 1:24,000 - 1 inch equals 2000 feet. The size is given in inches. Each map is printed in five colors and shows all features that appear on the standard quadrangles. The date shown is the latest survey date of the quadrangles included in the area map. Indexes to topographic maps published for each State, Puerto Rico, and the Virgin Islands indicate the area included in the metropolitan maps.]

- Albuquerque and vicinity, N. Mex. 1960. (41 x 45). \$1.50.
 Atlanta and vicinity, Ga. 1955. (50 x 56). \$1.50.
 Austin and vicinity, Tex. 1955. (27 x 37). \$1.
 Baton Rouge and vicinity, La. 1954. (37 x 44). \$1.50
 Bridgeport and vicinity, Conn. 1951. (30 x 50). \$1.
 Buffalo and vicinity, N. Y. 1948. (39 x 45). \$1.50.
 Champaign-Urbana and vicinity, Ill. 1950. (22 x 27). 30c.
 Chattanooga and vicinity, Tenn.-Ga. 1958. (42 x 47). \$1.50.
 Chicago and vicinity, Ill.-Ind.:
 Sheet 1 (Evanston). 1953. (48 x 72). \$1.50.
 Sheet 2 (Chicago Loop). 1953. (48 x 72). \$1.50.
 Sheet 3 (Blue Island). 1953. (48 x 72). \$1.50.
 Cincinnati and vicinity, Ohio-Ky. 1955. (50 x 72). \$1.50.
 Cleveland and vicinity, Ohio. 1953. (50 x 72). \$1.50.
 Columbus and vicinity, Ohio. 1955. (39 x 53). \$1.50.
 Davenport, Rock Island, Moline, and vicinity, Ill.-Iowa. 1953. (39 x 46). \$1.50.
 Dayton and vicinity, Ohio. 1955. (50 x 48). \$1.50.
 Denver and vicinity, Colo. 1957. (50 x 69). \$1.50.
 Detroit and vicinity, Mich.-Ont.:
 North half. 1955. (46 x 72). \$1.50.
 South half. 1955. (46 x 72). \$1.50.
 Duluth, Superior, and vicinity, Minn.-Wis. 1954. (36 x 54). \$1.50.
 Fort Worth and vicinity, Texas. 1955. (42 x 53). \$1.50.
 Gary and vicinity, Ind.-Ill. 1953. (46 x 58). \$1.50.
 Hartford, New Britain, and vicinity, Conn. 1953. (47 x 53). \$1.50.
 Honolulu and vicinity, Hawaii. 1954. (50 x 70). \$1.50.
 Houston and vicinity, Tex. 1955. (50 x 65). \$1.50.
 Indianapolis and vicinity, Ind. 1946. (38 x 47). \$1.
 Juneau and vicinity, Alaska. 1948. (28 x 30). 50c.
 Knoxville and vicinity, Tenn. 1953. (28 x 33). \$1.
 Little Rock and vicinity, Ark. 1954. (35 x 40). \$1.50.
 Long Beach and vicinity, Calif. 1951. (43 x 72). \$1.50.
 Los Angeles and vicinity, Calif.:
 (East), Calif. 1953. (50 x 72). \$1.50.
 (West), Calif. 1953. (50 x 72). \$1.50.
 Louisville and vicinity, Ky.-Ind. 1955. (41 x 46). \$1.50.
 Madison and vicinity, Wis. 1959. (38 x 45). \$1.50.
 Minneapolis, St. Paul, and vicinity, Minn. 1952. (46 x 56). \$1.50.
 New Haven and vicinity, Conn. 1954. (38 x 59). \$1.50.
 New Orleans and vicinity, La. 1952. (47 x 48). \$1.50.
 New York and vicinity (8 sheets):
 Brooklyn, N.Y.-N.J. 1957. (39 x 54). \$1.50.
 Harlem, N.Y.-N.J. 1956. (39 x 54). \$1.50.
 Hempstead, N.Y. 1955. (39 x 54). \$1.50.
 Oyster Bay, N.Y.-Conn. 1955. (39 x 54). \$1.50.
 Paterson, N.J.-N.Y. 1955. (39 x 54). \$1.50.
 Plainfield, N.J.-N.Y. 1956. (39 x 54). \$1.50.
 Sandy Hook, N.J.-N.Y. 1954. (44 x 54). \$1.50.
 Staten Island, N.Y.-N.J. 1955. (39 x 54). \$1.50.
 Norfolk, Portsmouth, Newport News, and vicinity, Va. 1955. (50 x 72). \$1.50.
 Oakland and vicinity, Calif. 1947. (42 x 72). \$1.50.
 Peoria and vicinity, Ill. 1949. (30 x 39). \$1.
 Philadelphia and vicinity, Pa.-N.J.:
 (East), Pa.-N.J. 1955 (44 x 72). \$1.50.
 (West), Pa.-N.J. 1956. (44 x 72). \$1.50
 Portland, Vancouver, and vicinity, Oreg.-Wash. 1954. (50 x 70). \$1.50.
 Rochester and vicinity, N.Y. 1952. (46 x 55). \$1.50.
 Salt Lake City and vicinity, Utah. 1952. (34 x 46). \$1.
 San Diego and vicinity, Calif. 1953. (49 x 70). \$1.50.
 San Francisco and vicinity, Calif. 1954. (42 x 72). \$1.50.
 San Juan and vicinity, Puerto Rico. 1957. Scale, 1:20,000. (48 x 57). \$1.50.
 Seattle and vicinity, Wash. 1950. (42 x 70). \$1.50.
 Shreveport and vicinity, La. 1960. (43 x 54). \$1.50.
 Spokane and vicinity, Wash. 1950. (36 x 40). \$1.
 Toledo and vicinity, Ohio-Mich. 1952. (45 x 45). \$1.50.

Washington and vicinity, D.C.-Md.-Va. 1956. (50 x 72). \$1.50.
 Wilkes-Barre, Pittston, and vicinity, Pa. 1950. (38 x 46). \$1.50.
 Wilmington and vicinity, N.J.-Del.-Pa. 1955. (50 x 70). \$1.50.
 Worcester and vicinity, Mass. 1953. (38 x 46). \$1.50.
 Youngstown and vicinity, Ohio-Pa. 1954. (38 x 44). \$1.50.

SPECIAL TOPOGRAPHIC MAPS¹

Acadia National Park and vicinity, Maine, by G. M. Wood. 1939-56 [1959]. Scale, 1:24,000. Revised. Contour or shaded-relief edition, \$1.50 each.

Airlie, Oreg. 1922. Scale, 1:31,680. 30c.

Alta Basin and vicinity, Colo. 1936. Scale, 1:12,000. 30c.

Asher, Okla. 1906. Scale, 1:48,000. 30c.

Aspen and vicinity, Colo. 1891. Scale, 1:9,600. 30c.

Austin area, Reese River mining district, Nev. 1937. Scale, 1:4,800. 30c.

Bakersfield, Calif. 1904. Scale, 1:62,500. 30c.

Bandelier National Monument, N. Mex. 1953 [1959]. Scale, 1:24,000. Contour or shaded-relief edition, \$1.50 each.

Barnes Bridge, Texas. 1910. Scale, 1:31,680. 30c.

Big Bar and vicinity, Calif. 1911. Scale, 1:250,000. 30c.

Bingham mining map, Utah. 1900. Scale, 1:20,000. 30c.

Bisbee and vicinity, Ariz. 1902. Scale, 1:12,000. 30c.

Black Canyon of the Gunnison National Monument, Colo. 1934-50. Scale, 1:24,000. Contour or shaded-relief edition, 50c each.

Bonanza and vicinity, Colo. 1920. Scale, 1:12,000. 30c.

Breckenridge (special), Colo. 1908. Scale, 1:24,000. 30c.

Bridge Canyon, Ariz. 1926. Scale, 1:62,500. 30c.

Bright Angel quadrangle, Ariz., by F. E. Matthes. 1903. Scale, 1:48,000. 30c.

Bryce Canyon National Park, Utah. 1932. Scale, 1:31,680. Contour or shaded-relief edition, 75c each.

Bull Valley district, Utah. 1938. Scale, 1:48,000. 30c.

Butte (special), Mont. 1895-1903. Scale, 1:15,000. 50c.

*Camp Custer, Mich., by Frank Leverett. 1918. Scale, 1:62,500.

*Camp Devens and vicinity, Mass., by W. W. Atwood. 1918. Scale, 1:62,500.

Camp Dodge, Iowa, by J. H. Lees and W. C. Alden. 1917. Scale, 1:62,500. 30c.

Camp Gordon and vicinity, Ga., by F. E. Matthes. 1918. Scale, 1:125,000. 30c.

Camp Grant, Ill. 1917. Scale, 1:62,500. 50c.

*Camp McClellan, Ala., by F. E. Matthes. 1918. Scale, 1:125,000.

Camp Albert L. Mills, N. Y., by W. C. Alden. 1897-1918. Scale, 1:62,500. 30c.

*Camp Pike, Ark., by L. W. Stephenson and H. D. Miser. 1918. Scale, 1:125,000.

*Camp Sherman, Ohio, by M. R. Campbell. 1918. Scale, 1:62,500.

Camp Taylor and vicinity, Ky., by Charles Butts. 1918. Scale, 1:62,500. 30c.

*Camp Upton, N. Y., by W. C. Alden. 1918. Scale, 1:62,500.

Canyon de Chelly National Monument, Ariz. 1938. Scale, 1:48,000. 50c.

Carlsbad Caverns National Park, N. Mex. 1934. Scale, 1:24,000. 30c.

Cartersville mining district, Ga. 1941. Scale, 1:62,500. 30c.

Cedar Breaks National Monument, Utah. 1936. Scale, 1:15,840. 30c.

Central City (special), Colo. 1904. Scale, 1:12,000. 30c.

Central Owens Valley, Calif. 1911. Scale, 1:125,000. 50c.

Central Valley, Calif. 1957. Scale, 1:250,000.

Delta area, \$1.

North area, \$1.

South area, \$1.

Charlottesville and vicinity, Va. 1935. Scale, 1:31,680. 30c.

Chickamauga and Chattanooga National Military Park (Chickamauga Battlefield), Ga. 1934. Scale, 1:9,600. 50c.

Chisos Mountains, Texas. 1903. Scale, 1:125,000. 50c.

Coeur d'Alene district, Idaho-Mont. 1901. Scale, 1:62,500. 30c.

Colonial National Historical Park (Yorktown Battlefield), Va. 1931. Scale, 1:9,600. 50c.

Colorado National Monument, Colo. 1934 [1958]. Scale, 1:31,680. Contour or shaded-relief edition, 30c each.

Crater Lake National Park and vicinity, Oreg., by F. E. Matthes. 1933-1956 [1959]. Scale, 1:62,500. Revised. Contour or shaded-relief edition, 75c each.

Craters of the Moon National Monument, Idaho, by W. C. Alden. Surveyed 1925 and 1930; revised 1957 [1960]. Scale, 1:31,680. Contour or shaded-relief edition, 50c each.

Creede and vicinity, Colo. 1910. Scale, 1:24,000. 30c.

Culebra and adjacent islands, Puerto Rico. 1938. Scale, 1:30,000. 30c.

Custer Battlefield National Monument, Mont. 1891. Scale, 1:24,000. 30c.

¹Maps listed with author's name have descriptive text on reverse. Also included here are topographic maps covering most of the national parks, monuments, and historic sites, published by the Geological Survey as a matter of particular interest to tourists. In addition to those shown on the special maps listed, many other parks, monuments, and historic sites appear on the standard topographic quadrangle maps and are listed on the index circulars.

- Dahlonega district, Ga. 1905. Scale, 1:36,000. 30c.
- Delaware Water Gap, Pa.-N. J., by G. W. Stose. 1942. Scale, 1:62,500. 30c.
- Denver Mountain Area, Colorado, by Ogden Tweto. 1950. Scale, 1:190,080. Contour edition, 50c. Shaded-relief edition, 75c.
- Denver Mountain Parks, Colo. 1903-23. Scale, 1:62,500. 50c.
- Devils Tower National Monument, Wyo. 1933-49. Scale, 1:4,800. Contour or shaded-relief edition. 30c each.
- Dinosaur National Monument, Utah-Colo. 1941 [1950-51]. Scale, 1:62,500. Contour or shaded-relief edition. \$1 each.
- Dry Creek area, Idaho. 1946. Scale, 1:24,000. 30c.
- Elk Basin, Wyo.-Mont. 1944. Scale, 1:15,840. 75c.
- Ely, Nev. 1910. Scale, 1:30,000. 30c.
- Ely Range, Nev. 1916. Scale, 1:48,000. 30c.
- Eureka mining district, Nev. 1931. Scale, 1:24,000. 30c.
- Fossil and vicinity, Wyo. 1939. Scale, 1:62,500. 30c.
- *Fredericksburg-Spotsylvania Battlefield National Monument, Va. Scale, 1:24,000.
- Franklin D. Roosevelt National Historic Site, N. Y. 1946. Scale, 1:960. 50c.
- Frisco (special), Utah. 1909. Scale, 1:62,500. 30c.
- Genesee, Calif. 1891. Scale, 1:31,680. 30c.
- Gilmore mining district, Idaho. 1931. Scale, 1:48,000. 30c.
- Glacier National Park part of Waterton-Glacier International Peace Park, Mont. 1900-1938. Scale, 1:125,000. 50c.
- Gold Hill mining area, Colo. 1938. Scale, 1:12,000. 30c.
- Goldfield (special), Nev. 1905. Scale, 1:24,000. 30c.
- Goodsprings, Nev.-Calif. Scale, 1:62,500. 30c.
- Grand Canyon National Monument, Ariz. 1936. Scale, 1:48,000. 50c.
- Grand Canyon National Park, Ariz. 1902-23. Scale, 1:48,000.
East half. 50c.
West half. 50c.
- Grand Teton National Park, Wyo., by F. M. Fryxell. 1934-48. Scale, 1:62,500. Contour or shaded-relief edition. \$1 each.
- Great Sand Dunes National Monument, Colo. 1938. Scale, 1:24,000. 50c.
- Great Smoky Mountains National Park, N.C.-Tenn. 1931. Scale, 1:62,500.
East half. 50c.
West half. 50c.
- Great Smoky Mountains National Park and vicinity, N.C.-Tenn., by P. B. King and Arthur Stupka. 1949. Scale, 1:125,000. Contour or shaded-relief edition. 75c each.
- Grimes Pass and vicinity, Idaho. 1933. Scale, 1:24,000. 50c.
- *Guilford Courthouse Battlefield National Military Park, [N. C.] Scale, 1:1,200.
- Hannibal and vicinity, Mo.-Ill. 1936. Scale, 1:62,500. 30c.
- *Hawaii National Park, Kilauea-Mauna Loa section. 1921-26. Scale, 1:62,500.
- Hawaii National Park, Maui section (Island of Maui). 1922-25. Scale, 1:62,500. 75c.
- Hinsdale (special), Mont. 1904. Scale, 1:62,500. 30c.
- Hot Springs and vicinity, Ark. 1911. Scale, 1:62,500. 30c.
- Houth, Texas. Scale, 1:31,680. 30c.
- Idaho Springs (special), Colo. 1904. Scale, 1:12,000. 30c.
- Independence Pass and vicinity, Colo. 1932. Scale, 1:48,000. 30c.
- Indio, Calif. Scale, 1:125,000. 30c.
- Iniskin-Chinitna Peninsula, Alaska. 1921. Scale, 1:62,500. 30c.
- Isle Royale National Park, Mich. 1957. Scale, 1:62,500. Contour or shaded-relief edition. \$1.50 each.
- Island of Vieques, Puerto Rico. 1943-49. Scale, 1:30,000. 50c.
- Joplin district, Mo.-Kans.-Okla. 1900. Scale, 1:62,500. 50c.
- Kauai (Island), Hawaii. 1910. Scale, 1:62,500. 75c.
- Kellogg and vicinity, Idaho. 1937. Scale, 1:24,000. 30c.
- *Kelly Field and Camp Travis, Tex., by L. W. Stephenson. 1904. Scale, 1:62,500.
- Kern River Oil Field, Calif. 1912. Scale, 1:12,000.
North half. 50c.
South half. 50c.
- King Hill area, Idaho. 1946. Scale, 1:24,000. 30c.
- Kittitas drainage district, Wash. 1938. Scale, 1:12,000.
North. 50c.
South. 2 sheets. 50c each.
- Kotsina-Kuskulana district, Alaska. 1913. Scale, 1:62,500. 30c.
- La Barge, Wyo. 1936. Scale, 1:96,000. 30c.
- Lanai (Island), Hawaii. 1923. Scale, 1:62,500. 30c.
- *Langley Field, Va., by L. W. Stephenson. 1907. Scale, 1:62,500.
- Lassen Volcanic National Park and vicinity, Calif. 1957. Scale, 1:62,500. 50c.
- Leadville mining district, Colo. 1911. Scale, 1:9,600. 50c.
- Leadville No. 4, Colo. 1927-34. Scale, 1:48,000. 30c.
- Lincoln National Forest, N. Mex. 1911. Scale, 1:250,000. 30c.
- Little Eightmile mining district, Idaho. 1931. Scale, 1:48,000. 30c.
- Lonesome (special), Mont. 1904. Scale, 1:62,500. 30c.
- Lordsburg, N. Mex. 1932. Scale, 1:62,500. 30c.

- Magdalena district, N. Mex. 1910-29. Scale, 1:12,000. 50c.
 Mammoth Cave National Park, Ky. 1930. Scale, 1:31,680. 50c.
 Manhattan and vicinity, Nev. 1914. Scale, 1:24,000. 30c.
 Marysville, Mont. 1899. Scale, 1:31,250. 30c.
 Marysville Buttes and vicinity, Calif. Scale, 1:62,500. 30c.
 Maui (Island), Hawaii. 1922-25. Scale, 1:62,500. 75c.
 Mesa Verde National Park, Colo. 1911. Scale, 1:31,250. 50c.
 Mississippi River Valley below Dubuque, Iowa. Scale, 1:1,000,000. 75c.
 Molokai (Island), Hawaii, 1952. Scale, 1:62,500. Contour or shaded-relief edition. 50c each.
 Mono Lake and vicinity, Calif. 1914. Scale, 1:125,000. 50c.
 *Morristown National Historical Park, N. J. Scale, 1:9,600.
 Mount Baker, Wash. 1909. Scale, 1:250,000. 30c.
 Mount Hood and vicinity, Oreg.-Wash. 1911. Scale, 1:125,000. 30c.
 Mount McKinley National Park, Alaska. 1898-1951. Scale, 1:250,000. Contour or shaded-relief edition. 50c each.
 Mount Rainier National Park, Wash., by F. E. Matthes. 1910-1955. Scale, 1:62,500. 50c.
 Mullan and vicinity, Idaho. 1939. Scale, 1:24,000. 30c.
 National Bison Range, Mont. 1929. Scale, 1:31,680. 30c.
 Naval Petroleum Reserve No. 1, Calif. 1927. Scale, 1:31,680. 50c.
 Needles, Ariz.-Calif. 1903. Scale, 1:125,000. 30c.
 Niagara Gorge, N.Y.-Canada. 1912. Scale, 1:12,000. 50c.
 Niagara River and vicinity, N.Y.-Canada, by G. K. Gilbert. 1900. Scale, 1:62,500. 50c.
 Niihau (Island), Hawaii, 1926. Scale, 1:62,500. 30c.
 Nisqually Glacier, Wash. 1951 and 1956. Scale, 1:12,000. 30c.
 Nisqually Glacier (lower portion), Wash. 1931, 1936, 1941, and 1946. Scale, 1:9,600. 1 sheet, 30c.
 North West part of Prague, Okla. 1906. Scale, 1:48,000. 30c.
 Oahu (Island), Hawaii. 1954. Scale, 1:62,500. Contour or shaded-relief edition. 75c each.
 Omaha and vicinity, Nebr.-Iowa. 1898. Scale, 1:62,500. 50c.
 Owens Lake and vicinity, Calif. 1911. Scale, 1:125,000. 50c.
 Parker Dam area, Calif.-Ariz. 1949. Scale, 1:62,500. 30c.
 Petrified Forest National Monument, Ariz. 1934. Scale, 1:62,500. 30c.
 Picture Gorge, Oreg. 1925. Scale, 1:48,000. 30c.
 Pikes Peak and vicinity, Colo., by A. H. Koschmann. 1948-56 [1957]. Scale, 1:62,500. Contour or shaded-relief edition. 75c each.
 Platinum and vicinity, Alaska. 1937. Scale, 1:62,500. 30c.
 Platoro mining area, Colo. 1936. Scale, 1:12,000. 30c.
 Pottsville and vicinity, Idaho-Mont. 1939. Scale, 1:24,000. 30c.
 Ray and vicinity, Ariz. 1910. Scale, 1:12,000. 30c.
 Reconnaissance and elevation map of southeastern New Mexico. Scale, 1:253,440. \$1.50.
 Rico district, Colo. 1898. Scale, 1:23,600. 30c.
 Rico mining district, Colo. 1930. Scale, 1:12,000. 30c.
 Rochester mining district, Nev. 1916. Scale, 1:24,000. 30c.
 Rock Run and vicinity, Ala.-Ga. 1941. Scale, 1:24,000. 50c.
 Rockwall, Texas. 1909. Scale, 1:31,680. 30c.
 Rocky Mountain National Park, Colo. 1954. Scale, 1:125,000. 30c.
 Saco (special), Mont. 1903. Scale, 1:62,500. 30c.
 Sacramento Valley, Calif. 1910. Scale, 1:250,000. 50c.
 Saguaro National Monument (Rincon Valley quadrangle), Ariz. 1957. Scale, 1:62,500. 30c.
 Salton Sink, Calif. 1908. Scale, 1:500,000. 30c.
 San Antonio, Texas, by L. W. Stephenson. 1903. Scale, 1:62,500. 50c.
 Scotts Bluff National Monument, Nebr. 1938. Scale, 1:15,840. 30c.
 Seattle, Wash. (Land classification). Scale, 1:125,000. 30c.
 Sequoia and Kings Canyon National Parks, Calif. 1901-1937 [1946]. Scale, 1:125,000. Contour or shaded-relief edition. \$1 each.
 Shenandoah National Park, Va. 1930. Scale, 1:62,500.
 North half. 50c.
 South half. 50c.
 Shiloh National Military Park, Tenn. 1934. Scale, 1:9,600. 30c.
 Silver Plume (special), Colo. 1904. Scale, 1:12,000. 30c.
 Smelerville and vicinity, Idaho. 1937. Scale, 1:24,000. 30c.
 Snowmass Mountain and vicinity, Colo. 1930. Scale, 1:31,680. 30c.
 Squaw Butte Ranch, Oreg. 1936. Scale, 1:24,000. 30c.
 Sugarloaf-St. Kevin mining districts, Colo. 1930. Scale, 1:24,000. 30c.
 Summitville mining area, Colo. 1936. Scale, 1:12,000. 30c.
 Superior coal district, Wyo. 1943. Scale, 1:24,000. 50c.
 Superior mining district, Wyo. 1940. Scale, 1:24,000. 30c.
 Tacoma, Wash. (Land classification). Scale, 1:125,000. 30c.
 Taos and vicinity, N. Mex. 1936. Scale, 1:125,000. 30c.
 Taylorsville, Calif. 1891. Scale, 1:31,680. 30c.
 Tenmile district, Colo. 1882. Scale, 1:31,680. 30c.
 Tenmile mining district, Colo. Scale 1:12,000.
 North half. 1927-40. 50c.
 South half. 1927-39. 50c.

- Tennessee River Basin (base map). Scale, 1:500,000. \$1.
 Tennessee River Basin (hydraulic map). 1933. Scale, 1:500,000. \$1.50.
 Terlingua district, Texas. 1902. Scale, 1:50,000. 30c.
 Tintic mining district, Utah. 1897-1911. Scale, 1:9,600. 50c.
 Tintic (special), Utah. 1897. Scale, 1:62,500. 30c.
 Tinton and vicinity, Wyo.-S. Dak. 1939. Scale, 1:24,000. 30c.
 Tombstone and vicinity, Ariz. 1907. Scale, 1:6,000. 30c.
 Tombstone district, Ariz. 1905. Scale, 1:24,000. 30c.
 Tonopah mining map, Nev. Scale, 1:12,000. 30c.
 Umiat (special), Alaska. 1946. Scale, 1:62,500. 30c.
 Valdez and vicinity, Alaska. Scale, 1:62,500. Contour or shaded-relief edition. 50c. each.
 Vanderbilt Mansion National Historic Site, N. Y. 1946. Scale, 1:3,600. 30c.
 Vicksburg National Military Park, Miss. 1935. Scale, 1:9,600. 50c.
 Willow Creek district, Wyo. 1943. Scale, 1:24,000. 30c.
 Wind Cave National Park and vicinity, S. Dak. 1957. Scale, 1:24,000. \$1.50.
 Yellowstone National Park, Wyo.-Mont.-Idaho. 1885-1921 [1960]. Scale, 1:125,000. 50c.
 Yerington district, Nev. 1914. Scale, 1:24,000. 30c.
 Yosemite National Park, Calif. 1909-47. Scale, 1:025,000. 50c.
 Yosemite Valley, Calif., by F. E. Matthes. 1958. Scale, 1:24,000. Contour edition, 1958. 50c. Shaded-relief edition, 1946. 50c.
 Zion National Park (Kolob section), Utah. 1938-57. Scale, 1:31,680. 75c.
 Zion National Park (Zion Canyon section), Utah. 1932-57. Scale, 1:30,680. \$1.

SPECIAL SETS

- Set of 100 topographic maps illustrating specified physiographic features. 1955. \$30 per set.
 Set of 25 topographic maps illustrating specified physiographic features. 1955. \$7.50 per set.

MISCELLANEOUS MAPS AND CHARTS

UNITED STATES

Status Maps

The following Geological Survey index maps, scale 1:500,000, are distributed without charge. Asterisk (*) indicates map is out of print.

- Status of aerial mosaics in the United States (Jan. 1961). Shows areas in the United States for which mosaics have been prepared from aerial photographs, scale of the negatives, dates of photography, and agencies from which reproductions may be obtained. The text on back of map gives detailed explanation and the names and addresses of the reporting agencies and firms.
- Status of aerial photography in the United States (Jan. 1961). Shows areas that have been mapped by aerial photographs. The agencies holding the films are given only if reproductions are available for purchase. The text on back of map gives detailed explanation and the names and addresses of the reporting agencies and firms.
- *Status of geologic mapping in the United States, territories, and possessions (sixth edition, 1956). Shows by color patterns the areas of published geologic maps on scales of 1 inch to 1 mile or larger and additional areas of published maps on scales between 1 inch to 1 mile and 1 inch to ½ mile; areas in which geologic mapping has been completed but not published or released for public inspection; and areas in which geologic mapping is in progress.
- *Status of geologic mapping in Alaska (fifth edition, 1956). Shows by color patterns the areas of published geologic maps on scales larger than 1:100,000 and from 1:100,000 to 1:250,000. These maps are available to the public in bulletins, mimeographed reports, or on open file for consultation. Also shown are areas in which mapping has been completed but not yet published and areas in which mapping is in progress.
- *Status of horizontal control in the United States (second edition, 1952). Shows by line and color pattern areas covered by triangulation and transit-traverse surveys. An accompanying text gives a brief explanation, together with a list of state control index maps and information on how they may be obtained.
- Status of topographic mapping in the United States (July 1961). Shows topographic and planimetric quadrangle maps published, at scales ranging from 1:24,000 to 1:125,000, by the Geological Survey and other Federal agencies. A general appraisal of the adequacy of these maps is indicated by color patterns.
- *Status of vertical control in the United States (second edition, 1952). Shows routes of all level lines reported to date. An accompanying text gives an explanation, together with a list of state control index maps and information on how they may be obtained.

Base Maps

- Scale, 1:2,500,000. 1961. 2 sheets. A new wall map showing State and county boundaries and names, State capitals and county seats in black, water features in blue. State boundaries are accentuated by green overprint. Available with or without a buff background to distinguish the conterminous United States from adjoining countries. Insets show Alaska and Hawaii, and the Canal Zone, Puerto Rico and the Virgin Islands. \$1.50 per set. Supersedes the 1959 United States base map at same scale.
- Scale, 1:7,000,000. Shows State boundaries, principal cities, and lettering in black; water features in blue. 20 by 30 inches. 30c.
- Scale, 1:11,875,000. Shows State boundaries, principal cities, and lettering in black; water features in blue. 13 by 19 inches. 20c.
- Scale, 1:16,500,000. Shows State boundaries, principal cities, and lettering in black; water features in blue. 9½ by 13 inches. 10c.

Outline Maps

[All 27 by 42 inches]

- Scale, 1:5,000,000. Shows only State boundaries and names, in black. 50c.
- Scale, 1:5,000,000. Shows State boundaries and names in black; county boundaries and water features in blue. 50c.
- Scale, 1:5,000,000. State and county boundaries with names, in black; water features in blue. 50c.
- Scale, 1:5,000,000. State and county boundaries, names, and water features, in black. 50c.

Physical Divisions

Physical divisions of the United States. Scale, 1:7,000,000. 28 by 32 inches. 30c.

ALASKA BASE MAPS

All maps show railroads, highways, settlements, streams, lakes, mountain ranges, islands, and adjacent parts of Canada. All except map C show glaciers. Both the base and contour editions of map B show judicial divisions and the base edition of map E shows judicial divisions and airfields.

Map A. Scale, 1:5,000,000. 1947. 17 by 24 inches. 30c.

Map B. Scale, 1:1,584,000. 1955. 2 sheets, each 36 by 51 inches. Base or contour edition, each \$1.50 per set.

Map C. Scale, 1:12,000,000. 1940. 10 by 15 inches. 10c.

Map E. Scale, 1:2,500,000. 1954. 34 by 48 inches. Base edition, 75c; shaded-relief edition, \$1.

PUERTO RICO BASE MAPS

Scale, 1:120,000. Printed in Spanish. 1951. 32 by 66 inches. Base edition, 75c; contour edition, \$1.

Scale, 1:240,000. Printed in Spanish. 1952. 22 by 54 inches. Base edition, 75c; contour edition, \$1; contour and shaded-relief edition, \$1.50.

LAND-CLASSIFICATION MAPS

These maps show present and potential agricultural use of land in the public-land States. Each map is accompanied by a descriptive text setting forth the influence of the physical features on the use of the land for crop production and grazing. Asterisk (*) indicates map out of print.

*Central Great Plains, in 5 sheets: Sheet 1, northwestern Nebraska, by E. R. Greenslet, 34 p.; sheet 2, western Kansas and southwestern Nebraska, by J. Q. Peterson, R. E. Morgan, and E. R. Greenslet, 36 p.; sheet 3, southeastern Wyoming, by J. F. Deeds, Depue Falck, E. R. Greenslet, R. E. Morgan, and W. L. Hopper, 39 p.; sheet 4, northeastern Colorado, and sheet 5, southeastern Colorado, by Depue Falck, E. R. Greenslet, and R. E. Morgan, 110 p.

*Northern Great Plains, in 8 sheets, by A. E. Aldous and J. F. Deeds, 136 p.: Sheet 1, northwestern North Dakota and northeastern Montana; sheet 2, northeastern, north-central, and east-central Montana; sheet 3, north-central and central Montana; sheet 4, central and south-central Montana; sheet 5, southeastern Montana; sheet 6, southwestern North Dakota and northwestern South Dakota; sheet 7, southwestern South Dakota; sheet 8, northeastern Wyoming.

*Utah, in 1 sheet, compiled by J. F. Deeds and Depue Falck, 14 p.

*Western Colorado, in 2 sheets, by L. R. Brooks, J. F. Deeds, Depue Falck, E. R. Greenslet, G. M. Kerr, and J. Q. Peterson, 53 p.: Northwest Colorado; Southwest Colorado.

*Western Wyoming, in 2 sheets, by J. F. Deeds, Depue Falck, E. R. Greenslet, G. M. Kerr, R. E. Morgan, and J. Q. Peterson, text not published: Northwest Wyoming; Southwest Wyoming.

RIVER SURVEYS

River-survey maps show course and fall of the stream, configuration of the valley floor and adjacent slopes, and location of towns, scattered houses, irrigation ditches, roads, and other cultural features.

If the valley is less than a mile wide the topography is shown to 100 feet or more above the water surface; if the valley is flat and wide, topography is shown for a strip of 1 to 2 miles. Potential reservoir sites are mapped to the probable flow line of the reservoir. The usual scale is 1:31,680 or 1:24,000, and the normal contour interval is 20 feet on land and 5 feet on the water surface. Many maps include proposed dam sites on a larger scale and a profile of the stream.

Most of the maps are printed in black and white, some show the contours in brown, and a few show the streams in blue. The standard-size sheet is 22 by 28 inches.

As these river-survey maps were prepared largely in connection with the classification of the public lands, most of them show areas in the Western States. The maps published cover more than 20,000 miles of river channel. An index of river surveys, published in 1926 as Water-Supply Paper 558, has been superseded by Water-Supply Paper 995.

Published river-survey maps, except those out of stock, are shown on the index circulars for topographic quadrangle maps. The price is 30 cents per sheet.



FINDING LISTS

These lists are not a complete index of Geological Survey publications but simply a general directory derived mainly from titles. Some publications on water have been indexed more fully for content and area. Two finding lists are given, one a subject-geographic list and the other a geographic list with detailed locality breakdown. For example, to find information on a mineral commodity or on the water resources, paleontology, or stratigraphy of a given State or country, consult the subject-geographic list; to find information on a specific locality within a State or country, use the separate geographic list. Geologic maps are indexed only in the separate geographic list. Data from "Mineral Resources of the United States," 1882-1923, have been indexed as annual resource data under specific mineral commodities in the subject-geographic list. A finding list of authors starts on p. 431.

SUBJECT-GEOGRAPHIC LIST

Abbreviations used

<p>A Annual Report AP Administrative publication B Bulletin C Circular; Map C-, Coal Investigations Map GF Geologic Folio GP- Geophysical Investigations Map GQ- Geologic Quadrangle Map HA- Hydrologic Investigations Atlas I- Miscellaneous Geologic Investigations Map M Monograph MB- Missouri River basin map MF- Mineral Investigations Field Studies Map</p>	<p>Map 3- Mineral Investigations Preliminary Map MR- Mineral Investigations Resource Map MRUS Mineral Resources of the United States OC- Oil and Gas Chart OM- Oil and Gas Map P Professional Paper p. page number listing publications having no series designation R Regulations SP Special publication W Water-Supply Paper</p>
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AP	Administrative publication	MR-	Mineral Investigations Resource Map
B	Bulletin	MRUS	Mineral Resources of the United States
C	Circular; Map C-, Coal Investigations Map	OC-	Oil and Gas Chart
GF	Geologic Folio	OM-	Oil and Gas Map
GP-	Geophysical Investigations Map	P	Professional Paper
GQ-	Geologic Quadrangle Map	p.	page number listing publications having no series designation
HA-	Hydrologic Investigations Atlas	R	Regulations
I-	Miscellaneous Geologic Investigations Map	SP	Special publication
M	Monograph	W	Water-Supply Paper
MB-	Missouri River basin map		
MF-	Mineral Investigations Field Studies Map		

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AP	Administrative publication	MR-	Mineral Investigations Resource Map
B	Bulletin	MRUS	Mineral Resources of the United States
C	Circular; Map C-, Coal Investigations Map	OC-	Oil and Gas Chart
GF	Geologic Folio	OM-	Oil and Gas Map
GP-	Geophysical Investigations Map	P	Professional Paper
GQ-	Geologic Quadrangle Map	p.	page number listing publications having no series designation
HA-	Hydrologic Investigations Atlas	R	Regulations
I-	Miscellaneous Geologic Investigations Map	SP	Special publication
M	Monograph	W	Water-Supply Paper
MB-	Missouri River basin map		
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