the average temperature for each month being noted. Snow; freezing. Effect of cold on plant and animal life.

Gymnastics.—For exercises and games see Mr. Kroh's outline.

History.—Early Norse training: story of King Olaf Trygvesson. Character of country; running, spear-throwing, swimming, rowing, jumping, sailing, commanding a crew. Winter sports of Norway. Amount of snow; length of day and night. Ski, skates, sleds, sleighs.

Reading and study of "Ulysses" continued.

Special day exercises. Washington's and Lincoln's birthdays.

The third grade will study the boyhood of Lincoln. The Lincoln family moving from Kentucky to Indiana. Abraham's work in building the house, clearing the fields, his farm work. Learning to read and write. The children will make large pictures of incidents of Lincoln's childhood. They will read the stories themselves, then select those which they wish to tell to the school. These they may write and illustrate.

SIXTH GRADE.

OUTLINE OF WINTER QUARTER.

MARY REED.

History.—The work of the quarter will be the Revolution, and this will be studied with special reference to the industrial relation of England to her colonies, her prohibitory laws, and their direct result in bringing about the War of Independence.

I. The period of struggle for independence: (1) Status of affairs in the colonies at close of French war; restriction of commerce and industries by Great Britain; friction between governors and assemblies over war taxes; growing sense of power through colonial union. (2) Stories of the War of Independence grouped about (a) Boston, (b) New York, (c) Philadelphia, and the South. (3) Stories of patriots: Washington, Adams, Hamilton, Franklin, Greene, Ethan Allen, Israel Putnam, Paul Jones. (4) Questions unsettled at close of war; industrial and commercial relations with Great Britain; the matter of boundaries; relations with the Indians.

II. Comparison of industries at the beginning of the Revolution and the period immediately following: lumbering, ship-building, fisheries, commerce, textile and iron manufacture, building.

Literature—I. Oral reading: Longfellow, "Paul Revere;" Read, "Rising of 1776;" Longfellow, "Building of the Ship;" selections from Patrick Henry's orations and Washington's addresses.

II. Supplementary reading: Scudder, *George Washington*; *Braddock's Defeat*, "Heart of Oak" series; Hawthorne, *Grandfather's Chair*; Holmes, *Ballad of the Boston Tea Party*; Goss, *Life and Letters of Paul Revere*; Holmes, *Grandmother's Story of Bunker Hill Battle*; Franklin, *Autobiog-*

raphy; Roosevelt, Episodes from *Winning of the West*; Hart, *Source Book of American History*; Channing and Hart, *American History Told by Contemporaries*.

Geography.—I. Eastern North America: Appalachian mountain region as a whole, with laboratory study of mountain-making; Hudson, Delaware, and Schuylkill rivers, with special study of river erosion; detailed study of region connected with history of the Revolution, the routes of immigration to the interior, and the acquired territory.

II. West Indies: location, topography, climate, and products; commercial relations with the colonies, and also with the United States today.

III. Current events: weekly reports, with use of political map of United States.

Home economics.—In place of lessons in cookery will be a study of the gases utilized in lightening doughs and batters, viz.: expansion of air by application of heat, and simple experiments in forming and collecting carbon dioxide from yeasts and baking powders. The cooking lessons of the spring quarter will furnish the opportunity to apply this knowledge, while those of the autumn quarter have developed the need for it.

Science.—Study of properties of gases; oxygen, hydrogen, and carbon dioxide. Through the daily record of weather conditions: barometric pressure, with the construction of a barometer; air movement, winds, heating, and ventilation; evaporation and condensation as related to rain, snow, dew, and frost.

Number.—I. Correlated: Problems growing out of the study of barometric pressure and making of the barometer; of the thermometer in marking ungraded thermometers and comparing the centigrade and Fahrenheit scales; of the force and velocity of winds.

II. Outcome: The skill to use decimal and common fractions; a knowledge of denominate numbers gained by the children's own use of the various weights and measures in their work. When needed, exercise will be given to insure skill and freedom.

English.—Recording of all science experiments: written work in connection with history and geography; spelling, study of verbs, and analysis of simple sentences.

French.—Conversation and games. Stories of La Fayette, Rochambeau, Marie Antoinette at Versailles, Louis XVI. Reading and dictation from Claude Hugué and Maxime Petit's *Premier livre d'histoire*.

German.—A continuation of the work commenced in the autumn quarter.

Music.—The songs to be learned are "America," Grieg's "Fatherland Psalm," the "Marseillaise," "Yankee Doodle," and Rheinberger's "Spinning Song." These tunes will serve as material for gaining technical skill in reading and writing music.

Art.—Illustrative drawing in connection with history: ships of the period, weapons and fortifications, tools and machinery. In connection with

geography, painting of typical landscapes. Record of observations in nature study.

Manual training—Visits to the shops to see good hand-made furniture and smaller articles of handcraft. Designing and making of articles, with accompanying lessons in mechanical drawing.

SEVENTH GRADE.

ELSIE AMY WYGANT.

The subject chosen for study during the winter quarter is the period of geographical discovery from the time of Marco Polo to the circumnavigation of the world by the ships of Magellan. This period is so rich in its possibilities of interest that it seems wise to devote the time of the four "central subjects" to the development of its various aspects—historical, geographical, scientific, and mathematical.

The historical topics of the subject will be somewhat as follows: Greek conception of the earth as a plane bounded by Oceanus; the later doctrine that the earth is spherical, that the sun and stars revolve about the earth; the belief that the earth is divided into zones, with a tropic zone which is impassable on account of the intensity of heat; estimates of the dimensions of the earth.

The effect of the crusades upon travel, and of the travels of Marco Polo upon geographical interest of the period.

Henry, Prince of Portugal, "the Navigator," his discoveries and his explorations which proved the fallacy of the Greek theory of the tropics.

The enthusiasm in the search for a water route to India increased by the tales of travelers from the East.

A new route to India made imperative by the fall of Constantinople in 1453.

Life and work of the three great explorers, Christopher Columbus, Vasco da Gama, and Ferdinand Magellan.

REFERENCES: ELEMENTARY SCHOOL TEACHER, Vol. II, No. 8, pages 626-8 (in this article Miss Deratt has worked out the above subject for the seventh grade, including a most helpful bibliography, which is largely quoted below); Fiske, *Discovery of America*,¹ B 1978; Payne, *History of America*, B 1985; Draper, *Intellectual Development of Europe*; Yule, *Cathay and the Way Thither*, I 2376; Yule, *Marco Polo, His Book*, Vols. I and II, I 1576; Winsor, *Narrative and Critical History of America*, Vols. I and II, B 1980; N. Ponce de Léon, *Caravels of Columbus*, V 1562; Ford, *Writings of Columbus*, C 10651; Guillemard, *Magellan*, C 11235; Irving, *Columbus*,

¹Throughout the article the references are followed by the Chicago Public Library cataloguing in the hope of saving Chicago readers some time and effort.