GEOGRAPHY.

II.

ZONIA BABER.

FIRST GRADE.

WINTER QUARTER.

I. Lake Michigan : change produced by cold ; ice harvest.

II. Houses : building, heating, lighting, food. Visit South Park conservatory—moisture ; temperature ; tropic fruits—bananas, oranges, limes, grape fruits, figs, dates—appearance when growing ; harvesting.

III. Eskimo : home ; provisions for warmth in winter ; food. Life of Eskimo child.

SPRING QUARTER.

I. Garden-making : soil—best soil for garden ; necessity of moisture ; weeding.

II. Farm : visit farm. Spring activities—preparation of ground for planting ; seeding ; cultivation.

III. Home : necessities of a summer home ; build a Yucatan wattled house for summer playhouse.

REFERENCES : King, *The Soil* ; Gaye, *The Great World Farm* ; Schwatka, *Children of the Cold* ; Nansen, *First Crossing of Greenland* ; Peary, *Northward over the Great Ice*.

SECOND GRADE.

WINTER QUARTER.

I. A study of prairies, semi-deserts, deserts. (1) Prairies—appearance at different seasons ; grazing animals—cattle, sheep, horses, goats ; life of herdsman. (2) Desert—appearance : rocky, sandy, sand dunes, oases ; camels ; caravans. Life in desert.

II. Winter effect on Lake Michigan ; on rivers, swamp, prairie, garden.

REFERENCES : (I) Ratzel, *Agriculture and Cattle Breeding* ; Marsh, "Deserts," *Man and Nature* ; Gay, "Deserts," *Great World Farm* ; Johnston, "Deserts," *Compendium of Africa* ; Van Dyke, *The Desert* ; Davis, "Deserts." *Physical Geography*.

SPRING QUARTER.

I. Agriculture : visit farm. (1) Gardening—plant, indoors, cotton, rice at time of seeding in southern United States ; make garden. (2) Farm—removing remains of previous crop ; plowing ; harrowing ; seeding.

II. Transportation : means by which we receive materials from distance. Visit car shops ; boats. (1) On land—railroads ; wagons, sleds, drawn by

horses, mules, cattle, camels, dogs, reindeer, buffaloes ; by pack — the above animals, also llama, elephant, man.

REFERENCES: (I) See first-grade outline.

(II) Cooley, *Transportation*; S. M. Shaler, "Beasts of Burden," *Scribner*, July-December, 1894; "Roads, Streets, and Vehicles," *Iconographic Dictionary*.

THIRD GRADE.

WINTER QUARTER.

I. Conditions for farming in a river valley: Pupils make river valley in the laboratory. Flood plain—effect of overflow of river on soil; on crops; protection against floods; building of levees; drainage—ditch, tile.

II. Conditions for farming in semi-deserts or deserts: (1) Irrigation: source of water supply—wells, rivers, reservoirs; means of conveying water to the crop. Pupils make model field showing irrigation.

REFERENCES: Davis, *Physical Geography*; Gilbert & Brigham, *Introduction to Physical Geography*; Mill, *Realm of Nature*, *International Geography*; Marsh, *Nature and Man*; *Year-Book of the Department of Agriculture*, 1895; King, "Irrigation," *The Soil*; Murray, "Irrigation in Egypt," *Handbook of Egypt*.

SPRING QUARTER.

I. Conditions for farming in mountains: (1) Slope—difficulties of retaining soil and moisture on steep slopes; terraces. (2) Climate in high mountains—temperature and moisture. (3) Vineyards on mountain slopes. Pupils plant grapes in garden; tending of vineyards; harvesting of grapes; wine-making. (4) Tea on slopes of Himalaya and in Ceylon—planting; tending; picking and drying tea. (5) Coffee—planting, cultivation, harvest. (6) Life of mountain people.

II. Plant in garden cereals and vegetables—in sandy soil; in gravelly soil; in clayey soil. Give each soil same amount of water—result. Remove weeds from a part, let weeds grow in other parts—effect. Best location for farmers—soil, moisture, heat, plant and animal conditions.

REFERENCES: Dodge, *A Reader in Physical Geography*; Blackie, *Tropical Readers*, 1 and 2; "Tropic Products," *Handbook of Information*, Jamaica, 1901; "Tea," "Coffee," "Grape," *Universal Encyclopedia*.

FOURTH GRADE.

WINTER QUARTER.

I. Building of streets, houses, bridges. (1) Streets: width; length; material used in paving—wood, stone, brick, asphalt, concrete, source of paving material. Visit streets which are being paved in the various ways; (2) Houses: visit houses which are building; source of material: (a) stone: kinds used—limestone, sandstone, granite, green stone, marble, quartzite; quarrying and dressing stone; (b) wood: visit lumber yards; kinds of wood

used in house-building ; lumbering — felling trees ; logging ; sawing ; lumbering in Michigan ; in Burmah ; in Brazil ; (c) iron : mining ; smelting ; visit foundries at South Chicago ; (d) bricks : visit brick yard at Purington ; material used in brick ; manner of manufacture.

REFERENCES: Annual Reports of the Department of Public Works of Chicago ; *Universal Encyclopædia* ; Diller, "Rock Specimens," *U. S. Geol. Sur. Educational Series* ; *Iconographic Encyclopædia*.

SPRING QUARTER.

I. Water supply of Chicago : visit crib and pumping station, also where basements are digging which reach ground water. Water tunnels ; manner of construction. (1) Springs, wells, rivers, as sources of water supply : (a) springs : formation ; kinds of — hot springs, cold springs, mineral springs ; source of water ; (b) wells : common and artesian ; modes of well-making ; source of water ; (c) rivers : source of water ; uses.

II. Clothing : sources of materials : (1) Cotton : plant in school garden. Best conditions for growth ; cotton culture in southern United States ; picture life on cotton plantation. (2) Wool : visit Stock Yards for sheep and wool ; picture life on sheep ranch ; sheep-shearing and preparation of wool for cloth. (3) Silk : raise silk worms in schoolroom. Best conditions for growth of silk worms. Stories of silk culture in China and Japan. (4) Flax : pupils plant flax in garden. Flax culture : preparation for linen — pulling, threshing, retting, breaking, scutching, hatcheling. (5) Fur : conditions which necessitate fur for animal covering. Principal furs of commerce. Visit fur store. Countries which produce most furs. Preparation of furs for use. (6) Leather : kinds of leather used for clothing ; means of preparation for use. Visit tannery.

REFERENCES: Adams, *Commercial Geography* ; *Universal Encyclopædia* ; Annual Reports of the Department of Public Works of Chicago ; Davis, *Physical Geography* ; Tarr, *Physical Geography* ; Gilbert & Brigham, *Physical Geography* ; Dryer, *Physical Geography*.

FIFTH GRADE.

WINTER QUARTER.

I. Drainage of North America : river basins ; river systems. Special study of important river basins — Mississippi river basin, St. Lawrence river basin, Atlantic system of river basins, Colorado river basin, Yukon river basin, Mackenzie river basin, Saskatchewan river basin ; position, extent, climate, products ; influence upon topography ; influence upon industrial pursuits of the region. Probable future if diastrophic conditions remain static.

II. Climatic condition of North America : relation to topography ; to oceans ; to latitude. Climate a cultural control ; climatic conditions of Chicago. Pupils keep record of sun's apparent movements ; temperature, rain-fall, direction of winds.

REFERENCES: Mill, *International Geography*; Longmans, *School Atlas*; *Compendium of North America*; Reclus, "North America;" *Earth and its Inhabitants*, Shaler, *United States*; Shaler, *Story of Our Continent*; *National Geographic Monographs*; Davis, *Physical Geography*; Russell, *Rivers of North America*; Russell, *Lakes of North America*; Tarr and McMurray, *North America*; Shaler, *Nature and Man in America*.

SPRING QUARTER.

I. Glaciers and their effects: visit Barrington; north shore; Stony Island; Purington. (1) Result of glaciers in this region; effect on industrial conditions. (2) Distribution of existing glaciers of North America; work done and doing. (3) Continental glaciers of North America; extent; effect upon area covered; effect of continental glacier upon the cultural development of North America.

II. Distribution of some leading industries of North America: (1) Agricultural areas: regions best adapted to the production of wheat, oats, corn, barley, rice, sugar cane, sugar beets, cotton, flax, tobacco, fruits. Why? Visit farm. (2) Stock-raising: regions best adapted to raising cattle, horses, sheep, hogs, goats. Why? Visit Stock Yards. (3) Lumbering: visit lumber yards; distribution of hard-wood forests; of soft-wood forests. Lumbering in Central America; in Michigan; in Maine; on Pacific coast. Future of the lumbering industry. (4) Mining: distribution of iron, coal, copper, gold, silver, lead, tin; other metals. Reasons for concentration of metals or minerals; mining processes. Visit mills at South Chicago, Field Columbian Museum.

III. Distribution of political divisions; of cities: (1) Position and extent of Canada, United States, Mexico, Central America, West Indies, Greenland: (a) most important products of each country; (b) people—language, dress, customs; (c) cities—distribution of most important cities; reasons for location and importance: effect of waterways, mountains, native products; political reasons.

REFERENCES: See reference for winter quarter; Shaler and Davis, *Glaciers*; Russell, "Glaciers of North America," *Journal of Geology*, Vols. I-IV; Salisbury, *Physical Geography of New Jersey*; Scott, *Introduction to Geology*; Sievers, *America*; Shaler, *United States of America*; Dawson, *Canada and Newfoundland*; Parkin, *The Great Dominion*; *British Association Handbook of Canada*; Bancroft, *Resources and Development of Mexico*; Romero, *Geographic and Statistic Notes of Mexico*; Belt, *Naturalist in Nicaragua*; Brigham, *Guatemala, the Land of the Quetzal*.

SIXTH GRADE.

WINTER QUARTER.

Eurasia in connection with a study of history and current events.

I. Eurasia—terrestrial position; size; shape; influence of massiveness. (1) Highlands—plateaus, mountains. (2) Lowlands—position in relation

to highlands; in relation to climatic conditions; in relation to open oceans. (3) Drainage—ocean systems, inland systems; effect of each on the life-development of the areas. (4) Climate—prevailing winds; temperature; rainfall; influence of size, massiveness, and topography of continent on climatic conditions. (5) Europe—position in relation to remainder of continent; topography, drainage, climate. Influence of indented coast line; cause; compare with North American coast line. Mountains and plateaus; influence of position of mountain ranges upon climate and cultural development of northern and southern Europe. Plains; influence upon cultural development. Balkan peninsula: location, topography—Balkan mountains, Dinaric Alps, Thraco-Macedonian highlands; plains—drainage; climate. Greece: coast line, effect on people; surface, soil; climate; products; cities; people. Switzerland: position; influence on remainder of Europe; highlands—Jura zone, Swiss plateau, Alps; influence upon drainage—Rhine river, Rhone river, Danube river; climate—compare north and south side of mountains, winter and summer; wind, rain- and snowfall; products; scenic attraction. European plain—extent; drainage; climate; products.

Special study of the Netherlands: location, altitude, protection of land below sea level; drainage—Rhine river, Waal river, Lek river; influence of rivers and canals upon commercial development. Coast, sand dunes—use, means of retaining dunes. Natural products. Climate; influence of low altitude upon climate; influence of North Sea; rainfall upon polders or reclaimed land; upon higher land. Cities—appearance, location. Present government.

REFERENCES: Mill, *International Geography*; Keane, *Compendium of Asia, Compendium of Europe*; Reclus, "Europe and Asia," *Earth and its Inhabitants*; Lubbock, *Scenery of Switzerland*; Sven Hedin, *Through Asia*.

SPRING QUARTER.

I. Asia—relation to Europe; topography; climate. Influence of the Orient upon international relations. Special study of China, Japan, Korea, India. For detail outline, with reading references, see COURSE OF STUDY, *Chicago Institute*, May and June, 1900.

SEVENTH GRADE.

SPRING QUARTER.

North America and South America.

I. Western continent—size; shape; influence of shape upon its cultural development; topography—mountains, plains, plateaus; if American Mediterranean were land, effect upon life-development; if the high ranges of mountains were on the eastern side of the continent, effect upon life and culture. (1) North America—simple story of the evolution of the continent. (2) South America—location; area; altitude, compare with Africa; physical

features: Andes mountains, Guiana highlands, Brazilian highlands, central plain; river basins—Amazon, La Plata, Orinoco, Magdalena, Atrato, Guiana system; Patagonian system; as a system of water highways compare with other continents; climate—temperature, compare with Africa; prevailing winds; rainfall, compare distribution of rainfall with other continents; account for small desert area; native product; distribution of forests, prairies; culture products; distribution of political divisions, account for large number of small republics; probable difference in development had English instead of Spanish and Portuguese colonized South America; distribution of cities.

REFERENCES: Mill, *International Geography*; Keane, "South America," *Stanford's Compendium*; Reclus, *Nouvelle géographie universelle*; Humboldt, *Travels to the Equinoctial Regions of the New Continent from 1797 to 1804*; Ball, *Notes of a Naturalist in South America*; Markham, *Peru*; Hudson, *The Naturalist on the La Plata*; *Handbook of Uruguay* (Bureau of American Republics); *Handbook of Paraguay* (Bureau of American Republics); Agassiz, *A Journey in Brazil*; Bates, *A Naturalist on the River Amazon*; Wallace, *Travels on the Amazon and Rio Negro*; Rodway, *In the Guiana Forest*; Strickland, *Document and Maps of the Boundary Question between Venezuela and British Guiana*.

II. Mathematical geography—general relation of sun and earth causing change of seasons.

REFERENCES: Jackson, *Astronomical Geography*; Young, *General Astronomy*; Huxley, *Physiography*; Gregory, *Elements of Physiography*.

SPRING QUARTER.

I. Forests—distribution of forest areas of the earth; influence of forest upon the development of a country in temperate and tropic regions. Value of present forests, industrial and climatic; probable future of forest areas.

II. Agriculture—distribution of lands best adapted to farming; location of cereal belts; sugar cane; coffee; tea; tobacco; cotton. Account for location of the special crops—the geographic and human controls.

III. Stock-raising—distribution of areas best adapted to stock-raising; cause.

IV. Distribution of political divisions—nations important in international affairs; large land owners; England, Russia, China.

V. Distribution of leading cities. Account for location.

EIGHTH GRADE.

SPRING QUARTER.

I. Forests—distribution of forest areas of the earth. (1) Lumber: foremost wood-producing countries: United States, Canada, and Russia. Why? Place occupied by pine, oak, walnut, maple, chestnut, beech, ash, poplar, as useful woods. Other important woods: mahogany, teak, ebony,

bamboo, eucalyptus. Where produced? Special use? Modes of lumbering in cold countries; value of rivers, of snow. (2) Other products of forests—tar, turpentine, resin, rubber, quinine, gutta-percha, dyestuffs, camphor, cork; where, from what, and how produced? Value of forests in the development of a country in the temperate and tropic regions. Value and manner of re-foresting. Influence of deforestation; countries most affected by deforesting. Probable future of the present great forest areas. Comparative place of forestry in the world's industries.

II. Agriculture—distribution of lands best adapted to farming. Leading cereal crops—location; why? Manner of cultivation and disposition. Sugar cane: areas now employed in cane raising; why decreasing? Sugar beets: distribution of areas adapted to beet culture; areas now used for beet growing. Coffee: distribution of; cause of present over-production; result of coffee congress; coffee-drinking countries. Distribution of tea plantations; cultural methods; tea-drinking countries. Cacao: culture and distribution; chocolate consuming countries. Value of coffee, tea, chocolate as a social factor. Cotton: limit of distribution; why? Method of culture and disposition of crop in United States, India, Egypt. Tobacco culture. What elements enter into the geographic and human controls in the distribution and disposition of various crops.

III. Stock-raising—distribution of areas best adapted to stock-raising; regions where stock-raising now prevails; why? Cattle: motive governing production in United States; in India; in Argentine; in South Africa. Sheep: distribution of; fight between cattle and sheep herders in the western United States. Australia, Argentine, New Zealand, South Africa, Russia, as sheep-producing countries. Influence of refrigerator cars and refrigerator ships upon production of sheep, cattle, and swine. Distribution of swine; horses.

IV. Distribution of political divisions: Nations important in international affairs; why? Large land owners: England, Russia, China, United States; why? Relative value of distribution of a nation's land; compare England's and Russia's possessions. Special study of the great land-owning nations; geographic and political importance; account for material and human assets.

V. Distribution of leading cities of the world; account for position and importance; probable future.

REFERENCES: Mill, *International Geography*; Shaler, *Nature and Man in North America*; Ratzel, *Politische Geographie*; March, *Man and Nature, or Physical Geography as Modified by Human Action*; Adams, *Commercial Geography*; Chisholme, *Handbook of Commercial Geography*; Keltie, *Applied Geography*; Mill, *Elementary Commercial Geography*; Stanford, *Compendium of the Different Continents*.