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BIBLIOGRAPHY  
OF  
NORTH AMERICAN GEOLOGY  
FOR  
1925 AND 1926

BY  
JOHN M. NICKLES



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# BIBLIOGRAPHY OF NORTH AMERICAN GEOLOGY FOR 1925 AND 1926

By JOHN M. NICKLES

## INTRODUCTION

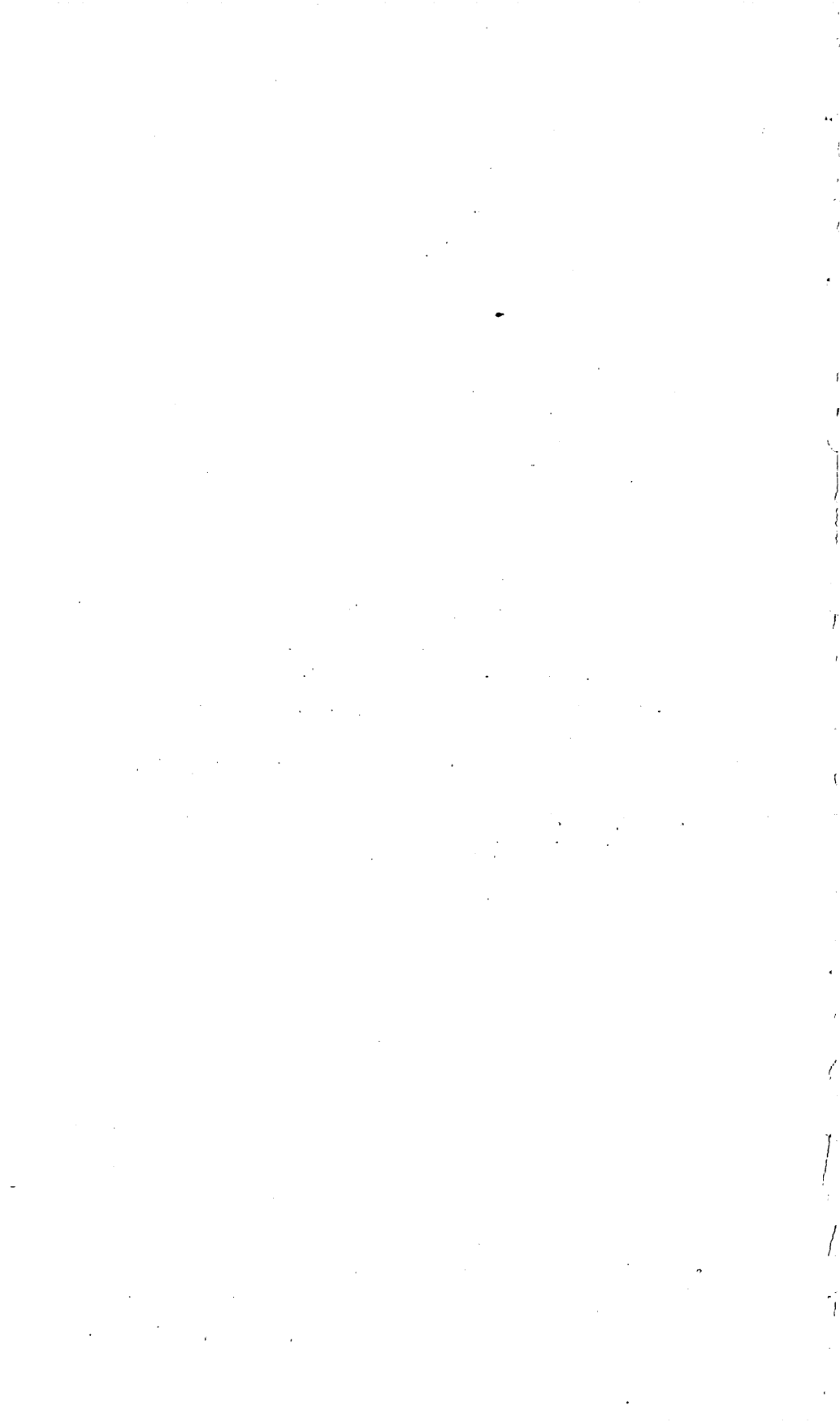
The bibliography of North American geology, including paleontology, petrology, and mineralogy, for the years 1925 and 1926 contains publications on the geology of the Continent of North America and adjacent islands and on Panama and the Hawaiian Islands. It includes textbooks and papers of general character by American authors, but not those by foreign authors, except papers that appear in American publications.

The papers, with full title and medium of publication are listed under the names of their authors, which are arranged in alphabetic order. The author list is followed by an index to the literature listed.

The bibliography of North American geology is comprised in the following bulletins of the United States Geological Survey: No. 127 (1732-1892); Nos. 188 and 189 (1892-1900); No. 301 (1901-1905); No. 372 (1906-7); No. 409 (1908); No. 444 (1909); No. 495 (1910); No. 524 (1911); No. 545 (1912); No. 584 (1913); No. 617 (1914); No. 645 (1915); No. 665 (1916); No. 684 (1917); and No. 698 (1918).<sup>1</sup> These have been cumulated under the title "Geologic literature of North America, 1785-1918," in Bulletin 746 (Part I, Bibliography) and Bulletin 747 (Part II, Index). The series has been continued in Bulletins 731 (1919-20), 758 (1921-22), 784 (1923-24), and 802 (1925-26).

Names applied to geologic formations before 1901 were listed in Bulletin 191. Subsequent lists appear in the Bibliography of North American geology in Bulletins 162, 172, 188, 203, 221, 240, 271, 301, 372, 409, 444, 495, 524, 545, 584, 617, 645, 665, 684, 698, 731, 758, and 784. To ascertain whether a name has been used it is necessary to consult each of these lists. The time and labor required for this consultation make it practically prohibitive. The Geological Survey's committee on geologic names maintains a manuscript list of these names on cards in a single alphabet and will gladly furnish on request information as to whether any particular name is preoccupied.

<sup>1</sup> The Survey's stock of these bulletins is exhausted; most of those later than No. 301 may be purchased from the Superintendent of Documents, Washington, D. C., to whom inquiries and orders should be addressed.



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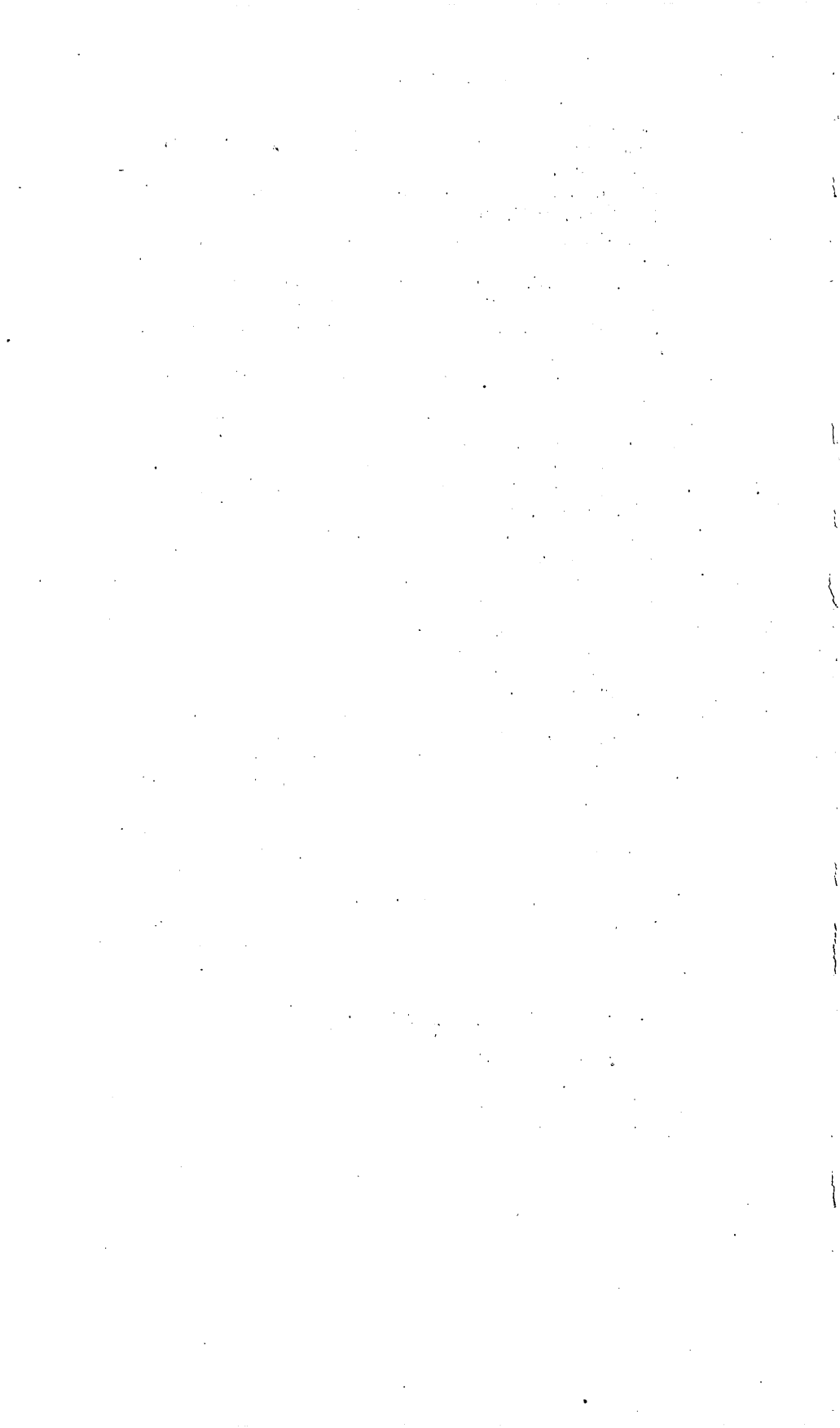
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- General: Wilder, 2816.
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- Origin: Dyer, 689.
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## Hat Creek coal area, Kamloops district, British Columbia: MacKay, 1673.

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- Mauna Kea: Jaggard, 1242.
- Mauna Loa, southwest rift: Finch, 802.

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- Oahu, pyroclastic geology: Wentworth, 2764.

- Kilauea, products and structure: Stone, 2466.

- Lanai: Wentworth, 2757.

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- Leeward Islands: Washington, 2737.

- Melillite and nephelite basalt: Hinds, 1117.

- Oahu, pyroclastic geology: Wentworth, 2764.

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- Aa and pahoehoe, formation: Emerson, 737.

- Chink faceting, new process of pebble shaping: Wentworth, 2762.

- Earthquake prediction: Finch, 799.

- Earthquakes, Kapoho, April, 1924: Finch, 800.

- Erosion principles: Wentworth, 2768.

- Halemaumau: Jaggard, 1239.

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- Keaiwa lava flow: Stearns, 2441; Stone, 2467.

- Kilauea: Jaggard, 1239.

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- eruptions: Stearns, 2438; May, 1924: Friedlaender, 845; Stearns, 2436.

- explosions: Stearns, 2442.

- Mauna Loa, eruption, April, 1926: Friedlaender, 846.

- Mauna Loa and Kilauea, origin: Stearns, 2439.

- Sedimentary processes on volcanic islands: Wentworth, 2766.

- Sulphate deposits in lava tubes, Kilauea: Finch, 801.

- Tuff craters, Oahu: Wentworth, 2761.

- Volcanoes: Jaggard, 1240.

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- General: Hinds, 1118; Wentworth, 2765.

- Maui: Hinds, 1114.

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- Molokai, desert strip: Wentworth, 2759.

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- Canada: Elworthy, 734.

- Historical (stratigraphic) geology. *For areal see names of States. See also the different systems; Correlation; Geologic formations, tables; Geological maps.*

- Atlantic and Gulf Coastal Plain, major geological features: Stephenson, 2449.

- Basal quartzites of Cordilleran region: Keyes, 1422.

- Biotic basis of stratigraphy: Richarz, 2116.

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- Cone-in-cone in stratigraphic correlation: Tester, 2517.

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- Geologic maps, interpretation: Dake, 579.

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- Stratigraphic correlation, new methods: Swartz, 2485.

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- Stratigraphic significance of solution in rocks: Stockdale, 2464.

- Structural features of North America: Høltedahl, 1160.

- Taconic folding, Pennsylvania: Miller, 1789.

- Taconic orogeny, significance: Schuchert, 2264.

- Volcanic ash beds as key horizons: Ross, 2156.

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- Early collecting of fossil vertebrates: Lull, 1644; Matthew, 1735.

- James Hutton, pioneer of modern geology: Hobbs, 1134.

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- Oklahoma, petroleum geology: Powers, 2017.  
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Boundary County: Kirkham, 1486.

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Mining industry, report for 1924, 1925: Campbell, 395, 396.

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Phosphate deposits: Kirkham, 1483.

Silver City region: Piper, 2005.

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Buffalo Hump district: Beckwith, 157.

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Southeastern Idaho: Kirkham, 1484.

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 Central America: Putnam, 2036.  
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 Connecticut, Stonington region: Martin, 1711.  
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- Idaho, Silver City region: Piper, 2005.  
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 Maine, Kennebec River to Penobscot Bay: Perkins, 1991.  
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 Manitoba, Bigstone and Fox Rivers area: Merritt, 1777.  
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Virginia, northeastern Piedmont region, post-Cincinnatian granites: Lonsdale, 1621.

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Hoing sand oil pools, prospecting: Moulton, 1863.

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Sparta area, oil and gas possibilities: Moulton, 1861.

Structural features suitable for oil testing: Moulton, 1857.

Structural relations in western Illinois: Moulton, 1865.

Williamson County, northeastern: Cady, 380.

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Allendale oil field: Moulton, 1858.

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Coal flora, Richland County: Reed, 2069.

Elephas primigenius boreus, Golconda: Crook, 554.

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Structural relations in western Illinois: Moulton, 1865.

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Ohio River, genesis: Fowke, 830.

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- Indiana; Jefferson County, Brassfield limestone fauna: Culbertson, 561.
- Iowa, Mississippian: Van Tuyl, 2645.
- State Quarry beds: Stainbrook, 2423.
- Michigan, Richmond formation: Husey, 1221.
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- Northwest Territories, Great Slave Lake, Ordovician and Silurian: Hume, 1211.
- Ontario, Credit River section: Dyer, 687.
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- Workman's Creek section, Cincinnati series: Fritz, 848.
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- West Virginia, Mercer, Monroe, and Summers counties, Carboniferous: Girty, 912.
- Wisconsin, Galena limestone: Ockerman, 1919.

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- Glass sand: Knight, 1492.
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- Adel, postglacial deposits: Lees, 1557.
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- Paleozoic rocks: Keyes, 1451.
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- Siouan Mountains, translocation: Keyes, 1465.
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- Sweetland shale: Keyes, 1422.
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- Coal measures flora, Johnson County: Adams, 6.
- Echinodermata, Maquoketa shale: Thomas, 2532.
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- Pleistocene bone deposits, Cherokee: Cable, 378.
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- Adel, postglacial deposits: Lees, 1557.
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- Early glacial sheets: Keyes, 1429.
- Glacial boulders, Des Moines County: Lugn, 1641.
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- Lake Cooper, physiographic evolution: Wilson, 2338.
- Recessional moraines: Keyes, 1454.
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- Water table of the loess: Keyes, 1463.

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- Alabama, Birmingham district, Clinton ores: Crane, 543.
- Clinton formation: Aldrich, 25.
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- Vancouver Island, magnetite deposit, genesis: Uglow, 2620.
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- Mexico, Bravo Valley: Paredes, 1956.  
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 magnetite segregation in banded syenite: Grout, 985.  
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- Alma formation, Carboniferous, Nova Scotia : Bell, 174.
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- Barberle andesites, Devonian, New Brunswick : Howard, 1181.
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- Bickett shale, Mississippian, West Virginia : Reger, 2089.
- Big Hill beds, Ordovician, Michigan : Hussey, 1221.
- Big Thompson schist, pre-Cambrian, Colorado : Fuller, 851.
- Bill's Creek beds, Ordovician, Michigan : Hussey, 1221.

- Bison member, Permian, Oklahoma: Aurin *et al.*, 76.
- Bitterroot period, pre-Cambrian, Montana: Keyes, 1456.
- Black Canyon schist, pre-Cambrian, Colorado: Hunter, 1218.
- Blackhawk formation, Cretaceous, Utah: Spieker and Reeside, 2395.
- Black Mountain basalt, Pliocene or Pleistocene, California: Hulin, 1202.
- Black Mountain volcanics, Triassic or Jurassic, California: Hanna, 1021.
- Blackstone series, pre-Pennsylvanian, Rhode Island: Martin, 1711.
- Blakeley formation, Tertiary, Washington: Hertlein and Crickmay, 1095.
- Bouleaux formation, Silurian, Quebec: Schuchert and Dart, 2267.
- Bradshaw limestone, Mississippian, West Virginia: Reger, 2089.
- Bradshaw sandstone, Mississippian, West Virginia: Reger, 2089.
- Bradshaw shale, Mississippian, West Virginia: Reger, 2089.
- Branch Pond gneiss, Maine: Perkins and Smith, 1991.
- Bratton sandstone, Mississippian, West Virginia: Reger, 2089.
- Bratton shale, Mississippian, West Virginia: Reger, 2089.
- Brewer phyllite member, Algonkian (?), Alabama: Butts, 362.
- Bridge Creek limestone member, Cretaceous, Kansas: Bass, 135.
- Bristow formation, Pennsylvanian, Oklahoma: Fath, 775.
- Broad Ford sandstone, Mississippian, West Virginia: Reger, 2089.
- Broken Arrow formation, Carboniferous, Oklahoma: Merritt and McDonald, 1778.
- Brookhaven terrace, Pliocene, Mississippi: Lowe, 1638.
- Bruzer limestone [in error for Brazer limestone], Carboniferous, Montana: Keyes, 1456.
- Buck Creek formation, Pennsylvanian, Oklahoma: Gould, 947.
- Burntside granite gneiss, pre-Cambrian, Minnesota: Grout, 986.
- Butting Ram sandstone member, Algonkian (?), Alabama: Butts, 362.
- Camulos formation, Pliocene, California: Keyes, 1421.
- Canaseraga sandstone, Devonian, New York: Chadwick, 418.
- Cane River, Eocene, Louisiana: Powers, 2014.
- Cane River beds, Tertiary, Louisiana: Spooner, 2398, 2399.
- Canton terrace, Pliocene, Mississippi: Lowe, 1638.
- Capistrano formation, Miocene (?), California: Woodford, 3070.
- Carlsbad limestone member, Permian, New Mexico: Meinzer *et al.*, 1751.
- Carlsbad limestone member, Permian, Texas: Darton and Reeside, 594.
- Cassiar: batholith, Cretaceous (?), British Columbia: Kerr, 1403.
- Chadakoïn beds, Devonian, New York: Chadwick, 418.
- Chadakoïn beds, Devonian, Pennsylvania and Ohio: Chadwick, 419.
- Chamberlin's Brook formation, Cambrian, Newfoundland: Howell, 1187.
- Chapala beds, Pleistocene (?), Mexico: Palmer, 1947.
- Chapin beds, Mississippian, Iowa: Van Tuyl, 2645.
- Chaquagua member, Permian (?), Colorado: Duce, 675.
- Cheaha sandstone member, Algonkian (?), Alabama: Butts, 362.
- Cherric period, pre-Cambrian, Montana: Keyes, 1456.
- Chewacla marble, Algonkian, Alabama: Adams, 5.
- Chewaucan formation, Pleistocene, Oregon: Smith, 2380.
- Chickasha formation, Permian, Oklahoma: Aurin *et al.*, 76, Gouin, 944.
- Christle member, Ordovician, Ontario: Fritz, 848.
- Chusa member, Tertiary, Texas: Bailey, 79.
- Clarendville series, Ordovician, Newfoundland: Howell, 1188.
- Clayton sandstone, Mississippian, West Virginia: Reger, 2089.
- Clayton shale, Mississippian, West Virginia: Reger, 2089.
- Clemville formation, Silurian, Quebec: Schuchert and Dart, 2267.
- Cloud Chief formation, Permian, Oklahoma: Gould and Lonsdale, 949, 953.
- Coahuila silt, California: Hanna, 1015.
- Coal Creek formation, Pennsylvanian, New Brunswick: Dyer, 692.
- Cobourg limestone, Ordovician, New York: Ruedemann, 2186.
- Codell sandstone bed, Cretaceous, Kansas: Bass, 135.
- Colvin Run limestone, Permian, Pennsylvania: Johnson, 1298.
- Coney limestone, Mississippian, West Virginia: Reger, 2089.
- Coney shale, Mississippian, West Virginia: Reger, 2089.
- Coyote formation, Eocene, Oregon: Smith, 2380.
- Coyote Mountain clays, Tertiary, California: Hanna, 1015.
- Crestone conglomerate phase, Permian, Colorado: Melton, 1759.
- Cristobal formation, Cretaceous, Mexico: Ver Wiebe, 2668.
- Croton limestone, Mississippian, Iowa: Van Tuyl, 2645.
- Cruse shale, Miocene, Trinidad: Waring, 2727.



- Cup Coral member, Pennsylvanian, Oklahoma: Bullard, 338.
- Curecanti granite, pre-Cambrian, Colorado: Hunter, 1218.
- Custerian series, Jurassic, Black Hills: Keyes, 1413.
- Dalhousie series, Devonian, New Brunswick: Howard, 1181.
- Danforth member, Ordovician, Ontario: Fritz, 848; Parks, 1963.
- Dease series, Paleozoic, British Columbia: Kerr, 1403.
- Dederick shale member, Pennsylvanian, Missouri: Greene and Pond, 968.
- Delmar sand, Eocene, California: Hanna, 1021.
- Devil's Lake sandstone, Ordovician, Indiana: Logan, 1613, 1614.
- Diamond formation, Pleistocene, Oregon: Smith, 2380.
- Dilco coal member, Cretaceous, New Mexico: Sears, 2284.
- Dixon formation, Pennsylvanian, Kentucky: Burroughs, 346.
- Dixon's Bluff group, Cretaceous, Iowa: Keyes, 1431.
- Domengine formation, Eocene, California: Clark, 444.
- Douglas Island volcanic group, Jurassic, Alaska: Martin, 1709.
- Droop sandstone, Mississippian, West Virginia: Reger, 2089.
- Drury shale and sandstone member, Pennsylvanian, Illinois: Lamar, 1520.
- Dubois greenstone, pre-Cambrian, Colorado: Hunter, 1218.
- Duncan sandstones, Permian, Oklahoma: Aulin *et al.*, 76.
- Duskin Creek formation, Pennsylvanian, Tennessee: Nelson, 1885.
- Dutch Creek formation, pre-Cambrian, British Columbia: Walker, 2697, 2698.
- Eagle City beds, Mississippian, Iowa: Van Tuyl, 2645.
- Eastland shale lentil, Pennsylvanian, Tennessee: Butts and Nelson, 360; Nelson, 1885, 1886.
- Edray sandstone, Mississippian, West Virginia: Reger, 2089.
- Elkoan series: Keyes, 1432.
- Elliott Cove series, Cambrian, Newfoundland: Howell, 1188.
- Emery sandstone member, Cretaceous, Utah: Spieker and Reeside, 2395.
- Ericson sandstone, Cretaceous, Wyoming: Sears, 2283.
- Erin shale, Pennsylvanian, Alabama: Butts, 362.
- Erindale member, Ordovician, Ontario: Dyer, 687.
- Estancia basalt, Quaternary, Mexico: Palmer, 1947.
- Fairmont shale member, Permian, Oklahoma: Aulin *et al.*, 76.
- Falls Mills limestone, Mississippian, West Virginia: Reger, 2089.
- Falls Mills sandstone, Mississippian, West Virginia: Reger, 2089.
- Falls Mills shale, Mississippian, West Virginia: Reger, 2089.
- Fant member, Tertiary, Texas: Bailey, 79.
- Fernian series, Jurassic, Montana: Keyes, 1456.
- Fivemile (Lower) shale, Mississippian, West Virginia: Reger, 2089.
- Fivemile (Upper) shale, Mississippian, West Virginia: Reger, 2089.
- Flagstaff limestone member, Tertiary, Utah: Spieker and Reeside, 2395.
- Fossil Lake formation, Pleistocene, Oregon: Smith, 2380.
- Foxian series, Cretaceous, Montana: Keyes, 1456.
- French slate, pre-Cambrian, Wyoming: Blackwelder, 232.
- Frisco limestone, Devonian, Oklahoma: Reeds, 2080.
- Gallup sandstone member, Cretaceous, New Mexico: Sears, 2284.
- Garber sandstones, Permian, Oklahoma: Aulin *et al.*, 76.
- Garley Canyon sandstone, Cretaceous, Utah: Spieker and Reeside, 2395.
- Gibson coal member, Cretaceous, New Mexico: Sears, 2284.
- Gillies intrusive, Jurassic (?), British Columbia: Swanson, 2482.
- Gizzard formation, Pennsylvanian, Tennessee: Butts and Nelson, 360; Nelson, 1885, 1886.
- Glady Fork sandstone, Mississippian, West Virginia: Reger, 2089.
- Glenray limestone, Mississippian, West Virginia: Reger, 2089.
- Goat Mountain formation, Jurassic, British Columbia: Schofield, 2259.
- Goodwyn sandstone, Mississippian, West Virginia: Reger, 2089.
- Goodwyn (Lower) shale, Mississippian, West Virginia: Reger, 2089.
- Goodwyn (Upper) shale, Mississippian, West Virginia: Reger, 2089.
- Gowanda beds, Devonian, New York: Chadwick, 418.
- Graham limestone, Mississippian, West Virginia: Reger, 2089.
- Graham sandstone, Mississippian, West Virginia: Reger, 2089.
- Graham (Lower) shale, Mississippian, West Virginia: Reger, 2089.
- Graham (Upper) shale, Mississippian, West Virginia: Reger, 2089.
- Grand Lake formation, pre-Pennsylvanian, New Brunswick: Dyer, 692.
- Grassy Knob chert, Devonian, Illinois: Bassett, 136; Savage, 2235, 2236.
- Graves sand, Cretaceous, Arkansas: Schneider, 2256.

- Gravolsan glacial epoch, Iowa: Keyes, 1444.
- Gravolsan till, Pleistocene, Iowa: Keyes, 1461.
- Greece Ranch horizon, Eocene, California: Clark, 437.
- Greenberry formation, Mississippian, British Columbia: Johnston and Uglow, 1301.
- Greenville shale, Mississippian, West Virginia: Reger, 2089.
- Guadalupe group, Permian, Texas and New Mexico: Darton and Reeside, 594.
- Guantánamo shale, Oligocene or Miocene, Cuba: Darton, 593.
- Guaracara (Tamana) limestone, Miocene, Trinidad: Waring, 2727.
- Guaso limestone, Eocene, Cuba: Darton, 593.
- Guyet formation, Mississippian, British Columbia: Johnston and Uglow, 1301.
- Hackett sandstone, Mississippian, West Virginia: Reger, 2089.
- Hackett shale, Mississippian, West Virginia: Reger, 2089.
- Harrowgate limestone, Devonian, British Columbia: Shepard, 2314.
- Hartland shale member, Cretaceous, Kansas: Bass, 135.
- Hayfield shale, Devonian, Pennsylvania: Chadwick, 419.
- Hayward sandstone member, Permian, Oklahoma: Aulin *et al.*, 76.
- Headquarters schist, pre-Cambrian, Wyoming: Blackwelder, 232.
- Heart metagraywacke, pre-Cambrian, Wyoming: Blackwelder, 232.
- Heenan series, pre-Cambrian, Montana: Keyes, 1456.
- Hennessey shale, Permian, Oklahoma: Aulin *et al.*, 76.
- Herbert conglomerate, Pennsylvanian, Tennessee: Nelson, 1885, 1886.
- Hillsdale limestone, Mississippian, West Virginia: Reger, 2089.
- Hollis quartzite, Algonkian, Alabama: Adams, 5.
- Horsethief formation, pre-Cambrian, British Columbia: Walker, 2697, 2698.
- Hoxbar member, Pennsylvanian, Oklahoma: Bullard, 338.
- Hunt sandstone, Mississippian, West Virginia: Reger, 2089.
- Ignik formation, Jurassic (?), Alaska: Martin, 1709.
- Imperial formation, Tertiary, California: Hanna, 1015.
- Inc Arran latites, Devonian, New Brunswick: Howard, 1181.
- Indian conglomerate, Eocene, California: Nelson, 1881.
- Indian Mills sandstone, Mississippian, West Virginia: Reger, 2089.
- Indian Mills shale, Mississippian, West Virginia: Reger, 2089.
- Indian Point formation, Silurian, Quebec: Schuchert and Dart, 2267.
- Ingles conglomerate member, Carboniferous, Virginia: Campbell, 393.
- Iowa Falls dolomite, Mississippian, Iowa: Van Tuyl, 2645.
- Ischua sandstone, Devonian, New York: Chadwick, 418.
- Itasca glacial epoch, Iowa: Keyes, 1444.
- Itasca till, Pleistocene, Iowa: Keyes, 1461.
- Jemison chert, Devonian, Alabama: Butts, 362.
- Jetmore member, Cretaceous, Kansas: Bass, 135.
- Johannesburg gneiss, Archean, California: Hulin, 1202.
- Joliet limestone, Silurian, Illinois: Savage, 2237.
- Jumbo dolomite member, Algonkian (?), Alabama: Butts, 362.
- Juniper Hill formation, Devonian, Iowa: Van Tuyl, 2645.
- Kaltag formation, Cretaceous, Alaska: Martin, 1709.
- Kamehame basalt, Recent and Pleistocene (?), Hawaii: Stearns, 2439.
- Kaskapau member, Cretaceous, Alberta: McLearn, 1676.
- Kelligrew Brook formation, Cambrian, Newfoundland: Howell, 1187.
- Kingak shale, Jurassic, Alaska: Martin, 1709.
- Klondike member, Devonian, Ohio: Westgate, 2770.
- La Carriere shale, Cretaceous, Trinidad: Waring, 2727.
- La Jolla formation, Eocene, California: Clark, 444; Hanna, 1021.
- Lanai basalt, Lanai (Hawaiian Islands): Wentworth, 2757.
- Latah formation, Miocene, Washington: Pardee and Bryan, 1950, 1951.
- Latronia sands, Tertiary, California: Hanna, 1015.
- Laventille limestone, pre-Cretaceous, Trinidad: Waring, 2727.
- La Vieille formation, Silurian, Quebec: Schuchert and Dart, 2267.
- Lea Park formation, Cretaceous, Alberta: Hume, 1212.
- Legrand beds, Mississippian, Iowa: Van Tuyl, 2645.
- Leonard formation, Permian, Texas: King, 1478.
- Lick Creek sandstone, Pennsylvanian, Illinois: Poor, 2012.
- Lillydale shale, Mississippian, West Virginia: Reger, 2089.
- Lincoln limestone member, Cretaceous, Kansas: Bass, 135.
- Lindside sandstone, Mississippian, West Virginia: Reger, 2089.
- Liskeard formation, Ordovician, Canada: Hume, 1207.

- Lismore formation, Carboniferous, Nova Scotia : Bell, 174.
- Little Oak limestone, Ordovician, Alabama : Butts, 362.
- Livengood chert, Mississippian, Alaska : Mertie, 1780.
- Lone Wolf sandstone, Permian, Oklahoma : Patton, 1982.
- Long Pond formation, Cambrian, Newfoundland : Howell, 1187.
- Longs Peak granite, Colorado : Fuller, 851.
- Longview limestone, Ordovician, Alabama : Butts, 362.
- Lookout schist, pre-Cambrian, Wyoming : Blackwelder, 232.
- Lowell Park member, Ordovician, Illinois : Knappen, 1490.
- Low Gap limestone, Mississippian, West Virginia : Reger, 2089.
- Low Gap sandstone, Mississippian, West Virginia : Reger, 2089.
- Low Gap shale, Mississippian, West Virginia : Reger, 2089.
- Loxley terrace, Pliocene, Mississippi : Lowe, 1638.
- Lucien shale member, Permian, Oklahoma : Aurin *et al.*, 76.
- Machapoozie formation, Miocene, Trinidad : Waring, 2727.
- McLeod series, Jurassic (?), British Columbia : Kerr, 1403.
- Macquereau series, Ordovician (?) or Cambrian (?), Quebec : Schuchert and Dart, 2267.
- Magog conglomerate, Ordovician, Quebec : Dresser, 674.
- Makanda sandstone member, Pennsylvanian, Illinois : Lamar, 1520.
- Malheur formation, Recent, Oregon : Smith, 2380.
- Mandan series, Tertiary, Wyoming : Keyes, 1413.
- Mane basalt, Lanai (Hawaiian Islands) : Wentworth, 2757.
- Maple Green andesites, Devonian, New Brunswick : Howard, 1181.
- Maquay formation, Oligocene or Miocene, Cuba : Darton, 593.
- Marac formation, Eocene, Trinidad : Waring, 2727.
- Marquette member, Cretaceous, Kansas : Twenhofel and Tester, 2605.
- Masukian series, Cretaceous, Montana : Keyes, 1456.
- Matura formation, Pliocene, Trinidad : Waring, 2727.
- Mayne Creek beds, Mississippian, Iowa : Van Tuyl, 2645.
- Meadowville member, Ordovician, Ontario : Dyer, 687.
- Meaford formation, Ordovician, Ontario : Fritz, 848.
- Medicine Peak metaquartzite, pre-Cambrian, Wyoming : Blackwelder, 232.
- Melozi formation, Cretaceous, Alaska : Martin, 1709.
- Middleborough member, Carboniferous, Nova Scotia : Bell, 174.
- Middle River formation, Carboniferous, Nova Scotia : Bell, 173.
- Millers sanstone, Devonian, Pennsylvania : Chadwick, 419.
- Millsville member, Carboniferous, Nova Scotia : Bell, 174.
- Mingan formation, Ordovician, Quebec : Twenhofel, 2607.
- Minnewanka formation, Devonian, Alberta : Shimer, 2319.
- Misener sand, Oklahoma : Merritt and McDonald, 1778.
- Molingonan glacial epoch, Iowa : Keyes, 1429, 1444.
- Molingonan till, Pleistocene, Iowa : Keyes, 1461.
- Mono shale, Eocene, California : Nelson, 1881.
- Morrow Creek member, Eocene, Wyoming : Bradley, 271.
- Mount Bennett rhyolite, Miocene (?), Idaho : Piper, 2003.
- Mount Forster formation, Devonian (?), British Columbia : Walker, 2697.
- Mount Morlah formation, Eocene, Trinidad : Waring, 2727.
- Mount Nelson formation, pre-Cambrian, British Columbia : Walker, 2697, 2698.
- Mt. Olympus granite, Colorado : Fuller, 851.
- Mud (Lower) sandstone, Mississippian, West Virginia : Reger, 2089.
- Mud (Lower) shale, Mississippian, West Virginia : Reger, 2089.
- Mud (Upper) sandstone, Mississippian, West Virginia : Reger, 2089.
- Mud (Upper) shale, Mississippian, West Virginia : Reger, 2089.
- Narrows chert, Ordovician, West Virginia : Reger, 2089.
- Nash marble series, pre-Cambrian, Wyoming : Blackwelder, 232.
- Natural Corral member, Cretaceous, Kansas : Twenhofel and Tester, 2605.
- Nelagoney formation, Pennsylvanian, Oklahoma : Gould, 947.
- Nellie Bly formation, Pennsylvanian, Oklahoma : Gould, 947.
- Nelly Bly formation, Pennsylvanian, Oklahoma : Shannon, 2292.
- Nevala limestone, Ordovician, Alabama : Butts, 362.
- Newcastle Creek formation, Pennsylvanian, New Brunswick : Dyer, 692.
- Newfoundland series, Cambrian, Newfoundland : Howell, 1188.
- Newport formation, Pleistocene, Oregon : Smith, 2380.
- Newton sandstone, Pennsylvanian, Tennessee : Nelson, 1885.
- Ninole basalt, Tertiary (?), Hawaii : Stearns, 2439.
- Northeast shale, Devonian, New York : Chadwick, 418.

- Novillo beds, Cretaceous (?), Mexico : Helm, 1078.
- Nye shale, Oligocene, Oregon : Smith, 2380.
- Ochelata formation, Pennsylvanian, Oklahoma : Gould, 947.
- Odenville limestone, Ordovician, Alabama : Butts, 362.
- Ogontz member, Ordovician, Michigan : Hussey, 1221.
- Okikeska series, pre-Cambrian, Quebec : Bain, 84.
- Ore Hill formation, Cambrian, Pennsylvania : Miller, 1784.
- Orito limestone, Cretaceous, Mexico : Anderson, 50.
- Paicines formation, Pliocene, California : Kerr and Schenck, 1404.
- Palouse formation, Pleistocene, Washington : Treasher, 2580, 2582.
- Patton limestone, Mississippian, West Virginia : Reger, 2089.
- Patton shale, Mississippian, West Virginia : Reger, 2089.
- Payne Branch sandstone, Mississippian, West Virginia : Reger, 2089.
- Payne Branch shale, Mississippian, West Virginia : Reger, 2089.
- Pen Argyl beds, Ordovician, Pennsylvania : Behre, 165.
- Perserverance slate, Triassic, Alaska : Martin, 1709.
- Pfeiffer shale member, Cretaceous, Kansas : Bass, 135.
- Pickaway limestone, Mississippian, West Virginia : Reger, 2089.
- Pictou series, Carboniferous, Nova Scotia : Bell, 174.
- Pimienta beds, Jurassic (?), Mexico : Helm, 1078.
- Pinckneyville granite, post-Carboniferous, Alabama : Adams, 5.
- Pinecate formation, Oligocene, California : Kerr and Schenck, 1404.
- Pioneer sandstone, Pennsylvanian, Tennessee : Glenn, 917.
- Pipestem shale, Mississippian, West Virginia : Reger, 2089.
- Pleasant Valley formation, pre-Cambrian, British Columbia : Johnston and Uglow, 1301.
- Pluto (Lower) shale, Mississippian, West Virginia : Reger, 2089.
- Plymouth member, Carboniferous, Nova Scotia : Bell, 173.
- Point à Pierre grits, Cretaceous, Trinidad : Waring, 2727.
- Poonah sands, Miocene, Trinidad : Waring, 2727.
- Port Byron limestone, Silurian, Illinois : Savage, 2237.
- Possumtrot shale, Mississippian, West Virginia : Reger, 2089.
- Potomac marble, Triassic, Pennsylvania : Miller, 1784.
- Powderhorn granite group, pre-Cambrian, Colorado : Hunter, 1218.
- Price River formation, Cretaceous, Utah : Spieker and Reeside, 2395.
- Pride shale, Mississippian, West Virginia : Reger, 2089.
- Princes Town (Lower) marl, Miocene, Trinidad : Waring, 2727.
- Proserpine sills and dykes, British Columbia : Johnston and Uglow, 1301.
- Pueblo formation, Mesozoic or older, Oregon : Smith, 2380.
- Quanchus batholith, Jurassic, British Columbia : Marshall, 1701.
- Raines Corner limestone, Mississippian, West Virginia : Reger, 2089.
- Raines Corner shale, Mississippian, West Virginia : Reger, 2089.
- Rand schist, Archean, California : Hulin, 1202.
- Ranger marble, pre-Cambrian, Wyoming : Blackwelder, 232.
- Red Canyon member, Permian (?), Colorado : Duce, 675.
- Red Mountain andesite, Pliocene, California : Hulin, 1202.
- Redstone granite, Connecticut : Martin, 1711.
- Restigouche volcanic series, Devonian, New Brunswick : Howard, 1181.
- Reynolds limestone, Mississippian, West Virginia : Reger, 2089.
- Rich Hill limestone, Pennsylvanian, Missouri : Greene and Pond, 968.
- River John series, Carboniferous, Nova Scotia : Bell, 174.
- River Portal mica schist, pre-Cambrian, Colorado : Hunter, 1218.
- Rockdale drift, Pleistocene, Illinois : Fisher, 806.
- Rock Springs formation, Cretaceous, Wyoming : Sears, 2283.
- Rocktown channel sandstone member, Cretaceous, Kansas : Rubey and Bass, 2183.
- Rogersian series : Keyes, 1432.
- Romaine formation, Ordovician, Quebec : Twenhofel, 2607.
- Rose Cañon shale, Eocene, California : Hanna, 1021.
- Rosedale member, Ordovician, Ontario : Fritz, 848.
- Rundle formation, Carboniferous, Alberta : Shimer, 2319.
- Saegertown shale, Devonian, Pennsylvania and Ohio : Chadwick, 419.
- St. Croix (Lower) formation, Oligocene, Trinidad : Waring, 2727.
- St. Croix (Upper) formation, Miocene, Trinidad : Waring, 2727.
- San Benito gravels, Pleistocene, California : Kerr and Schenck, 1404.
- Sand Creek formation, Pennsylvanian, Oklahoma : Gould, 947.
- San Juan Bautista formation, Oligocene, California : Kerr and Schenck, 1404.

- Santa Francisca rhyolite, Mexico: Anderson, 50.
- Santa Rosa beds, Devonian, Mexico: Ver Wiebe, 2668.
- Santa Susana formation, Eocene, California: Clark, 437, 444.
- Sardis terrace, Pliocene, Mississippi: Lowe, 1638.
- Sawyer limestone member, Algonkian (?) and Paleozoic, Alabama: Butts, 362.
- Saxian series, Cretaceous, Iowa: Keyes, 1421.
- Schnabkaib shale member, Triassic, Arizona: Darton, 592.
- Seboomook slate, Silurian, Maine: Perkins, 1992.
- Seven Rivers gypsiferous member, Permian, New Mexico: Meinzer *et al.*, 1751.
- Shumla sandstone, Devonian, New York: Chadwick, 418.
- Sierra Blanca limestone, Eocene, California: Nelson, 1881.
- SimiJoel formation, Tertiary, Mexico: Ver Wiebe, 2668.
- Sinks Grove limestone, Mississippian, West Virginia: Reger, 2089.
- Slide Mountain series, Mississippian, British Columbia: Johnston and Uglow, 1301.
- Soledad member, Tertiary, Texas: Bailey, 79.
- Sparta sand, Eocene, Louisiana: Powers, 2014.
- Sparta sand, Tertiary, Louisiana: Spooner, 2398.
- Spray River formation, Triassic, Alberta: Shimer, 2319.
- Staniukovich shale, Cretaceous, Alaska: Martin, 1709.
- Starbird formation, Devonian, British Columbia: Walker, 2697.
- Star Point sandstone, Cretaceous, Utah: Speker and Reeside, 2395.
- Stewart andesites, Devonian, New Brunswick: Howard, 1181.
- Streetsville member, Ordovician, Ontario: Dyer, 687.
- Stonington beds, Ordovician, Michigan: Hussey, 1221.
- Stony Gap sandstone, Mississippian, West Virginia: Reger, 2089.
- Sugar Loaf dacites, Devonian, New Brunswick: Howard, 1181.
- Sugarloaf metaquartzite, pre-Cambrian, Wyoming: Blackwelder, 232.
- Summer formation, Recent, Oregon: Smith, 2380.
- Sur series, California: Trask, 2579.
- Sycamore Creek sandstone, Devonian, Arizona: Lausen and Wilson, 1546.
- Sylacauga marble member, Algonkian (?), Alabama: Butts, 362.
- Taggard limestone, Mississippian, West Virginia: Reger, 2089.
- Taggard (Lower) shale, Mississippian, West Virginia: Reger, 2089.
- Taggard (Upper) shale, Mississippian, West Virginia: Reger, 2089.
- Talcott shale, Mississippian, West Virginia: Reger, 2089.
- Tallery limestone, Mississippian, West Virginia: Reger, 2089.
- Tallery sandstone, Mississippian, West Virginia: Reger, 2089.
- Tallery (Lower) shale, Mississippian, West Virginia: Reger, 2089.
- Tallery (Upper) shale, Mississippian, West Virginia: Reger, 2089.
- Taman beds, Jurassic, Mexico: Helm, 1078.
- Tarouba shale, Eocene, Trinidad: Waring, 2727.
- Tarryall formation, Permo-Carboniferous, Colorado: Muilenburg, 1870.
- Tenejapa formation, Tertiary, Mexico: Ver Wiebe, 2668.
- Tenestipa limestone, Cretaceous (?), Mexico: Helm, 1078.
- Tequepis sandstone, Miocene, California: Nelson, 1881.
- Terry limestone, Mississippian, West Virginia: Reger, 2089.
- Terry shale, Mississippian, West Virginia: Reger, 2089.
- Thane volcanic group, Jurassic, Alaska: Martin, 1709.
- Thibert series, Triassic, British Columbia: Kerr, 1403.
- Thomas sand, Pennsylvanian, Oklahoma: Clark, 449.
- Tizapan basalt, Tertiary, Mexico: Palmer, 1947.
- Toby conglomerate, pre-Cambrian, British Columbia: Walker, 2697.
- Tophet limestone, Mississippian, West Virginia: Reger, 2089.
- Tophet sandstone, Mississippian, West Virginia: Reger, 2089.
- Tophet (Upper) shale, Mississippian, West Virginia: Reger, 2089.
- Tophet (Lower) shale, Mississippian, West Virginia: Reger, 2089.
- Torrey sand, Eocene, California: Hanna, 1021.
- Tower sandstone lentil, Eocene, Wyoming: Bradley, 271.
- Towner greenstone, pre-Cambrian, Wyoming: Blackwelder, 232.
- Tres Pinos formation, Eocene, California: Kerr and Schenck, 1404.
- Triunfo formation, Tertiary, Mexico: Ver Wiebe, 2668.
- Trout Creek formation, Miocene, Oregon: Smith, 2380.
- Tununkian series, Cretaceous: Keyes, 1421.
- "Turkey Mountain" sand, Cambro-Ordovician, Oklahoma: White, 2803.
- Tuya lavas, Tertiary, British Columbia: Kerr, 1403.

- Union limestone, Mississippian, West Virginia: Reger, 2089.
- Vassalboro ss., Silurian, Maine: Perkins and Smith, 1991.
- Vernal Mesa granite, pre-Cambrian, Colorado: Hunter, 1218.
- Veta Pass limestone member, Pennsylvanian, Colorado: Melton, 1759.
- Vidrio formation, Permian, Texas: King, 1478.
- Vincent member, Ordovician, Ontario: Fritz, 848.
- Volusia shale, Devonian, New York: Chadwick, 418.
- Wabana series, Ordovician, Newfoundland: Howell, 1188.
- Wabi formation, Silurian, Canada: Hume, 1207.
- Wagon tire formation, Eocene, Oregon: Smith, 2380.
- Walker conglomerate and sandstone, Pennsylvanian, Missouri: Greene and Pond, 968.
- Warren Point sandstone lentil, Pennsylvanian, Tennessee: Nelson, 1885.
- Wautubbee marls, Tertiary, Mississippi: Lowe, 1638.
- Waverly formation, Mississippian, British Columbia: Johnstone and Uglow, 1301.
- Wayside sandstone and shale member, Pennsylvanian, Illinois: Lamar, 1520.
- Wedowee formation, post-Algonkian, Alabama: Adams, 5.
- Westfield shale, Devonian, New York: Chadwick, 418.
- West Point formation, Silurian, Quebec: Schuchert and Dart, 2267.
- Whetstone Gulf formation, Ordovician, New York: Ruedemann, 2186.
- Whitwell shale, Pennsylvanian, Tennessee: Butts and Nelson, 360; Nelson, 1885, 1886.
- Wildhorse formation, Pleistocene, Oregon: Smith, 2380.
- Windermere series, pre-Cambrian, British Columbia: Walker, 2697, 2698.
- Windom member, Cretaceous, Kansas: Twenhofel and Tester, 2605.
- Wolfcamp formation, Permian, Texas: Hoots, 1167.
- Wolfe City sand, Cretaceous, Texas: Powers, 2014.
- Woodcock sandstone, Devonian, Pennsylvania: Chadwick, 419.
- Word formation, Permian, Texas: King, 1478.
- Yellow Leaf quartz schist, Devonian, Alabama: Butts, 362.
- Yuba reefs, Tertiary, California: Hanna, 1015.
- Zilhljilli formation, Cretaceous, Arizona: Reagan, 2064, 2067.



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