DEPARTMENT OF THE INTERIOR
U. S. GEOLOGICAL SURVEY

INDEX TO TOPOGRAPHIC MAPS AND GEOLOGIC FOLIOS
ORDER MAPS BY NAMES PRINTED IN RED. NO OTHERS ARE PUBLISHED

WASHINGTON

Topographic mapping program proposed by the Department of Conservation and Development — transmitted to Mr. Pendleton in September 1943.

A MAP OF THE STATE OF WASHINGTON FOUR TIMES THE SIZE OF THIS INDEX AND WITHOUT THE RED OVERPRINT IS PUBLISHED AND FOR SALE BY THE UNITED STATES GEOLOGICAL SURVEY, PRICE 25 CENTS. ALSO THIS MAP WITHOUT OVERPRINT, PRICE 5 CENTS.

1933

GEOLOGIC AND OTHER REPORTS

The following reports relate to Washington but are not parts of the topographic or geologic atlas. An asterisk (*) indicates that the report is out of print, but many such reports are available for consultation in certain libraries. (See list on p. 5.) The publications for which the price is stated are sold by the Superintendent of Documents, Government Printing Office, Washington, D. C. Remittance to that official should be made by postal money order, express order, or check; postage stamps will not be accepted.

ANNUAL REPORTS:

Eighteenth, 1896-97. Part I contains: Triangulation and spirit leveling, by H. M. Wilson and others, pp. 131-422; $1. *Part II contains: Glaciers of Mount Rainier, by I. C. Russell, with a paper on the rocks of Mount Rainier, by G. O. Smith, pp. 349-424. *Part III contains: Some coal fields of Puget Sound, by Bailey Willis, pp. 393-436.

Nineteenth, 1897-98. Part I contains: Triangulation and spirit leveling, by H. M. Wilson and others, pp. 145-408; $1. *Part V contains: Washington Forest Reserve, by H. B. Ayres, pp. 283-313, and Eastern part of Washington Forest Reserve, by M. W. Gorman, pp. 315-350.

Twentieth, 1898-99. Part I contains: Triangulation and spirit leveling, by H. M. Wilson and others, pp. 211-530; $1. Part II contains: A preliminary paper on the geology of the Cascade Mountains in northern Washington, by I. C. Russell, pp. 83-210; $2.50. *Part III contains: Bohemia mining region of western Oregon, with notes on the Blue River mining region and on the structure and age of the Cascade Range, by J. S. Diller, accompanied by a report on the fossil plants associated with the lavas of the Cascade Range, by F. H. Knowlton, pp. 1-64.

Twenty-first, 1899-1900. Part I contains: Triangulation, primary traverse, and spirit leveling, by H. M. Wilson and others, pp. 205-582; $1.25. *Part V contains: Mount Rainier Forest Reserve, Wash., by F. G. Plummer, pp. 81-143, and Olympic Forest Reserve, Wash., by Arthur Dodwell and T. F. Rixon, pp. 145-208.

Twenty-second, 1900-1901. *Part II contains: Ore deposits of Monte Cristo, Wash., by J. E. Spurr, pp. 777-865. *Part III contains: The Pacific coast coal fields, by G. O. Smith, pp. 473-513.

MONOGRAPH:

35. Later extinct floras of North America, by J. S. Newberry. 1898. 295 pp. $1.25.

PROFESSIONAL PAPERS:

*5. The forests of Washington, by Henry Gannett. 1902. 38 pp.
*6. Forest conditions in the Cascade Range, Wash., between the Washington and Mount Rainier forest reserves, by F. G. Plummer. 1902. 42 pp.
*7. Forest conditions in Olympic Forest Reserve, Wash., by Arthur Dodwell and T. F. Rixon. 1902. 110 pp.
*19. Contributions to the geology of Washington: Geology and physiography of central Washington, by G. O. Smith; Physiography and deformation of the Wenatchee-Chelan district, Cascade Range, by Bailey Willis. 1903. 101 pp.
100-A. Coal fields of the United States: General introduction, by M. R. Campbell, pp. 1-33. 40c.
*135. Composition of the river and lake waters of the United States, by F. W. Clarke. 1924. 199 pp.
140-A. Geology of the Latah formation in relation to the lavas of the Columbia Plateau near Spokane, Wash., by J. T. Pardee and Kirk Bryan, pp. 1-16; Flora of the Latah formation of Spokane, Wash., and Coeur d'Alene, Idaho, by F. H. Knowlton, pp. 17-81. 50c.
154-H. A revision of the flora of the Latah formation, by E. W. Berry, pp. 225-265. 30c.
170. Shorter contributions to general geology, 1931. 69 pp. 35c. (c) A Miocene flora from Grand Coulee, Wash., by E. W. Berry, pp. 31-42, 10c.

BULLETINS:

*40. Changes in river courses in Washington Territory due to glaciation, by Bailey Willis. 1887. 10 pp.
*51. On invertebrate fossils from the Pacific coast, by C. A. White. 1889. 102 pp.
*108. A geological reconnaissance in central Washington, by I. C. Russell. 1893. 108 pp.
*181. Results of primary triangulation and primary traverse, 1900-1901, by H. M. Wilson and others. 240 pp.
*185. Results of spirit leveling, 1900-1901, by H. M. Wilson and others. 219 pp.
*213. Contributions to economic geology, 1902. Contains: Gold mining in central Washington, by G. O. Smith, pp. 76-80.
216. Results of primary triangulation and primary traverse, 1902-3, by S. S. Gannett. 222 pp. 20c.
235. A geological reconnaissance across the Cascade Range near the forty-ninth parallel, by G. O. Smith and F. C. Calkins. 1904. 103 pp. 20c.
*245. Results of primary triangulation and primary traverse, 1903-4, by S. S. Gannett. 328 pp.
*260. Contributions to economic geology, 1904. Contains: Gold placers of the coast of Washington, by Ralph Arnold, pp. 154-157; Coal in Washington near Portland, Oreg., by J. S. Diller, pp. 411-412; Coal in Clallam County, Wash., by Ralph Arnold, pp. 413-421; Clay deposits of Washington, by Henry Landes, pp. 550-558.
*285. Contributions to economic geology, 1905. Contains: Cement resources of Washington, by Henry Landes, pp. 377-383.
*302. The areas of the United States, the States, and the Territories, by Henry Gannett. 1906. 9 pp.
*315. Contributions to economic geology, 1906. Contains: Gold-bearing river sands of northeastern Washington, by A. J. Collier, pp. 56-70.

BULLETINS—Continued.

*340. Contributions to economic geology, 1907, Part I. Contains: Tin ore at Spokane, Wash., by A. J. Collier, pp. 295-305.
387. Structural materials in parts of Oregon and Washington, by N. H. Darton. 1909. 33 pp. 20c.
*427. Manganese deposits of the United States, by E. C. Harder. 1910. 298 pp.
*430. Contributions to economic geology, 1909, Part I. Contains: Notes on tungsten deposits near Deer Park, Wash., by Howland Bancroft, pp. 214-216.
440. Results of triangulation and primary traverse, 1906, 1907, and 1908. 688 pp. 50c.
466. Retracement of the boundary line between Idaho and Washington, from the junction of Snake and Clearwater Rivers northward to the international boundary. 1911. 39 pp. 20c.
*470. Contributions to economic geology, 1910, Part I. Contains: Lead and zinc deposits in the Metaline mining district, northeastern Washington, by Howland Bancroft, pp. 188-200.
471. Contributions to economic geology, 1910, Part II. Contains: Miscellaneous analyses of coal samples from various fields of the United States, pp. 629-655. $1.05.
474. Coals of the State of Washington, by E. E. Smith. 1911. 206 pp. 20c.
496. Results of triangulation and primary traverse for 1909 and 1910. 392 pp. 30c.
*507. The mining districts of the western United States, by J. M. Hill. 1912. 309 pp.
*522. Portland cement materials and industry in the United States, by E. C. Eckel. 1913. 401 pp.
*531. Contributions to economic geology, 1911, Part II. Contains: Coal resources of Cowlitz River Valley, Wash., by A. J. Collier, pp. 323-330.
*541. Contributions to economic geology, 1912, Part II. Contains: The Glacier coal field, Wash., by E. G. Woodruff, pp. 389-398.
550. Ore deposits of northeastern Washington, by Howland Bancroft, including a section on the Republic mining district, by Waldemar Lindgren and Howland Bancroft. 1914. 215 pp. 20c.
551. Results of triangulation and primary traverse, 1911 and 1912. 396 pp. 30c.
*581. Contributions to economic geology, 1913, Part II. Contains: Oil and gas in the western part of the Olympic Peninsula, Wash., by C. T. Lupton, pp. 23-81.
*599. Our mineral reserves—how to make America industrially independent, by G. O. Smith. 1914. 48 pp.
611. Guidebook of the western United States, Part A, The Northern Pacific Route, by M. R. Campbell and others. 1915. 218 pp. $1.
614. Guidebook of the western United States, Part D, The Shasta Route and Coast Line, by J. S. Diller and others. 1915. 142 pp. 50c.
*621. Contributions to economic geology, 1915, Part II. Contains: Analyses of coal samples from various parts of the United States, by M. R. Campbell and F. R. Clark, pp. 251-375.
*624. Useful minerals of the United States, by F. C. Schrader and others. 1916. 412 pp.
*640. Contributions to economic geology, 1916, Part I. Contains: Reconnaissance of the Conconully and Ruby mining districts, Wash., by E. L. Jones, jr., pp. 11-36.
644-Q. Triangulation and primary traverse in Washington, 1913-15, pp. 599-608. 5c.
652. Tungsten minerals and deposits, by F. L. Hess. 1917. 85 pp. 25c.
674. Spirit leveling in the State of Washington, 1896 to 1917, inclusive. 1918. 204 pp. 15c.
677. Geology and mineral deposits of the Colville Indian Reservation, Wash., by J. T. Pardee. 1918. 186 pp. 25c.
689. Boundaries, areas, geographic centers, and altitudes of the United States and of the several States, by E. M. Douglas. 1923. 234 pp. 50c.
*709-K. Triangulation and primary traverse in Oregon and Washington, 1916-19, pp. 347-420.
725. Contributions to economic geology, 1921, Part I. 440 pp. 50c. Contains: (a) Chromite ores in Washington, by J. T. Pardee, pp. 61-65, 20c.; *(c) Deposits of manganese ore in Montana, Utah, Oregon, and Washington, by J. T. Pardee, pp. 141-243.
790-B. The "Palouse soil" problem, with an account of elephant remains in wind-borne soil on the Columbia Plateau of Washington, by Kirk Bryan, pp. 21-45. 15c.
795-A. Manganese-bearing deposits near Lake Crescent and Humptulips, Wash., by J. T. Pardee, pp. 1-24. 10c.
*805-A. Platinum and black sand in Washington, by J. T. Pardee, pp. 1-15.
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 (second edition), by E. M. Douglas. 1930. 265 pp. 50c.
838. Nitrate deposits of the United States, by G. R. Mansfield and Leona Boardman. 1932. 107 pp. 40c.

WATER-SUPPLY PAPERS:

*4. A reconnaissance in southeastern Washington, by I. C. Russell. 1897. 96 pp.
*44. Profiles of rivers in the United States, by Henry Gannett. 1901. 100 pp.
*55. Geology and water resources of a portion of Yakima County, Wash., by G. O. Smith. 1901. 68 pp.
111. Preliminary report on the underground waters of Washington, by Henry Landes. 1905. 85 pp. 10c.
118. Geology and water resources of a portion of east-central Washington, by F. C. Calkins. 1905. 96 pp. 5c.
149. Preliminary list of deep borings in the United States, by N. H. Darton. 1905. 175 pp. 10c.
253. Water powers of the Cascade Range, Part I, Southern Washington, by J. C. Stevens. 1910. 94 pp. 40c.

WATER-SUPPLY PAPERS—Continued.

*274. Some stream waters of the western United States, by Herman Stabler. 1911. 188 pp.
313. Water powers of the Cascade Range, Part II, Cowlitz, Nisqually, Puyallup, White, Green, and Cedar drainage basins, by F. F. Henshaw and G. L. Parker. 1913. 170 pp. 55c.
316. Geology and water resources of a portion of south-central Washington, by G. A. Waring. 1913. 46 pp. 5c.
339. Quality of the surface waters of Washington, by Walton Van Winkle. 1914. 107 pp. 15c.
340-L. Stream-gaging stations and publications relating to water resources, 1885-1913, Part XII, North Pacific slope drainage basins, pp. 147-195. 5c.
346. Profile surveys in the basin of Clark Fork of Columbia River, Mont.-Idaho-Wash. 6 pp. 50c.
364. Water analyses from the laboratory of the United States Geological Survey, by F. W. Clarke. 1914. 40 pp. 5c.
366. Profile surveys of Snoqualmie, Sultan, and Skykomish Rivers, Wash. 1914. 7 pp. 20c.
368. Profile surveys in Wenatchee River Basin, Wash. 1914. 7 pp. 20c.
369. Water powers of the Cascade Range, Part III, Yakima River Basin, by G. L. Parker and F. B. Storey. 1915. 169 pp. 45c.
376. Profile surveys in Chelan and Methow River Basins, Wash. 1915. 8 pp. 15c.
377. Profile surveys in Spokane River Basin, Wash., and John Day River Basin, Oreg. 1915. 7 pp. 15c.
419. Profile surveys in 1915 in Skagit River Basin, Wash. 8 pp. 15c.
425-E. Ground water in Quincy Valley, Wash., by A. T. Schwennesen and O. E. Meinzer, pp. 131-161. 5c.
*427. Bibliography and index of the publications of the United States Geological Survey relating to ground water, by O. E. Meinzer. 1918. 169 pp.
486. Water powers of the Cascade Range, Part IV, Wenatchee and Entiat Basins, by G. L. Parker and Lasley Lee. 1922. 76 pp. 30c.
*489. The occurrence of ground water in the United States, by O. E. Meinzer. 1923. 321 pp.
492. Summary of hydrometric data in Washington, 1878-1919, by G. L. Parker and Lasley Lee. 1923. 363 pp. 40c.
557. Large springs in the United States, by O. E. Meinzer. 1927. 94 pp. 30c.
558. Preliminary index to river surveys made by the United States Geological Survey and other agencies, by B. E. Jones and R. O. Helland. 1926. 108 pp. 25c.
*559. Relations between quality of water and industrial development in the United States, by W. D. Collins. 1926. 43 pp.
560. Contributions to the hydrology of the United States, 1925. 184 pp. 20c. (c) Index of analyses of natural waters in the United States, by W. D. Collins and C. S. Howard, pp. 53-85, 5c.
*579. Power capacity and production in the United States, papers by C. R. Daugherty, A. H. Horton, and R. W. Davenport. 1928. 210 pp.
659. Contributions to the hydrology of the United States, 1932. 209 pp. 40c. (c) Index of analyses of natural waters in the United States, 1926-31, by W. D. Collins and C. S. Howard, pp. 191-206, 5c.

Stream measurements in the years mentioned:

Year	Water-Supply Paper	Price (cents)	Year	Water-Supply Paper	Price (cents)	Year	Water-Supply Paper	Price (cents)	Year	Water-Supply Paper	Price (cents)
1897	*16		1914	392	30	1919-20	514	25	1926	634	25
1898	28	10		393	15	1921	532	25	1927	652	20
1899	*38			394	15		533	25		653	35
1900	51	10	1915	412	35		534	20		654	20
1901	66	10		413	15	1922	552	25	1928	672	25
	*75			414	20		553	40		673	25
1902	85	15	1916	*442			554	25		674	25
1903	100	30		443	15	1923	572	25	1929	692	25
1904	135	20		444	15		*574			693	30
1905	178	20	1917	462	20	1924	592	20		694	25
1906	214	25		463	15		593	30	1930	707	35
1907-8	252	35		464	20		594	30		708	15
1909	272	45	1918	482	15	1925	612	25		709	15
1910	292	50		483	15		613	30	1931	722	15
1911	312	45		484	15		614	30		723	15
1912	332	40	1919-20	512	25	1926	632	20		724	15
1913	362	55		513	30		633	40			

Libraries.—Many of the publications listed above may be consulted in the following libraries in Washington:

EVERETT:
Public.
OLYMPIA:
Washington State.
PULLMAN:
State College of Washington.
SEATTLE:
Public.
University of Washington.
SPOKANE:
American Institute Mining Engineers.
SPOKANE—Continued.
Public.
TACOMA:
Public.
WALLA WALLA:
Whitman College.

LOCAL AGENTS FOR TOPOGRAPHIC MAPS

Purchasers may save delay incident to ordering through the mails by buying of the following agents, who carry in stock maps of areas in their vicinity and sell them at prices slightly in advance of rates mentioned in this circular:

WASHINGTON

BELLINGHAM:
Griggs Stationery & Printing Co., 212 East Holly Street.
EVERETT:
Black & King, 2930 Colby Avenue.
PULLMAN:
Division of Geology, State Dept. of Conservation and Development.
SEATTLE:
Lowman & Hanford, 616 First Avenue.
George E. Mitchell, 1016 Third Avenue.
University Book Store.
SPOKANE:
John W. Graham & Co., 707-711 Sprague Avenue.
Shaw & Borden Co., 325 Riverside Avenue.
TACOMA:
The Stationers, Inc., 926 Pacific Avenue.
Metsker, The Map Man, 930½ Pacific Avenue.
Pioneer, Inc., 12th and A Streets.
WALLA WALLA:
Clark's Book Store.
WENATCHEE:
C. H. Armstrong Co., Booksellers and Stationers.

OREGON

PORTLAND:
J. K. Gill Co., Fifth and Stark Streets.
The Swender Blue Print Co., 523 SW. Oak Street.
The Beebe Co.
PORTLAND—Continued.
Hanson Map & Blue Print Co., 87 Third Street.
Kilham Stationery & Printing Co., Fifth and Oak Streets.

NEW YORK

NEW YORK CITY:
Hagstrom Map Co., 20 Vesey Street.
NEW YORK CITY—Continued.
C. S. Hammond & Co., 30 Church Street.

CALIFORNIA

LOS ANGELES:
Southern California Blue Print Co., 114 West Third Street.

WASHINGTON

DEPARTMENT OF THE INTERIOR

UNITED STATES GEOLOGICAL SURVEY

Topographic maps.—The United States Geological Survey is making a standard topographic atlas of the United States. The unit of survey is a quadrangle bounded by parallels of latitude and meridians of longitude, but different quadrangles are mapped on different scales, and consequently the standard maps, though of nearly uniform size (about 16½ by 20 inches), represent areas of different sizes. The standard scales are 1:31,680 (1 inch=one half mile), 1:62,500 (1 inch=nearly 1 mile), and 1:125,000 (1 inch=nearly 2 miles). Some maps are published on special scales. Each quadrangle is designated by the name of a city, town, or prominent natural feature within it, and on the margins of the map are printed the names of adjoining quadrangles of which maps have been published. The maps are printed in three 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—hills, mountains, etc.—are shown by brown contour lines. The contour interval differs according to the scale of the map and the relief of the country. On some maps woodland areas are shown in green and special features in other colors.

The progress of this work in Washington is shown on the index map within. The surveys since 1909 have been made in cooperation with the State. Each of the rectangles outlined in red on the index map indicates a quadrangle of which a topographic survey has been made. The name of the resulting topographic map, if published, is also shown, and its scale is indicated by the size of the rectangle. Each of the maps represented by the smaller rectangles shows a quadrangle measuring 15′ each way, or from 197 to 209 square miles, the area differing according to the latitude. The scale is 1:62,500, and the contour interval is either 20, 25, or 50 feet. Each of the maps represented by the larger rectangles shows a quadrangle measuring 30′ each way, or from 789 to 835 square miles. The scale is 1:125,000, and the contour interval is either 50 or 100 feet. The whole number of published topographic maps of quadrangles in Washington is 70. A list of special maps and sheets is given on pages 5 and 6.

The price of the standard maps is 10 cents each, but a discount of 40 percent is allowed on an order amounting to $5 at the retail price—that is, the wholesale rate for standard topographic maps is $3 for 50. The discount is allowed on an order for maps alone, either of one kind or in any assortment, or for maps together with geologic folios. (See below.) Prices for maps other than the standard are given on pages 5 and 6 of this circular. No discount will be allowed on an order amounting to less than $3. Prepayment is required and may be made by money order, payable to the Director of the United States Geological Survey, or in cash—the exact amount—at sender's risk; postage stamps should not be sent.

If maps ordered are not in stock the right is reserved to substitute others rather than return very small sums of money by mail, unless directions to the contrary are given in the order. *Name of county should be included in post-office address.*

The Survey can not supply mounted maps.

Geologic folios.—Geologic maps of some of the areas shown on the topographic maps have been published in the form of folios. Each folio includes maps showing the topography, geology, underground structure, and mineral deposits of the area mapped and several pages of descriptive text. The text explains the maps and describes the topographic and geologic features of the country and its mineral products. The folios are of special interest to students of geography and geology and are valuable as guides in the development and utilization of mineral resources.

For Washington four folios have been issued, as shown on the index map by the rectangles shaded red and numbered. These folios are out of stock. A general circular on geologic folios may be had on application.

World Atlas of Commercial Geology.—The World Atlas of Commercial Geology has been compiled by the United States Geological Survey to help in directing both the industry and the commerce of the United States. Two parts have been published. Part I, Distribution of mineral production, gives the results of a study of the world's supply of essential minerals. Part I is out of print. Part II, Water power of the world, shows the world's potential water power and the extent to which it has been utilized at home and abroad. Price, $1; in lots of 10 or more, 60 cents.

All correspondence should be addressed to

THE DIRECTOR,
UNITED STATES GEOLOGICAL SURVEY,
WASHINGTON, D. C.

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8-4,000

[Includes insert, pp. 5-6]

Topographic mapping program proposed by the Department of Conservation and Development — transmitted to Mr. Pendleton in September 1943