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INTRODUCTION.

The bibliography of North American geology, including paleontology, petrology, and mineralogy, for the year 1913 follows the plan and arrangement of its immediate predecessors, the bibliographies for 1906-7, 1908, 1909, 1910, 1911, and 1912 (Bulletins 372, 409, 444, 495, 524, and 545 of the U. S. Geological Survey). It includes publications bearing on the geology of the Continent of North America and adjoining islands, also Panama and the Hawaiian Islands. Papers by American writers on the geology of other parts of the world are not included. Textbooks and papers general in character by American authors are included; those by foreign authors are excluded unless they appear in American publications.

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

Miss Isabel P. Evans has given efficient assistance in the work.

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1. GENERAL.

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

2. REGIONAL.

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

3. ECONOMIC.

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

4. DYNAMIC AND STRUCTURAL.

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Volcanism; Volcanoes; Earthquakes; Seismology; Seismographs; Mud volcanoes.
Isostasy; Orogeny; Changes of level.
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Magmas; Intrusions; Dikes; Laccoliths; Metamorphism; Contact phenomena. Deformation; Folding; Faulting; Unconformities. Conglomerates; Concretions; Stalactites; Jointing; Cleavage. Sedimentation; Denudation; Erosion; Caves; Sink holes; Erratic boulders; Weathering; Wind work; Dunes; Loess; Landslides. Glaciers; Glacial erosion; Eskers; Kames; Moraines; Kettle holes. Drainage changes.

5. PHYSIOGRAPHIC.

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

6. HISTORIC OR STRATIGRAPHIC.

Geologic history; Geologic time; Paleogeography; Paleogeographic maps; Paleoclimatology. Geologic maps; Geologic formations described (list). Pre-Cambrian; Paleozoic (undifferentiated); Cambrian; Ordovician; Silurian; Devonian; Carboniferous; Triassic; Jurassic; Cretaceous; Tertiary; Quaternary; Recent; Glacial geology; Glaciation; Glacial lakes; Ice ages.

7. PALEONTOLOGY.

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8. PETROLOGY.

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9. MINERALOGY.

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