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THE EDUCATIONAL IDEAS OF E. G. WHITE

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PART I

Statement of the research problem and outline of American
and European educational theory and practice 1827 to 1900.

CHAPTER I

THE PROBLEM

The educational programme of the Seventh-day Adventist Church has attracted interest for three main reasons:

- (a) its Christian philosophy of education,
- (b) its recent origin,
- (c) its extent.

Throughout most countries of the world the schools of the denomination are found. These range from primary schools to colleges of university level. In Australia, for example, the Avondale College, Cooranbong, N.S.W., prepares students for the University of London B.Sc and for the "Common First Year" Science Course of the University of N.S.W. It also is affiliated with Pacific Union College, California, U.S.A., an officially accredited institution of higher learning, through which it offers Bachelor of Arts degrees in Secondary Education, and Theology.

In the United States of America the denomination operates two universities: Andrews University, Berrien Springs, Michigan, and Loma Linda University, Loma Linda, California. The latter is an American Medical Association - approved medical centre. It has major schools (Dentistry, Medicine, Nursing) and six related professional schools (Nutrition and Dietetics, Medical Technology, Physical Therapy, Radiologic Technology, Public Health and Tropical

Medicine, and Graduate Studies).

"The Adventists to-day operate the second largest Protestant parochial-school system in the United States and the largest Protestant church-school program outside of North America" (Delafield, 1963, p. 19). All told, the denomination, at the end of 1966, operated 4,723 elementary schools throughout the world, and 416 secondary schools and colleges. 296,204 students were enrolled in the elementary schools and 84,244 in the secondary schools and colleges, while 18,922 teachers were employed (Pacific Press Publishing Association, 1968, p. 18). Mitchell (1958, pp. 106, 107) states, "The Adventists are a highly literate people. Compared proportionately with the general American public, three times as many American Adventists are college graduates and one and a half times as many have completed the high-school grades. Twice as many of the general population, proportionately stop their education at or below the eighth grade".

That E. G. White was largely responsible for the guidance and development of the Seventh-day Adventist Church's educational programme is generally recognized both within the church and outside it. On her death, an editorial in "The Independent" stated, "Their work began in 1853 in Battle Creek, and it has grown until now they have thirty-seven publishing houses throughout the world, with literature in eighty different languages. . . . They have now seventy colleges and academies, and about forty sanitariums; and in all this Ellen G. White has been the inspiration and guide"

(Aug. 23, 1915, p. 250). In Seventh-day Adventist literature, such words as the following frequently occur: "These three volumes [writings of E. G. White] prove to be of great service to parents in their homes, to teachers in the schools, and to the administrators of educational work. They constitute a sort of blue print or pattern for that work" (General Conference Department of Education, 1949, p. 5), and, "But as our institutions entered upon their work many lessons were learned from experience and invaluable counsel was gained from the revelations which were given to Ellen White nurturing, guiding, and guarding this important line of work" (General Conference Department of Education, 1949, p. 4).

W. A. Spicer, an ex-President of the General Conference of Seventh-day Adventists, its governing body, wrote:

Any survey of the whole system - from church schools to academies and junior and senior colleges, with one medical college beyond the senior college circle - reveals the Spirit of prophecy [the messages delivered by White, believed by the Adventist Church to have been communicated to her by God] as a major influence in its development. The educational leaders who have wrought out the system through the years are the first to testify to their indebtedness to that gift" (Spicer, 1937, p. 78).

In view of the extent of the Seventh-day Adventist educational system, and its philosophy, the assertions that White was the major influence in its development, and that her writings still are the "blue print or pattern for that work", make her writings significant. While some studies of her ideas have been made, none, to the knowledge of the writer, has attempted to compare them with those

current in her day in order to ascertain her contribution to education. This gap the present study endeavours to fill.

The research problem was fourfold:

(1) To study White's life history in order to appreciate her work generally, and to gauge her influence on the Adventist educational system of her day.

(2) To investigate the writings of White in order to ascertain her educational ideas.

(3) To study nineteenth century educational thought and practice, mainly in the United States.

(4) By examining White's educational ideas in the context of the educational thought and practice of the nineteenth century, to evaluate her contribution to education.

SOURCES OF DATA

The material written on educational theory and practice in the U.S.A. and Europe was gathered from histories of education, works of educators, and readings in educational history. The educational ideas of White were gathered from her own writings. Books, pamphlets, and periodicals published by the Seventh-day Adventist denomination, correspondence with the Board of Trustees of the Ellen G. White Publications, and with Dr. Raymond Moore, an Adventist educator, together with manuscripts supplied by them, were also used.

METHOD OF PROCEDURE

White's educational ideas were noted from a study of her writings and form the basis of Parts II and III of this research. The characteristics of American and European educational theory and practice 1827 to 1900 outlined in Part I, were arrived at from a study of the sources mentioned, particular attention having been given to the topics connected with White's ideas. White's ideas were considered in the context of those of the nineteenth century in Part III.

White's life story was summarised from her own writings and other historical records in order to understand her background and her contribution to the Seventh-day Adventist Educational System of her day.

Throughout, the investigator endeavoured to maintain the scientific attitude. Accordingly, judgments were based on the evidence available, and not on preconceived notions. No attempt was made to examine the genuineness of White's claim to have received her ideas on education by revelation from God.

DEFINITIONS OF TERMS USED

Education. This term is used in two ways. When referring to White's educational ideas it means "the aggregate of all the processes by means of which a person develops abilities, attitudes, and other forms of behaviour of positive value in the society in

which he lives" (Good, 1959, p. 191). When referring to schooling, it has a more limited meaning: "the social process by which people are subjected to the influence of a selected and controlled environment . . . so that they may attain social competence and optimum individual development" (Good, 1959, p. 191).

Christian Education. "Training in appreciation and practice of principles enunciated by Jesus" (Good, 1959, p. 92), and often used by White to include the normal subjects of the curriculum such as history, nature study and arithmetic.

Philosophy. "An integrated personal view that serves to guide the individual's conduct and thinking" (Good, 1959, p. 395).

Philosophy of Education. "Any philosophy dealing with or applied to the process of public or private education and used as a basis for the general determination, interpretation, and evaluation of educational problems having to do with objectives, practices, outcomes, child and social needs, materials of study, and all other aspects of the field" (Good, 1959, p. 395).

Elementary Education. "The period of formal education beginning in childhood, usually at the age of 5 to 7 years, and ending approximately with adolescence; defined as including grades 1 to 8, and sometimes nursery school and kindergarten, or as ending with grade 6" (Good, 1959, p. 197). In the early nineteenth century these age limits did not always apply, and older young people were found in elementary schools learning reading, writing and

arithmetic.

Nursery Education. "Provision for the physical, motor, health, nutritional, intellectual, aesthetic, emotional, and social development of the preschool child" (Good, 1959, p. 370).

Kindergarten. "An educational set up or section of a school system, devoted to the education of small children, usually from four to six years of age" (Good, 1959, p. 307).

Secondary Education. "A period of education planned especially for young people of ages approximately twelve to seventeen" (Good, 1959, p. 491).

College. May be "an institution of higher education, usually offering only a curriculum in the liberal arts and sciences, and empowered to confer degrees" or "a major division of a university (usually the division of arts and sciences), especially one that requires for admission no study beyond the completion of secondary education" (Good, 1959, p. 108).

Character Education. "Education designed to develop characters that conform to some system of morality" (Good, 1959, p. 85).

Character. "Structural or enduring elements or characteristics which give continuity to personality over time" and "often viewed in relation to some system of morality or criterion of value" (Good, 1959, p. 84).

CHAPTER II

CHARACTERISTICS OF AMERICAN AND
EUROPEAN EDUCATIONAL THEORY AND
PRACTICE 1827 - 1900

Ellen Gould Harmon was born at Gorham, Maine, U.S.A., Nov. 26, 1827. Better known as Mrs. E. G. White, she died at St. Helena, California, July 16, 1915. For comparative purposes, educational development in the United States from 1827 to 1900 has been dealt with, those topics mainly being considered that are related to White's ideas.

U.S.A. 1827 - 1915

White was born forty years after America had gained her independence, and she died during the First World War. This was an era of phenomenal growth. In 1830 the United States had an area of 1,788,006 sq. miles with a population of 12,866,020, but in 1910 the area was 3,022,387 square miles and the population 91,972,266 (Encyclopaedia Britannica, 1964, Vol. 22, p. 814). By the latter date she was a world power and the world's leading industrial nation.

This phenomenal increase of population (aided by immigrants from many nations), rapid industrialization and rise of huge business trusts and corporations, together with her territorial

expansion westward, were bound to have far-reaching effects on American life and education.

Other factors affecting educational development at this time included the gradual gaining of universal manhood suffrage, the emergence of a working class self-consciousness, educational theory and practice in Europe, educational leaders such as James G. Carter, Horace Mann and Henry Barnard, educational journalism, a growing conflict between science and religion, the development of psychology, and improved means of transportation and communication.

ELEMENTARY EDUCATION

AROUND 1827 IN U.S.A.

Elementary schools were mostly private schools far into the nineteenth century. In 1827 most did not have separate grades or any outside supervision; there was no regular system of elementary schools, and there was little articulation with the schools above or below them. Short terms, frequently of three months, were the order of the day. Horace Mann, for example, attended school in his boyhood for no more than ten or twelve weeks in any one year (Good, 1956, p. 134).

The educational conditions, in the absence of statistical records, may be gleaned from personal accounts. James G. Carter, a leader of reform in Massachusetts, stated in 1824 that the teachers of the primary summer schools (containing children from four to twelve years of age) rarely had an education beyond that of the

schools they were teaching, were often very young, "constantly changing their employment", and so had little experience. Worst of all, they had no "direct preparation for their profession. . . .

. . . Any one keeps school . . . who wishes to do it, and can persuade, by herself or her friends, a small district to employ her. And this is not a very difficult matter". Apparently, any examination and certification from the minister of the town was a "perfect farce" (Knight and Hall, 1951, pp. 403, 404).

As well as better-prepared teachers, Carter wanted graded schools and a broader curriculum, for the existing curricula were narrow (Good, 1956, pp. 157, 158).

Teachers in 1833 did not earn as much as could be gained from the "humblest mechanical labor" (The Committee on Education of the Legislature of Pennsylvania, 1833, p. 413). No wonder Henry Bernard could report on the heavy "turnover" among teachers in Connecticut as late as 1839 as an explanation "of many of the acknowledged defects in our schools". Most of the teachers employed the previous winter had not taught the same schools for two successive seasons (Knight and Hall, 1951, p. 448).

Another witness of conditions at the time was Samuel G. Goodrich, whose books on history, nature, morals, and manners sold by the millions (Good, 1956, p. 189). He tells how, when he was six years old, at the school of "Aunt Delight", the teacher sat on a low chair, called the children out one by one, and had them "make their manners" first of all by their giving a small, sudden nod. Then she placed

the spelling-book before them and, pointing to the letters of the alphabet, had them answer, "What's that?"

Two years later he attended a winter school taught by Lewis Olmstead and there was not a single grammar, geography, or history book of any kind in the school. Reading, writing, and arithmetic were the only things taught, and these "very indifferently". Goodrich adds "the custom of the age required no more than he performed" (Knight and Hall, 1954, p. 478).

Disciplinary practices varied but, on the whole, they were harsh. At least, J. Marion Sims, famous gynecologist, must have thought so for, when he was five, he was sent to Mr. Blackburn's school where the "teacher flogged the boys occasionally, very severely, and stood some of them up in the corner with a fool's cap on". Here, in one term, he learned his letters, and to spell in two syllables (1885, p. 480).

The next year, 1819, he went to a boarding school where the teacher, Mr. Quigley, was "a rigid disciplinarian; altogether very tyrannical, and sometimes cruel. Whether a boy was good or bad, he got a flogging on the first day, and "when he began he seldom stopped until the youngster vomited or wet his breeches" (1885, pp. 480, 481).

When seven, Sims attended Mr. John E. Sanderson's school. He was a good teacher of arithmetic and writing, but was very cruel and had a violent temper. Monday was the only good day, for then the teacher was jolly, coming to school "as full as he could be"

after getting drunk on Saturday night.

There was one boy there, "indolent, but not stupid", whom Mr. Sanderson had begun to whip from the age of seven or eight. The boy was then eighteen years old and nearly six feet tall, but still expected to be flogged every day (p. 483).

That these conditions were not the exception are attested to from many sources such as the Pennsylvania Society for the Promotion of Public Schools 1828 (pp. 143-145). A Melancholy Picture of Schools in New Jersey 1835 (Knight and Hall, 1951, pp. 345, 346), Governor Edward Everett Recommends a State Board of Education for Massachusetts 1837 (p. 359), and the Report to the Legislature of South Carolina by the Faculty of the South-Carolina College 1825 (pp. 331 - 334). "Until far into the nineteenth century", state Knight and Hall (1951, p. 465), . . . schoolhouses were as crude, equipment was as meager, and teachers were as poorly prepared, respected, and rewarded as the standards of the time required".

Other features of the time included, "boarding around" the teacher, and "turning out the teacher" (Barnard, 1840, p. 491; Knight and Hall, 1951, p. 487). Mann, in his Second Report as secretary of the Massachusetts Board of Education, a position he occupied from 1837 to 1848, disclosed that "Every year from three to four hundred school rebellions resulted in the closing before the end of the term, of one out of every ten schools in Massachusetts" (Good, 1956, p. 159).

Winship, writing of the origin of the American Institute of Instruction 1830 (1906, p. 409), stated:

There was no public-school teaching force from which to draw. There was not a state, county, or city superintendent in the country; not a state or city normal school; not six free public high schools; no public libraries; no state university or state college; no textbook publishing house or agents; no makers of school furniture, of school furnaces, of ventilating appliances, fire escapes, school apparatus, lead pencils, steel pens, blackboards, crayons, maps, charts, of kindergarten materials, or of teachers' books or teachers' journals. No one had ever earned a dollar as an educational lecturer.

While Winship gives a good general idea of the position, in some points he was not strictly accurate. Whatever he might mean by "makers of teachers' books" and "journals", both teachers' books and journals were in existence by 1830. Keef had published "Sketch of a Plan and Method of Education" in 1808, and "Method of Instructing . . . in the Arts of Writing and Reading" 1813, while Samuel R. Hall had published "Lectures on School-Keeping" 1829, the first textbook for teachers to have any great influence (Good, 1956, p. 193). Similarly, an educational journal, "Academician" had been in existence 1818 - 20, and William Russell's "American Journal of Education" 1826 - 1830 (Good, 1956, p. 175).

Moreover, while there may not have been state, county, or city superintendents in 1830, New York had such a superintendent from 1812 to 1821, and Maryland from 1826 to 1828 (Good, 1956, pp. 145, 146).

Whether there were manufacturers of blackboards in the U.S.A

in 1830 or not, blackboards were in very limited use. About 1817 they were introduced at West Point, Dartmouth, and other colleges, but were still unusual twenty years later in the primary schools of Massachusetts (Good, 1956, p. 191).

From the accounts given earlier, it is apparent that the chief aims of the elementary school were to develop literacy and good moral character. This is substantiated by such an authority as Butts (1955, p. 491).

This brief outline of conditions in the elementary schools would be incomplete without noting that in the 1820's and 1830's important changes were taking place. This is indicated by the appearance of teachers' textbooks and journals, and the movements for promotion of public schools and State Boards of Education such as have been mentioned earlier in connection with other matters (cf. p. 13). It is also indicated by the introduction of Lancastrian schools in the early 1800s, about the same time as Pestalozzian ideas were being introduced (Good, 1956, p. 12).

Increasing interest in training of teachers was revealed by the first normal schools, private ones, being formed at Concord, Vermont, in 1823, and Lancaster, Massachusetts, 1827. The first state normal school followed shortly after, being established at Horace Mann's instigation in Lexington, Massachusetts, in 1839 (Butts, 1955, p. 467). Henry Barnard endeavoured to improve the quality of instruction of those already teaching by commencing

teachers' institutes in Connecticut in 1839, and the idea quickly spread to other states (Butts, 1955, p. 469).

That educational ideas were receiving careful scrutiny, and a search was being made for an ideal educational pattern, is shown by the number of experienced men going abroad in the early nineteenth century, especially to Europe, and then returning to report on their findings. Typical of these was John Griscom, the Quaker schoolmaster and lecturer, who visited Europe 1818 - 1819. His story went through two editions, and the profits paid for the expenses of his trip. Another was Alexander Bache who set sail for Europe in 1836, and returned in 1838 as President of Girard College. His "Report on Education in Europe" occupied over 600 pages. Stowe, who went to Europe in 1836, wrote a "Report on Elementary Public Instruction in Europe" and 10,000 copies were printed by order of the Legislature of Ohio to be sent to every school district in the state. Subsequently, reprints of it were ordered by the legislatures of five Eastern states (Wiggin, 1962, pp. 127 - 133).

Change was also evident in the informational books for children that began to appear such as Samuel Read Hall's "The Child's Friend; or Things which Every Boy Can Do" 1833, Samuel Goodrich's "The Tales Of Peter Parley About America" 1827, and Jacob Abbot's twenty-eight volume Rollo series (Good, 1956, pp. 188 - 189).

In the 1820s, infant school societies were formed in various cities such as Boston, Philadelphia and New York, to "provide free instruction for poor children below the ages of seven or eight years" (Butts, 1955, p. 454).

Discontent was also being shown with the narrow curriculum.

In Goodrich's day, as previously noted, reading, writing, and arithmetic were about the only things taught (cf. p.12). In the Regulations for the Schools of Providence, Rhode Island, 1820, the curriculum consisted of "Spelling, Reading, the use of Capital letters and Punctuation, Writing, English Grammar and Arithmetick" (Knight and Hall, 1951, p. 484). In Lancasterian Schools, quite popular in the early nineteenth century, schooling "began with the alphabet, spelling, reading, the catechism, and Bible verses, and added some arithmetic and geography" (Good, 1956, p. 137). However, in the 1830s, Mann was arguing for the introduction of practical subjects (Good, 1956, p. 203) and geography was required in addition to English and Arithmetic by the Massachusetts school laws of 1824 and 1827. In Vermont in 1827, American history was introduced by state law. Music was introduced into the Boston public schools in the 1830s and 1840s (Butts, 1955, pp. 495, 496).

An interesting development had occurred about 1825 in the schools of New Harmony, Indiana, where Neef gave manual training and science a larger emphasis than in other schools for many years. Unfortunately, Robert Owen had to withdraw his support of the communal societies after a short time, and the schools came to an end (Good, 1956, p. 128).

Thus the process of broadening the school curriculum was under way by 1827.

SECONDARY AND HIGHER EDUCATION
IN U.S.A. ABOUT 1827

In 1827 there were two main types of schools offering work beyond the elementary grades: Latin grammar schools and academies (Butts, 1955, p. 462). In commenting on the four-year curriculum of the Boston Latin Public School, a fairly representative one, Leonard says it meant the school must have been selective in character, designed to meet the needs of a few - those who wished to attend college and become leaders of church and state. The curriculum was traditional, the major portion of time being given to languages, and there was thus a close similarity with that of the Free Grammar School of Boston, England. It was disciplinary in character and, while not directly religious, was spiritual in purpose. Finally, the schools were monotonous and no attempt was made to provide for individuality or for differences among the pupils (1953, pp. 6,7).

By 1827, the Latin grammar schools had largely given way to the academies, which were the dominant secondary schools during most of the nineteenth century (Butts, 1964, p. 993). Franklin is given the credit for establishing the first academy in Philadelphia in 1751. In his planned curriculum he was far ahead of his time, suggesting that the students learn "those Things that are likely to be most useful and most ornamental". For usefulness, he outlined such subjects as Handwriting, Drawing, Arithmetic and some of the

elementary principles of Geometry and Astronomy, English grammar, composition, reading, rhetoric and logic, History (Ancient and Modern), Political Science, Geography with the use of maps, Natural History, Gardening, and Agriculture. For "ornament" and professional preparation, he included, at the end of his list, Latin, Greek, French, German and Spanish. Those last mentioned were not to be compulsory (Franklin, 1749, pp. 76 - 79).

This proposal was too great a departure from accepted thought, and the trustees of the academy had soon converted the institution into mainly a Latin school for the preparation of students for the College of Philadelphia which opened in 1755 (Good, 1956, p. 75).

The academies were known by various other names such as seminaries, institutes, halls, and lyceums (Good, 1956, p. 112). Generally a private school, some were public or semi-public, and they developed rapidly. "No people were too mean or poor to found an academy. The very lack of pattern among the founders indicates that such institutions originated in a spontaneous, voluntary movement", says Wiggin (1962, p. 363). Many were college preparatory or preministerial, and so reflected the Latin grammar school curricula. The Phillips Exeter Academy (1788 to 1838), for example, was founded by the wealthy Phillips family, and its classical department was almost identical with that of the Boston Latin School (Leonard, 1953, pp. 13, 14).

On the other hand there were those that developed courses more

related to the everyday world, of special interest to those who did not intend pursuing a college education. In 1806-7, Governor Reynolds of Illinois attended an academy where, as well as reading, writing, spelling, and bookkeeping, surveying and navigation were taught (Wiggin, 1962, p. 364). In the announcement of the opening of Newark Academy, New Jersey, 1775, it was stated:

They [the students] will be taught the learned languages and several branches of Mathematics. There will also be an English School for the teaching of Reading, Writing, Arithmetick, and Bookkeeping in the usual and Italian methods. . . . The boys are separated from the girls in the English School (Knight and Hall, 1951, p. 181).

These examples illustrate that the early academies were often elementary schools as well as secondary schools. They also performed the important function of opening secondary education to girls, as mentioned in the Newark Academy's opening announcement. Some of them were also forerunners of the normal schools (Knight and Hall, 1951, p. 181).

These last two functions are illustrated by the seminary Mrs. Willard established at Troy, New York, in 1819. As well as preparing teachers, she taught an elementary form of home economics to the girls in order to help them in homemaking. This has led some to regard her as the founder of this branch of study (Good, 1956, p. 114).

One school of special interest, opened in 1823, was the Gardiner Lyceum, Maine. Its aim was "to prepare youth by a

scientific education to become skilful farmers and mechanics". The programme, in 1824, included English, Chemistry, Physics, Agricultural Chemistry, Mathematics, and Navigation. Because the students worked on experiments and special topics, the courses were largely elective and individual. This has been called "America's first agricultural school", but, about 1834 it became a "hundred New England academy", following the loss of its state subsidy (Good, 1956, p. 289).

No wonder Butts and Cramin regard the academy movement as "one of the basic revolutions in the conception of a proper secondary education for all American youth" (1959, p. 81).

However, in 1821 the English Classical School (later changed to English High School) of Boston was opened, the first high school in the United States, and commenced a type of school that would supplant the academies by 1900. Boston already had a system of public elementary schools and, for boys wanting a college education, a public Latin school. For those not wanting a college education, but training beyond the elementary school in order to be better fitted for their life work, the English Classical School was created. It offered a three year course of study for boys between the ages of twelve and fifteen. Students were to be admitted by examination, and the course included English, Mathematics, Social Studies, and Science, but not Foreign Languages. The emphasis was on English, especially Composition, and the Mathematics included Trigonometry,

Surveying, and Navigation. The school was clearly academic rather than vocational.

All subjects were compulsory, and it was a terminal school, rather than a middle school between the elementary school and college. The school was organized by classes to which pupils were assigned for the year. The one teacher taught all the subjects to the class as in the elementary schools of to-day.

In 1826 a girls' high school was also established at Boston, but it proved so popular that it was closed after two years because the city refused to meet the increasing costs (Good, 1956, pp. 238 - 241).

Similar high schools to the Boston boys' were commenced in Portland, Maine in 1821, Worcester, Massachusetts 1824, and New York City 1825 (Tanner 1965, p. 16). By a law of 1827, high schools were to be established in every town of Massachusetts that had 500 or more families (Butts, 1955, p. 462). Thus America was on the way to establishing a public high school system, at first for those not going to college and later, for those so desiring.

The American colleges were few in number, poor, and small in size in 1827. Good states (1956, p. 95) that, discounting the colleges that were short-lived, seventeen colleges were founded after the American Revolution and before 1800, and twelve more by 1820. Most had been founded by religious denominations, and had far more influence up to 1860 on higher education than the state

universities (Butts, 1955, p. 466).

At first there were no electives. A typical course was that planned by the Senatus Academicus for the University of Georgia in 1800:

In the first and second years Latin and Greek shall be taught, and English read occasionally at the discretion of the Tutor.

In the third year, Latin, Greek and Kennet's Antiquities; English grammar, Arithmetic, and Geography. . . .

In the fourth year, Greek and Latin occasionally, English grammar to be reviewed weekly, Arithmetic to be continued; Euclid's elements or some other treatise on Geometry. . . .

In the fifth year Latin and Greek authors and English grammar to be occasionally reviewed; Trigonometry, Surveying and other practical branches of the Mathematics, with Algebra should be taught; composition and public speaking should be attended to as in the last year.

In the sixth year natural and moral philosophy, and the Belles Lettres should be taught, and compositions written weekly as in the preceding years. . . . The French language . . . may be taught in addition to, or instead of, the Latin and Greek (Knight and Hall, 1951, pp. 218 - 220).

This was the first state university to be chartered.

The University of North Carolina was the first state university to be opened (1795) and the faculty consisted of Dr. David Ker! The preparatory classes were separated from those of college rank in the second term. Apparently a number of the early state universities began as ill-equipped seminaries or preparatory schools (Good, 1956, pp. 101, 102).

The Rockfish Gap Commission's Report (Thomas Jefferson, Chairman) 1818 on the establishing of the University of Virginia, revealed a

desire to reform the university by grouping the subjects into ten groups such as Ancient Languages, Pure Mathematics, Physico-Mathematics, Government, Law and Ideology, and so cater for different kinds of pursuits (Knight and Hall, 1951, pp. 218 - 220). George Ticknor, after studying in Germany, desired to see such ideals as advanced scholarship and freedom for teacher and learner. Accordingly, after commencing at Harvard in 1819, he sought to substitute election of subjects for the prescribed curriculum. Specialization was necessary to scholarship, according to his way of thinking. Thus both Jefferson and Ticknor were seeking the elective system in colleges (Butts, 1955, p. 506).

In 1842, President Francis Wayland of Brown University said of the Collegiate System in the United States, that there were generally three daily recitations or lectures of one hour to be attended by each student. The year, "in imitation of the English colleges", was divided into three terms, with about twelve or thirteen weeks for vacations.

Examinations were oral, and restricted to the books studied. The studies were so similar that in all the Northern colleges students found little difficulty in transferring from one college to another. By 1842 in some instances, the course had been divided. "At the option of the student, after the first year, the Modern Languages and History with some branches of Physical Science may be substituted for the further prosecution of the Latin and Greek languages and the

Mathematics".

Wayland added, regretfully, "In no other country is the whole plan for the instruction of the young so entirely dis severed from connexion with the business of subsequent life" (1842, pp. 260 - 263).

Despite this last statement, there was one interesting development in higher education, besides those mentioned, that was portentous. This was the Rensselaer School at Troy, New York, founded in 1825. Largely using laboratory and field-experience methods, such subjects as chemistry, physics, geology, and natural science were taught in order to aid farmers, particularly by preparing teachers "to instruct rural youth in the application of science to the common purposes of life". Originally a kind of normal school, after 1835, when a course in civil engineering was added, it became a technological institution, and is now known as the Rensselaer Polytechnic Institute (Good, 1956, p. 289). Its importance lies in the fact that it started a type of college that competed with traditional colleges and forced them to become interested in scientific and practical courses.

Another development, the normal school, has already been mentioned (cf. p. 15).

EDUCATIONAL TRENDS IN AMERICA 1827 - 1900

There were a number of significant educational trends in America in the period 1827 - 1900. One of these was the shift from

private schools to state systems. The beginnings of this development have previously been mentioned and, by 1900, the state system was the dominant one. In that year there were 6,000 public high schools with more than 80 per cent of all secondary school students in attendance (Butts, 1955, p. 462). As this development had little connection with White's educational ideas, it has not been traced in detail. However, it was obviously tremendously important and raised many problems such as control, financing, and the place of religious teaching.

A related trend was the passing of compulsory attendance laws. By 1900 thirty-two states had passed such laws, and by 1920 all states (Good, 1956, p. 375). Naturally, the age limits varied from state to state.

Accompanying compulsory attendance was the lengthening of the school year. However, as late as 1890 and after, "a number of states would have been happy to secure universal schooling for three months in the year" (Good, 1956, p. 380).

Of more interest in connection with White's ideas are the developments in curriculum, educational theory and practice, and psychology.

I CURRICULUM DEVELOPMENTS

MANUAL TRAINING.

One of the absorbing questions in the nineteenth century was

that of the place of manual training in schools. Early in the century, "manual labour" schools made their appearance in the United States. In these the students spent part of the day in the school farm or workshop, while the rest of the time was devoted to regular school study. They obviously were useful for enabling poor students to earn their way through school in the days when money and opportunities were scarce, especially on the land (Cubberley, 1947, p. 363), as well as serving other purposes.

The idea behind these schools was not new. Locke (1632 - 1704) prescribed a trade for his pupils, such as carpentry, as they were "fit and healthy recreations for a man of study or business" (Rusk, 1965, p. 149). Similarly, Rousseau (1712 - 1778) required Emile to learn a trade, but for different reasons. It would help Emile to be independent economically, it would help him recognise the dignity of labour, and it would aid in training his mind. "He must work like a peasant, and think like a philosopher. . . . The great secret of education is to use exercise of mind and body as relaxation one to another" (Rusk, 1954, pp. 168, 169).

Pestalozzi (1746 - 1827) accorded handicrafts and other manual activities equal status with subjects such as Latin (Curtis and Boulwood, 1956, pp. 347, 348). As a matter of fact, at one time he decided to take in some "waifs and strays" and give them an education. They were to be trained in a vocational skill, working in the fields in summer and spinning cotton in winter, in order to help the venture to be self-supporting financially. Part of each

day was to be spent on such subjects as reading, writing, and arithmetic (Curtis and Boulton, 1956, pp. 322, 323).

Fellenberg (1771 - 1844), a Swiss educator, intended to make schools that combined manual training and agricultural and academic instruction, in order to help the poor. He carried on his work with Pestalozzi for a time and, although Fellenberg's scheme was ridiculed at first, pupils soon came to him from all over Europe (Encyclopaedia Britannica, 1964, Vol. 9, p. 159).

The credit for the introduction of the manual-labour idea into the United States is usually given to the influence of Fellenberg and Neef (a disciple of Pestalozzi). The latter came to the United States in 1806 and was partly responsible for the New Harmony Schools (Wiggin, 1962, p. 371; Good, 1956, p. 83; Butts, 1955, p. 500). While they were probably responsible for the popularity of the idea, an article had appeared in the *Columbia Magazine* in April, 1787, recommending that agricultural and manual labour schools be formed. This was twenty years before Neef arrived in the United States, and when Fellenberg was sixteen years old, so they could hardly be held responsible for the ideas in the article. This article suggested to Dr. John de la Howe, of South Carolina, a plan for a manual labour school which was provided for in his will of 1796 and which is "believed to have been the first school of that kind set up in the United States". The school was still in operation when Knight and Hall's book was published in 1951.

The writer of the article, after considering the difficulty of

education in the country, wrote, "These reflections have given rise to the following PLAN OF EDUCATION for a Country Life (Knight and Hall, 1951, pp. 196, 197). This indicates that the idea was the result of considering a problem, and was not drawn from foreign educators.

Three or four hundred acres of land were to be obtained for the school, according to the outlined plan, and reading, writing and cyphering were to be taught to all, while boys would be instructed

in every useful branch of husbandry and gardening, and the girls in every kind of work necessary for farmers' wives to know and practice. . . . A collection of children from eight to fourteen or fifteen years of age, thus regularly employed, on a good farm, would be nearly able to maintain themselves.

Principles of religion and morality would be an indispensable part of the education, and the older children would receive instruction in other studies such as geography, history (especially United States history), "a few of the best English moral writers in prose and verse", bookkeeping and, for the boys, geometry, practical surveying, and the principles of mechanics. Some useful 'manufactories' could even be established (Knight and Hall, 1951, pp. 197 - 200).

This was obviously a far-seeing proposal. It was not strange that such practices arose in the United States where the expanding frontier demanded a practical, self-reliant type of person, with an independent frame of mind. The wonder is that traditional education held sway for so long.

The manual-labour movement spread rapidly in the 1820s,

reaching its height in the 1830s (Good, 1960, p. 406). Both academies and colleges adopted the idea. While the manual labour was at first mainly agricultural, the idea was soon connected with mechanical work, and manual-labour institutions of this type soon arose (Cubberley, 1947, p. 364). The Rensselaer School (cf., p. 25), established in 1825, was particularly important in this direction and, after that date, a few engineering schools were founded (Good, 1956, p. 469).

The extent of the popularity of the manual labour scheme may be gauged from the fact that in 1833 the Committee on Education of the Legislature of Pennsylvania recommended manual labour schools (Knight and Hall, 1951, p. 257), and in the same year the Governor of Indiana recommended the establishment of manual labour academies to train teachers for the State schools. In 1836 it was proposed in the United States Senate that "a grant of public lands to one or more colleges in each of the new States for educating the poor upon the manual-labour system" be made (Cubberley, 1947, p. 365).

It is interesting to notice the reasons given by the Committee on Education of the Legislature of Pennsylvania for their recommendation in 1833 (Knight and Hall, 1951, p. 257). The manual labour schools reduced the expense of education by at least half. The three hours of daily manual labour strengthened and improved the student's physical powers, as well as "engaging his mind in useful pursuits", and so contributed to his health and cheerfulness. The manual labour also aided in progress in intellectual studies, and

such schools tended to break down the distinctions between rich and poor. Finally, "pupils trained in this way are much better fitted for active life, and better qualified to act as useful citizens, than when educated in any other mode, - they are better as regards physical energy, and better intellectually and morally".

In spite of these avowed advantages, the movement declined rapidly in the 1850s (Butts, 1955, p. 501) and, by 1860, there were very few schools employing the plan (Noble, 1954, p. 231). There were a number of factors explaining this, such as the business ability required of principals to conduct such a plan profitably, and the scorn of students, who aspired to be gentlemen, for manual labour. Probably just as important was the academic tradition that attributed little intellectual value to manual work (Noble, 1954, pp. 230, 231). Cubberley also points out that "the rise of cities and wealth and social classes was against the idea" (Cubberley, 1947, p. 365).

However, the movement was not without its effects. It added to the "growing interest in agricultural education" (Good, 1960, p. 407), and showed the desire among the people for a more practical and useful education (Butts and Cremin, 1959, p. 277). Moreover, the idea reappeared again a few decades later in schools for negroes in the South established by Samuel C. Armstrong and Booker T. Washington, as well as in the "land-grant colleges" that came into being following the passing of the Morrill Act by Congress in 1862 (Noble, 1954, p. 231).

This measure, and subsequent ones, paved the way for the development of "land-grant colleges". Although the enrolments in them were low until about 1900 (Good, 1956, pp. 290 - 298), in 1964 one-fifth of the total college enrolment were attending land-grant colleges and universities. In this way the basis of national and state support of education was established (Tanner, 1965, pp. 17, 18).

Only one-third of the early graduates had been enrolled in agriculture, engineering being more popular. The main reasons for this were the lack of knowledge of scientific agriculture, and the rapid industrialization of America after the Civil War.

By 1890 and 1900, several of these colleges and universities were preparing teachers for the many high schools that were by then teaching manual training and shopwork, home economics, and agriculture. In the twentieth century they came to prepare teachers on a large scale.

Although a number of these colleges first adopted the manual labour scheme, such as the Michigan State Agricultural College, it was soon discarded (Good, 1956, pp. 297 - 301).

The schools for negroes established by Armstrong and Washington found the idea more useful. S. C. Armstrong "saw the moral and intellectual possibilities in such training" and wrote, in 1870, "Education is conditional not alone on an enlightened head and a changed heart but very largely on a routine of industrious habits,

which is to character what the foundation is to a pyramid" (Noble, 1954, p. 329). By 1900 a number of private schools in the South were offering industrial training (Noble, 1954, p. 330).

It is clear that the manual labour movement, the land-grant colleges, and the conditions of the time, were all stimulating vocational higher education for industry. This in turn led to the introduction of manual training into the secondary schools from the late 1870s, and the elementary schools a little later (Wiggin, 1962, p. 79; Cubberley, 1947, p. 465). Other factors that aided this development included the Russian manual-training exhibit at the Centennial Exposition Philadelphia, 1876, The Society for Ethical Culture founded by Felix Adler (Adler had been educated in Germany, and advocated education by activities and work) and its schools, and the Industrial Education Association 1884 (formed "to study and devise methods and systems of industrial education and to secure their introduction into schools") (Good, 1956, pp. 211-213).

The first manual training high school, teaching shopwork and mechanical drawing as well as the general high school subjects, was founded in 1880 at St. Louis (Tanner, 1965, p. 23). The shopwork course was based on the Russian system and consisted of formal drill exercises aimed at developing the motor skills connected with the use of tools, rather than producing finished objects. It was therefore only partly vocational in purpose, the belief being that manual training helped to develop intellectual capability. According to

Roucek and Gross (1962, p. 270), the St. Louis version of the Russian system "became the standard example of educational shop courses in the secondary schools of America for several decades", and the number of schools devoting time to manual training grew.

Two tendencies of the manual training movement were the direct establishment of industrial or vocational schools, and a modified manual training course in the public schools (Monroe, 1905, p. 743).

A conflict developed as to the form and purpose of manual training. It was advocated in America by such exponents as Woodward on the grounds of formal discipline - that it trained mental powers such as reasoning, observation, and the will. Formal exercises were the result. However, the writings of Pestalozzi, Herbart, and Froebel, together with child-study and the development of psychology, led to an altered conception of "faculty psychology" and formal discipline as the nineteenth century ended and the twentieth began. Manual training became important as a means of individual expression (Cubberley, 1947, p. 466) and vocational education (Monroe, 1905, p. 743).

However, many schools were hardly touched by the manual training movement, for a survey of elementary schools in eighty-two leading cities by J. C. Boykin in 1889 (Wiggin, 1962, pp. 156, 159) showed that manual training had not been extensively introduced and, where it had, it was mostly confined to woodworking. Similarly, Calvin Davis, in summing up the criticisms of the high schools in 1912,

said that there was not sufficient hand work, and vocational work was not effectively vocational. W. D. Lewis, in 1914, affirmed that the high school offered an "almost exclusively academic" course, and the four years of schooling gave the pupil little that was useful (Leonard, 1953, p. 26).

AGRICULTURE

The previous section has shown the early interest in agriculture and its place in the manual labour schools of the United States. Other indications of the growing sense of the importance of agriculture were the increasing number of agricultural organizations (by 1860 there were 941 recorded by the United States Agricultural Society), and the appearance of agricultural journals such as the "Agricultural Museum" 1810, "American Farmer" 1819, and "Plough Boy" 1819. By 1850 there were forty or more such journals (Ekstrom, 1964, p. 351).

Schools combining book study and farming, chiefly philanthropic and religious, were founded as early as 1819 in Connecticut, 1821 in Maine, and 1824 in Massachusetts (Tanner, 1965, p. 354). Most of the manual labour schools had only a brief existence, but they prepared the way for the development of agricultural schools in the second half of the nineteenth century. Good states (1956, p. 288) that the manual labour movement failed "partly because it favoured practice without science".

About 1857, Michigan, Maryland, and Pennsylvania established state schools or colleges of agriculture (Good, 1956, p. 290). This

indicates a growing awareness of the need for such schools, and Morrill used this support to have his Act passed by the American Congress in 1862 to aid in the creation of such schools. By the Act a grant of 30,000 acres of federal land was to be made available to each state, for each member of Congress it had, to endow a college of agriculture and mechanic arts. Two months earlier, Congress had created the United States Department of Agriculture. Agriculture and the mechanic arts were becoming important to America.

In some of the states, the land-grant institution was made part of the existing state university. In others, separate "A. and M." colleges were established, while in a few states the grant was made to private institutions (Good, 1956, pp. 293, 295).

Many colleges sought the money offered because they were financially poor, and not because of an interest in agriculture and mechanic arts. There was also a lamentable lack of knowledge of agricultural science. One professor, who later became famous in this field, said, "I began to tell the students what I knew about farming. It did not take me long to run short of materials". As there was nothing available in the library of any use, he added (Good, 1956, pp. 297, 298), "I was driven to take the class to the field and farm".

The plight of these teachers is further shown by the fact that few of these early land-grant colleges had more than one professor of agriculture. As this professor usually had to teach all branches

of the subject, he had little time to specialize. Consequently it was a long time before this instruction rose above the secondary level (Noble, 1954, p. 357). However, agricultural science was further aided by experimental farms and stations, seventeen states having created them before federal assistance was given. In 1887 the Hatch Act provided 15,000 dollars yearly to each state to aid agricultural research (Good, 1956, p. 299).

It is no wonder that agriculture was not popular in these colleges for a number of years, and that many farmers frowned on them. It was found that a quarter of the students applying to these colleges for admission did not even have "a good common school education". As a result, the colleges had to establish preparatory departments (Good, 1956, p. 297). These preparatory departments, or secondary schools, not only catered for the poorly educated, but helped lift the standard of the college courses (Noble, 1954, p. 357, 358). The University of Minnesota organized the first of these agricultural high schools in 1888, and by 1898 there were ten such schools in the United States (Cubberley, 1947, p. 630).

The development of courses in the agricultural high schools was retarded by such factors as lack of trained teachers, lack of materials, and the conservative tendency to keep to traditional high school programmes (Noble, 1954, p. 358). As expressed by Butts (1955, p. 502), agriculture "seemed to many to be the farthest removed from the college-preparatory ideal and therefore the lowest in the scale of intellectual pursuits."

Little progress was made in introducing agricultural training into the elementary school before 1900 but, by 1908, fourteen states had made it a subject to be taught in the public school (Noble, 1954, p. 358).

It should be noted that several of the land-grant colleges early admitted women. This was a new and important development (Good, 1956, p. 298). Also, the 1862 Morrill Act gave great impetus to the state-university movement that, prior to the Civil War, had languished far behind the private colleges (Butts, 1955, p. 466).

PHYSICAL TRAINING AND HEALTH EDUCATION

Physical education has been employed since ancient times. Primitive societies required development of the body for warfare, hunting and the like. However, during the Middle Ages and the Renaissance period (6th to 13th centuries) physical education seemed to be largely neglected as the education of the few became the rule in Europe. The current Christian philosophy of education probably played a part in this, for such church Fathers as St. Ambrose, St. Augustine, and St. Jerome, in the fourth century, maintained that the desires of the body must be subjugated, for they were evil. Since physical education helped to develop the body, it interfered with the Christian's spiritual progress (Butts, 1955, p. 111).

Before the nineteenth century, the importance of physical education had not been ignored by educational reformers. Locke

(1632 - 1704) is famous for his conception of "A sound mind in a sound body" as being "a short but full description of a happy state in this world". The simple rules of health were, "Plenty of Open Air, Exercise, and Sleep, plain Diet, no Wine or Strong Drink and very little or no Physick, not too warm and strait Clothing, especially the Head and Feet kept cold, and the Feet often used to cold Water and exposed to Wet" (Monroe, 1905, p. 514). He emphasised manual activity such as in carpentry and gardening, as well as sports and games (Butts, 1955, pp. 288, 289).

Similarly, Rousseau (1712 - 1778) recommended the playing of games that would involve much exertion so that by the age of twelve the child's body would be strong, and his disposition cheerful and confident (Thut, 1957, pp. 140, 141). "The weaker the body, the more it commands; the stronger it is, the better it obeys. All the sensual passions find lodgment in effeminate bodies", he declared. "All wickedness comes from weakness" (Monroe, 1905, p. 561). Consequently, diet and health habits were important (Thut, 1957, p. 140).

Pestalozzi, too, emphasised physical education. He included physical exercises similar to modern gymnastics in his school programme, and allowed much time for out-of-door activities. His aim was to strengthen the limbs through exercise, and the development of grace through rhythmic movement. He also practised Rousseau's ideas on simplicity in clothing and living conditions. To

Pestalozzi, physical training not only helped health-wise, but also promoted moral development (Curtis and Boulton, 1956, p. 338).

It was left to Herbert Spencer (1820 - 1903) to propose (Thut, 1957, p. 248), in the middle of the nineteenth century, a scheme for selecting the subjects that would best suit the needs of the pupils. The usefulness of the knowledge was to be the test. Therefore, according to him, of most importance was that which contributed to self-preservation and the maintenance of good health. Literary studies were placed at the bottom of the list, and physiology at the top. This was indeed a radical suggestion.

Physical fitness and national fitness were linked in the Prussian schools of the early nineteenth century. German and Swedish gymnastics soon found their way into American schools, and British sports and games followed later. The German refugees, Charles Follen, Charles Beck, and Francis Lieber, for instance, introduced the German gymnastic system in 1824. The British influence, however, was strongest (Jenne and Froester, Jr., 1964, p. 862) and, by the close of the nineteenth century, sports had become the main part of the physical education programme of the American schools and colleges (Drake, 1955, p. 365). At this time, physical exercise was assumed to be all that was necessary for healthful living (Cubberley, 1947, p. 606).

A number of Americans early in the nineteenth century had realized the need for physical training and health education in the

schools of the United States. Captain Alden Partridge (p. 239), in 1825, said that there was an

entire neglect, in all our principal seminaries, of physical education. . . . It is for want of this, that so many of our most promising youths lose their health by the time they are prepared to enter on the great theatre of active and useful life, and either prematurely die, or linger out a comparatively useless and [manuscript torn] .

James G. Carter in 1824, and 1826 urged a broader curriculum "which must include physical education". Mann urged the teaching of physiology, including "the laws of life" and "the preservation of health" (Good, 1956, pp. 157, 158, 160). The "American Journal of Education" (Boston, 1826 - 30) had articles on physical education (Good, 1956, p. 173), and Alexander Bache, on his return from Europe, (Wiggin, 1962, pp. 129, 131) wrote, about 1840, that "to be complete a system must combine moral, intellectual, and physical education". Moreover, the moral and the bodily training had to be adapted to the age of the student and his mental and bodily development.

Butts, speaking of the elementary school, said (1955, p. 496) that some educators had become interested in health and physical education by 1850, but progress was slow. Antialcohol and anti-tobacco interests promoted the study of hygiene and physiology, while calisthenics, physical exercises, and playground activities appeared in the 1850s and 1860s.

A number of city secondary school systems had programmes in physical training in the formal lines of German and Swedish exercises by the 1880s and 1890s. However, they rarely counted

for high school graduation and almost never for college entrance.

At the turn of the century, the main stress in the elementary school was still on the acquiring of knowledge and skill in reading, writing, spelling, and arithmetic, lesser stress being placed on such subjects as elementary science and physical education (Butts, 1955, pp. 502, 572). The Committee on Economy of Time in Education (Wiggin, 1962, pp. 168, 170) that began its investigation in 1903 found that in the fifty cities studied, reading, language, spelling, penmanship, and arithmetic absorbed 70 per cent of the class time. Of the remaining 30 per cent, "more time was allotted to music and drawing than to science or manual or physical training".

Physical training in secondary education must have been in a similar position, for the Committee of Ten, in 1893 (pp. 555, 556), proposed a secondary school programme that did not mention physical training. Of the four proposed courses, the Classical course had no health programme even, while the Latin - Scientific, Modern Languages, and English courses allowed for three periods study a week for half of the final year of Anatomy, Physiology and Hygiene. However, the Committee did not intend that other recently added courses should necessarily be omitted but, obviously, they were incidental offerings (Wiggin, 1962, p. 175).

Although physiology and hygiene appeared in the curriculum of some schools after 1860, they consisted mainly of "naming and locating the bones, muscles, and organs". Drake (1955, p. 365) describes the

health education programme of the school in the nineteenth century as "formal and arid". Noble (1954, p. 452) says, "Health education, as we know it to-day, was not recognized in the schools of the nineteenth century".

BUSINESS

Some of the early high schools taught subjects, such as book-keeping, composition, public speaking, drawing and mathematics, that were supposed to be of use in business (Good, 1956, p. 242). The first Public High School Law in the United States, that of Massachusetts in 1827, said that in cities, towns or districts of five hundred families or householders, subjects such as "book-keeping by single entry" should be taught (Knight and Hall, 1955, p. 247). Academies, of course, were doing the same thing much earlier, the Newark Academy, New Jersey, 1775, being an example (Knight and Hall, 1951, p. 181). It was in the English course of the academies and high schools, not the more honoured classical course, that bookkeeping was usually to be found (Noble, 1954, p. 261).

Captain Partridge (p. 239), in 1825, attacked the education of his day as not being sufficiently practical or adapted to the duties of a citizen. "Commerce and Manufactures" were particularly ignored. In the same vein, Mann (Good, 1956, p. 160) queried, in 1839, "Why should algebra, which not one man in a thousand ever uses in the business of life, be studied by twice as many pupils as

bookkeeping, which every one, even the day laborer, needs?"

The Civil War (1861 - 1865), which resulted in the victory of the North and the business interests, led to rapid industrialisation and business expansion. Commercial studies thus became increasingly important, particularly after the invention of the typewriter about 1868, and other business machines (Good, 1956, p. 460). While a few business colleges had arisen before the Civil War, their greatest development came after the war. These colleges, such as the Bryant and Stratton group, endeavoured to gain a monopoly of commercial education, and this forced the public high schools to take more interest in the business studies. The war with Spain 1898, the consequent business interest in Latin America, and the beginning of business administration departments in universities (the Wharton School of the University of Pennsylvania, 1881, was the first university school of business), all helped in the further expansion of commercial courses in high schools. This was particularly noticeable in the last two decades of the century and, by 1900, the public high schools were gaining on the private business schools (Good, 1956, pp. 254, 475).

In 1890, the first "business high school" commenced in the city of New York (Noble, 1954, p. 356) and, by 1900, had spread to areas such as Philadelphia, Pittsburgh, and Washington D.C. (Butts, 1955, p. 502). This suggested that either training for business was not important enough for the general high school, or that it was more

vocational in character and, therefore, better handled separately.

In the Committee of Ten's report in 1893, commercial subjects were not named in any of the four courses proposed, but it was suggested that "the commercial subjects might be considered as substitutes for mathematics" (Wiggin, 1962, p. 175).

According to Stout's survey in the North Central States, the high schools offered only one commercial subject - bookkeeping - until about 1890. This, together with other commercial subjects, made gains from 1895 (Leonard, 1953, p. 36).

Boykin noticed an interesting development in his survey of 1888 - 1889. Since elementary schooling was the only formal instruction of 84 per cent of the young people, bookkeeping, manual training, and civics had been added to the course of instruction for their benefit (Wiggin, 1962, p. 157).

HOME ECONOMICS

The mother had customarily taught her daughter what she knew of caring for domestic household matters. However, as the nineteenth century progressed, this became a more complex matter. New knowledge of diet and health, development of modern appliances, growth of cities and slums, unsanitary homes, the plight of migrants, growing specialization, and similar items, all made it essential for the school to aid the home (Wiggin, 1962, p. 87).

In America, in the first half of the nineteenth century, a

number of women commenced the home economics movement. Mrs. Emma Willard established her seminary for girls at Troy, New York, in 1819, and taught, among other things, elementary practical home economics (Good, 1956, p. 114). Catherine Beecher founded the Hartford Female Seminary in 1827, and wrote three early books on the teaching of home economics.

At the College level, the first formal course in home economics was given at Iowa State University of Science and Technology, Ames, in 1872. The first four-year, degree-granting course commenced in 1874 at Illinois Industrial University (later University of Illinois) in the form of a school of domestic science and art (Leahy, 1964, pp. 620, 621). In the same year, a "kitchen laboratory" was established at Kansas and, in a short time, a number of colleges had provided some form of home economics instruction (Good, 1956, p. 298).

By this time important socio-economic changes were occurring. As well as those mentioned earlier (cf. p. 45), the divorce rate was up, and the birth and marriage rates down. "Women were deserting the home". These seem frequently to be the accompaniments of industrialization and the growth of cities. Making a home was almost impossible for many families in the crowded urban areas. Wiggin claims that there was "a close relationship between the fundamental necessity to save the home and the introduction of home economics and manual training into the schools" (Wiggin, 1962,

pp. 87, 88).

All this was reflected in the Kitchen Garden movement of New York, commencing in the 1870s, which aimed at teaching children "household tasks through play activities"; the Industrial Education Association of New York (1884), an outgrowth of the kitchen garden movement, whose work resulted in the establishment of the New York College for the Training of Teachers (Teachers college of Columbia University); the food exhibit and Rumford Kitchen at the Chicago World's Fair 1893; and the first conference on home economics in the United States (1899). In the last two items, Ellen H. Richards played a leading role (Leahy, 1964, p. 620). She was an instructor for thirty years in sanitary science in the Massachusetts Institute of Technology, and published textbooks on different aspects of home economics (Noble, 1954, p. 354).

At the elementary school level, home economics in one form or another had appeared before the Civil War, but little attention was given to it before 1880. At the high school level it was connected with the growth of science in the curriculum (Leahy, 1964, p. 620).

There was the usual division of opinion among the proponents of home economics as to its purpose. Discipline of mind was a commonly accepted one, and so graded exercises and standardized procedures became common, tending to lead away from the practical and useful. Noble says that "in some schools girls cooked under laboratory conditions foods never found in their homes", while in

others "sewing was reduced to mechanical exercises without relation to the needs of the home" (Noble, 1954, p. 355). Frequently, linked with this was the desire to make home economics scientific. Mrs. Richards, for example, wanted home economics in the high school to be preceded by courses in chemistry and physics. The course was to be an applied science one, rather than a course in manual arts (Noble, 1954, p. 355).

Others wanted to make home economics a practical preparation for home duties, or vocational in character. Progressive educators, at the turn of the century, regarded it as a "helpful and practical activity to supplement intellectual studies". The manual training high schools introduced it in the form of home management, dressmaking, sewing, and millinery (Butts, 1955, p. 502).

A great impetus to the development of home economics was given by the Morrill Acts of 1862 and 1890. The 1890 Act named home economics as one of the subjects suited to the education of women in the land-grant colleges (Leahy, 1964, p. 621).

By 1900, home economics was clearly emerging as an important subject in the education of girls. The Committee of Fifteen, in its report of 1895, had unanimously suggested that sewing should be offered to the girls in the fourth, fifth and sixth grades of the elementary school, and cooking in the seventh and eighth. A little later, 1910, the Committee of Nine on the Articulation of High School and College recommended that "mechanic arts, agriculture, or house-

hold science should be recognized as rational elements in the education of all boys and girls" (Wiggin, 1962, pp. 168, 183).

NATURE STUDY

Nature study may be regarded as the simple study of natural objects, chiefly by observation, rather than the analysis, dissection, experimentation, and quantitative work of technical science. Such objects as plants and animals in their natural habitat are the ones usually observed. Although the term did not come into wide use until about 1889 (Good, 1956, pp. 221, 222), it had been advocated much earlier. Rousseau, for example, says of Emile at the age of twelve, "If he is not as good a reader in books as other children, he reads better in the book of nature" (Boyd, 1956, p. 66). Again, he asserts:

It is through the senses that we come to the intellect. . . .
The world must be our one book, facts the only instruction. . . .
Make your pupil attend to the phenomenon of nature, and you
will soon arouse his curiosity. . . . Do not teach him
science; let him discover it (Boyd, 1956, pp. 72, 73).

In some academic and normal schools there were those who taught about trees and animals, took the children on trips, or brought nature objects into the classroom for study, early in the nineteenth century. However, they were not numerous.

William T. Harris published "A Syllabus in Nature Study" in 1871 for the schools of St. Louis, and it gave advice on teaching, but it was Louis Agassiz, who came to the United States in 1846, who probably did most to awaken interest in nature study.

Agassiz soon was lecturing to teachers in various institutes, as well as accepting the professorship in zoology at Harvard University. He minimised the use of books, getting the teachers to hold grasshoppers, for example, while he explained their structure and habits. Nevertheless, he helped his wife prepare a small book for children (1859) on "A First Lesson in Natural History" (Good, 1956, pp. 222, 223)

"Every notable teacher of natural history in the United States for the second half of the 19th century was at some time a pupil of Agassiz or of one of his students", says Jordan (1964, p. 320). One such was H. W. Straight who was appointed to teach science at Oswego in 1876. Here he taught directly from nature, where the students learned by observation how living things were dependent upon their environment.

Another famous teacher was W. S. Jackman, whose teachings and writings helped assure the place of nature study in the elementary school. In 1894 he wrote, "Nature Study for the Common Schools".

The height of the influence of the nature study movement was reached between 1890 and 1910 (Good, 1956, pp. 224, 225).

An important feature, in the light of Ellen White's ideas, was the use some teachers made of nature study. Least important with Froebel was the mere knowledge of the facts of nature; "most important . . . was the moral improvement, the religious uplift, the spiritual insight, which the child got from association with nature" (Monroe, 1905, p. 664). Likewise, Bronson Alcott (1799 -

1888) considered that nature was a "symbol of the divine reality" (Good, 1956, p. 184). E. A. Sheldon, largely responsible for establishing the public schools of Oswego about mid-century and the state normal school a little later; was also famous for introducing object teaching to them. Part of a "lesson on plants", from Sheldon's manuscript, reads:

1. Require the children to look at some flowers and say in what they are alike. . . . All flowers are grown. . . . Who made the flowers?
2. Having found in what flowers are alike, lead the children to discover in what they differ. . . .
3. Let the children say of whom we should think when we look at flowers? . . . Why flowers are made of different colors? . . . Whom they should thank when they gather flowers (Good, 1956, p. 217).

Obviously, such a lesson was linked with religion.

MORAL TRAINING

The early schools in the United States had a dominantly religious purpose (Cubberley, 1947, p. 41). This, no doubt, was to be expected because of the religious nature of most of the early settlements in that country. However, by 1750 there was a marked change in religious thinking, as the colonies ceased to be narrowly denominational in character, and the monopoly of any sect in a Colony disappeared. This was indicated in the opening of King's College in New York City, 1754, with the announcement that there would be no imposition of any church's doctrine (Cubberley, 1947, pp. 59, 60).

However, religious training in schools continued to be important, if on more tolerant lines. Samuel Read Hall, in the first publication in English on teaching in America, 1829, stated: "To cultivate virtuous habits, and awaken virtuous principles; - to excite a sense of duty to God, and of dependence on Him, should be the first objects of the teacher" (p. 408).

In 1839 it was required that a portion of the Scriptures was to be read daily in every State Normal School of Massachusetts and, among the studies, were "the principles of piety and morality, common to all sects of Christians" (Knight and Hall, 1951, p. 417).

Butts was able to say that the aim of "character development through religion remained a dominant one in the nineteenth century". Indeed, moral training without religious training was often considered impossible (Butts, 1955, p. 488). Joel Hawes, in 1846, maintained that a "Christian education was the only kind which ought to be supported in a democracy" (Wiggin, 1962, p. 64). So important was Bible study, that the Supreme Court of Maine decided, in 1854, that a school board had the right to expel from school any child that refused to read the Bible used by the school, even if the parents objected to such reading. This ruling was decisive until 1890, when it was reversed by the Supreme Court of Wisconsin (Good, 1956, p. 139).

Dr. Baehre wrote, about 1839, after a tour of Europe, that to be a complete system, moral, intellectual, and physical education

had to be combined. Accordingly, when appointed Principal of the new Central High School of Philadelphia, he proposed three courses of study and, in each, morals and evidences of Christianity were to have a place (Good, 1956, p. 244; Wiggin, 1962, pp. 131, 132).

Washington Gladden, writing about Williams College in 1856, said that the senior year was mainly devoted to mental and moral science, logic, the elements of rhetoric, and criticism, and the evidences of Christianity. He added, "Something like this was, I suppose, the course of study in most of the New England colleges of that period" (Knight and Hall, 1951, p. 275).

However, as the public school system developed, the problem of religious teaching became a very vexed one. What version of the Bible was to be used, and who would teach it? Were doctrines to be taught and, if so, which? What about the child whose parents sent him to a public school to avoid religious indoctrination? Horace Mann early perceived these difficulties and so, although a firm believer in moral instruction, supported the 1827 law in Massachusetts prohibiting sectarian teaching in the public schools. He proposed that what was common to the Protestant creeds be taught, the Bible read without comment, and the teachers exemplify Christianity in their daily life. He came under sharp attack because of these proposals (Good, 1956, p. 165).

It followed that, as the public school system expanded, especially in the latter half of the nineteenth century, to avoid

religious controversies, religious teaching as such tended to drop out of the curriculum. This tendency was further strengthened by the theory of evolution which received powerful impetus after the publication of Darwin's, "The Origin of Species", in 1859. This theory challenged supernatural religion and the religious doctrine that the world and man were specially created by God. Psychology and anthropology tended, under this theory, toward the idea that man had no soul or moral responsibility. "'Sins' were attributable to physical disease or biological atavism". Religions were "evolutionary expressions of primitive myths and fears" (Hayes, 1953, pp. 241, 242).

To strengthen this attack on orthodox religion, some students of "comparative religion" and "higher criticism" supported the notion that Christianity was a "bundle of superstitions" that had their origins in older religions and philosophies. Accordingly, the Old and New Testaments were corrupt, having been written long after the events they had related and the "prophecies" had been fulfilled (Hayes, 1953, p. 242).

Under these circumstances it is not difficult to understand why, by 1900, mental and moral philosophy had virtually dropped out of the high school curriculum (Wiggin, 1962, p. 162), and various ways of developing morality, apart from religion, had been suggested and were becoming popular (Butts, 1955, pp. 488, 489). John Dewey was in the forefront of the rebellion against the dominance of the

religiously motivated moral aim. Schools were to realise the moral aim through "civic and social experience, vocational and practical usefulness, and individual development" (Dutts, 1955, p. 479).

In "My Pedagogic Creed" 1897, Dewey asserts,

The moral education centers upon this conception of the school as a mode of social life, that the best and deepest moral training is precisely that which one gets through having to enter into proper relations with others in a unity of work and thought (Dewey, 1941, p. 8).

Knight and Hall declare that the period from 1870 to 1900 was "critical" in religion in America, and that the conflict between science and religion had a wide effect on American educational theories and practices (1951, p. 727). One of these effects, already noted, was that of the growth of "secular morality". The Committee of Fifteen's Report on the elementary school, 1893, revealed this approach.

Moral training should come through discipline rather than through instruction in ethical theory. The child should be trained to be regular and punctual, truthful and sincere through every exercise in which he participated. Stress should be put on accuracy of statement (Wiggin, 1962, p. 167).

If religion was not to be the chief means of character education, then substitutes had to be found. W. H. Mace suggested to the Committee on Economy of Time in Education, appointed in 1903, that the study of great characters be part of the course in grades 4 and 5 of the elementary school, as this would profit the children morally. Similarly, Professor C. Ellwood avowed that the child should be taught loyalty to ideals by means of American history (Wiggin,

1962, p. 172). No doubt the increasing frequency of courses in civics reflected the same hope. This was based on the theory that knowledge would lead to right action. It was this theory that had stimulated the establishment of public schools and the passing of compulsory - attendance legislation (Thur, 1957, p. 251).

OTHER CURRICULA DEVELOPMENTS

A). ELEMENTARY EDUCATION

ENGLISH

The Committee on Economy of Time in Education, whose final report was submitted in 1913, said that in fifty cities the "school arts" (reading, language, spelling, penmanship, and arithmetic) occupied 70 per cent of the class time in the elementary school (Leonard, 1953, p. 25; Wiggin, 1962, p. 170). The 3-R's were still overwhelmingly preponderant as the twentieth century commenced, but significant changes had taken place in the nature of these courses during the nineteenth century.

The chief emphasis in the elementary school was on the English language, since one of the aims of this level of education was to increase literacy among the American people. Comprehension of what was read received much more attention as the elementary school became a common school - the only school that a large majority of the youngsters, perhaps 84 per cent of them would attend (Wiggin, 1962, p. 157). Francis W. Parker had noted the overwhelming

emphasis on oral reading, and deplored it (Good, 1956, p. 448).

English grammar had always been a basic part of reading and writing, as was shown by its being introduced after two or three years of elementary schooling. However, a survey of sixty-nine cities in 1888 showed the tendency to study it in the higher grades of the elementary school at that time. Twenty-seven cities, for example, introduced it in the sixth grade, and twenty in the seventh grade (Wiggin, 1962, p. 158).

Before 1825, memorizing the rules, parsing, and the like, were the chief features of grammar but, after that date, the memory method gradually gave way to the inductive method (Noble, 1954, p. 243). In the later nineteenth century the "conversation and language" lesson was replacing the technical grammar lesson as good speech became popular, instead of the science of grammar (Wiggin, 1962, p. 158).

Recognizing these changes, the Committee of Fifteen, in 1895, stated that language was the essential basis of the curriculum, and, the study had three phases. The first of these was mastering the written language - learning to read - in the first three years of schooling. Next came the study of great literature to lead to a knowledge of human nature and, thirdly, came formal grammar, when there should be less interest in mere memorizing, and more interest in principles arrived at by insight (Wiggin, 1962, p. 166).

ARITHMETIC

Next in importance came arithmetic. This subject was greatly changed by Pestalozzi and his followers. Neef, in his "Sketch of a Plan and Method of Education" (1808), which is an account of the Pestalozzian system, proposed that the pupils, instead of learning by rule, learn by inquiry and investigation. Arithmetic would be taught in short steps by means of objects, and the pupils working out the number combinations themselves (Good, 1956, p. 172). Similar was Warren Colburn's, "First Lessons in Arithmetic on the Plan of Pestalozzi" 1821, that contained simple problems to be solved mentally. Thus commenced mental arithmetic, and Colburn changed a subject that had been difficult into a simple one (Cubberley, 1947, pp. 294, 295). Moreover, arithmetic was not to be limited to commercial topics, as previously, but applied to many fields, such as sport, population, travel, and the like (Good, 1956, p. 186).

These ideas had a temporary setback from the 1870s when the Grube idea was introduced into America from Germany. Based on the Pestalozzian principle of reducing a subject to its elements, and then making a thorough study of each element, the number one combinations were taught for days before going to the number two combinations, and so on. The first year was spent in studying the numbers one to ten, and the next year the numbers to one hundred. Cubberley says, "The method was extremely absurd. . . ." Only

since about 1900 have Americans turned back to the Pestalozzian ideas as expressed in Colburn's book (Cubberley, 1947, pp. 396, 397).

J. C. Boykin, in his study of 1888 - 9, noticed that arithmetic was undergoing "radical change". All that was not interesting to the pupils, or was not connected with their daily lives - "which no child or man but a specialist will ever use", was being cut out of the study course (Wiggin, 1962, p. 166). Here was but another evidence of the effect of the increasing elementary school population on the curriculum, and the consequent need to prepare students for life rather than for college.

GEOGRAPHY and HISTORY

After arithmetic, came the social studies in importance, the principal studies of which were geography and American history. Apparently, up to the middle of the nineteenth century, the average school included only reading, spelling, and English grammar in its elementary curriculum, while those of a "superior sort" included writing, arithmetic, geography, and history as well (Monroe, 1905, p. 701). About the middle of the nineteenth century, however, geography was becoming more popular. By 1850, for example, geography was a required subject in a number of states such as Massachusetts and Ohio (Butts & Cremin, 1959, pp. 271, 272).

Pestalozzi had stressed the study of local geography and in "Sketch of a Plan and Method of Education" (1806), he, his

assistant, sought the use, in geography, of such activities as measuring gardens and fields and drawing plans to scale.

However, such practices were not common in America in 1840 (Good, 1956, p. 172, 176).

Gradually, however, the leaven was at work. Whereas the older geography textbooks had merely been summaries of information, for memorization, rhyme sometimes being used to help the unpleasant task, the newer books selected more interesting material, appealed to the children's understanding, and showed the objects discussed, where possible. Obviously, the local area was easiest to consider in concrete terms, and so the improved textbooks started with exploration of the locality and taught drawing plans and maps of the schoolroom, the schoolyard, and the surroundings.

After the Civil War, a greater effort was made to improve the teaching of geography to meet the needs of the increasing number attending the elementary school (Good, 1956, pp. 184, 185). The physical and human aspects of geography were substituted for the political and statistical (Cubberley, 1947, p. 393). By 1900 the subject, in its newer form, was firmly entrenched in the elementary curriculum, as indicated by the 1895 report of the Committee of Fifteen. This suggested that the basic subjects to be taught were language, arithmetic, geography, and history (Wiggin, 1962, p. 165).

History, as a required subject, came into the elementary school

curriculum mainly after the Civil War although, during the first half of the nineteenth century, American history textbooks increased in number (Cubberley, 1947, p. 399; Butts, 1955, p. 495). No doubt the development of interest in history, particularly American history, was related to the emergence of the United States as a great power, and the need to link the people together with a common sentiment after the Civil War, and as immigrants arrived in larger numbers. Cubberley states, "The dominant purpose was the development of patriotism and an enthusiasm for the Union" (Cubberley, 1947, p. 399).

Interestingly enough, Rousseau had regarded the subject of history as of no importance, as had Pestalozzi (Cubberley, 1947, p. 399). Indeed, Pestalozzi is reported to have called history "a tissue of lies" (Good, 1956, p. 190). Therefore, history was not introduced into the American curriculum by Pestalozzi or his followers. An outcome of this was that history was largely taught by the old memory methods instead of the newer Pestalozzian ones, until the late nineteenth century (Cubberley, 1947, p. 399). Also, the stress was on political and military affairs (Noble, 1954, p. 247).

The Committee of Fifteen, 1895, manifested the changed attitude to history. History, they regarded, as of more importance in the later grades than geography. It was especially useful for instruction in citizenship, and so United States history was to be stressed in the seventh and eighth grades. "History gives a sense of belonging to a higher social unity which possesses the right of absolute

control over person and property in the interest of the safety of the whole" (Cubberley, 1947, p. 451).

OTHER SUBJECTS

Other subjects entering the elementary school in the nineteenth century were drawing, which was taught in some monitorial schools and, by the 1860s, in Boston, New York, Philadelphia, and some cities of the West; music, mainly singing and choral work, which was likewise becoming popular in the first half of the century, especially under the promotion of Lowell Mason, but which then appeared to be checked until the close of the century; modelling and dramatics, added in the second half of the century (Butts, 1955, p. 496; Cubberley, 1947, p. 428); and natural sciences and civil government from about the late 1860s (Good, 1956, p. 185; Wiggin, 1962, p. 158). Civil government had as its object preparation for citizenship.

In addition to the new subjects outlined, Boykin in 1888 - 1889 found a number of other subjects being taught in the elementary school, but not on a large scale. German, French, and Spanish, for example, were being taught in localities where there were sufficient numbers of migrants speaking those languages. Similarly, algebra and geometry were taught in some schools (Wiggin, 1962, pp. 158, 159).

SUMMARY

Boykin reached the conclusion that there had been a

"disproportionate growth of the 'lower stratum of our educational system' as the elementary school had changed from a college preparatory institution to a common school for children in general. Since 84 per cent of the children received formal instruction to elementary school level only, educators had added subjects and changed the content of the traditional ones to meet the schools new role. Subjects that would ordinarily have been taught in secondary schools, were now being taught in elementary school. This was not a systematic, planned change, but an haphazard one (Wiggin, 1962, pp. 156, 157).

Of the curriculum, Cubberley states, "Excepting instruction in agriculture, which came in recently as an outgrowth of nature study, and in response to an economic demand, the elementary course of study of 1900 contained all the elements of this course today" (Cubberley, 1947, p. 471). It was far different from the course of 1827.

B.) SECONDARY EDUCATION

In the secondary schools also, expansion marked the curriculum in the nineteenth century. At the opening of the nineteenth century, ten or twelve titles would have covered most of the subjects taught in the academies, but in the high schools, at the end of the century, one hundred titles would have been insufficient (Butts, 1955, p. 497).

By the middle of the nineteenth century, the academy was

attempting to be a people's college, by teaching everything from Greek and moral philosophy to surveying. The public high school, however, was much more limited in its offerings. A sample of high school courses in the North Central States in 1860 to 1865, showed that twelve schools offered only one course, probably a classical or Latin one, six offered two courses, and two offered three courses. By 1900 though, one school was offering seven courses, and eight schools were offering four courses, indicating that the high school was taking over the academy's work (Wiggin, 1962, pp. 160, 161).

The names of the new courses in the public high schools of the North Central States give some indication of the subject additions. The usual course in 1860 was the classical or Latin one - a college preparatory course. By 1860 - 1865, however, there were "general and normal" courses. In the period 1866 - 1870 appeared an "English and German" course. The period 1871 - 1875 saw the arrival of a commercial English course, that of 1876 - 1880 the arrival of scientific, scientific engineering, and technological courses, while 1886 to 1890 saw a general science course appear. The latter courses were obviously designed to meet the demands of growing industrialisation. However, in each course there was a fairly common core of subjects; namely, English, social science, science, and mathematics, with foreign languages not far behind (Wiggin, 1962, pp. 160 - 162).

By 1885, many of the older subjects, such as moral philosophy,

higher mathematics (except trigonometry), astronomy, geology, and logic, had ceased to be important. Rather than new subjects taking their place, more time was given to the subjects that remained. From 1860 to 1900, English, social studies, and modern languages made about one year's gain in time, and commercial subjects one and a half year's gain, while mathematics, science, and classical languages remained largely unchanged in the time devoted to them (Leonard, 1953, pp. 36, 37). These judgments were based largely on Stout's findings, and his investigations were confined to the North Central States and, therefore, are approximations. However, they no doubt indicate the trends.

Stout ascertained that of the schools he studied in 1906, English, social science, science, mathematics, and foreign languages made up 76 per cent of the subject offerings of the high schools (Leonard, 1953, pp. 36, 37). The curricula were still largely academic, and the newer subjects were battling against the older, as revealed in the Committee of Ten's report in 1893. Conferees in the sciences and social sciences acknowledged that they were dealing with subjects "imperfectly dealt with in primary and secondary schools" and they ardently desired to have their respective subjects made equal to Latin, Greek, and Mathematics in weight and influence in the schools" (Wiggin, 1962, p. 174).

In spite of vocational and activity courses having been introduced after the Civil War, J. M. Rice observed the work of

1,200 teachers in thirty-six cities and concluded, in his "The Public-School System of the United States" (1893) that the curriculum was narrow and based upon textbooks alone (Good, 1956, p. 397).

The attempted standardization of the secondary school programme by the Committee of Ten, 1893, confirms Rice's statements, and the academic nature of the curricula. Four courses were proposed: Classical (Three foreign languages - one modern), Latin - Scientific (Two foreign languages - one modern), Modern Languages (Two modern foreign languages), and English (One foreign language - ancient or modern). The Classical course offerings were: First Year, Latin, English, Algebra, History, Physical Geography; Second Year, Latin, English, German (or French), Geometry, Physics, History; Third Year, German (or French), Algebra, Geometry, Latin, Greek, English, German (or French); Fourth Year, Chemistry, Trigonometry, and Higher Algebra or History.

The other courses were identical with this, except for the foreign language differences, a slightly different emphasis on English and History, and the addition of scientific subjects, such as Botany or Zoology; Astronomy and Meteorology; Geology or Physiography; and Anatomy Physiology and Hygiene, to replace some of the languages (Knight and Hall, 1951, pp. 555, 556). It is no wonder that Leonard says the Committee took a backward step, and summed up, but did not build (1953, p. 25). The report received

"great acclaim", but the schools continued to expand their programmes in spite of it (Good, 1956, p. 257).

For most of the century, Latin and Greek were the foreign languages studied but, from the 1880s, French and German made headway.

Ranked with languages in importance, was mathematics. Arithmetic, once popular in the academies and high schools, came to be largely an elementary school subject, while algebra and geometry came to be the main mathematics subjects in the high schools (Butts, 1955, p. 498). They had high importance as a means of training the mental faculties, and so definitions, logical organization, and difficult problems predominated, bearing little relationship to life situations (Noble, 1954, p. 344). Also taught in some secondary schools were trigonometry, mensuration, and astronomy (Butts, 1955, p. 498).

Science subjects, mainly astronomy and natural philosophy, had been taught in the academies from the first. The main reason for the emphasis on these two areas of science was that they had been the "most systematically formulated" in the eighteenth century (Monroe, 1905, pp. 699, 700).

After 1870, industrialization had a powerful impact on science, and this demand brought science into competition with the classics. The supporters of the classics condemned the superficial character of science study, claiming that the study of nature could not be

organized logically enough for mental discipline purposes. To meet these criticisms, the new science texts were filled with definitions and stress on abstract principles - suitable "food" for mental discipline - while the concrete tended to be ignored (Noble, 1954, p. 345).

At first, natural history teaching was used for religious purposes, as well as the informational and practical ones. The arrival of the evolutionary theory, however, made its teaching more secular (Butts, 1955, p. 499).

Important changes were occurring in English as a subject. At the beginning of the century it was in an inferior position, but it grew in importance, especially between 1860 and 1900, as was reflected in the increased time being given to its study (cf. p. 65). The period 1860 to 1900 is significant, as it was the period of the Civil War and after, when industrialization occurred at a rapid rate, and immigrants were arriving in an ever-increasing stream. It looked as if nationalism was demanding a common vehicle of expression.

In 1900, according to Stout, English was offered in the first year in nearly 50 per cent of the high schools he studied, and in the succeeding grades the percentage dropped, but 15 per cent of the schools taught English in the senior year (Wiggin, 1962, pp. 162, 163). The Committee of Ten, 1893, had proposed three years of English study in all the courses, except the English course, where

four years were recommended (Knight and Hall, 1951, pp. 555, 556). Thus English was on the way to being taught in all the four years of the high school.

While grammar was still the commonest form of English taught (because of its disciplinary value, and usefulness in the study of foreign languages), the emphasis on it and rhetoric decreased as that on English literature and composition increased. Literature had two chief purposes: to help in oral reading and to introduce "good" literature.

Stout found that the ten pieces of literature most frequently studied in the schools he examined were, in the order of popularity, "Merchant of Venice", "Julius Caesar", "Bunker Hill Oration", "The Sketch Book", "Evangeline", "Vision of Sir Launfal", "Snowbound", "Macbeth", "Lady of the Lake", and "Hamlet" (Noble, 1954, p. 350; Wiggin, 1962, pp. 162, 163). The Shakespeare bias is evident.

The Committee of Ten, 1893, recognised English as a "disciplinary power", but said that the speaking and writing of good English could be taught without instruction in formal grammar, and therefore grammar should be only incidentally dealt with. This was rather a radical step for such a conservative body, but it showed the trend in English teaching (Wiggin, 1962, p. 175).

In the social studies, history was at first largely a chronological study of political and military events in Europe and

the ancient world (Leonard, 1953, p. 40). It served religious, moral, informational, and social-civic purposes (Butts, 1955, p. 500). However, before the report of the Committee of Ten, 1893, it was taught in only an "insignificant fraction" of the American schools, partly because it was supposed to lack the disciplinary power of other subjects, such as mathematics and languages (Noble, 1954, p. 352). At the end of the nineteenth century, though, United States history was markedly on the increase. Whereas Stout found it offered in only 15 per cent of the high schools in 1860 - 1865, in 1896 - 1900 it was offered in 45 per cent of them. Nationalism, after the Civil War, as America grew in power, clearly demanded a study of the home country in order to develop American citizens (Wiggin, 1962, p. 162).

Geography was frequently a first year high school subject and, like history, was mainly informational in content, stressing physical aspects such as the location of mountains, cities, and rivers.

The need for citizenship training meant that some attention was also paid to other subjects, including "moral and political philosophy, governmental and constitutional forms, civics, and political economy" (Butts, 1955, p. 500).

Of the other curriculum subjects, the fine and practical arts entered the secondary schools in the late nineteenth century, and Stout found that in the 1906 - 11 period 70 per cent of these

schools in the North Central states were offering them (Wiggin, 1962, p. 162).

Just as the elementary school curriculum became badly crowded in the period 1860 to 1900, so did the high school curriculum. The resulting efforts to find a solution varied from attempts at standardization and use of electives, to the formation of different types of schools (Technical, Agricultural, Commercial etc.) and courses, and attacks on the expression subjects, such as music, drawing, art, vocational subjects, and school gardening, as "fads and frills" (Cubberley, 1947, pp. 539 - 540, 629 - 630).

C.) HIGHER EDUCATION

In the U.S.A, about 1827, colleges were few in number, small in size, and usually offered only one course, the classical, which led to the B.A. degree and was based on the study of Greek, Latin and mathematics. As early as 1818, however, Jefferson endeavoured to see a wider course instituted at the University of Virginia, while Ticknor, at Harvard, from 1819, sought the use of electives (cf. p. 24).

A preview of future days was given by the Rensselaer School, 1825, which, during its first ten years, dealt with technical instruction and agriculture, and has been called America's first agricultural college, as well as the first college of technology. Its importance is shown by the fact that in 1850 the majority of

the naturalists and engineers teaching or practising in the United States were graduates of this college (Cubberley, 1947, p. 277).

The demands for curriculum reform to meet the changing conditions in the United States, and the rapid expansion of knowledge, resulted in three types of response before the Civil War: parallel courses, independent technical schools, and affiliated scientific schools (Butts, 1955, pp. 506, 507). An example of the parallel courses was that at Brown University where, in 1851, a course was offered without Greek, including more modern studies (Cubberley, 1947, p. 652). In these "scientific" or "literary" courses, the classical studies were either lessened or removed. However, the classical course continued to be pre-eminent, and so the bachelor of arts degree was reserved to it, while the other courses usually resulted in diplomas.

Independent technical colleges were those of the Rensselaer Polytechnic Institute variety, which were soon in competition with the literary colleges. The affiliated scientific school trend was revealed in the opening of the Lawrence Scientific School at Harvard in 1847 and the Sheffield Scientific School at Yale in the same year. These led to the B.S. degree. In this way the college could retain its classical emphasis, while offering a training to those who wanted positions of leadership in business or industry (Butts, 1955, pp. 506, 507).

After the Civil War, major changes occurred. While, in 1865, the classical languages, mathematics, and philosophy were at the centre of liberal education, the picture gradually changed as English, the modern languages, the natural sciences, and the social sciences received more attention. Even physical education was making its claim for inclusion in the college programme by 1900. Symptomatic of this change was the number of chairs of history, which were few in the 1870s, common by 1900, and practically universal by 1920 (Butts and Cremin, 1959, pp. 445, 446).

One of the important reasons for this change was the rise of the land-grant college after 1862 which led to a mushrooming of state colleges and a vast influx of students. Whereas, for example, the University of California had 197 full-time resident students in 1885, in 1895 there were 1781 and, in 1905, 3294. Similar trends were evident in the universities of Georgia, Illinois, Iowa, Michigan, and other state universities. Michigan's figures were 524 in 1885, 2648 in 1895, and 3832 in 1905. The universities were now coming within the reach of many more young people, which led to a greater demand for curricula to meet their needs.

By 1880, the colleges were offering three or four parallel courses leading to different degrees, such as the B.A., B.L., B.S., and Ph. B. The development of advanced research was vindicated by Yale granting the first United States' Ph.D. in 1861, and the opening of the first distinctively graduate university, Johns Hopkins, in

1876.

All the new subjects, and subdivision of older ones, led to college being organized into departments, such as Latin, Greek, English, physics, chemistry, mathematics, history, etc., each with its professors and tutors (Cubberley, 1947, pp. 652, 653). This was a far cry from 1800 when the colleges averaged a total of four professors and tutors, with 40 to 80 students. Even in 1854, Princeton had only six professors, two assistant professors, four tutors, and 247 students (Cubberley, 1947, p. 269).

Two highly important colleges in helping pioneer new fields were Cornell University and the State University of Michigan. Cornell University, New York, was opened in 1868, and offered complete freedom in election of subjects. Instruction in the older subjects was broadened and deepened while there was a strong bias in favour of science, agriculture, and engineering (Monroe, 1905, p. 696). The University of Michigan 1817 was one of the first state universities to be free of sectarian and state political influences; to begin instruction in history (1857), education (1879), and government (1881), as an aid to the state; to open its doors to women on an equal footing with men (1870); to accredit and examine the high schools (1871), and permit students from such schools to enter the university without examination (Cubberley, 1947, p. 651). The chair in education was the first in America, and probably the first

anywhere (Meyer, 1957, pp. 385, 386).

One of the most important changes, in the light of White's ideas, was the gradual disappearance of the religious emphasis in college education. The aim of preparing for citizenship and an occupation, became dominant as the state college developed (Butts, 1955, p. 510). The University of Michigan is an example of this. Nor was this religious tendency confined to the new state universities, for it soon influenced the older colleges (Meyer, 1957, p. 195).

II SCHOOL BUILDINGS AND EQUIPMENT

School buildings and facilities were receiving attention in the period 1827 to 1900. Bronson Alcott, for example, tried to make his schoolroom beautiful (Good, 1956, p. 181). There no doubt was considerable scope for this as Good states that, "School buildings were as poor as the schools and often were unfit for use "early in the nineteenth century (1956, p. 134).

In New York State the great majority of the schools were officially described as "naked and deformed" in 1844, more than 3300 being "unfit for the reception of either man or beast", 6000 lacking convenient desks or seats, and 8000 lacking "any proper facilities for ventilation". In Connecticut more than seven-eighths of all the schools officially visited in 1841 had less than half the amount of air per child that was thought necessary in state prisons. Conditions were probably no better elsewhere in

America (Knight, 1929, pp. 416 - 418).

Henry Barnard's "School Architecture", 1849, was the first book on the subject, and set a standard above that of the existing school buildings. His ideas were incorporated in the Tryon Park School in New York city, such features as good light, commodious space, ventilation, sanitation, and safety being provided (Good, 1956, p. 179; Bush-Brown, 1964, p. 1021).

Horace Mann had also written on this subject in his earliest reports. James Johonnot (1823 - 1888) dealt with the plan, cost, construction, furniture and teaching equipment of one-room rural schools in his "Country School-Houses". He paid particular attention to the importance of these features in contributing to the health, moral conduct, and aesthetic cultivation of the students (Good, 1956, p. 324).

School furniture in the rural schools usually consisted of long home-made benches while, in the cities, double desks became popular (Cubberley, 1947, p. 329).

After 1830 the cities tended to build larger schools with smaller classrooms, and this was the accepted practice by 1860. Whereas the older buildings tended to have only recitation rooms and an office, a new Quincy School erected in Boston in 1847 had separate schoolrooms for each teacher, a separate desk and chair for each pupil, clothes rooms attached to the classrooms, and an

assembly hall. It was an unprecedented four storeys high. This new type of building was the standard elementary school building until about 1900 (Cubberley, 1947, pp. 311, 312).

In spite of these advances, however, a Boston school-architect, E. M. Wheelwright, was critical of the "sad condition of school buildings" in 1901. Amongst the reforms he desired were smaller classrooms to accommodate no more than forty to forty-eight pupils, and better school-sites with play areas (Bush-Brown, 1964, p. 1021).

III TEACHERS AND TEACHER TRAINING

It was noted by James G. Carter in 1824 (cf. pp. 10, 11) that teachers in America were rarely educated beyond the level of the schools they were asked to teach, and that they had no "direct preparation for their profession". The result was, "any one keeps school", he affirmed. Cubberley (1947, p. 325) states,

Many of the teachers were incompetent adventurers, migratory, odd in their ways, crude in their manners, and often questionable as to character. Terms were short, wages low and paid in part through "boarding-around" arrangements. . . .

However, there were those who urged training of teachers in the eighteenth and early nineteenth centuries, such as Franklin 1751, Olmsted 1816, Samuel R. Hall 1823, and James G. Carter 1820. Indeed, Mc. Corkle seems to have carried on a meagre teacher-training course at his academy in North Carolina between 1785 and 1811 (Drake, 1955, p. 372; Cubberley, 1947, pp. 372, 373).

Joseph Lancaster, exponent of the monitorial system, established a model school for the training of teachers in Philadelphia in 1818, but the emphasis was on learning subject matter and the monitorial method. This did not arouse much enthusiasm, although it lasted until mid-century (Brubacher, 1947, p. 507).

Samuel Hall opened an academy in 1823 that is regarded as America's first normal school (cf. p. 15). The three - year course of study resembled that of the English course of other academies, but in the third term of the third year "Art of Teaching" was a required course. These lectures were published in 1829, under the title "Lectures on Schoolkeeping", and they were widely used before 1860 (Drake, 1955, p. 373).

The teacher-training idea quickly spread, and in 1834 the New York State legislature subsidized private academies to train teachers for the state schools. While the academies were best equipped to teach subject-matter, this was not enough. Knowledge of psychology, methodology, and the like were badly needed, but not available.

Since the academies produced neither sufficient teachers, nor adequately trained ones, many began to argue that state controlled institutions were necessary that would be wholly devoted to teacher training. Thus came into being the state normal schools, the first of which was established in Massachusetts in 1839 with one instructor, and three girl students (Brubacher, 1947, pp. 507 - 509; Cubberley, 1947, p. 380).

Meyer (1957, p. 205) asserts, "The new schools were scarcely more than primitive". They were little more than secondary schools, students entering them directly from elementary school, the entrance requirements being low. Moreover, because it was not generally necessary to be professionally trained for certification, most teachers had no special training (Meyer, 1949, pp. 404, 405).

These schools met with little support before 1860. In 1859, for example, there were only eleven state normal schools in the United States, four of them being in Massachusetts. These four had an enrolment of only three hundred students, about forty being males. Meyer states:

The plain truth is that among academicians the normal school was considered worthy only of derision. . . . There was very little, indeed, to distinguish the methods employed in the prevalent schoolmastering from that of the colonial fathers. The old malignant stress on memory was still predominant (Meyer, 1957, pp. 206, 207).

Teacher-training "changed markedly in character, after about 1860", largely through the introduction of Pestalozzian procedures at Oswego by Sheldon (Cubberley, 1947, pp. 383 - 385), as described later (pp. 98 - 100). As a result, between 1870 and 1890 more than fifty state normal schools were established, so that there were ninety-two by the latter date. Still, the normal schools were usually

meagerly financed and poorly equipped. The academic standards were on a par with those of contemporary high schools. Only a few city training schools in 1890 required graduation from high school as a prerequisite for admission.

. . . Normal school courses were for the most part 'sketchy' and ineffective (Noble, 1954, p. 311).

As time passed, it had become clear that an elementary education, followed by even two years at a normal school, was not sufficient to ensure adequately trained teachers. Accordingly, the Illinois State Normal University was established in 1857, to help remedy the situation, and several universities instituted lectures in "the art of teaching". However, the University of Michigan established the first full-time chair in education in 1879 (Meyer, 1949, p. 405). Before 1900, other universities such as Johns Hopkins (1884), Cornell (1886), and Stanford and Chicago (1891), had instituted teacher training courses, but the support for this at university level was still meagre by 1900 (Turner, 1965, pp. 21, 22). Cubberley (1947, pp. 400, 691), while admitting an improvement in teacher preparation because of such influences as Pestalozzi, Herbart, and the Oswego school, states that up to at least 1900, the courses offered in education in universities and colleges were "quite elementary in character".

Of considerable importance was the establishment of the New York College for Teachers in 1888, that changed its name to Teachers College in 1892, and was affiliated with Columbia University 1898. It aimed to place teaching on the same professional level as law and medicine, and by 1920 the normal school was making its exit, while the four-year teachers' college increasingly took its place (Meyer, 1949, pp. 405, 406; Drake, 1955, p. 384).

In a study of the certification of teachers in 1906, Cubberley

remarked (p. 73):

Table III . . . shows clearly that, for the twenty-eight states tabulated, it is possible to secure a third-grade teacher's certificate in 90 per cent of the number with no educational test beyond the common-school branches; and for the thirty-seven states tabulated it is possible to secure a first-grade . certificate in two-thirds of these states, without giving evidence of knowing anything about a single high-school subject except algebra. . . . These low-standard certificates are wholly out of place to-day. . . .

Moreover, in almost every state, these certificates entitled the holder to employment in any part of the school system, even the high school (Knight and Hall, 1951, p. 437)!. Similarly, as late as 1914, J. W. Cook wrote (p. 115) that of the five hundred thousand teachers the greater part lacked a thorough study of the underlying principles of the profession.

More than eighty thousand new teachers annually find employment in the elementary grades of the public schools. The public normal schools graduate some twenty thousand; sixty thousand untrained teachers annually begin to find their way to skill by their experiments with the defenseless children. . . .

Because of situations much worse than those of 1914, teachers' institutes came into being. These were temporary schools for aiding teachers, the first being held in 1837. Henry Barnard promoted the institute programme, as these were one means of better qualifying untrained or poorly trained teachers. Thus, although not a substitute for college training, the teachers' institutes helped meet an urgent need (Drake, 1955, p. 375).

Of teaching in the schools at the close of the nineteenth century,

Drake (1955, pp. 352, 353) summarises:

the psychology of elementary school subjects was predominantly that of formal discipline. . . . The possibility of introducing the methods and ideals of Froebel's kindergarten into the elementary school was still remote. Drill, the rote method, and mechanical reading were still in dominant use.

IV IDEAS FROM ABROAD

THE LANCASTRIAN SYSTEM

One of the foreign educators that affected American education in the early nineteenth century was Joseph Lancaster (1788 - 1838) of England. His system, known as the monitorial, or mutual instruction system, was not new, and Dr. Bell has been given the credit of introducing it into England. However, it was Lancaster that popularised the method, the movement spreading from England to Europe and America (Brauner, 1964, pp. 24, 25).

A Lancasterian school had opened in New York in 1806 and the idea quickly spread (Good, 1956, p. 137). According to Gordy, Professor of Education at Ohio University 1891, the method was almost universally adopted in large cities such as New York, Albany, Hartford, New Haven, Philadelphia, Baltimore, and Washington. By 1820, there were about twenty flourishing Lancasterian schools in the State of New York alone. John F. Reidart, stated that the Lancasterian system of instruction was the official system of the New York Public Schools from 1806 until 1853 (Brauner, 1964, pp.

24,25)

The reason for the popularity of the system was, no doubt the promise it held of teaching a large number at a very low cost, at a time when there were few teachers, and the cost of general education by the individual method of instruction was almost prohibitive. The current time-honoured method of instruction was the individual one. Pupils of all ages were in the one class, and the master remained at his desk during the day while he called up the pupils, one at a time, to repeat the lesson learned, to examine slates, or to give needed help (Cubberley, 1947, pp. 134 - 136, 327). "Aunt Delight" gave an example of this type of teaching (cf. pp. 11, 12).

In Lancaster's system, a large number of pupils, from 200 to 1000, could be taught in the one room under the control of one teacher. The pupils were sorted out, and a monitor assigned to each row to instruct the pupils, often ten in number. The monitors were usually older children, and the teacher first taught them a lesson from a printed card, and then the monitors took their groups to various positions around the room and proceeded to teach them what they had just learned.

At first, reading and the catechism were taught, but soon writing, arithmetic and spelling were included. The system was even extended to academies, and high schools, and proposals were

made for its adoption in colleges. The "Manuals of Instruction" gave all the details for organizing and managing the schools, giving instructions concerning the recitation work, and the teachers were usually forbidden to depart from these directions (Cubberley, 1947, pp. 131 - 133).

Pupils in the school were under a military-type command.

"Pupils rose, marched, wheeled, sat down, and took up their books at a word of command". They were carefully graded; for example, into those studying words of one, two, three and four syllables, and every pupil was to be kept busy every minute (Good, 1956, p. 136).

"The master", wrote Lancaster, "should be a bystander and inspector. What the master says should be done" (Cubberley, 1947, p. 131). To keep order, and achieve the learning desired, extensive use was made of punishments, rewards, and rivalry between classes. Punishments included the strap, shackles, and the dunce cap; for rewards, badges, offices, and orders of merit were given (Good, 1956, p. 136).

One defect of the system was the emphasis on memory work, and the superficiality of the instruction. Another was the rigid and mechanical discipline. Administration was obviously mechanical, too. There was no conception of the broader nature of education that was developing in Europe (Monroe, 1905, pp. 725, 726). It is not surprising, then, that its popularity waned as its defects became evident. While very popular between 1815 and 1830, by 1840 it had

been virtually abandoned, outside of New York City, where it lingered on until 1853. "It was born in poverty, and poverty was ever its best excuse for being" (Cubberley, 1947, p. 136).

However, the Lancasterian movement in America was not without significant results. The most important one was probably the awakening of public interest in schools for the masses (Monroe, 1905, p. 725). If the cost was small, why should not the state control and support schools for all? It was no accident that both the Working Men of Philadelphia in 1829, and the Boston Working Men's Party in 1830, came out solidly on the side of a system of education for all (Knight and Hall, 1951, pp. 146, 147).

In addition, the rigid grading in the Lancasterian schools on the basis of arithmetic work, spelling, and reading, helped introduce a better system of grading in the schools. A child could be promoted in one subject, but not in another. The system also stressed careful step-by-step arrangement and classification of material, which made for easier learning (Monroe, 1905, p. 725).

A factor often overlooked is the effect Lancaster's ideas had on teacher training. In 1848 the Public School Society of New York commenced training adults to run the public monitorial schools. In the space of six or eight weeks, a competent knowledge of the Lancasterian Methods of instruction could be obtained without fee or reward, advertised the Society. The matters explained were methods

of instruction, control, monitor training, grouping classes, testing for mastery, and administration. Thus developed the idea that anybody of average ability, with very little training, could teach.

The imparting of information rather than training in observation and eliciting of thought became the aim. There was developed a catechetical method of teaching which could readily be acquired by the monitor or the unskilled teacher.

The normal schools which developed after 1840 to prepare teachers for the public schools had been so influenced by Lancaster's ideas that the teachers they produced often had substantially his outlook (Brauner, 1964, pp. 31, 33).

INFANT SCHOOLS

In some of the cities where public elementary schools had been provided it was expected that the children would be able to read before attending them. An example of this practice was Boston and, even later, the monitorial schools tended in this direction. As a result, the common age of admission was about eight years. Presumably, reading had to be learned at home, or in the dame schools.

The Infant-School idea came to America in 1816 from England. It culminated, after two years of agitation, in an Infant or Primary School in Boston. One of the originators of the idea in England was the manufacturer Robert Owen, who opened a school at New Lanark, Scotland for his employees' children (Gubberley, 1947, pp. 137, 138).

In 1809 the school catered for boys and girls between six and twelve years of age. In 1816 he at last succeeded in establishing an infant school that took the children from three years of age. These children were not to be "annoyed with books" (Meyer, 1957, p. 124), but were to be taught "whatever might be supposed useful and that they could understand". There was to be music and dancing, and the children were to spend much time out-of-doors in good weather. Thus, by amusement and instruction, the children were to receive physical, mental, and moral training (Cubberley, 1947, p. 138).

Owen believed in the power of education, from early years, to solve most of the troubles of mankind. By this means "infants of one class may easily be formed into men of another class", and Owen soon was busy expressing his ideas abroad (Meyer, 1957, p. 124).

Samuel Wilderspin became interested in Owen's school, but disagreed with his idea of human goodness. Wilderspin taught his pupils reading and arithmetic, and fed them with facts from the natural sciences, geography, the New Testament and the like. His schools, according to Meyer, were "little more than drill sheds".

In 1824, he founded the Infant School Society, and, while both the Owen and the Wilderspin type schools found their way to America, it was Wilderspin's that made most headway. The schools became especially popular in the Eastern cities since most free schools there did not accept students who could not read. Such

schools became known as "primary schools", while the older elementary schools were known as "grammar schools" (Meyer, 1957, pp. 125, 126). The primary and grammar schools remained distinct for some time. In Boston, for example, the two were not combined under one city School Committee until 1854 (Cubberley, 1947, p. 139). Monroe said, in 1905 (p. 727):

To the present day, the independent organization of the primary department and the sharp division drawn for it in the school building is but a survival of the distinct origins of the grammar and primary grades.

ROUSSEAU. (1712 - 1778)

While Rousseau, born in Geneva, had little direct influence in American education, his ideas were important since they made a deep impression in Europe and inspired Pestalozzi, who made an undoubted contribution to the development of American education (Cubberley, 1947, pp. 344, 345).

Rousseau's basic premise was, "Everything is good as it comes from the hands of the Maker of the world but degenerates once it gets into the hands of man" (Boyd, 1956, p. 11). An "incontestable principle" was "that the first impulses of nature are always right. There is no original perversity in the human heart. Of every vice we can say how it entered and whence it came" (Boyd, 1956, p. 40). This was diametrically opposed to the prevailing conception that man was inherently bad. The educational practices built on these

different bases would, consequently, be sharply diverging. As Rousseau expressed it, "Do the opposite of what is usually done and you will almost always be right" (Boyd, 1956, p. 41).

Since the popular view was the essential evil of human nature, human inclinations, instincts, and sense impressions were untrustworthy. Therefore, an education based on "the training of the senses, the use of the imagination, and the guidance of natural interests and instincts" was rejected. True education required the development of the various faculties that made up the mind, and to the extent that tasks were difficult intellectually, or distasteful emotionally, to that extent were they valuable educationally.

The highest faculty was the reasoning power, and this was developed best through mathematics, logical disputations, and the languages. Another essential faculty was memory, and this required mastery of uninteresting material.

According to this view, the child was only a miniature adult, and education, was a preparation, aimed at training him to be an adult. Discipline was severe and repressive since this was good for the child (Monroe, 1905, pp. 566 - 568).

Against this view Rousseau revolted. Because the child was born good, and his inclinations and instincts were good, education was a matter of developing the inborn propensities, and not establishing habits according to man-made ideas. "The only habit the child should be allowed to acquire is to contract none" (Boyd,

1956, p. 22). To this end, the child, up to the age of twelve, was to be protected from the evil influences of society. This Rousseau called negative instruction.

. . . the first education should be purely negative. It consists not in teaching virtue and truth, but in preserving the heart from vice and the mind from error. If you could do nothing and let nothing be done, so that your pupil came to the age of twelve strong and healthy but unable to distinguish his right hand from his left, the eyes of his understanding would be open to reason from your very first lessons. In the absence of both prejudices and habits there would be nothing in him to oppose the effects of your teaching and care (Boyd, 1956, p. 41).

It is to be noted (Boyd, p. 46) that, at this age, there was to be no verbal learning, and so the teacher was merely a protector or guide. It was to be a period of happiness. The teacher's first duty was to be humane. "Look with friendly eyes on its games, its pleasures, its amiable dispositions" (Boyd, p. 33). "Nature wants children to be children before they are men" (Boyd, p. 38).

In accordance with this emphasis on the child, the pupil was to be treated according to his age (Boyd, p. 39). That is why there was to be only the lesson of experience (Boyd, p. 40). "Keep the child in sole dependence on things"; "keep his attention on what directly affects him" (Boyd, pp. 35, 52).

The training of the body and the senses were essential at this stage (Boyd, pp. 52 - 54). Thus, at the age of ten or twelve, the child would be "healthy, strong and well built", "bright, eager, vigorous, care-free, completely absorbed in the present".

His ideas are limited but precise. If he knows nothing by heart, he knows a great deal by experience. . . . He has less memory but more judgment. . . . if he does not talk as well as other children he can do things better. . . . Emile has lived a child's life and has arrived at the maturity of childhood, without any sacrifice of happiness in the achievement of his own perfection (Boyd, pp. 65 - 67).

One interesting feature of Rousseau's ideas was that "the right nurse is the mother, the right teacher is the father" (Boyd, p. 18).

After training the pupil's body and senses, from twelve to fifteen years the training of the mind and judgment was to be pursued (Boyd, p. 90). This was the time for labour, instruction, and studies (Boyd, p. 70). However, the knowledge gained was to be that of "natural and physical facts", not history, metaphysics or ethics (Boyd, pp. 92, 93). Only that which "contributes to our well-being is worthy of study". The "law of necessity" was recognised up to this stage, now regard was to be had for "utility" (Boyd, p. 71).

The learning was to spring from natural curiosity. To arouse curiosity, "make your pupil attend to the phenomena of nature," said Rousseau. To nourish it, "be in no hurry to satisfy it. Suggest problems but leave the solving of them to him". This was to be no passive learning, no formal drill method, but an active process. "Do not teach him science: let him discover it" (Boyd, p. 73).

Rousseau had a strong distaste for books. "I hate books", he wrote. "They only teach us to talk about what we do not know"

(Boyd, p. 82). "The child who reads does not think: he only reads. He learns nothing but words" (Boyd, pp. 72, 73). However, books were necessary, and the first book the student was to read, and during this period, was "Robinson Crusoe", for it would furnish both amusement and instruction (Boyd, pp. 83, 84).

Then, too, the pupil was to learn a trade. Any trade would be satisfactory, but carpentry was especially favoured by Rousseau. In this way the youth would be independent and capable of caring for himself (Boyd, pp. 89, 90).

About the age of sixteen, the stage of adolescence, the study of himself in relation to things ended, as the boy became conscious of himself as a moral being. Now he was to study himself in his relations with his fellows (Boyd, p. 97). To help control the newly-awakened passions, the young men should be shown "sights which restrain rather than excite them", and so were to be kept away from the cities if possible, and their company chosen carefully. Now the procedure was reversed--the young man was to "learn from other people's experience rather than his own". Thus, history at last came into its own, but it was not events that were to be studied, but the life story of individual men (Boyd, pp. 103, 104, 106).

By the time the boy was eighteen, social education was the paramount thing. With this was linked religious education. Rousseau said: "At fifteen he was not aware that he had a soul, and perhaps at eighteen it is not yet time for him to learn. For if

he learns sooner than is necessary he runs the risk of never knowing" (Boyd, pp. 105, 114). And so Rousseau traced through the ideal education to the time of marriage. In so doing, he pointed out that boys and girls were to be educated differently (Boyd, p. 133).

Although many of his ideas, especially on the stages of education and child development, are easy to criticise in view of modern-day knowledge, "Rousseau's influence upon later thinkers was perhaps more far reaching than that of any other writer on education". Both Pestalozzi and Froebel obtained many of their main ideas from him (Curtis and Boulwood, 1956, p. 283).

PESTALOZZI (1746 - 1827)

The moment Rousseau's "Emile" appeared, Pestalozzi's mind was "seized by this visionary and highly speculative book" (Benedict, 1942, p. 109). While Rousseau was largely a theorist, Pestalozzi, a German Swiss, developed his ideas by practice. He undertook to raise his own son according to Rousseau's plan, but quickly discovered its impracticability. However, he agreed with Rousseau that education should follow nature. Accordingly, he kept a diary in which he recorded observations of his son (Meyer, 1949, p. 11) and, he ceased to read books on education. He bade his teachers follow his example and learn, not from books, but from the children (Benedict, 1942, p. 113). Thus he was among the first to relate psychology to education

(Meyer, 1949, p. 11).

Like Rousseau, Pestalozzi believed that the child was born good (Rusk, 1954, p. 204), and that education was "to assist the child's nature in the effort which it makes for its own development". However, he felt that Rousseau had overestimated the liberty of the child. "Liberty is a good thing", said Pestalozzi, "and obedience is equally so. We should re-unite what Rousseau has separated. Impressed by the evils of an unwise constraint that only tends to degrade humanity, he has not remembered the limits of liberty" (Curtis and Boulwood, 1956, pp. 340, 322).

It followed that, if the teacher was to assist the development of the child's nature, and if such development proceeded according to law, then the work of the teacher was to ascertain these laws of development and then aid in the "natural, symmetrical, and harmonious development" of all the "faculties" of the child. For this harmonious development, the mental, physical and moral faculties had to be cared for. Such training was largely by use, and so the emphasis was on "doing" rather than "words". The education would have to be timed and graded so that, as the child developed, his needs were met.

Pestalozzi possessed a deep faith in the power of education to reform society (Gubberley, 1947, p. 348). He spent much of his time with the poor, and wrote, "Long years I lived surrounded by more than fifty beggar children. In poverty I shared my bread with

them. I lived like a beggar in order to learn how to make beggars live like men". (1894, p. 213). Because of this faith, he believed that it was the right of every human being to receive an education (Cubberley, 1947, p. 349).

At the same time, he scorned the formalism, the drill, the three R's (Benedict, 1942, pp. 113, 114), the universal stress on memory - "empty chattering of mere words", that marked the education of his day, and well into the nineteenth century (Meyer, 1957, p. 226). The schools "put the cart before the horse". Before the objects had been experienced, the children had to memorize names. The child was put in a desk, and set reciting names and reading from books. He seemed to know what he didn't know at all - He only knew words.

The remedy to this was to follow nature. Before the child could think or talk, his senses were at work. Therefore, the young child should observe actual things. By providing this kind of experience, the child's mind would be built up and, for this reason, sense perception was a basic principle of the Pestalozzian method (Benedict, 1942, pp. 114, 115). Nature study, useful work, such as caring for the gardens, and making things, were common in Pestalozzi's schools, for these activities would provide sensory experiences of more value in learning than could be gained from reading or merely listening (Thut, 1957, p. 235).

Another thing Pestalozzi objected to was the brutal discipline of the schools. In its place he wanted "a strict but loving discipline" - a "thinking love". A new spirit was to be found in the schoolroom - the atmosphere of the home (Cubberley, 1947, p. 349). If the end of education was not merely the acquisition of facts, but the harmonious development of the whole person, the relation between teacher and pupil should be one of sympathy (Monroe, 1905, p. 622). Thus a Swiss father, on visiting Pestalozzi's school, said, "Why, this is not a school, but a family" (Cubberley, 1947, p. 349). Benedict said, "Pestalozzi discovered the home as an educational institution". He believed that the work of the school was to supplement the home, and that school life should be similar to home life (Benedict, 1942, p. 114).

In pursuance of the goal of the development of the whole man, Pestalozzi widened the curriculum. A series of "object lessons" were devised in order to develop the senses of sight, touch, and sound, and provide the fundamentals of number, form, and language. He helped introduce into the curriculum of the elementary school, geography, nature study, drawing, music, and physical education (cf. p. 39).

In order to be able to develop the whole person according to the growth needs of the child and through Pestalozzi's methods, the teachers would need considerable training. Thus Pestalozzi helped transform school teaching into a profession for, before

his time, almost anyone was allowed to teach.

Pestalozzi's ideas reached America through two main avenues:

Germans coming to America, and Americans who received their education in German schools or who visited there. The latter group got a second-hand version of Pestalozzi's ideas, and their numbers included William Maclure, William Crawford, John Griscom, William Woodbridge, Calvin E. Stowe, Alexander Bache, Horace Mann and Henry Barnard (Gross, 1962, pp. 260 - 263).

While Pestalozzian ideas had reached America as early as 1806 through Joseph Neef, one of Pestalozzi's assistants, little was known of them there before 1830 (Good, 1956, p. 175) and, as a movement, it made no great headway until after the Civil War.

E. A. Sheldon, superintendent of schools at Oswego, N.Y., probably helped more than anyone else in turning the attention of Americans to Pestalozzi when he introduced Pestalozzian methods into the Oswego schools, and a normal school to train teachers along Pestalozzian lines was founded there in 1861 (Meyer, 1957, p. 277).

The National Teachers' Association appointed a committee that, in 1865, reported favourably on the Oswego system of teaching (Cubberley, 1947, pp. 387, 388).

For at least two decades Oswego was distinctively the training school for normal school instructors, critic teachers, and city school supervisors. . . and the enthusiasm for the new work . . . gave his school a deserved national reputation.

Brauner, in a similar vein, asserts, "In those post-Civil war years,

the spread of Oswego graduates throughout normal schools all over the United States placed a unified point of view at the base of much of this country's teacher training" (Brauner, 1964, p. 47).

Sheldon, after coming across Pestalozzian materials in a museum in Toronto, had hired a teacher from the English Pestalozzian group, Margaret Jones, to explain the new methods. In this way, a formalized type of object-teaching was introduced into America, rather than the true Pestalozzian one. A typical lesson of this kind was one observed by the Oswego Board of Education in 1862. It was given to a primary class, aged 5 - 6 years, and aimed at teaching children the parts of a shell. The first part of the lesson was reported (Noble, 1954, p. 234) thus:

The teacher, holding up a shell before the class, told them that an animal once lived in that shell, and then asked, "What do you live in?"

Children. Houses.

T. This was the house of an animal. Now I want you to look at it, and see if you can find different parts of this shell. James may point to some part of it.

The boy touched the small point at one end. The teacher said this part is called the apex of the shell. . . . The word apex was now printed on the blackboard.

.....

Pointing to the whorl on the shell, the teacher said, "Look at this; see how it winds around the shells; this part looks as if it whirled around, so we call it the whorl". This word was also printed on the board.

It is indicative of the state of education at the time that

such lessons as these met with a favourable reception. Obviously, not much concern was being felt for the child's needs, or his five-year old abilities, in spite of Pestalozzi's stress on these things. Object teaching was becoming a formal process of making observations, listing facts, and memorizing them. Benedict (1942, p. 196) says that the object lesson degenerated into "little more than the recitation of meaningless facts about the objects" in the hands of many of Sheldon's teachers.

While it is true that Sheldon introduced the English version of Pestalozzian ideas into Oswego, it is doubtful whether he stressed the English version at the expense of the Swiss and Prussian ones, although a number of educational historians (Brubacher, 1947, p. 511; Benedict, 1942, pp. 195, 196; Cubberley, 1947, p. 387) have suggested this. Sheldon employed Miss Jones, representative of the English school of Pestalozzi, for one year, 1861 - 2, but he employed Hermann Krusi, the son of Pestalozzi's first assistant, for twenty-five years (Eby, 1952, p. 470), following the return of Miss Jones to England, and Krusi, when he arrived at Oswego, criticised the formalized type of object-teaching that had been developed in England, and applied in Oswego. Krusi had five main criticisms: the lessons often had no over-all plan, and, so, little connection with each other; there was too much naming of parts of plants, shells, animals and the like, for little purpose, except

memorizing; too many unfamiliar words were taught, such as "apex", "whorl", "fetlock", "pastern", and "withers"; the teachers' questions restricted, instead of stimulated, the pupils' responses, for good answers could be considered wrong because they were not the ones in the lesson outline; and there was frequently a scarcity of objects, making observation difficult (Good, 1956, p. 218).

When H. H. Straight was appointed in 1876 to teach science at Oswego, Krusi was pleased, for Straight objected to the formalised object lessons taught there by some, with their highly technical vocabulary and lack of relation to the rest of the schoolwork. Instead, Straight took his students to the lake, field, and forest where they learned, by direct observation, of living plants and animals (Good, 1956, pp. 218, 224).

Thus, two types of object lessons were being taught at Oswego, and the truth would appear to be that teachers, wanting a better method of instruction than the customary one, but insufficiently acquainted with the theory behind object teaching, were yet able to employ the mechanics of such teaching. This inevitably led to a stress on formal questions, answers, and memorizing. Instruction was given, but not the education envisaged by Pestalozzi. As Noble (1954, p. 235) expressed it:

Before the death of Sheldon in 1897 object teaching was being run into the ground, and teachers were looking elsewhere for a more energizing principle. Formal organization for widespread distribution killed the object method.

Nevertheless, the debt of American education to Pestalozzi was great. His stress on the power of education to reform society, and the consequent need to educate all, strengthened the movement for state control of education in order to provide schools for the masses. It was no accident that public education under state control in America was only realized with the help of such reformers as Horace Mann and Henry Barnard, who had been to Europe, and been impressed by Pestalozzi's ideas and methods (Butts, 1955, p. 315).

Likewise, Pestalozzi's stress, following that of Rousseau, on the child as an organism that unfolded according to definite laws, and the need to discover those laws, basing education upon them, led to a close study of the child (Eby, 1952, p. 443). This led to the development of psychology as the "master science for teachers" (Thompson, 1958, p. 16). A natural consequence was that the curriculum was to "fit" the student, and not the student "fit" the curriculum. The latter was the age-old practice.

Pestalozzi regarded the child as a unity, composed of separate faculties that needed harmonious development. The intellectual (head), physical (hand), and moral-religious (heart) aspects each required attention (Eby, 1952, p. 444). The physical had largely been overlooked and, through the manual-labour idea (cf. p. 27), and the introduction of physical exercises (cf. p. 39), his influence was felt in the United States.

For the education of the whole man, a wider curriculum was

needed than that of the three-Rs, and so Pestalozzi introduced geography, nature study, drawing, and music, as well as physical education into his schools (cf. p. 96). American educators, such as A. D. Bacche, Calvin Stowe, W. C. Woodbridge, H. Barnard, and H. Mann, after seeing Pestalozzian schools in Europe, sought to widen the American curriculum likewise (Wiggin, 1962, pp. 131, 136; Gross, 1962, p. 260).

Joseph Neef, an assistant of Pestalozzi's in Switzerland, was an example of a European who was brought to America to help spread Pestalozzi's ideas. Neef published "Sketch of a Plan and Method of Education" (1808) (Good, 1956, p. 172) and "Method of Instructing Children Rationally in the Arts of Writing and Reading" (1813). It is a sad commentary on American education at the time that Neef's work was "almost unknown" (Gubberley, 1947, p. 354). However, Pestalozzi, through his followers and observers, played an important part in expanding the curriculum of the American elementary school (Gross, 1962, pp. 259, 260).

The great importance of Pestalozzi's contribution in the field of method has been noted previously (pp. 97, 98). He, himself, stated (1894, p. 139):

When I now look back and ask myself: What have I specially done for the very being of education? I find I have fixed the highest, supreme principle of instruction in the recognition of sense-impression as the absolute foundation of all knowledge.

Nevertheless, it must be remembered that stress on sense impression

was not new. Comenius (1592 - 1670) and Locke (1637 - 1704), for example, had written on this subject, but little had been done to show how the idea could be utilized in the classroom. This was the contribution that Pestalozzi made (Brubacher, 1947, pp. 212, 213). Moreover, Pestalozzi gave a new insight into the process of sense impression. Unlike Comenius, Pestalozzi affirmed that for first experiences to be adequate, the senses had to deal with the objects themselves, and not pictures of them. Whereas Locke believed the mind to be passive or merely receptive, Pestalozzi taught that sense experience was an active process (Eby, 1952, p. 449). The mind was busy "perceiving, discriminating, analyzing, and selecting" (Butts and Cremin, 1953, p. 380).

There were a number of consequences of these ideas. In education, in the earliest stages, it was necessary to rely on observation of actual objects, rather than upon words and books. Then, naming the object could follow, and the object studied in order to discover its qualities. When its essential qualities were discovered, the object was ready for definition. Thus, activity of the pupil was regarded as an essential part of learning (Brubacher, 1947, p. 213), and the teacher proceeded from the simple to the complex, from the concrete to the abstract, from the percept to the concept, from the known to the unknown. Observation and investigation tended to replace memorization, and thinking and discussion to supersede the recitation of the words of books (Cubberley, 1947, p. 349).

Pestalozzian method obviously affected the writing of textbooks in America. Warren Colburn's "First Lessons in Arithmetic on the Plan of Pestalozzi" (1821), for example, was one of the most widely used school books for more than half a century, and was translated into a number of foreign languages (Cubberley, 1947, pp. 294, 295, 396). Colburn voiced such Pestalozzian principles as understanding rather than memorization, and the application of school arithmetic in many fields, not just commercial ones. Other writers, such as W. C. Woodbridge and W. P. Fowle, sought to include more interesting material, and to show as often as possible the objects being discussed.

It is clear, then, that Pestalozzian ideas had a widespread effect on American education. Gross (1962, p. 259) goes so far as to say, "Undoubtedly the most influential of the continental educators was Johann Pestalozzi. . . ."

HERBERT (1776 - 1841)

Johann Herbart's main contributions were in psychology, and the aim, content, and method of instruction (Cubberley, 1947, p. 450).

Herbart, a German philosopher and psychologist, believed that the mind was a unity that was blank at birth, and did not have any inborn faculties. It did, however, possess the power of coming into relation with the environment by means of the senses and nervous system. Thus the mind was provided with "presentations"

of sense-perception from which the mental life developed. Accordingly, the content of the mind was inherently neither good nor bad, but was built up according to the "presentations" received (Monroe, 1933, pp. 626, 627). Idea, will, and feeling were the results of the mind's contact with the environment.

Ideas and sensations remained in the mind, but they receded from consciousness and sometimes returned again. Contrary presentations, e.g. red and blue, conflicted and, as a result, one might be driven from consciousness or to the margin or "threshold" of consciousness. In the subconscious, repressed presentations continually strove to return to consciousness. Similar presentations, such as sensations of blue, were not relegated to the subconscious, but fused together, and thus gained a greater force. Likewise, disparate presentations, such as blue and sourness, were not driven into the subconscious but combined to form a "complex".

There was a tendency for related presentations to cohere and form "apperception masses" (Rusk, 1965, pp. 236, 239). This process is similar to Pestalozzi's stress on proceeding from the known to the unknown in order to facilitate learning.

When one idea aided another in its struggle upward to consciousness, a feeling of pleasure resulted, but when it hindered, there was a feeling of pain. Thus, feeling originated in the relation one idea had to another and so was a derived phenomenon (Eby, 1952, pp. 482, 483). Likewise, there was no special faculty

of will. Rather, the things we decide to do are determined largely by the thoughts uppermost in our minds (Brauner, 1964, p. 54).

From Herbart's psychology were developed his ideas on the method of instruction. Education was not a matter of guiding the child's activities to aid his natural development. Rather, the mind was formed from without, and education was a process of mind-forming by controlling the sensations and impressions experienced by the individual. This gave the teacher a major role in the development of the child. "Build up the right sequence of ideas and the desired conduct followed" (Brubacher, 1947, p. 146).

Pestalozzi had indicated the steps to take in moving from sense perception to conceptualization. Herbart went on to show how new concepts were formed from the old. The child did more than perceive an object - he apperceived it also. (Brubacher, 1947, p. 219). The principle of apperception stated that "what one can know and feel and will depends upon what he has already known and felt and willed" (Brauner, 1964, p. 58). To facilitate apperception, Herbart marked out four stages or steps in the course of instruction. In the first, "Clearness", the objects were to be broken into their elements - a process of absorption. The mind was concentrated on the one object. This corresponded to Pestalozzi's observation. The second, "Association", was the connecting of the new ideas with previously learned ideas. Herbart believed this was most easily done by free conversation when the

pupils told what came to their minds about the object.

In the third step, "System", a clear distinction of the elements of the idea was made so that a generalisation or arrangement of facts into a unity was attained. The final step was "Method", when the student was to apply the knowledge gained by means of new exercises and illustrations.

Herbart's followers divided the first step into two: "Preparation" and "Presentation", and renamed the others, to make the Five Formal Steps (Boyd, 1952, pp. 347, 348). That claims that the five-step teaching process came to be very widely used in American schools, and that "virtually all the American normal schools were established to train teachers to use this or a similar methodology" (1957, p. 240).

Herbart's conception of interest also arose from his psychology. A new presentation, not related to previous presentations, would not be able to remain above the threshold of consciousness for long; that is, would have little interest for the pupil. On the other hand, a new idea that was related to an existing apperception mass, would cause that apperception mass and idea to remain above the threshold of consciousness for some time; that is, be of interest to the pupil. In aiding the apperception of new presentations, interest was fundamental to learning. Herbart also used the word "interest" in another sense - "the feeling of pleasure arising from the completion of a successful association of old and new ideas"

(Curtis and Boulton, 1953, pp. 348, 349). In this case it was an outcome of instruction.

One of the criticisms Dewey made of the apperceptive theory of interest was that it made interest "a passive reflex of the clash or association of ideas" (Brubacher, 1947, p. 147), but at least Herbart had pointed out the importance of the teacher in arousing interest. Herbart also stated that interest should be "many-sided". This necessitated the introduction of the child to a variety of human knowledge and experience - hence a broad curriculum. Herbart detested narrowness and specialization (Cole, 1965, pp. 502, 503).

Herbart's psychology affected his disciplinary notions, too. Since the young child had not built up the knowledge of responsibilities and values that were necessary for self-control, in the early stages of education external control was necessary. This was called the stage of "Government". The child was not to be pampered or cruelly controlled. Reasonable requirements were to be made and enforced. The secret of good government was to keep the child occupied.

Instruction was to secure masses of ideas that would lead to ethical conduct. This was to be the teacher's main function (Good, 1960, pp. 256, 257). However, as well as instruction, punishment and rewards, were to be used, at least in the early stages. To be effective, punishment needed to be logical; uniform, not subject to the whims of the teacher; certain; and administered calmly, not in

an emotional state (Cole, 1965, pp. 499, 501, 502). Herbart warned, "Those who grow up merely passive as obedient children, have no character when they are released from supervision" (Curtis and Boulwood, 1953, p. 351).

Just as Herbart had substituted "the idea of discipline as instruction, for the traditional idea of discipline as punishment for disobedience" (Cross, 1962, p. 305), so he rejected such aims of education as natural development and knowledge. The chief aim was to develop personal character and social morality so that man could live properly in organized society.

Herbart considered that man's interests came from two chief sources: his contact with his physical environment (nature), and social intercourse. The content of education, then, should consist of two types of studies: studies about things; for example, science, mathematics, geography; and studies about humanity, such as oral language, literature and history.

While Pestalozzi had stressed the first group of subjects, it was Herbart who introduced and developed history and literature as subjects of importance. History, in particular, was of prime importance in developing good citizenship and character. Such history was to emphasise the social rather than the political (Cubberley, 1947, p. 451). Wilds (1960, p. 498) claims that as a result of the work of the American followers of Herbart, history and literature became important subjects in the American elementary school. History

previously aimed at developing national patriotism through the study of American history, and was limited largely to the upper grades.

Now it was

taught in all grades, drawn from all sources, and aimed at social and moral results as well as civic. Literature, originally used as models for expressions and taught by means of a few selected classics, is now taught for its moral and aesthetic values with material drawn from the whole range of children's literature.

To agree with his psychology, Herbart contributed two principles of organization of the curriculum: concentration and correlation. By "concentration", Herbart meant the absorption of attention in single acts of thought, single interests. Herbart's followers gave a wider application to the term by grouping all the studies around a central core such as evolution, or history, or literature (Eby, 1952, p. 491). "Correlation" supplemented concentration. While one subject was to be central, all the other topics were to be related to each other. The basis of these principles was the belief that "similar ideas blend and reinforce one another, while dissimilar ideas repel each other" (Curtis and Boulton, 1953, p. 348).

It would appear that before 1890 Americans knew little of Herbart's ideas. Although Hailman, Harris, Stanley Hall, and Francis W. Parker had mentioned Herbart's ideas between 1873 and 1880, it was Charles De Garmo, who studied at the University of Jena and returned to America in 1887, who became the "Herbartian leader" in the United States (Good, 1960, p. 483). With Charles

and Frank Mc.Murry, C. C. Van Liew, and others, he formed the Herbart Club in 1892, that became the National Herbart Society, and later the National Society for the Study of Education (Good, 1956, p. 347).

Herbartian ideas spread like wildfire over the United States. Amongst the educational effects were the emphasis on the moral aim of education, the use of educational psychology as a basis for educational ideas and practice (Cubberley, 1947, p. 455), emphasis on understanding rather than memorization, organization of studies around correlation centres, and more careful lesson planning (Good, 1960, p. 483, 484).

The importance of Herbartian ideas in the development of the normal school has been mentioned earlier (cf. p. 107), and the disbelief in faculties of the mind naturally led to a conflict with the supporters of the accepted "formal discipline" and "faculty psychology" theories (Good, 1956, pp. 348, 349). Nor should it be forgotten that Dewey's steps in a complete act of thought are similar to the Herbartian steps, that Dewey's aim of education has a resemblance to Herbart's, and that "Dewey made industrial activities . . . the center of the curriculum and grouped the rest of the studies around this center" - an example of the Herbart - Ziller culture epoch and concentration-correlation theories (Good, 1960, p. 484).

FROEBEL (1782 - 1852)

Although Friedrich Froebel's greatest contribution to education was the kindergarten, too often it is forgotten that he created "a complete system of education" that extended from the early years through adolescence (Good, 1960, p. 268). This system derived from his philosophy, in which the dominant idea was the "unity of all things in God" (Boyd, 1952, p. 352). Froebel considered God to be the Creator of a changing universe, composed of many organisms. In a sense, each of these was complete and independent, but each was also a part of a larger whole, similar to the smallest cells of a body. The perfect development of any whole depended on the maintenance of "balance, proportion, and efficiency of function" (Curtis and Boulton, 1953, pp. 363, 364).

From this conception, Froebel derived a number of educational ideas. One was that childhood was important in itself, and was not just a preparation for adulthood. Another was the "inner relatedness of all education". Thus the teacher, as advocated by Herbart, needed to aid the child in relating the child's experiences organically (Ulich, 1950, p. 268). This naturally led Froebel to criticise the lack of correlation in the school lessons of his day (Boyd, 1952, p. 353). Similarly, while education was concerned with the development of the individual, it also was concerned with a larger whole-society. The schoolroom, as a result, was to be a miniature society, where courtesy, helpfulness, and co-operation were

to be manifest (Cubberley, 1947, p. 459). Indeed, Froebel demanded a co-operative instead of a competitive education.

The concept of the unity of all things led Froebel to emphasise total development - senses and emotions as well as reason, physical as well as mental. Only by a "loving communion" between parent and child, could the child come to realize the unity in the universe between material and spiritual, and the "fatherhood of God". Manual training was needed in order to unite the hand and the intellect (Ulich, 1950, pp. 289, 290), and not so much for utilitarian purposes or sense-perception, advocated by Pestalozzi (Curtis and Boulton, 1953, p. 366). Likewise, from a study of nature in its material aspect was to come "moral improvement", "religious uplift", and "spiritual insight", which were more important than a mere knowledge of nature facts (cf. p. 50).

Another of Froebel's important ideas arising from the conception of the unity of all things was that of man's creative, active nature. He expressed it thus, "God creates and works productively in uninterrupted continuity. . . . God created man in his own image; therefore, man should create and bring forth like God" (Froebel, 1892, pp. 30, 31). This drive for action is not a product of physical needs, as in most current psychological theories, but of man's spiritual nature. It followed that man was "a self-generating force and not a sponge which 'sopped' up knowledge from without". At first, the child's activities were unconscious and guided by

nature, but gradually he became more aware of his ends. "Man's genius and life work are realized by expressing all the inherited promptings of his divine essence" (Iby, 1952, p. 510).

Related to man's creative, active nature, was Froebel's notion of evolution or development according to universal law. All created things begin incomplete, but develop toward completeness, according to a pre-determined pattern. "The tree germ bears within itself the nature of the whole tree"; "the development and formation of the whole future life of each being is contained in the beginning of its existence" (Froebel, 1909, pp. 5,6) In the case of man, this unfolding is mental, as well as physical, and, unlike lower forms, man becomes conscious of his change and of the divine in him. In this way he does not have to blindly follow instinct but can gain knowledge of his nature and the laws of his development, and so understand the process of education. Moreover, the individual passes through the stages of development that the race has traversed, as in the culture-epoch theory of the neo-Herbartians (Boyd, 1952, p. 354).

A natural consequent was the belief that man's nature was good (Froebel, 1909, p. 120) and that, in its essence, education was passive and non-interfering (Froebel, 1892, p. 7). However, good tendencies could be suppressed or perverted, and so all evil resulted from faulty development (Froebel, 1892, pp. 121, 122). Especially was neglect by the mother or nurse responsible for wrong development

(Freobel, 1892, p. 22). While, then, the teacher was to guide growth and not force it, he might need to interfere with the child's activities in order to correct faulty development (Freobel, 1892, pp. 121, 122).

It also followed that humanity was "steadily and progressively growing, in a state of ever-living development, ever ascending from one stage of culture to another toward its aim, which partakes of the infinite and eternal" (Freobel, 1892, p. 17). The future of man was therefore bright, with education leading to unlimited progress.

All growth, Freobel believed, was subject to two laws: the law of opposites and the law of connection or unity. According to the law of opposites, every finite thing has its opposite. Examples are animal and plant, spirit and matter, man and woman. In growth, the opposition is between the nature of the growing thing and its environment, or "inner" and "outer". Growth is the process of making the inner outer and the outer inner, or of a plant or animal "impressing the form of its own life on some external material" and developing its own nature in so doing. Thus growth is a matter of finding a connection between two contrasted or opposed things - the law of connection.

This conception of growth was at the basis of Freobel's educational practices. For example, the child was shown in the second Kindergarten Gift the sphere and the cube - the curved and the

straight, the one-sided and the many-sided; then the cylinder, which connected the two opposites in being both curved and straight, one-sided and many-sided (Boyd, 1952, pp. 354, 355). Similarly, physical and mental activities were to be exercised together (Curtis and Boulton, 1953, p. 364).

While development was continuous, there were well-marked stages that corresponded to Rousseau's divisions: infancy, childhood, boyhood, youth, and maturity. "The vigorous and complete development and cultivation of each successive stage depends on the vigorous, complete and characteristic development of each and all preceding stages of life" (Froebel, 1892, p. 28).

Infancy was the period of dependence on the parents, and the period of sensory development. From about three to six or seven years of age was the period of childhood, when language appeared, the earliest means that the human being had to express his inner feelings. This was the period of Froebel's kindergarten training, when real education began, and the most important forms of expression at this stage were sense perception, language, and play (Eby, 1952, pp. 516, 517).

Froebel saw in play not just recreation or a means to teach schoolwork, but a means of expressing the child's inner powers.

Play is the highest phase of child development - of human development at this period; for it is self-active representation of the inner-representation of the inner from inner necessity and impulse. Play is the purest, most spiritual activity of man at this stage. . . . It gives

joy, freedom, contentment, inner and outer rest, peace with the world. . . . The plays of childhood are the germinal leaves of all later life (Froebel, 1892, pp. 54, 55).

This meant that the teacher's task was to guide the development of the child through play, and so play formed the basis of education in the early years (McNroe, 1905, p. 661). H. Good claims that Froebel's doctrine of play has had a great influence on educational practice and "forms the center of the new education for it is implied in the project and in the whole range of experimental and creative activities which the modern school uses" (1960, p. 286).

For the kindergarten, Froebel devised apparatus which he called "gifts" and "occupations" to aid the child's expression of his inner impulses, and hence his growth. An example of the gifts has previously been given (pp. 115, 116), and the "occupations" were less formalized; for example, paper cutting and clay modelling. He also prepared number games, rhythmic plays, dances and songs, drawing and geometric studies, and group games for this stage. As Froebel said, "In the Kindergarten the children are guided to bring out their plays in such a manner as really to reach the aim desired by nature, that is, to serve for their development " (Marenholz - Bulow, 1895, p. 67).

The third period, that of boyhood, from about six or seven to nine or ten years of age, was the "period of learning". At a stage earlier than Rousseau, experience was to be acquired at second-hand, the external was to be made internal. Instead of

education being child-centred, it was now to be curriculum-centred (Eby, 1952, pp. 519 - 521; Rusk, 1965, 1965, pp. 274, 275).

Instruction was to be conducted not so much in accordance with the nature of man as in accordance with the fixed, definite, clear laws in the nature of things, and more particularly the laws to which man and things were equally subject. It was to be conducted in accordance with fixed and definite conditions lying outside the human being" (Freobel, 1909, pp. 94, 95).

The subjects of instruction were to be, first, religion (the basis of education), secondly, natural science, including mathematics, for nature was the manifestation of God, and, thirdly, languages. To these Freobel added the Arts, such as singing, drawing, painting and modelling, for the expression of the soul. Thus he aimed with Herbart at an all-round development of the individual (Boyd, 1952, pp. 356, 357).

"Stories, myths, legends, fairy tales, and fables received a higher educational rating in the Froebelian pedagogy" than "in any other system" (Eby, 1952, p. 521). Freobel explained, "The telling of stories refreshes the mind as a bath refreshes the body; it gives exercise to the intellect and its powers; it tests the judgment and the feelings" (Freobel, 1892, p. 307).

Of the remaining stages of development, Freobel has little to say (Rusk, 1965, p. 278).

H. Good testifies that Freobel's influence in America has been more pronounced and persistent than that of any other foreign thinker,

with the possible exception of Pestalozzi (1960, p. 288).

Especially influential has been Froebel's kindergarten.

The first kindergarten in America was opened in 1855 by Mrs. Schurz, a pupil of Froebel, while the first English-speaking kindergarten was opened in 1860 in Boston by Elizabeth Peabody. The first school, a private one, to prepare teachers for kindergartens, was opened in 1868 in Boston. Thus the foundation was laid for the spread of the kindergarten in America and, in 1873, largely through the work of Superintendent William T. Harris, the first public kindergarten opened in St. Louis. (Good, 1960, pp. 471, 472). By 1900 there were about 1,400 public kindergartens in the United States, and more than twice that number of private ones (Hoble, 1954, p. 330). However, Drake asserts that the ideas of Rousseau, Pestalozzi, and Froebel were not generally felt until after 1900 (1955, p. 231).

Hughes and Klemm (1907, p. 4) assert that "in the development of method the most important advance of the century was the founding of the kindergarten", with the emphasis on self-activity. Meyer (1949) says that Froebel "leaped ahead of his predecessors" in his conception of the activity of the child stemming from the child's own interests. Eby (1952, pp. 530, 531) maintains that in the twentieth century the principles of Froebel have, "in large measure", come to dominate primary work. Amongst Froebel's chief contributions have been the "principles of self-expression, play, physical culture,

creative production, dramatization, drawing, and social education". It is also pointed out that "much of the educational thinking" of G. Stanley Hall and John Dewey" has been the outgrowth of Froebel's philosophy".

Froebel's emphasis on the family was also important. No doubt he derived many of his ideas in this direction from Pestalozzi. The family was to be "the centre of all human endeavour". The mother was to be the chief educator of the infant. In the period of boyhood, the father was the educator. The school supplemented the work of the home, but did not replace it. Religious feeling developed from the dependence of the infant on its mother, and the sense of relation of father and son (Eby, 1952, p. 525). For this end, parent education would be necessary. Froebel said, "What I want is a happy family school, and a peaceful life with nature around me" (Good, 1960, p. 276).

One other contribution of Froebel should not be overlooked. Because of his belief in the infant's dependence on its mother and the effect of this on growth, he came to employ women in his kindergarten. In this way women came to play a larger part in education (Good, 1960, p. 269).

It can fittingly be said that Froebel "helped change the school from an institution mainly concerned with the learning of the facts of a narrow curriculum and the development of a few basic skills to an institution devoted to the development of the whole child,

both as an individual personality and as a social organism" (Wilds, 1960, p. 598).

V. FRANCIS W. PARKER (1837 - 1902) AND CHILD-STUDY

Parker has been called the "father of American Progressive Education" (Meyer, 1949, p. 30), the "American Pestalozzi" who, in his thinking and achievement, belongs rather to the twentieth than the nineteenth century (Benedict, 1942, p. 222). After studying in Germany, and observing the practices pioneered by Pestalozzi, Herbart, and Froebel, he became superintendent of schools at Quincy, Massachusetts in 1875 and, in 1883, principal of the Cook County Normal School, Chicago. In his latter position he introduced ideas and practices which became the foundation of progressive education, and this in spite of bitter opposition (Meyer, 1949, p. 31; Benedict, 1942, p. 226).

A number of Seventh-day Adventist educators attended the Cook County Normal School, including Frederick Griggs, head of the first normal school of the denomination, established at Battle Creek in 1897 (p. 151). Another was J. Osborne, who attended Parker's school in 1895. She wrote (1953, pp. 11, 12), "Parker's hobby was geography, not taught from books and maps alone, but along streams and nearby hills. He was surely a devotee of Pestalozzi in encouraging field study. The idea of correlation was just becoming popular, and this model school . . . exploited it fully. Colonel

Parker's famous statement often appeared in his chapel talks:

'Education is not a preparation for life; education is life'."

Accordingly, what was important in the school was not the learning of neatly, logically arranged subject matter, but the child. "Each child", he said, "has his own individuality, his stream of thought, his desires, his hopes and fears, his grief and joy" (Parker, 1900, p. 117). Therefore, the virtues of work and activity were paramount.

"The entire purpose of education consists of training the child for work, to work systematically, to love work and to put his brains and heart into work" (Parker, 1883, p. 161). "The torture of sitting perfectly still with nothing to do was ruled out and in came an order of work, with all the whispering and noise compatible with the best results. The child began to feel that he had something to do for himself, that he was a member of society, with the responsibilities that accompany such an important position" (Parker, 1900, p. 118).

As with geography, so with arithmetic. It was taught "through actual use rather than through strange and fantastic problems". In English, instead of memorising technicalities of the grammarians, the child reported on what he had observed, expressed what he had seen, heard, and felt. Parker introduced arts and crafts into Quincy, and taught science through the laboratory rather than through books (Meyer, 1947, p. 33). He did use books, but as supplements to the activities that grew out of community interest (Drake, 1955, p. 455). Thus educational problems were approached from the viewpoint of the child.

Benedict (1942, p. 228) asserts that Parker's school was

"startling and new". It was a school where children learned out of curiosity, and not because they were made to; where subjects were not taught in isolation; and where no subject was taught as it had been. The children made their own maps and scientific apparatus - things they wanted and needed. "Art was no copying of cubes and carrots, but a free, glorious expression of the child's feeling". There was drill, but drill for an end, such as learning to speak and write correctly - not drill for its own sake.

"More than any other person of his time, his work in the improvement of elementary teaching and in advancing the claims of childhood acted as a ferment which stimulated teachers and school officers to activity" (Cubberley, 1947, p. 474).

Parker wrote in 1896 (Luckey, p. 60):

The chief value of child study, to my mind, is to enable the teacher to diagnose the personality of the child, to know something of the child's body, mind and soul. . . . It should follow, then, that if the teacher studies the child she should apply the best conditions for the child's growth. . . .

Child study had begun in Europe. Rousseau, for example, had encouraged teachers to study the child, and not books. Pestalozzi had kept a diary of his son's development, and, about 1872, a teachers' society in Berlin had investigated children's knowledge of their surroundings.

It was the Berlin report that led the American, G. Stanley Hall to study children's minds on entering school, 1880, by means of direct questioning. Later, paper questionnaires were used. Hall's

study has been called the beginning of the child study movement in America (Good, 1956, pp. 208, 209).

The fundamental principles that Hall sought to emphasise were that the continuance of the race was more important than that of the individual; the emotional life was more fundamental than the intellectual; human development was a recapitulation of racial development; education should be based on the child's activities, abilities and interests: and all the sciences concerned with human nature should form a basis for the study of education (Eby, 1952, pp. 607, 608).

While Hall commenced the child-study movement, many of his ideas on child development have since been discarded. The work of William James, however, had a greater influence on twentieth century psychology. He stressed experimentation and study of educational problems, particularly attacking faculty psychology (Drake, 1955, p. 416). His "Principles of Psychology" (1890) influenced the rise of educational psychology, and his main theme was the "Stream of Conscious Thought" (Roucek and Gross, 1962, pp. 264, 265).

James, unlike the German, Wundt, stressed function and not physiological structure. Not how the cerebrum was built, but how it performed, was the important thing. How man reacted to his environment was to be studied. To James, man was "a walking bundle of habits". Before behaviourists had considered conditioning human behaviour, James announced the theory of acquired reactions. Thus James was preparing psychology as the study of behaviour (Meyer,

1957, pp. 272, 173).

In England, a further step was taken to advance educational research when Francis Galton and Karl Pearson fashioned certain statistical methods and principles. This work attracted the American, J. Cattell who, in 1890, published the article "Mental Tests and Measurements". However, mental testing tended to be forgotten until Binet and Simon set out to measure "general intelligence" after 1895 (Meyer, 1949, pp. 423, 424).

Meanwhile, J. Rice, realising the worthlessness of subjective evaluation, and interested in more efficient teaching, for a number of years investigated the spelling of 33,000 pupils. His articles in 1897 showed that children "taught fifteen minutes a day by a rational technique could spell as well as those who were taught forty minutes by the drill method". Thus began the objective measurement of the results of teaching, an important step in the development of American education (Eby, 1952, p. 642).

Around this time, too, G. S. Hall was introducing Freud and his ideas to America. From his study of abnormal patients, Freud had come to stress the importance of childhood experiences, and from this source sprang psychoanalysis, psychotherapy, and psychiatry (Eby, 1952, p. 639). Once again, the importance of the study of the child was stressed.

By 1900, then, instead of accepting past ideas, children were being observed, questioned, and measured in order to understand how

they developed and how they differed. Psychology, in turn, was being related to teaching methods. However, "these beginnings were modest" (Tanner, 1965, p. 23).

PART II

Outline of White's life, relationship to Seventh-day Adventist educational development, educational writings, and philosophy of education.

CHAPTER III

BIOGRAPHICAL SKETCH OF E. G. WHITE

The purpose of this chapter was to provide information as to the background of Mrs. White's ideas, the type of person she was, and the part she played in early Seventh-day Adventist educational institutions.

1 GENERAL

Ellen Gould Harmon was born in Gorham, Maine, about twelve miles west of the city of Portland, on November 26, 1827. With her twin sister Elizabeth, she came at the end of a family of eight children (Spalding, 1949, p. 62). Apparently they were not identical twins for, as they grew, both were "bright and eager", but Elizabeth was not as inclined to see the bright side of life as was Ellen (Spalding 1947, p. 59). Of Ellen White, Spalding (1949, p. 62) says, "She was a sunny, animated, happy child, quick, resolute, persevering, sociable, with the normal religious spirit absorbed from a deeply devoted but practical-minded Methodist family."

After a few years, Ellen's father, Robert Harmon, left farm life and went with his family to Portland to live. As this was the age of home industries, the whole family had their part in

helping the father make hats (Department of Education, General Conference of Seventh-day Adventists, 1956, p. 194).

Here, Ellen attended school. When nine years of age, she was returning home from school with her twin sister when a thirteen year old girl threw a stone at her, causing a severe nose injury and seriously affecting her health. She was in a coma for three weeks, and bed-ridden for much longer (White, 1915, pp. 17 - 18). The features of her face were so changed that her father did not recognise her when he returned from a business trip. Worse still, the shock to her nervous system, and the illness that followed, made her an invalid for years (Spalding, 1949, p. 62). In her own words:

My health seemed to be hopelessly impaired. For two years I could not breathe through my nose, and was able to attend school but little. . . . My nervous system was prostrated, and my hand trembled so that I made but little progress in writing, and could get no farther than the simple copies in coarse hand (White, 1915, p. 19).

She had shown "real capabilities" in her schoolwork, (Department of Education, General Conference of Seventh-day Adventists, 1956, p. 194), and she said, "It was the hardest struggle of my young life to yield to my feebleness, and decide that I must leave my studies, and give up the hope of gaining an education" (White, 1915, p. 19). Three years later, at the age of twelve, she made another effort to obtain an education (White, 1946, Vol. 1, p. 13), and entered a ladies' seminary in Portland (White, 1915, p. 26). However, her health failed rapidly and, she wrote,

"It became apparent that if I remained in school it would be at the expense of my life. I did not attend school after I was twelve years old" (White, 1946, Vol. 1, p. 13). Thus Ellen Harmon had practically no schooling beyond the first three grades (Mitchell, 1958, p. 294).

At the age of seventeen she had what she called her "first vision", or direct revelation from God (White, 1915, p. 64). Her last known "vision" was on March 3, 1915, and she received about two thousand "visions" and "prophetic dreams" during the seventy years of her public work between 1844 and 1915 (Delafield, 1963, p. 87). These, she claimed, were the basis for her writings (White, 1958, Book 1, p. 29).

On August, 30, 1846, Ellen Harmon was married to James White, a young Adventist minister. Poverty and hardship were their lot in the early years of their married life, as there was then no organized church or regular support for the ministers. Consequently, James White's time was divided between travelling and preaching, and earning a living by various kinds of work such as hauling stone on the railways or chopping cordwood.

In 1851 Mrs. White's first book, "A Sketch of the Christian Experience and Views of Ellen G. White", was published. Between 1855 and 1891, another fifteen books were prepared. During her nine years of residence in Australia, from 1891, six more volumes were produced, and in the following fifteen years she prepared ten

books. Besides this, she wrote numerous articles for the church's denominational periodicals (Department of Education, General Conference of Seventh-day Adventists, 1956, pp.197, 198; White, 1915, p. 105).

The Whites travelled widely in the United States in order to organize and strengthen the church. From 1847 to 1850, for example, they visited Massachusetts, Connecticut, New York, New Hampshire, and Vermont. In 1853 and 1854 they visited Michigan and Wisconsin and, in 1855, shifted to Battle Creek, Michigan, to aid the publishing work that had been started there. 1856 to 1858 saw them ministering in the Middle West at Iowa and Ohio and, after 1869, they visited "from Maine to Dakota, from Michigan to Texas and California (White, 1915, pp. 99, 107, 108, 124, 131, 149, 153, 157, 160, 161, 195).

After labouring together for thirty-five years, James White died on Aug. 6, 1881. Two of their four boys had died earlier, Herbert in 1860, and Henry in 1863. With her two daughters, she left Battle Creek for California on Aug. 22, 1881. Desiring to be near the Healdsburg College, California, which had been opened in April, 1882, she made her home in the town a year after her husband's death (White, 1915, pp. 252, 165, 255, 261).

At the invitation of the European Missionary Council, White set sail for Europe on August 8, 1885. The years 1885 to 1887 were spent labouring in England, Switzerland, Italy, Germany, France, Denmark, Norway, and Sweden. Her headquarters were at

Basel, Switzerland, but the extent of her travelling is indicated by her three visits to the Scandinavian countries, and three visits to Italy (Lucas, 1956, p. 97).

The four years following her return from Europe (1887 - 1891), involved her in much travelling and labour among the churches. She also accomplished quite a deal of writing. Then she accepted an invitation to visit Australia (Department of Education, General Conference of Seventh-day Adventists, 1956, p. 199) where she arrived in December, 1891 after briefly stopping at Honolulu, Samoa, and New Zealand (White, 1915, pp. 331, 332). She spent nine years in Australia, pioneering and developing the Seventh-day Adventist work there, especially in the educational and medical fields. She also visited New Zealand during this time (Jemison, 1955, pp. 242, 243).

Soon after White's return to America in September, 1900, she purchased a home, "Elmhaven", near the Saint Helena Sanitarium in Northern California. At this time she was seventy-two years of age (Jemison, 1955, pp. 245, 246). The last fifteen years of her life were spent largely in writing and speaking, but she found relaxation in the country life (Department of Education, General Conference of Seventh-day Adventists, 1956, p. 199). Evidently she was an outstanding speaker, for an American Biographical History records:

As a speaker, Mrs. White is one of the most successful of the few ladies who have become noteworthy as lecturers, in this country, during the last twenty years. Constant use has so strengthened her vocal organs as to give her voice rare depth

and power. Her clearness and strength of articulation are so great that, when speaking in the open air she has frequently been distinctly heard at the distance of a mile. . . . When inspired with her subject, she is often marvellously eloquent, holding the largest audiences spellbound for hours without a sign of impatience or weariness (Ellen G. White Publications, 1959, p. 13).

In 1903 she urged the removal of the denominational headquarters from Battle Creek, Michigan and, by letters to the committee who were seeking a suitable site, guided them to Washington D.C. where a suitable area was purchased in Takoma Park.

In 1909, at the age of eighty-one, White left California for the General Conference session of the church in Washington, D.C. In the five months until her return to California, she travelled eight thousand miles, and spoke seventy-two times in twenty-seven places. This was her last extensive speaking tour (Lucas, 1956, p. 98; Jamison, 1955, p. 249).

The last few years of her life, in spite of increasing eye trouble, weakness, and heart trouble, were spent largely in preparing manuscript for publication (Lucas, 1956, p. 99; Jamison, 1955, p. 249). In 1913 she wrote:

During the past four years I have written comparatively few letters. What strength I have had has been given mostly to the completion of important book work. Occasionally I have attended meetings, and have visited institutions in California (White, 1915, pp. 426, 427).

She tripped and fell, fracturing her thigh bone, as she was entering her study on February 13, 1915. She did not suffer much pain, but little could be done for her except to make her as

comfortable as possible during the months that followed (Lucas, 1956, p. 99). Her attitude was one of cheerfulness and courage. At this time she said, "I am sure that this is my last sickness. I am not worried at the thought of dying. I feel comforted all the time, that the Lord is near me. . . .

I do not worry about the work I have done. I have done the best I could" (White, 1915, pp. 444, 445). Death finally came on July 16, 1915 (White, 1915, p. 449).

At the funeral service in Battle Creek, July 24, 1915, nearly four thousand people were present in the Tabernacle while, previous to that, between the hours of eight and ten, more than two thousand people filed past to view her body there (Battle Creek Evening News, July 24, 1915).

At this time, Frank A. Coffin said, in the "Mountain View Register-Leader":

Mrs. White was an arduous worker, often rising at 3 A.M., and writing 10 or 15 pages of manuscript before breakfast, and yet she found time to rear a half-dozen orphan children, besides giving parental attention to her own little brood and continually aided the poor so far as she was able (Coffin, 1915, pp. 1, 2).

A year before her death, G. W. James wrote that Mrs. White, with her husband, "practically founded the Church of the Seventh-day Adventists as it is governed to-day". Then he added, "This remarkable woman, also, though entirely self-educated, has written and published more books and in more languages, which circulated to a greater extent than the written works of any woman of history" (Ellen G. White Publications, 1959, p. 15).

II WHITE IN RELATION TO SEVENTH-DAY ADVENTIST EDUCATIONAL CENTERS

Efforts were made to establish Seventh-day Adventist church schools before 1872, but none of these were successful for long. The beginning of a strong, continuous educational work was made with the opening of a school at Battle Creek under the direction of Goodloe H. Bell.

Bell had been a student for a few months at Oberlin College but, when his father took the family to the frontier area of Michigan he had to leave too (Spalding, 1949, pp. 443, 444). However, he studied privately and, when nineteen, commenced teaching a one-teacher county school (Cadwallader, 1958, p. 17). Later, he taught in some of the best schools in the state of Michigan, becoming, according to Spalding (1949, p. 442) "an educational figure of some prominence in the public school system" of that State.

Because of ill-health, Bell, in 1867, went to the newly established Health Reform Institute in Battle Creek where he became a member of the Seventh-day Adventist Church. The school he established at Battle Creek in 1872 proved very successful, the enrolment increasing from twelve students in the first term to sixty-three in the third (Spalding, 1949, pp. 441 - 443; Cadwallader, 1958, pp. 17, 26, 31).

In January, just prior to the opening of the school, E. G. White penned her first and basic article on education (Cadwallader, 1958, p. 30). She pointed out the errors in the schools of her day, and the characteristics of "true" education (White, 1946, Vol. 3, pp. 134 - 160). "This is what led the brethren to the establishment of a school", wrote A. L. White (Letter, May 1, 1963, p. 2).

Of the principles outlined by E. G. White, Cadwallader stated (1958, p. 30) that if they had been followed by the Board of Trustees, teachers, and parents, there would have been a more rapid development of the denomination's educational work, and the avoidance of many of the mistakes that were made in the following decade.

The school, at first on a primary and secondary level, offered the following subjects in December, 1873: five languages (Hebrew, Greek, Latin, French, and German) physiology, philosophy, rhetoric, algebra, bookkeeping, grammar, arithmetic, geography, penmanship, reading, spelling, and Bible. Apart from Bible, the similarity with the public elementary and high schools is obvious. Indeed, George I. Butler, President of the General Conference, stated in the announcement of the winter term, 1873, "Opportunity will be given for the study of the languages as well as for all the branches usually taught in our high schools" (Cadwallader, 1958, pp. 34, 35). There was little evidence of the type of school White had advocated -

one in a rural environment where useful labour with the hands would be combined with book study so as to provide a symmetrical, all-round training (White, 1946, Vol. 3, pp. 137, 153).

Battle Creek College. -- A desire to expand the school into a college to train workers for the church was expressed by an action taken at the General Conference March 11, 1873, whereby the matter was placed in the hands of the General Conference Committee (Olsen, 1925, pp. 334, 335).

White had hoped that the college would be established in a country area where agriculture might be carried on as well as a group of industrial enterprises (Spalding, 1949, p. 446). However, while the Whites were on the Pacific coast, the Committee, thinking of the convenience of having the school close to the Health Institute (a year or so later renamed the Battle Creek Sanitarium), and of other advantages, bought an estate right across the street from the Sanitarium. The details of the size of the estate vary from twelve to fifteen acres, but all except seven acres were sold or used for other purposes. When White heard of the purchase of this site on the outskirts of the city she wept, but she did all she could to aid in the establishment of the College (A. L. White, May 1, 1963, p. 2; Spalding, 1949, p. 446; Olsen, 1925, p. 335).

The three-storey brick building erected on the site was ready for occupancy in 1875, and the institution named Battle Creek College,

even though it was mainly a secondary school at the time (the students' ages ranged from seven to forty-five years). There was a two-year course to train workers for the denomination, and a three year English course, apparently aimed at prospective teachers, although the teaching course did not appear in the catalogue until the following year. The principal course, however, reflecting the practice of the time, was the five-year classical curriculum which included "five years of Latin-Caesar, Cicero, Virgil, Horace, and Quintilian; five years of Greek-Xenophon, Thucydides, Homer, and Demosthenes; with science, rhetoric, and logic." Biblical lessons were apparently not compulsory (Cadwallader, 1958, pp. 40 - 42).

In 1873, Sidney Brownsberger, a graduate of the State University of Michigan and a successful teacher of ten years' experience, had been made principal of the Battle Creek school, Bell being retained as head of the English department. That was the position when the Battle Creek College opened in 1875, Brownsberger being preferred to Bell, not because of any dissatisfaction with the latter, but because it was felt that the prestige of the new college required a principal with scholastic degrees.

Brownsberger, bright and energetic, bore the marks of a classical education and so was timid to implement White's principles, although he believed in the over-all wisdom of her advice. On the other hand, Bell, because of his background, and his experience at

Oberlin, was more willing to accept revolutionary ideas (Spalding, 1949, p. 447; Olsen, 1925, p. 335).

The college grew during the six years of Brownsberger's administration. At the end of 1873 there were one hundred and ten pupils in the school, but at the close of 1877 there were two hundred and fifty (Cadwallader, 1958, pp. 35, 50). However, there were no dormitories, the students boarding at private homes, and this was obviously undesirable as there was no supervision of students outside classes (Spalding, 1949, p. 448).

At the end of 1878 a School of Hygiene was organized at the Sanitarium, and Battle Creek students could do part of their work there. Its intention was to help students learn how to keep healthy, how to get well if sick, and how to help the sick. The physicians of Battle Creek Sanitarium were the instructors. Trainee ministers were especially advised to take the course, and the subjects offered were anatomy, physiology, hygiene, dietetics, diseases, first aid, bed-side nursing, chemistry, physics, biology, electrical and physical therapy, and microscopy. Dr. J. H. Kellogg was the director of this scheme (Cadwallader, 1958, p. 50) and, as he was a whole-hearted supporter of White, he may have been implementing her ideas.

Soon the college board of trustees, of whom Dr. Kellogg was a member, called for better supervision of students, which meant the building of dormitories, and a revision of the curriculum, in

order to carry out more fully White's instruction to combine useful labour with book learning. Because of this, for which he was ill-equipped, and poor health, Brownsberger resigned his position in 1884, retiring to a farm (Spalding, 1949, p. 449).

Although Bell was best qualified to undertake the desired reforms, the board balked at his lack of university training, and appointed Alexander McLearn as principal. McLearn was new to Seventh-day Adventist doctrine and the principles of education enunciated by White, but was learned and affable. When Bell tried to uphold the ideas dear to him he clashed with McLearn, and the result was a disunited faculty and student body that portended disaster. In 1882 Bell resigned, the school was closed, and the faculty dismissed (Spalding, 1949, pp. 449, 450; Cadwallader, 1958, p. 52).

White wrote a number of times about this college, especially in the crisis years of 1881 - 1882. In 1881 she stated:

Our College stands to-day in a position that God does not approve. I have been shown the dangers that threaten this important institution. If its responsible men seek to reach the world's standard, if they copy the plans and methods of other colleges, the frown of God will be upon our school (White, 1882, Vol. 5, pp. 21, 27).

In March 28, 1882, she was more emphatic:

The one who had made God's word a study, and who could more than any other teacher have helped the young to gain a knowledge of the Scriptures, has been separated from the school.

Professors and teachers have not understood the design of the College. We have put in means and thought and labor to make it what God would have it. The will and judgment of

those who are almost wholly ignorant of the way in which God has led us as a people, should not have a controlling influence in that College (White, 1882, Vol. 5, pp. 45, 61).

While it was a depressing experience to have to close Battle Creek College within seven years of its founding, the event marked a turning point in the educational outlook of the church. Henceforth the ideas enunciated by White were followed more willingly. In the period the Battle Creek College was closed, 1882 - 1883, two new schools were established at widely separated places: Healdsburg Academy (three months later raised in status to Healdsburg College) in California, April 11, 1882, and South Lancaster Academy in Massachusetts, April 19, 1882 (Spalding, 1949, pp. 450, 451).

Healdsburg College. - - The California Conference decided in October, 1881, to establish a school. Present on the occasion were E. G. White, and her son, W. C. White. Sidney Brownsberger, who had been recuperating his health, was appointed president. During the time he had been away from Battle Creek College he had reconsidered his philosophy of education and was now determined to carry out the instruction of E. G. White on educational reform, paying more attention to the religious, physical, and vocational aspects (Cadwallader, 1958, pp. 71, 73).

In the first year of the college, gardening, fruit culture, carpentry, printing, and tentmaking were among the industries carried on, (Spalding, 1949, p. 451), and five courses were offered.

There was an Initial Course of four years designed for children from five years old and upwards; a Grammar Course for those who had done the work of the Initial Course in the "common branches", as reading, writing, arithmetic, and spelling were called, and wanted a thorough knowledge of these subjects so as to be qualified to teach them if so-desired; a Biblical Course, for those preparing for the ministry; an Academic - Scientific Course that followed the Grammar Course and included the natural sciences and mathematics, with one year of general history, but no Latin or Greek; and an Academic - Classical Course of four years length, containing Latin, Greek, natural philosophy, botany, physiology, rhetoric, English and American literature, algebra and geometry (Cadwallader, 1958, pp. 78, 79).

A few months after the opening of the college, White made her home nearby (cf. p. 131). Her counsel was appreciated during these years of development, and was usually followed immediately. Her son, W. C. White, was one of the seven original Trustees (Cadwallader, 1958, pp. 90, 75).

South Lancaster Academy. -- In Massachusetts, the South Lancaster Academy was opened, with G. H. Bell as principal. He was now free to put into practice the ideas he had earlier advocated. A speech he made in the autumn after the opening, was reported thus:

The speaker proceeded to show that the popular method of filling the student's mind with that which is not practical,

and hurrying him through a certain course in order that he may obtain a diploma, is not true education. True education begins on the inside, at the core, with that which is practical. It builds up and strengthens a symmetry of character that, by and by in after-life, will show itself in some grand, good, and noble work for the world. The school at South Lancaster seeks to attain to this idea. The teachers at this school have experienced that study and physical labor must be intermingled in order to make a good school. Hence the time of the students there is divided into labor, study, and recitation hours; and the best of results are seen, both as to physical health, mental discipline, and progress in study (Olsen, 1925, pp. 339 - 341).

Of the revolutionary curriculum, Bell (Vol. 59, No. 10,

1882, p. 159) stated:

The Course of Study will embrace English Language; Mathematics; Geography; Human Physiology and Hygiene; and Bible History; together with practical instruction in Tract and Missionary Work, and in the most useful of the Agricultural, Domestic and Mechanic Arts. English Language will embrace Reading; Penmanship; Grammar; Composition, especially letter-writing; and the most useful portions of Rhetoric. Mathematics will begin with Arithmetic; and be extended as the demand may require. . . . Pupils will be expected to take but few studies at a time, thereby mastering them the more rapidly.

When the 1922-23 school year opened the Academy was renamed Atlantic Union College, with the status of a senior or four-year college (Cadwallader, 1958, p. 70).

White showed continual interest in South Lancaster Academy and its curriculum. In 1902 she approved of vocal music, for example, but emphasised the necessity of a balanced education, and so recommended the learning of bookkeeping, correct reading, good speech, and voice culture, too (White, 1902^a, p. 1).

Developments in the 1880s. - - Battle Creek College had been

re-opened in 1883, and its board and faculty were determined to conduct the school according to denominational ideals. Its president was a prominent Seventh-day Adventist minister, Wolcott H. Littlejohn, who had been educated at Kalamazoo College and the University of Michigan. In 1885 he was succeeded by W. W. Prescott, a graduate of Dartmouth College. During his ten year term as president, the college made considerable advancement in numbers and efficiency.

An important step in the development of the denomination's educational system was made in 1887, when Prescott was appointed secretary of the newly created Department of Education of the General Conference. He proved very successful in building up the educational work throughout the country (Olsen, 1925, pp. 342, 343).

By 1887 the leaders of the denomination had taken an interest in the industrial phase of education. The Educational Association, held in conjunction with the General Conference session that year, unanimously approved of the facilities that had been provided the previous year for work in industrial lines, and urged that further steps be taken in that direction. White, at this meeting, gave a short address in which she again stressed the value of the manual training department and the importance of a symmetrical education (Olsen, 1925, p. 339).

Union College. - - As the North-Central States had no college, the General Conference of 1889 recommended that a college be

erected in the area. The site selected was at Lincoln, Nebraska, where the city donated 212 acres of land, and the denomination embarked on its largest single enterprise to that date, the school plant costing 125,000 dollars. Thus the Union College came into being on September 30, 1891 (Cadwallader, 1958, pp. 230 - 233).

Since many of foreign nationalities lived in the area, the college offered courses in four languages: English, German, Swedish, and Danish-Norwegian. Up to 1894, no Bible or religion was required in the Scientific or Classical curricula of the English department (Cadwallader, 1958, pp. 234, 235). As early as 1888, White (1923, pp. 129, 130) had written: "If the study of the Scriptures is made a secondary consideration, great loss is sustained. The Bible was for a time excluded from our schools" and, again: (1923, pp. 135, 136):

There will be an effort made on the part of many pretended friends of education to divorce religion from the sciences, in our schools. They would spare no pains or expense to impart secular knowledge; but they would not mingle with it a knowledge of what God has revealed. . . .

The college prospered, and it has remained a centre of higher education for the denomination.

Elementary Schools. - - Not before the late 1890s did the leaders of the denomination seem to take seriously the establishment of elementary schools (Cadwallader, 1958, p. 285). Instead, they concentrated on academies and colleges which frequently had to make provision for elementary education. Thus the educational

structure was begun at the top, and the home, the elementary school and, generally speaking, the secondary school, were left out of account (Spalding, 1949, p. 452). In 1900 (p. 203), White wrote "Years ago school-buildings suitable for church schools should have been erected, in which the children and youth could receive a true education".

W. C. White, reporting a speech of his mother's at a meeting of denominational workers in Oakland, California, in April, 1888, wrote:

Mrs. E. C. White spoke in positive terms of the importance of an energetic effort for the establishment of church schools. She said that Oakland should have had a school years ago; that much valuable time has already been lost. She thought that many temptations which younger children are now subject to would be escaped if there was a well-conducted kindergarten connected with this school, where their young minds could be directed in the right way (Cadwallader, 1958, p. 288).

It is apparent, then, that White was aware of this lack in the educational system.

A school was soon started in Oakland after this meeting (Cadwallader, 1958, p. 289). However, the position of the elementary schools was such that the report of the General Conference Secretary of Education in 1889 did not mention them. From the information available, he placed the number of students attending the seven schools in 1889 at 1,155, made up as follows: Battle Creek, 534; Healdsburg, 223; Milton, Oregon, 127; South Lancaster, 81; Minneapolis, 80; Portland, Oregon, 75; and

Ottawa, Kansas, 35 (Cadwallader, 1958, p. 289).

Education in Australia. - - In 1891, White came to Australia, where she was far from those who were leading the educational work in America. Denominational representatives had started the work in Australia seven years earlier, and the number of church members in 1891 was between 500 and 1,000. However, the denomination had no schools (Cadwallader, 1958, p. 111).

Soon White urged the establishing of a school. An ex-President of the Australian Conference wrote:

"This message was most welcome, but at that time it gave us most serious perplexity, for it demanded great things from a constituency small in numbers and poor in this world's goods" (Daniells, Aug. 20, 1928, pp. 1, 2). Nevertheless, a building was rented in Melbourne, and the school commenced August, 1892, with about thirty students aged between fifteen and fifty years.

White took a keen interest in the school, frequently addressing the students and giving counsel to the faculty (Daniells, Aug. 20, 1928, pp. 1, 2). However, she was not satisfied with the location of the school and, in February, 1894, she wrote:

Our minds have been much exercised day and night in regard to our schools. How shall they be conducted? . . . Where shall our Australian Bible School be located? I was awakened this morning at one o'clock with a heavy burden upon my soul. . . . I feel, indeed, that we have much to learn. We are ignorant in regard to many things.

.....

Never can the proper education be given to the youth in this country, or any other country, unless they are separated a wide distance from the cities (White, 1923, pp. 310, 312).

She also stated that the school should be provided with sufficient land for gardening, dairying, fruit growing and the like, and be furnished with industries for the employment of students (White 1923, pp. 323, 324).

Naturally, this caused concern among the leaders of the Australian Conference. Daniells (Aug. 20, 1928, p. 2) wrote:

We reminded Sister White of what it would mean to a small constituency, few of whom owned their homes, to purchase high-priced land, erect necessary buildings, and establish and equip manual trades departments. We told her that the task seemed utterly impossible. But she seemed blind and deaf to our representations, and steadily pointed to the "blue-print" of the school that had been shown her.

This led to the search for a suitable site, and one that attracted the appointed committee was a 1500 acre block at Cooranbong, N.S.W., which was offered at the low price of fourteen shillings an acre. White approved of the site, but a Government land expert, when asked to report on the soil, said, "Gentlemen, I am sorry to tell you this soil is worthless. It won't support a bandicoot". White still approved of the site, however, and Daniells stated, "We all decided to look no farther, but to go on with the place we had selected and hope for the best" (Daniells, Aug. 20, 1928, p. 2).

Then came the problem of paying for the land. Daniells (Aug. 20, 1928, p. 2) commented:

My courage was at a low ebb. I seemed unable to interest the Brethren and persuade them to give toward the enterprise. But after months had passed with nothing done, I learned that Sister White had borrowed \$1,000 and paid for the land.

In July, 1895, White purchased sixty-six acres of the Avondale land, as the site was called, made her home there, and commenced growing fruit and vegetables, in order to show her confidence in the estate, and her interest in the school. As there was a financial depression at the time, and money was scarce, erection of school buildings was slow. Again White encouraged the project by borrowing \$1,000 from friends in South Africa. Consequently, the school was able to be officially opened on April 28, 1897 (White, 1915, pp. 358, 359, 362, 363, 365).

The school opened with two students but, before the end of the year, there were sixty, thirty of whom were over sixteen years of age. During the second year, the number increased to a hundred. C. W. Irwin, Principal of the Avondale School 1901 - 1909, reported in 1909:

The brethren, in counsel with Sister White, had made such broad, and liberal plans for the school, that through my eight years' connection with it I have never yet needed to change a single plan they had laid down. . . . all we have endeavoured to do during these eight years, has simply been to develop more fully the plans already made (White, 1915, pp. 365, 367, 376, 377; Spalding, 1949, p. 651).

White was determined that at Avondale would be demonstrated what should and could be done in the establishment of an educational institution. Battle Creek College had been built in the city, Healdsburg College was situated in the suburbs of a city, and South Lancaster Academy was located in a village, but did not have

adequate land (Letter, A. L. White, May 1, 1963, p. 3). At Avondale, White had encouraged the buying of sufficient land, and in country surroundings, so that her plans could be realised.

Spalding (1949, pp. 651, 652) said:

Avondale was to be the model school of higher grade for all the Adventist world. It was to be marked with simplicity, industry, devotion, adherence to the pattern. And beyond all other schools by then established, it did that. . . . Messages of reproof and correction as well as of encouragement and praise came from Mrs. White. As in no previous enterprise, her hand was on the work of education, and that school came forth, not perfect, it is true, but far in advance of anything yet seen.

While in Australia, White wrote extensively on education.

Particularly did she urge the establishing of "church" or elementary schools, in such words as these, penned in 1894:

Years ago school-buildings suitable for church schools should have been erected, in which the children and youth could receive a true education (White, 1900^b, p. 203). In some countries parents are compelled by law to send their children to school. In these countries, in localities where there is a church, schools should be established, if there are no more than six children to attend (White, 1900^b, p. 199).

She also prepared the manuscript for her best known educational work, "Education", published in 1903 (Cadwallader, 1958, p. 113).

Developments in America in the 1890s. - - While White was in Australia, new schools were started in America, such as Walla Walla College at College Place, Washington, 1892, and Keene Academy, Johnson County, Texas, 1894 (Olsen, 1925, p. 589). As word from her concerning the need for church schools and other educational reforms reached America, it aroused much

thought. Frederick Griggs, head of the preparatory school at Battle Creek College in the early 1890s, advocated the establishment of a normal school to train elementary teachers to man the schools White had called for. After some opposition, the plan was agreed to, and Griggs took postgraduate work in the University of Buffalo School of Pedagogy so that he could head this department at Battle Creek College, when it was established in 1896-7 (Spalding, 1949, p. 652). He had also attended the Cook County Normal School, Chicago, Illinois, where he studied under Francis W. Parker.

The training at the Battle Creek normal department was of a practical nature. The requirements for young ladies were a thorough knowledge of Seventh-day Adventist doctrines, and ability to teach them; ability to teach plain sewing and cooking; ability to make a blackboard, a hektograph, and papier-mâché for geography maps; and a willingness to "board around" as deemed desirable by the school board (Kuhn, 1953, p. 17).

E. A. Sutherland, president of Walla Walla College from 1893 to 1897, set aside a week or two for a faculty institute each year to study the counsel of White regarding education. In 1897 he was called to the presidency of Battle Creek College (Cadwallader, 1958, p. 263). It is clear then, that, at the turn of the century, the complete Seventh-day Adventist educational system was taking shape, and more and more it was being based on the pattern outlined by White.

Cadwallader (1958, p. 290) states that the ten-year period at the end of the nineteenth century was the most interesting decade in the history of Seventh-day Adventist education because of the rapid advances on the elementary, secondary, and college level. In the United States, five colleges, numerous secondary schools, and over 200 elementary schools were added. The following table shows the growth at the elementary school level in America:

Year	Number of Elementary Schools	Teachers	Pupils
1880	1	1	15
1885	3	5	125
1890	9	15	350
1895	18	35	895
1900	220	250	5,000

While White undoubtedly played an important part in this development, she cannot receive all the credit. After all, most of this growth occurred during her absence in Australia. The central figure was Dr. E. A. Sutherland, ably assisted by men such as F. Griggs, J. E. Tenney, and W. W. Prescott, all of whom studied carefully the writings of White (Cadwallader, 1958, pp. 290, 291; Olsen, 1925, p. 591).

Emmanuel Missionary College. - - White returned to the United States from Australia in 1900 (Letter A. L. White, May 1, 1963, p. 4). Dr. Sutherland, president of Battle Creek College,

and his co-worker, P. T. Magan, advocated removal of Battle Creek College to the country in order to further develop industries and agriculture. At the 1901 General Conference session, White supported this idea, stating:

The best thing that can be done is to dispose of the school's buildings here as soon as possible. Begin at once to look for a place where the school can be conducted on right lines. Get an extensive tract of land, and here begin the work which I entreated should be commenced before the school was established here (Cadwallader, 1958, pp. 53, 54).

The same day that White made this speech, April 12, 1901, the college board voted that Battle Creek College be closed (Cadwallader, 1958, p. 54).

Sutherland and Magan searched Michigan, and found a suitable property near Berrien Springs. White urged the buying of the property and, on Oct. 30, 1901, Emmanuel Missionary College commenced its work (Cadwallader, 1958, pp. 246, 247) Eventually it had an estate of 800 acres (Letter A. L. White, May 1, 1963, p. 4).

Sutherland started to develop a school on the basis of the educational principles outlined by White. He felt that the denomination's schools had largely been Seventh-day Adventist "public" schools. Accordingly, Sutherland and Magan wanted to establish, not a conventional college, but a missionary training school with much more emphasis on manual and religious education than was customary (Cadwallader, 1958, pp. 250, 246).

In 1956 this College became Andrews University (Bureau of

Public Relations General Conference of Seventh-day Adventists, 1967, pp. 16, 12)

Madison College. - - In 1904, Sutherland and Magan resigned from their positions at Berrien Springs, in order to begin work in the South for the needy whites. White encouraged them in this plan. They looked for a small farm in Nashville, Tennessee, where they could be self-supporting and independent of the General Conference.

As White and her two sons were travelling up the Cumberland River, Sutherland and Magan accompanied them. Near the town of Madison, White's son, Edison, showed them a 414 acre farm he was considering as a site for a Negro training school. Portion of the land was poor, but White urged Sutherland and Magan to establish their school on this site. At first they refused, because they didn't have the necessary finance, had not planned for a large school, and felt that the land was poor. Because of White's repeated urgings, and against their own inclinations, they finally purchased the land with the aid of finance from Sutherland's aunt, Mrs. Druillard. White offered to serve on the board of the college, the only time she had agreed to be a member of the board of trustees of any institution, and she served in this position from 1904 to 1914 (Olsen, 1925, p. 594; Cadwallader, 1958, pp. 103 - 106).

Thus it was that The Nashville Agricultural and Normal Institute

came into being in 1904. Its chief aim was to train teachers who would go into the most needy parts of the South, and establish rural schools. These schools were not to be confined to book studies, but to also teach how to make the land productive, and how to solve other practical problems (Olsen, 1925, p. 594).

The Institute enabled the poor to have a schooling by offering them schooling for work. A half day of study and a half day of labour was the programme. It set a good example in dealing with practical problems by replacing unprofitable animals in the school dairy herd with blooded stock, and so, in little more than a year, obtaining recognition for the quality of the College dairy products (Olsen, 1925, p. 594; Cadwallader, 1958, p. 107).

Instead of enlarging and multiplying buildings, White and the founders agreed that branch units should be established in needy places, away from the main campus. By 1925 there were over thirty such schools (Cadwallader, 1958, p. 108; Olsen, 1925, p. 959).

The Institute was renamed Madison College, and had connected with it a sanitarium. A number of the branch schools likewise have sanitariums connected with them, thus linking the medical and educational work. To-day, Madison College has a thousand acre estate along the Cumberland River (Cadwallader, 1958, pp. 101, 108 - 109).

Washington Missionary College. - - In 1903, denominational

headquarters had been shifted from Battle Creek to Washington, D.C., a move that had been encouraged by White. Shortly after, fifty acres of land were purchased, and Washington Training College and a sanitarium built on the site (White, 1915, pp. 389 - 397).

White said, in May, 1904, "The location that has been secured for our school and sanitarium is all that could be desired" (White, 1915, p. 397).

White participated in raising a fund of 100,000 dollars to get the school started. In July, 1904, she wrote:

God's word to His workers in Washington is, 'Arise, and build', and His word to His people in all the conferences is, 'Strengthen the hands of the builders'. The work in Washington is to advance in straight lines without delay or hindrance. Let it not be kept back for lack of means (White, 1915, p. 398).

The response was so great that, in 1905, the fund was exceeded, the excess being appropriated to mission work (White, 1915, p. 398).

Pacific Union College. - - As the community grew around Healdsburg College, it left the college without sufficient land and, between 1903 and 1908, it had to face many problems. Finally, it was closed in 1908, and a committee appointed to find a better site. After an eight months' search they became interested in a heavily wooded area of 1700 acres in Napa County, California. White looked at the property, approved of it, and it was secured. She bought an adjoining piece of land for herself. Once again she had been looked to as the guide in selecting an appropriate

location (A. L. White, May 1, 1963, p. 4; Olsen, 1925, p. 596; Cadwallader, 1958, p. 153).

C. W. Irwin, principal of the Avondale School, was brought from Australia because of his experience there, and the work-study schedule was instituted at Pacific Union College, as the new school was called. White took a personal interest in the college, which has prospered to the present time (Department of Education, General Conference of Seventh-day Adventists, 1956, p. 404).

Education for American Negroes. - - The education of the American Negro had been largely overlooked by Seventh-day Adventists. In 1892, R. M. Kilgore reported that there were no more than fifty Negro church members in the South, and he pleaded for schools and workers. White had urged greater attention to this work, but her manuscript testimonies had received little notice. However, as a result of the pleas of White, Kilgore, and others, the General Conference, in 1892 recommended that such schools be established.

It was James Edson White, the older of White's two surviving sons, who took the leading role in this work. In 1893 he was in private business in Chicago when letters from his mother in Australia stirred him to seek further Christian education, and he went to Battle Creek. There, in the attic of the General Conference building, he found a copy of White's manuscripts on work for Negroes. As a result, he determined to devote his life to work in this field.

He built a seventy-two feet long boat, the "Morning Star", in 1894, and sailed down to the Mississippi River. His work was largely financed by a small primer, based on Bible teachings, designed to help the illiterate Negroes read, while giving them a taste of Bible doctrine. The book, "The Gospel Primer", proved highly successful, selling by the million.

With the aid of volunteer workers, he entered the "blackest part of the Black Belt", the Yazoo Valley. Schools were established along the Yazoo River, and the demand so outgrew the supply of coloured teachers, that white teachers from the North also had to be employed. Ten years after commencing his work, there were almost fifty small schools in six States, and higher schools for the more advanced students had been established.

White, on her return from Australia, occasionally accompanied her son on his river trips, and continually stimulated and encouraged him. On his retirement in 1908, he turned over to the local conference of Seventh-day Adventists the assets and property of the Southern Missionary Society that he had founded (Spalding, 1949, pp. 635 - 640).

White's appeals, the work of J. E. White and H. S. Shaw, the latter being the General Conference-appointed superintendent of the Negro work, led the General Conference to establish a training school for workers on a 360 acre estate in the north of Alabama. The school, opened in 1896, combined agricultural and

and industrial work with classroom study, and was later called Oakwood College (Spalding, 1949, pp. 641, 643; Cadwallader, 1958, pp. 177, 180).

In 1905, White (1913,^a p. 519) wrote:

There are decided advantages to be gained by the establishment of a school and a sanitarium in close proximity, that they may be a help one to the other. . . .

In connection with our larger schools there should be provided facilities for giving students thorough instruction regarding gospel medical missionary work. This line of work is to be brought into our colleges and training schools as a part of the regular instruction. The students should learn how to care for the sick. . . .

From the first, Oakwood College had given instruction in personal hygiene, healthful living, and home nursing, but in 1909 the General Conference, acting on White's counsel, voted to build a small sanitarium on the campus, and this was ready for occupancy in 1910.

A unique feature of Oakwood was the building and operation of an orphanage, largely prompted by W. C. White and his mother, Ellen G. White. It was built in 1912.

An indication of the growth of the Oakwood project is given by the 1955 - 1956 enrolment figures. The elementary school had fifty-four students, the academy one hundred and thirty-one, and the college three hundred and three; a total of 488 (Cadwallader, 1958, pp. 189 - 191, 193).

The College of Medical Evangelists. - - In response to the urgings of White while in Australia, a search for a sanitarium

site near Redlands, Southern California, was made. A property was found with an institution on it that had been built for medical work by a group of Los Angeles physicians. This was supposed to have answered a description of an institution seen by White in "vision". When Pastor J. A. Burden wrote the description of the place to White, she wired back, "Secure the property at once". This was done in 1905, at about one-fourth of its original cost of 150,000 dollars.

Repeatedly White expressed her conviction that the future of the work on this spot, known as Loma Linda, would be extraordinary. Sanitarium work was commenced immediately and, in November, 1905, the training school for nurses was opened (Department of Education, General Conference of Seventh-day Adventists, 1956, pp. 429, 430). However, White had a broader concept of Loma Linda than this and, at the 1909 General Conference session, she said:

With the possession of this place comes the weighty responsibility of making the work of the institution educational in character. Loma Linda is to be not only a sanitarium, but an educational center. A school is to be established here for the training of gospel medical missionary evangelists (White, 1915, p. 406).

She spoke on other occasions of how Loma Linda would become a leading educational centre on the West Coast, and that physicians would be trained there (A. L. White, May 1, 1963, p. 5).

Accordingly, a charter was obtained from the State of California, Dec. 9, 1909, to grant degrees in the liberal arts

and sciences, dentistry, and medicine. In 1910 it was necessary to decide whether the College would graduate doctors of medicine, or practitioners with lesser degrees. White's advice was to prepare students to pass the examinations required by law for the practice of medicine.

Thus it came about that the College of Medical Evangelists was opened in October, 1910. By 1912, the property had increased to 300 acres, and clinic work was begun in Los Angeles to give practice to the medical students. In 1916, a new hospital in Los Angeles, named "The Ellen G. White Memorial Hospital", served as the Clinical Division of the College of Medical Evangelists (Department of Education, General Conference of Seventh-day Adventists, 1956, pp. 430, 431).

The growth of the College was such that in 1961 it became the Loma Linda University, with a 600 - acre campus (General Conference of Seventh-day Adventists, 1968, p. 314; Bureau of Public Relations General Conference of Seventh-day Adventists, 1967, p. 43). White's conviction of the extraordinary future of the Loma Linda establishment had certainly been realised.

It was the operation of this medical school that led Seventh-day Adventists to strive for the highest educational standards. As the standards for medical education in the United States were raised, it became necessary to raise the standards of both the medical school and the schools that furnished the

students for the medical school (A. L. White, May 1, 1963, p. 6).

At a time when many in the church opposed lining up with state requirements, White (1913² p. 480) wrote:

Inasmuch as there are legal requirements making it necessary that medical students shall take a certain preparatory course of study, our colleges should arrange to carry their students to the point of literary and scientific training that is necessary.

And not only should our larger training schools give this preparatory instruction to those who contemplate taking a medical course, but we must also do all that is essential for the perfecting of the courses of study offered by our Loma Linda College of Medical Evangelists.

This led to a programme of accrediting. It touched not only the College where the student took his pre-medical training, but also the academy or high school, for its scholastic standing was taken into account by accrediting bodies in the preparation of the pre-medical student.

Further, as the standards of education rose, it became essential that Seventh-day Adventists be able to graduate from their own educational institutions with degrees above that of the sixteen-year college course and so, to-day, Master's degrees and, in some cases, Doctor's degrees, are being given by them (A. L. White, May 1, 1963, p. 6)

A retrospective look at White's importance in Seventh-day Adventist educational work. - - White was one of many educational reformers in America in the nineteenth century. Although she had only about three years of formal education, she quickly assumed the

position of guide of the educational system of the Seventh-day Adventist Church, and manifested unusual breadth of vision.

At first there seemed to be some reluctance to put into practice her educational ideas, as was shown by the curricula of the early schools, and the establishment of the first college in Battle Creek. However, with the passing of time, and the gradual implementing of her ideas, more and more confidence was placed in her counsel until, before a site for a college was finalised, and before important matters of policy were decided, she was consulted, as in the case of the College of Medical Evangelists at Loma Linda.

She placed the Bible at the core of the curriculum, and saw that the colleges and schools were located, as far as possible, in a rural setting where the students could learn from nature, and be instructed in agriculture and practical trades. Book learning was not sufficient - it was to be balanced by physical activity, and learning of that which was practical. It took some time for the denomination to understand all this, but the example of the "model" Avondale College in Australia helped considerably.

After seeing colleges successfully established in strategic positions in America, she turned her attention to the lack of elementary and secondary schools and, by 1900, a firm foundation had been laid in this direction. The need of the American Negroes did not escape her attention either, and, as a result, she inspired her son to devote his life to this work, and succeeded in

getting the General Conference to commence the Oakwood School.

Always interested in matters of health, White helped establish medical institutions, and particularly encouraged the building of sanitariums near the larger educational institutions, to their mutual benefit. Outstanding in this direction was the securing of Loma Linda, and its development, under her guidance, into the College of Medical Evangelists. Since then it has become the Loma Linda University, with its nine schools.

Never content with low standards, White always emphasised high ideals and thorough competence, and so encouraged the denomination to embark on a programme of advanced training that would meet the requirements of outside medical and educational bodies. She also urged the establishment of institutions in other lands (White, 1915, pp. 382, 383).

In the matters of location and equipment of schools, curricula outlines, running of schools, child training, shaping of policies, setting of social and moral standards, White was ever busy with her suggestions. Nor were they merely theoretical suggestions, for she showed how they could be practised, and even located herself near some of these institutions so that she could be of practical assistance. Undoubtedly, she was largely responsible for the foundation of the Adventist educational system, its early development, and the pattern it has taken.

CHAPTER 1V

WHITE'S EDUCATIONAL WRITINGS

For seventy years White penned messages for the church on a large variety of subjects. According to D. A. Delafield (1963, p. 88), she wrote over 4,500 articles for magazines and, in 1963, fifty-four books in the English language, compiled from her writings, were available. All told, she wrote one hundred thousand manuscript pages by hand.

One of her books, Desire of Ages, sold 500,000 copies in 1956 alone, while more than 5,000,000 copies of another, Steps to Christ, had been sold between its first publication in 1892 and 1957. The latter had also been translated into seventy-seven languages in that time (D. Mitchell, 1958, p. 295).

Of the fifty-four books available in 1963, only five were mainly devoted to educational topics. In their order of publication, they were: Education; Counsels to Parents, Teachers, and Students Regarding Education; Fundamentals of Christian Education; The Adventist Home; and Child Guidance. However, there is much material on education scattered throughout most of her books. Sometimes these are brief passages, while at other times they are whole chapters. In Testimonies for the Church, Volume 111, for example, there is a section of thirty pages on education, while

in Testimonies for the Church, Volume VI, there is a section of ninety-three pages.

HOW, WHEN, AND WHERE WRITTEN OR COMPILED

A. L. White, Secretary of the Ellen G. White Publications, said (May 1, 1963, pp. 1, 2, 11) that White's basic article on education was that written in 1872, and that now appears in Testimonies for the Church, Volume III, pp. 131 - 161. Here the main principles were outlines, but not the details. Later she wrote more fully, dealing with the details and the applications of the principles. Apparently this was frequently the case with her messages on other subjects, too. Her first writing would deal with a general coverage, and later the details would be filled in.

After 1872, White wrote articles on education in such denominational journals as the Review and Herald, Signs of the Times, and Youth's Instructor. Personal letters also contained educational material at times (A. L. White, May 1, 1963, p. 12). In 1890, the book Christian Temperance and Bible Hygiene was published. The first part, Christian Temperance, was a compilation of White's writings on health, and there were a number of chapters devoted to educational topics. These chapters were later published in Fundamentals of Christian Education (A. L. White, May 1, 1963, p. 12).

In 1893, the 255 page book Christian Education was published. It was a compilation of materials drawn from published and manuscript sources, and gave instruction for teachers and parents. It was mainly concerned with the philosophy of education. In 1903 it was replaced by White's best known book on the subject, Education.

Four years after the publication of Christian Education, a work of 224 pages appeared, called Special Testimonies on Education. It dealt mainly with the application of the principles outlined in earlier works, and its entire contents have been republished in either Fundamentals of Christian Education or Counsels to Parents, Teachers and Students (A. L. White, May 1, 1963, p. 12).

Mention was earlier made of the ninety-three page section on education in Testimonies for the Church, Vol. 6, which was published in 1900 (cf. p. 166). The material had been prepared while White was in Australia, and covered such themes as the need of educational reform, character and work of teachers, school dormitories, industrial reform, the Avondale school farm, church schools, and school management and finance (A. L. White, May 1, 1963, p. 13; White, 1900, Vol. 6, pp. 126 - 218).

While White was living at "Elmhaven", in northern California, she was assisted by Miss Marian Davis and Sarah Peck in selecting from her many writings that which would make up the book Education. Much of this had been written in Australia. Ellen White would fill

in certain areas and rewrite others, but she made free use of what she had written earlier. This was typical of the production of most of her books. Education, a 324 page volume, replaced the book Christian Education, giving an enlarged and well-rounded presentation for both Adventists and non-Adventists.

Next came Counsels to Teachers, Parents, and Students Regarding Christian Education in 1913. W. C. White (her son), Pastor C. Crisler, and others who were associated with Ellen White in her literary work, assembled the counsels of White for this book. She went over them, adding here and there, perfecting the material. The book drew heavily from such earlier volumes as Christian Education, (1893) and Special Testimonies on Education (1897) (A. L. White, May 1, 1963, pp. 12, 13). It dealt in detail with the methods which should be employed by Seventh-day Adventist parents and teachers in educating the children and youth according to the principles outlined in such works as Education (1903).

Realizing that after her death all of her writings, whether in manuscript form, articles or books, would be of use to the church, she made provision in her will of February 9, 1912 for their future care. She named five men who, as trustees, were to take charge of her work (Department of Education, General Conference, 1956, p. 412). This board of trustees has been perpetuated as an organization in harmony with the provision made

by White.

Her writings were transferred from "Elmhaven" to the General Conference office in Washington, D.C., in 1938, where they are kept in a large fireproof vault (Howell, Revised 1947, p. 114). For some years the title "Ellen G. White Estate" was used to refer to the managing organization, but it is now known as "The Ellen G. White Publications".

The custody of the White writings involved three major tasks; arranging for the continued publication of her books in the English language; arranging for the translation and publication of her writings into foreign languages; and the custody of the manuscript and letter files, and the selection of matter from these for general publication. As a result, from the time of her death until 1956, twenty-four important volumes had been published (Department of Education, General Conference, 1956, p. 412). One of these was Fundamentals of Christian Education, a 576- page volume, comprised of E. G. White articles as published in the journals of the church, out-of-print Christian Temperance and Bible Hygiene (1890) and Special Testimonies on Education (1897). The materials were dated, chronologically arranged, and used in their entirety (Board of Trustees of the Ellen G. White Estate, 1963, p. 3206).

In 1952 appeared The Adventist Home, the Foreword of which states:

The book, . . . is at once a sort of handbook or manual for busy parents, and a pattern or ideal of what the home can and should become. . . .

In compiling this work, excerpts have been drawn from the Ellen G. White writings penned through seven decades, but especially from the thousands of E. G. White articles which were prepared for the journals of the denomination. The current published works, special testimonies issued in pamphlet form, and the E. G. White manuscript files have also enriched the volume (White, 1952, p. 5).

White's last published book that dealt largely with educational topics was Child Guidance (1954). It has been described thus: "A companion volume to The Adventist Home, presenting the counsels from published and unpublished sources relating to child care, training, and education. An indispensable handbook for busy parents" (Board of Trustees of the Ellen G. White Estate, 1963, p. 3209).

CHARACTERISTICS OF WHITE'S WRITINGS

Since most of White's books are compilations, there is much duplication of ideas and even expressions. Some of her instruction would suit a number of different types of books such as health, education, religious history, and devotional, and would appear in each for that reason. Below are four quotations as an illustration of this feature, and also the way in which White re-arranged, filled in, and deleted material from her earlier writings when preparing them for use in her books. The quotations are in order of publication.

The chief subjects of study in these schools were the law of God, with the instructions given to Moses, sacred history, sacred music and poetry. The manner of instruction was far different from that in the theological schools of the present day, from which many students graduate with less real knowledge of God and religious truth than when they entered. In these schools of the olden time it was the grand object of all study to learn the will of God, and man's duty toward him. In the records of sacred history were traced the footsteps of Jehovah. The great truths set forth by the types were brought to view, and faith grasped the central object of all that system, - the Lamb of God that was to take away the sin of the world (White, 1890, pp. 593, 594).

The chief subjects of study in these schools were the law of God, with the instruction given to Moses, sacred history, sacred music, and poetry. In the records of sacred history were traced the footsteps of Jehovah. The great truths set forth by the types in the service of the sanctuary were brought to view, and faith grasped the central object of all that system, - the Lamb of God, that was to take away the sin of the world (White, 1903, p. 47).

There is a study of history that is not to be condemned. Sacred history was one of the studies in the schools of the prophets. In the record of His dealings with the nations were traced the footsteps of Jehovah. So to-day we are to consider the dealings of God with the nations of the earth (White, 1904, Vol. 8, p. 307).

The chief subjects of study were the law of God with the instructions given to Moses, sacred history, sacred music, and poetry. It was the grand object of all study to learn the will of God and the duties of His people. In the records of sacred history were traced the footsteps of Jehovah. From the events of the past were drawn lessons of instruction for the future. The great truths set forth by the types and shadows of the Mosaic law were brought to view and faith grasped the central object of all that system, the Lamb of God that was to take away the sins of the world (White, 1923, p. 97).

Another aspect that makes more difficult the study of White's ideas on education is the tendency she had to place together in one chapter, and sometimes one paragraph, thoughts that were not

closely related. It seems as though her mind was so filled with ideas that the expression of one thought sometimes led to the expression of another, not always in the line of development she was undertaking. Maybe the method of compilation was partly responsible for this also. In a chapter headed "Books and Authors in Our Schools", for example, appears this paragraph:

How many can truthfully answer this question, What is the essential education for this time? Education means much more than many suppose. True education embraces physical, mental, and moral training, in order that all the powers shall be fitted for the best development, to do service for God, and to work for the uplifting of humanity. To seek for self-recognition, for self-glorification, will leave the human agent destitute of the Spirit of God, destitute of that grace which will make him a useful, efficient worker for Christ. Those who desire only to glorify God will not be striving to bring their supposed merits into notice, or striving for recognition, or for the highest place. They that hear the call of the world's Redeemer, and obey that call, will be recognized as a distinct, self-sacrificing, holy people (White, 1923, p. 387).

One looking for the aims of education, or characteristics of the people of God, would hardly expect to find it in a chapter such as this.

It must not be concluded from this that White's writings are difficult to read or understand. On the contrary, the extracts quoted illustrate the clarity and simplicity of her works.

Her sincerity and dignity of language are also evident. G. King-Taylor (1953, p. 35) says: "There are no vulgarisms, no slang, nothing ludicrous, nothing frivolous, no witty remarks to draw the reader's attention from the theme to the author's wit and sagacity.

The theme is serious, the author is serious, the style is serious".

A further aspect of White's style is its forcefulness and beauty. The following quotations illustrate these qualities:

His voice, clear and penetrating, pierces the ear of the dead. As He speaks divinity flashes through humanity. In His face, which is lighted up by the glory of God, the people see the assurance of His power. Every eye is fastened on the entrance to the cave. Every ear is bent to catch the slightest sound. With intense and painful interest all wait for the test of Christ's divinity, the evidence that is to substantiate His claim to be the Son of God, or to extinguish the hope forever.

There is a stir in the silent tomb, and he who was dead stands at the door of the sepulcher. His movements are impeded by the graveclothes in which He was laid away, and Christ says to the astonished spectators, "Loose him, and let him go". Again they are shown that the human worker is to co-operate with God. Humanity is to work for humanity. Lazarus is set free, and stands before the company, not as one emaciated from disease, and with feeble, tottering limbs, but as a man in the prime of life, and in the vigor of a noble manhood. His eyes beam with intelligence and with love for his Saviour. He casts himself in adoration at the feet of Jesus (White, 1940, p. 536).

In the annals of human history the growth of nations, the rise and fall of empires, appear as dependent on the will and prowess of men. The shaping of events seems, to a great degree, to be determined by his power, ambition, or caprice. But in the word of God the curtain is drawn aside, and we behold, behind, above, and through all the play and counter-play of human interests and power and passions, the agencies of the all-merciful One, silently, patiently working out the counsels of His own will (White, 1903, p. 173).

From the solemn roll of the deep-toned thunder and old ocean's ceaseless roar, to the glad songs that make the forests vocal with melody, nature's ten thousand voices speak His praise. In earth and sea and sky, with their marvellous tint and colour, varying in gorgeous contrast or blended in harmony, we behold His glory. The everlasting hills tell of His power. The trees that wave their green banners in the sunlight and the flowers in their delicate beauty point to their Creator. The living green that carpets the brown earth tells of God's

care for the humblest of His creatures. The caves of the sea and the depths of the earth reveal His treasures. He who placed the pearls in the ocean and the amethyst and chrysolite among the rocks is a lover of the beautiful (White, 1913a, p. 54).

A final characteristic of White's writings is the general absence of references to the works of authorities other than the Bible. When she used quoted speech it was often a record of what she claimed was spoken to her by a divine being, while she was in "vision", as in the following:

Hearing a voice, I turned to see who spoke to me. Then with dignity and solemnity One said, "Is this the celebration for the anniversary of the opening of the school? Is this the gratitude offering you present to God for the blessings He has given you? The world could render as acceptable an offering on this memorial occasion. . . ." (White, 1913a, p. 350).

CHAPTER V

WHITE'S PHILOSOPHY OF EDUCATION

The importance of one's philosophy of education is suggested by the definition of that term as given earlier (cf. p. 7). One's educational aims, for example, affect all school activities (Connell, 1962, p. 108). Consequently, White's educational philosophy is basic to an understanding of her contribution to education.

In this chapter, and those that follow, White's educational principles are often stated, and then followed by quotations illustrating the principle involved.

White claimed that the Bible contained a complete system of philosophy, and that this was to be preferred to the ideas of men. "The Bible contains a simple and complete system of theology and philosophy," she said (1913,^a p. 422). "Why take the unstable words of men as exalted wisdom, when a greater and certain wisdom is at your command?" (1913,^a pp. 30, 31). Again, she asserts, "The Bible must be made the groundwork and subject matter of education. . . . It should be used as the word of the living God, and esteemed as first, and last, and best in everything" (1923, p. 474).

Furthermore, she believed that the Bible painted a picture of the universe created by a God of love who was both a spirit and a

personal being. Since the one God originated the Bible and created the universe, the laws of the one do not contradict the laws of the other. God, still upholds his created works. In White's own words:

The mighty power that works through all nature and sustains all things is not, as some men of science claim, merely an all pervading principle, an actuating energy. God is a spirit; yet He is a personal being, for man was made in His image. As a personal being, God has revealed Himself in His Son (1903, pp. 131, 132).

Since the book of nature and the book of revelation bear the impress of the same master mind, they can not but speak in harmony. By different methods, and in different languages, they witness to the same great truths. . . . The book of nature and the written word shed light upon each other. They make us acquainted with God by teaching us something of the laws through which He works (1903, p. 126).

Nature and revelation alike testify of God's love (1908, p. 9).

However, nature is not now perfect, as it was when created. Since the entrance of sin, through the disobedience of man's first parents, nature has been perverted, and man has a bias toward evil. This bias has strengthened with the passing of time. Because of this perversion of nature, human reason, unless aided by divine guidance, is likely to reach erroneous conclusions.

And through man's disobedience a change was wrought in nature itself. Hained by the curse of sin, nature can bear but an imperfect testimony regarding the Creator. It can not reveal His character in its perfection.

.....

Apart from Christ we are still incapable of interpreting rightly the language of nature. The most difficult and humiliating lesson that man has to learn is his own

inefficiency in depending upon human wisdom, and the sure failure of his efforts to read nature correctly (White, 1904, pp. 256, 257).

God has permitted a flood of light to be poured upon the world, in both science and art; but when professedly scientific men treat upon these subjects from a merely human point of view, they will assuredly come to wrong conclusions (White, 1890, p. 113).

When Adam came from the Creator's hand, he bore, in his physical, mental, and spiritual nature, a likeness to his Maker. . . . All his faculties were capable of development; their capacity and vigor were continually to increase. . . . But by disobedience this was forfeited. Through sin the divine likeness was marred, and well-nigh obliterated. Man's physical powers were weakened, his mental capacity was lessened, his spiritual vision dimmed (White, 1903, p. 15).

But through sin the whole human organism is deranged, the mind is perverted, the imagination corrupted. . . .

. . . It is because the human heart is inclined to evil that it is so dangerous to sow the seeds of skepticism in young minds (1913^a, pp. 424, 425).

Since Adam's fall, the race has been degenerating. . . . And a sense of how much must be done to arrest, even in a degree, the physical, mental, and moral decay, caused my heart to be sick and faint (White, 1923, p. 23).

Life is a conflict between good and evil and, since man has a fallen nature, he is powerless to improve himself to any great extent. White explained it thus:

Not only intellectual but spiritual power, a perception of right, a desire for goodness, exists in every heart. But against these principles there is struggling an antagonistic power. The result of the eating of the tree of knowledge of good and evil is manifest in every man's experience. There is in his nature a bent to evil, a force which, unaided, he can not resist (1903, p. 29).

. . . in this world, as the result of sin, suffering, trouble, burdens, come to every life. We may do the children and the youth a lifelong good by teaching them to

meet bravely these troubles and burdens. . . .

They should be taught that this world is not a parade ground, but a battlefield (1954, p. 157).

It is impossible for us, of ourselves, to escape from the pit of sin in which we are sunken. Our hearts are evil, and we can not change them. . . . Education, culture, the exercise of the will, human effort, all have their proper sphere, but here they are powerless. They may produce an outward correctness of behaviour, but they can not change the heart; they can not purify the springs of life (1908, p. 20).

White's views lead her to the logical conclusion that to understand what was comprehended in the work of education four factors needed to be considered - the nature of man, the purpose of God in creating him, the change in man's condition through the coming in of a knowledge of evil, and God's plan for the fulfilment of His purpose under the changed conditions brought about by man's disobedience (1903, pp. 14, 15). Consequently, she said:

To restore in man the image of his Maker, to bring him back to the perfection in which he was created, to promote the development of body, mind, and soul, that the divine purpose in his creation might be realized, - this was to be the work of redemption. This is the object of education, the great object of life (1903, pp. 15, 16).

Our ideas of education take too narrow and too low a range. There is need of a broader scope, a higher aim. True education means more than the pursuit of a certain course of study. It means more than a preparation for the life that now is. It has to do with the whole being, and with the whole period of existence possible to man. It is the harmonious development of the physical, the mental, and the spiritual powers. It prepares the student for the joy of service in this world, and for the higher joy of wider service in the world to come (1903, p. 13).

A number of interesting conclusions emerge from these propositions,

and may be summarised thus:

1. Education is not confined to school, or this life.
2. Education and religion are closely related. Indeed, they are one.
3. Education has to do with the whole being.
4. Education is "the harmonious development" of the three facets of man; the physical, the mental, and the spiritual.
5. Education is a preparation for service in this world, and the world to come.
6. The source of educational wisdom is to be found in God, and not man. Man's wisdom is not to be trusted for two reasons: man's intellect is imperfect, and the natural world is so perverted that it cannot be interpreted aright by the human mind.
7. Man by nature is not wholly good or evil. However, he was created good, in the "image" of God.
8. Man is limited in the amount of improvement he can bring about.
9. The work of education is a high and noble one.
10. The Bible is to be the "groundwork and subject matter of education."
11. Nature study is important, since "the book of nature and the written word shed light upon each other" and "witness to the same great truths". They tell us of the laws through which God works.
12. God is a god of love, and the basis of education is love. "Love, the basis of creation and of redemption, is the basis of

true education" (1903, p. 16).

In the next section, each of these principles is examined.

1. Education Not Confined To School.

Elaborating this point, White stated:

The word "education" means more than a course of study at college. Education begins with the infant in its mother's arms. While the mother is molding and fashioning the character of her children, she is educating them.

Parents send their children to school; and when they have done this they think they have educated them. But education is a matter of greater breadth than many realize: it comprises the whole process by which the child is instructed from babyhood to childhood, from childhood to youth, and from youth to manhood (1954, p. 26).

Accordingly, White wrote much on the education of the child before going to school - what she called the "home school" (1913, p. 107), as well as the formal period of schooling. Of the home she said, "In the formation of character, no other influences count so much as the influence of the home" (1903, p. 283). On the period from youth to manhood she wrote an entire book, "Messages to Young People", devoting much attention to such topics as character building, preparation for the life work, health, reading and music, dress, recreation and amusements, social relations, courtship and marriage. A large proportion of her writings dealt with the adult, while, as the quotations in the section "Education and Religion Closely Related" illustrate (cf. pp. 185, 186), she did not omit education in the world to come.

For the purpose of this investigation, the study has been

largely limited to White's ideas on the education of the individual from babyhood to college level.

2. Education and Religion Closely Related.

Since the object of education is "to restore in man the image of his Maker" (cf. p. 178) or, as elsewhere stated, "To bring man back into harmony with God, so to elevate and ennoble his moral nature that he may again reflect the image of the Creator is the great purpose of all the education and discipline of life" (1913a, p. 49), the work of education and religion are one. "So important was this work that the Saviour left the courts of heaven, and came in person to this earth, that He might teach men how to obtain a fitness for the higher life" (1913a, p. 49). It follows that Christ's teachings are the basis of such an education.

So emphatic was White on this link between education and religion that she wrote, "Without the vital principles of true religion, without knowledge of how to serve and glorify the Redeemer, education is more harmful than beneficial" (1923, pp. 349, 350).

Such an education does not decri literary attainment. "While religion should be the pervading element in every school, it will not lead to a cheapening of the literary attainments" (1923, p. 118). "The religion of Christ never sanctions physical or mental laziness" (1923, p. 373). As a matter of fact, a Christian school should

have a higher standard than other schools. "God would not have us in any sense behind in educational work. Our colleges should be far in advance in the highest kind of education" (1913a, p. 45).

This view of religion and education has been neatly summarised thus:

The true teacher is not satisfied with second-rate work. He is not satisfied with directing his students to a standard lower than the highest which it is possible for them to attain. He can not be content with imparting to them only technical knowledge, with making them merely clever accountants, skilful artisans, successful tradesmen. It is his ambition to inspire them with principles of truth, obedience, honor, integrity, and purity, - principles that will make them a positive force for the stability and uplifting of society. He desires them above all else to learn life's great lesson of unselfish service (1903, pp. 29, 30).

It is important to notice that White saw two significant results from this type of education: an attitude of unselfish service, and the stability and uplifting of society. Its significance is seen in relation to three other statements she made:

. . . But the law that none "liveth to himself" (Rom 14:7), Satan was determined to oppose. He desired to live for self. He sought to make himself a center of influence. It was this that had incited rebellion in heaven, and it was man's acceptance of this principle that brought sin on earth. When Adam sinned, man broke away from the heaven-ordained center. A demon became the central power in the world. Where God's throne should have been Satan placed his throne (1913a, p. 33).

. . . To love Him, the infinite, the Omniscient One, with the whole strength and mind and heart, means the highest development of every power. It means that in the whole being - the body, the mind, as well as the soul - the image of God

is to be restored.

. . . The law of love calls for the devotion of body, mind, and soul to the service of God and our fellow men. And this service, while making us a blessing to others, brings the greatest blessing to ourselves. Unselfishness underlies all true development. Through unselfish service we receive the highest culture of every faculty (1913a, p. 32).

. . . What is the essential education for this time? Education means much more than many suppose. True education embraces physical, mental, and moral training, in order that all the powers shall be fitted for the best development, to do service for God, and to work for the uplifting of humanity (1923, p. 387).

These quotations make it clear that, in White's view, man has broken away from his true centre, God, and now has selfishness, in the person of Satan, as the central power in the world. Therefore, the work of education is to restore man to his true centre, God, and this achieved through denying self and loving God supremely. Unselfishness is basic to true development, and results in service through which every faculty receives its truest development. These faculties must not be confused with those of "faculty psychology", for White used the term in the sense of "All the varied capabilities that men possess - of mind and soul and body" (1913b, p. 595).

Religion, then, consists of two processes, a receiving and a giving or using. White explained it thus:

There is nothing, save the selfish heart of man, that lives unto itself. No bird that cleaves the air, no animal that moves upon the ground, but ministers to some other life. There is no leaf of the forest, or lowly blade of grass, but has its ministry. Every tree and shrub and leaf pours forth

that element of life without which neither man nor animal could live; and man, and animal in turn, minister to the life of tree and shrub and leaf. . . . The ocean, itself the source of all our springs and fountains, receives the streams from every land, but takes to give. The mists ascending from its bosom fall in showers to water the earth, that it may bring forth and bud.

.....

"I seek not Mine own glory," but the glory of Him that sent Me. John 8:50; 7:18. In these words is set forth the great principle which is the law of life for the universe. All things Christ received from God, but He took to give (1940, pp. 20, 21).

All things both in heaven and in earth declare that the great law of life is a law of service (1903, p. 403).

Religion is not limited to theory, but is extremely practical.

The religion of the Bible is not to be confined between the covers of a book, nor within the walls of a church. It is not to be brought out occasionally for our own benefit, and then to be carefully laid aside again. It is to sanctify the daily life, to manifest itself in every business transaction and in all our social relations (1940, p. 307).

The christian religion does not incapacitate one for the faithful discharge of any of life's essential duties. . . .

More indolent musing, idle contemplation, is not religion. God requires us to appreciate our varied endowments, and to multiply them by constant, practical use. His people are to be models of correctness in all the relations of life (1923, p. 419).

Evil of all forms must be shunned, and the life lived in accordance with God's laws, both moral and natural.

It is the beginnings of evil that should be guarded against. In the instruction of the youth the effect of apparently small deviations from the right should be made very plain (1903, p. 203).

They can at an early age, by patient instruction, be made

to understand that they should be made to obey the laws of their being if they would be free from pain and disease. They should understand that their lives cannot be useful if they are crippled by disease. Neither can they please God if they bring sickness upon themselves by the disregard of nature's laws (1954, p. 105).

It is just as much sin to violate the laws of our being as to break one of the ten commandments, for we cannot do either without breaking God's law (1885², p. 70).

Such religion is not harmful, but a necessity, ennobling man.

Pure and undefiled religion is not a sentiment, but the doing of works of mercy and love. This religion is necessary to health and happiness. It enters the polluted soul-temple, and with a scourge drives out the sinful intruders. . . . With it comes serenity and composure. Physical, mental, and moral strength increase, because the atmosphere of heaven, as a living, active agency, fills the soul (1930, p. 142).

True religion ennoble the mind, refines the taste, sanctifies the judgment, and makes its possessor partaker of the purity and influences of heaven (1930, p. 455).

However, the work of education is not completed in this life.

At some time in the future, not at death, if he has submitted himself to the control of God, man's nature will be changed, the imperfections removed, and his education continued through eternity.

As he awakens a desire to reach God's ideal, he presents an education that is as high as heaven and as broad as the universe; an education that can not be completed in this life, but that will be continued in the life to come; an education that secures to the successful student his passport from the preparatory school of earth to the higher grade, the school above (1903, p. 19).

Heaven is a school; its field of study, the universe; its teacher, the Infinite One. . . .

.....

Between the school established in Eden at the beginning and the school of the hereafter there lies the whole compass of

this world's history (1903, pp. 301, 302).

The veil that interposes between the visible and the invisible world will be drawn aside, and wonderful things will be revealed (1903, p. 304).

Sin defaced and almost obliterated the divine image; but Christ came to restore that which had been lost. He will change our vile bodies, and fashion them like unto His glorious body. The mortal, corruptible form, devoid of comeliness, once polluted with sin, becomes perfect, beautiful, and immortal. All blemishes and deformities are left in the grave. . . . The last lingering traces of the curse of sin will be removed, and Christ's faithful ones will appear "in the beauty of the Lord our God", in mind and soul and body reflecting the perfect image of their Lord. Oh, wonderful redemption long talked of, long hoped for, contemplated with eager anticipation, but never fully understood (1911; p. 645).

3. Education Has To Do With The Whole Being

Since "through sin the whole human organism is deranged" (cf. p. 177), and the object of education is to bring man "back to the perfection in which he was created" (cf. p. 178), education has to do with the whole man, physical, mental, and spiritual. White did not believe, as many philosophers and theologians have, that the body is a prison for the soul, hampering its development. Rather, she believed that the soul and physical body are interdependent, and that the body is the medium through which the mind and soul are developed for the upbuilding of character.

All should guard the senses, lest Satan gain victory over them; for these are the avenues of the soul (1952, p. 401).

The body is the only medium through which the mind and the soul are developed for the upbuilding of character. Hence it is that the adversary of souls directs his temptations

to the enfeebling and degrading of the physical powers. His success here means the surrender to evil of the whole being (1905, p. 130).

Emphasis on the education of the whole man, meant that White wrote at length on two aspects of education often overlooked; namely, the physical and spiritual. Typical were such statements as these:

By a misconception of the true nature and object of education, many have been led into serious and even fatal errors. Such a mistake is made when the regulation of the heart or the establishment of principles is neglected in the effort to secure intellectual culture, or when eternal interests are overlooked in the eager desire for temporal advantage (1913a, p. 49).

The present age is one of unparalleled interest in education. The wide diffusion of knowledge through the agency of the press, placing the means for self-culture within the reach of all, has awakened a general desire for mental improvement.

While we acknowledge with gratitude our increased facilities, we should not close our eyes to the defects in the present system of education. In the eager effort to secure intellectual culture, physical as well as moral training has been neglected (1923, p. 71).

This last extract was written in 1882.

There were two aspects of physical education that White drew attention to: physical exercise and health education. In the young student physical exercise is to be gained mainly through outdoor play, but in the older student through manual labour (1903, p. 215). Of health education, the following extract is typical:

Physical health lies at the very foundation of all the student's ambitions and his hopes. Hence the pre-eminent importance of gaining a knowledge of those laws by which health is secured and preserved. Every youth should learn how to regulate his dietetic habits, - what to eat, when to eat, and how to eat.

He should learn how many hours to give to study, and how much time to spend in physical exercise. The human body may be compared to nicely adjusted machinery, which needs care to keep it in running order. One part should not be subjected to constant wear and pressure, while another part is rusting from inaction (1923, p. 72).

A most interesting and vital assertion of White, that she frequently repeated in one form or another, showed the inter-relationship of the physical, mental and moral.

Physical inaction lessens not only mental but moral power. The brain nerves that connect with the whole system are the medium through which heaven communicates with man, and affects the innermost life. Whatever hinders the circulation of the electric current in the nervous system, thus weakening the vital powers and lessening mental susceptibility, makes it more difficult to arouse the moral nature.

Again, excessive study, by increasing the flow of blood to the brain, creates morbid excitability that tends to lessen the power of self-control, and too often gives sway to impulse or caprice. Thus the door is opened to impurity. The misuse or nonuse of the physical powers is largely responsible for the tide of corruption that is overspreading the world (1903, p. 209).

Not only is education concerned with the whole man, it is concerned with the fullest development of every faculty.

Our first duty toward God and our fellow beings is that of self-development. Every faculty with which the Creator has endowed us should be cultivated to the highest degree of perfection, that we may be able to do the greatest amount of good of which we are capable. Hence that time is spent to good account which is directed to the establishment and preservation of sound physical and mental health. We cannot afford to dwarf or cripple a single function of mind or body. . . . (1949, p. 137).

A consequence of this is that the curriculum cannot be narrow, and the teacher must take pains to see that the child's strengths are not emphasised at the expense of his weaknesses. The course

will vary with the individual.

Let them advance as fast and as far as they can; let their field of study be as broad as their powers can compass, making God their wisdom. . . (1923, p. 375).

The youth should be taught to aim at the development of all their faculties, the weaker as well as the stronger. With many there is a disposition to restrict their study to certain lines, for which they have a natural liking. This error should be guarded against. The natural aptitudes indicate the direction of the life-work, and, when legitimate, should be carefully cultivated. At the same time it must be kept in mind that a well-balanced character and efficient work in any line depend, to a great degree, on that symmetrical development which is the result of thorough, all-round training (1903, pp. 232, 233).

It is important to notice that while the studies should contribute to the development of the whole man, the breadth of the field of study, and the rate of progress in the studies, will depend on the powers of the individual.

In choosing the curriculum much thought is required, and much weeding out performed, so that only that which can be utilized is included.

The Lord Jesus imparted only such a measure of instruction as could be utilized. . . .

. . . The student becomes a mental dyspeptic by being crammed with much that he cannot use (1923, pp. 338, 339).

But a mind crowded with a mass of matter it will never be able to use, is a mind dwarfed and enfeebled, because only put to the task of dealing with commonplace material. . . .

All unnecessary matters need to be weeded from the course of study, and only such studies placed before the student as will be of real value to him (1923, p. 447).

4. Education the Harmonious Development of the Physical, the

Mental, and the Moral.

White's use of the expression "harmonious development" with reference to education is significant. Below are two examples:

It [education] is the harmonious development of the physical, the mental, and the spiritual powers (1903, p. 13).

True education means more than taking a certain course of study. It is broad. It includes the harmonious development of all the physical powers and the mental faculties (1913a, p. 64).

The term would seem to imply that since man is a unity, all aspects of his being need attention, no one receiving undue emphasis. The idea of balance is uppermost. The word "development" suggests an "unfolding", a "growth". That this was the intention is indicated by the following statements:

If he [the teacher] is a sincere Christian, he will feel the necessity of having an equal interest in the physical, mental, moral, and spiritual education of his pupils (1913a, p. 77).

We are to educate the youth to exercise equally the mental and the physical powers (1923, p. 538).

Moral, intellectual, and physical culture should be combined in order to have well-developed, well-balanced men and women. Some are qualified to exercise greater intellectual strength than others, while others are inclined to love and enjoy physical labor. Both of these classes should seek to improve where they are deficient, that they may present to God their entire being. . . . (1885^b, p. 157).

Parents and teachers should aim so to cultivate the tendencies of the youth that at each stage of life they may represent the beauty appropriate to that period, unfolding naturally, as do the plants in the garden.

. . . Children should not be forced into a precocious

maturity, but as long as possible should retain the freshness and grace of their early years (1903, p. 107).

True education is not the forcing of instruction on an unready and unreceptive mind (1903, p. 41).

If education is development, if it "is not the forcing of instruction on an unready mind", and if it is concerned with a natural unfolding, it is necessary to study the child in order to be aware of the stages of growth. Otherwise the child's education will be forced.

Parents should not lightly regard the work of training their children, nor neglect it upon any account. They should employ much time in careful study of the laws which regulate our being. They should make it their first object to become intelligent in regard to the proper manner of dealing with their children, that they may secure to them sound minds in sound bodies (1954, pp. 21, 22).

Those to whom the care of the little children is committed are too often ignorant of its physical needs; they know little of the laws of health or the principles of development. Nor are they better fitted to care for its mental and spiritual growth. . . .

. . . Before taking upon themselves the possibilities of fatherhood and motherhood, men and women should become acquainted with the laws of physical development - with physiology and hygiene, with the bearing of prenatal influences, with the laws of heredity, sanitation, dress, exercise, and the treatment of disease; they should also understand the laws of mental development and moral training (1954, pp. 63, 64).

Cultivating the tendencies of the youth does not mean letting them do as they like, following their inclinations. On this point White is unequivocal. In a statement published in 1913, she said:

We are living in an unfortunate age for the young. The

prevailing influence in society is in favor of allowing the youth to follow the natural turn of their own minds. If their children are very wild, parents flatter themselves that when they are older and reason for themselves, they will leave off their wrong habits, and become useful men and women. What a mistake! (1913a, pp. 325, 326).

In 1896 she wrote:

Parents need not feel that it is necessary to repress the activity of their children, but they are to understand that it is essential to guide and train them in right and proper directions. These active impulses are like the vines, that, if untrained, will run over every stump and brush, and fasten their tendrils upon low supports. If the vines are not trained about some proper support, they waste their energies to no purpose. So it is with children (1924, pp. 35, 36).

It is obvious that for this all-round development, the student must do more than learn from books.

. . . but the education given must not be confined to a knowledge of text-books merely. The study of text-books alone cannot afford students the discipline they need, nor can it impart true wisdom. The object of our schools is to provide places where the younger members of the Lord's family may be trained according to His plan of growth and development (1900b, pp. 126, 127).

White emphasised that every child should be educated for practical life. Hence manual labour was essential.

We are reformers. We desire that our children should study to the best advantage. In order to do this, employment should be given them which will call into exercise the muscles. Daily, systematic labor should constitute a part of the education of youth even at this late period (1900b, p. 180).

It reveals cowardice to move so slowly and uncertainly in the labor line, - that line which will give the very best kind of education (1900b, p. 178).

God designs that all shall be workers (1913a, p. 280).

If one has to choose between a "book" education, or a knowledge of labour for practical life, which should be chosen?

White's discussion of this was:

If the youth can have but a one-sided education, which is of the greater consequence, a knowledge of the sciences, with all the disadvantages to health and life, or a knowledge of labor for practical life? We unhesitatingly answer, The latter. If one must be neglected, let it be the study of books (1913a, p. 289).

5. Education a Preparation for Service in This World, and the World to Come.

The purpose of the development of the whole man is not to glorify self, but to prepare for service.

True education embraces physical, mental, and moral training, in order that all the powers shall be fitted for the best development, to do service for God, and to work for the uplifting of humanity. To seek for self-recognition, for self-glorification, will leave the human agent destitute of the Spirit of God (1923, p. 387).

He the true teacher desires then his students, above all else, to learn life's great lesson of unselfish service (1903, p. 30).

It has been noticed earlier that "unselfishness underlies all true development" (cf. p. 183). One's abilities are to be employed for the glory of God, and in this way they are used for the purest, noblest, happiest purpose. "Every faculty, every attribute, with which the Creator has endowed the children of men, is to be employed for His glory; and in this employment is found its purest, noblest, happiest exercise" (1923, p. 544).

The schools of the church are to prepare for missionary work. Accordingly students are to be trained to engage in institutional and gospel work (such as evangelism).

Our schools are the Lord's special instrumentality to fit the children and youth for missionary work (1913a, p. 149).

The Lord calls upon those connected with our schools and sanitariums and publishing houses to teach the youth to do evangelistic work (1913a, p. 494).

One great object of our schools is the training of youth to engage in service in our institutions and in different lines of gospel work (1900b, p. 133).

The children are to be trained to recognize the claims of society upon them.

Students at school should have had their moral sensibilities aroused to see and feel that society has claims upon them, and that they should live in obedience to natural law, so that they can, by their existence and influence, by precept and example, be an advantage and blessing to society. It should be impressed upon the youth that all have an influence that is constantly telling upon society, to improve and elevate, or to lower and debase (1885, p. 142).

Consequently they are not to disregard the needy and suffering.

The children must be made aware of the suffering in the world, and the opportunity this affords for service. Practical training is the best preparation for such service, be it local or overseas.

Love and loyalty to Christ are the spring of all true service. In the heart touched by His love, there is begotten a desire to work for Him. Let this desire be encouraged and rightly guided. Whether in the home, the neighbourhood, or the school, the presence of the poor, the afflicted, the ignorant, or the unfortunate, should be regarded, not as a misfortune, but as affording precious opportunity for service.

In this work, as in every other, skill is gained in the work itself. It is by training in the common duties of life and in ministry to the needy and suffering, that efficiency is assured. Without this the best-meant efforts are often useless and even harmful. It is in the water, not on the land, that men learn to swim (1903, p. 268).

It is acquaintance that awakens sympathy, and sympathy is the spring of effective ministry. To awaken in the children and youth sympathy and the spirit of sacrifice for the suffering millions in the "regions beyond", let them become acquainted with these lands and their peoples (1903, p. 269).

The command of heaven is to do, to work, - to do something that will reflect glory to God by being a benefit to our fellow men (1913a, p. 406).

Those who go forth from our schools to engage in mission work will have need of an experience in the cultivation of the soil and in other lines of manual labor. They should receive a training that will fit them to take hold of any line of work in the fields to which they shall be called. No work will be more effectual than that done by those who, having obtained an education in practical life, go forth prepared to instruct as they have been instructed (1923, p. 512).

The curriculum is to be aimed at preparing the student to serve God in this world. In White's words, "There is another kind of education that is very different. . . . Its aim is not selfish; its purpose is to honor God, and to serve Him in the world. Both the studies pursued and the industrial training sought have this object in view" (1913a, p. 64).

Training for service is not limited to this world, however, for it will be continued in the world to come.

In our life here, earthly, sin-restricted though it is, the greatest joy and the highest education are in service. And in the future state, untrammelled by the limitations of sinful humanity, it is in service that our greatest joy and our highest education will be found. . . (1903, p. 309).

6. The Source of Educational Wisdom Is God.

White was most emphatic that human ideas on education were not to be placed above God's ideas. Human ideas, at best, are a

mixture of truth and error. Therefore, the greatest educational book is that which expresses God's thoughts - the Bible.

The judgment of men, even of teachers, may be very wide of the mark as to what constitutes true education (1923, p. 448).

Let not man's assertions be considered as truth when they are contrary to the word of God (1923, p. 446).

From Christ all truth radiates. Apart from Christ, science is misleading, and philosophy is foolishness (1932, p. 97).

These men had received their talents from God, and every gem of thought by which they had been esteemed worthy of the attention of scholars and thinkers, belongs not to them, but to the God of all wisdom, whom they did not acknowledge. Through tradition, through false education, these men are exalted as the world's educators; but in going to them students are in danger of accepting the vile with the precious; for superstition, specious reasoning, and error are mingled with portions of true philosophy and instruction. . . . Those who have a thirst for knowledge need not go to these polluted fountains, for they are invited to come to the fountain of life and drink freely. Through searching the word of God, they may find the hidden treasure of truth that has long been buried beneath the rubbish of error, human tradition, and opinions of men (1923, pp. 170, 171).

White went so far as to say that the confusion in education, and the widespread iniquity in the world, was the result of a failure to put God's ideas first in education.

The confusion in education has come because the wisdom and knowledge of God have not been exalted (1913a, p. 447).

It is because Christ's words are disregarded, because the word of God is given a second place in education, that infidelity is riot and iniquity is rife (1913a, p. 439).

Because of this, in the schools of the Seventh-day Adventist Church the Bible was to be given the highest place, and the schools were not to be patterned after any other school in

existence.

The Holy Scriptures are the perfect standard of truth, and as such should be given the highest place in education (1903, p. 17).

If our institutions are what God designs they should be, those connected with them will not pattern after worldly institutions (1923, p. 502).

Our school the Avondale School is not to pattern after any school that has been established in America, or after any school that has been established in this country Australia (1915, p. 374).

If you had never read one word in these books books that had been advocated as essential to a higher education, you would to-day be far better able to comprehend that Book, which, above all other books, is worthy to be studied, and which gives the only correct ideas regarding higher education (1900b, p. 162).

As one receives this kind of education, one is enabled to interpret nature correctly and to make the best use of knowledge.

The closer our connection with God, the more fully can we comprehend the value of true science; for the attributes of God, as seen in His created works, can be best appreciated by him who has a knowledge of the Creator of all things, the Author of all truth. Such can make the highest use of knowledge; for when brought under the full control of the Spirit of God, their talents are rendered useful to the fullest extent (1913a, p. 38).

Religion makes one feel the need of thorough knowledge.

While a religious atmosphere should pervade the school, diffusing its influence, it will make all who are truly Christians feel more deeply their need of thorough knowledge, that they may make the best use of the faculties that God has bestowed upon them (1923, p. 118).

The Christian will seek to put to the stretch every power of the mind, and will be guided in all things by theology and common sense.

. . . and will seek constantly to put to the stretch their powers of mind, that they may become intelligent Christians (1923, p. 118).

We are to be guided by true theology and common sense (1913a, p. 257).

The sources of education, then, are the God-appointed ones of the Scriptures, useful work, nature, and the experiences of life.

His [Christ's] education was gained directly from the Heaven-appointed sources; from useful work, from the study of the Scriptures and of nature, and from the experiences of life, - God's lesson-books, full of instruction to all who bring to them the willing hand, the seeing eye, and the understanding heart (1903, p. 77).

Of the Bible and nature as educators, Sections 10 and 11 deal (cf. pp. 206 - 210). Of useful work, White said:

To Adam and Eve was committed the care of the garden . . . Though rich in all that the Owner of the universe could supply, they were not to be idle. Useful occupation was appointed them as a blessing, to strengthen the body, to expand the mind, and to develop the character (1903, p. 21).

Let us teach the little ones to help us while their hands are small and their strength is slight. Let us impress upon their minds the fact that labor is noble, that it was ordained to man of heaven, that it was enjoined upon Adam in Eden, as an essential to development of mind and body (1954, p. 127).

The experiences of life that are to be a source of education are not limited to one's personal experiences, but they do include them.

A careful study of the working out of God's purpose in the history of nations and in the revelation of things to come, will help us to estimate at their true value things seen and things unseen, and to learn what is the true aim of life (1917, p. 548).

These histories Joseph, Daniel, Elisha, Moses, Paul are of vital interest. To none are they of deeper importance than to the youth (1903, p. 68).

In all the facts and experiences of life were revealed a divine lesson and the possibility of divine companionship (1903, p. 83).

As they learn thus to study the lessons in all created things, and in all life's experiences, show that the same laws which govern the things of nature and the events of life are to control us; that they are given for our good; and that only in obedience to them can we find true happiness and success (1903, p. 103).

7. Man Not Wholly Good or Evil.

Of the first man, as created by God, White said:

Man was to bear God's image, both in outward resemblance and in character. Christ alone is "the express image" Hebrews 1:3 of the father; but man was formed in the likeness of God. His nature was in harmony with the will of God. His mind was capable of comprehending divine things. His affections were pure; his appetites and passions were under the control of reason. He was holy and happy in bearing the image of God, and in perfect obedience to his will.

As man came forth from the hand of his Creator, he was of lofty stature and perfect symmetry. His countenance bore the ruddy tint of health, and glowed with the light of life and joy. Adam's height was much greater than that of men who now inhabit the earth (1913b, p. 45).

A number of features of this description are important:

1. Man was made in God's image, both in outward resemblance and in character. Consequently, Adam was much taller than man to-day, was healthy, and of perfect symmetry, and his nature was in harmony with the will of God.
2. His mind was able to comprehend divine things.
3. His appetites and passions were under the control of reason.

Further, White affirmed that:

It was His purpose that the longer man lived, the more fully he should reveal this image, - the more fully reflect the glory of the Creator. All his faculties were capable of development; their capacity and vigor were continually to increase (1903, p. 15).

With sin this state of things was changed.

But by disobedience this was forfeited. Through sin the divine likeness was marred, and well-nigh obliterated. Man's physical powers were weakened, his mental capacity was lessened, his spiritual vision dimmed. He had become subject to death (1903, p. 15).

According to White, man's nature is threefold.

The nature of man is threefold, and the training enjoined by Solomon comprehends the right development of the physical, intellectual, and moral powers (1923, p. 57).

Therefore, every part of man's nature was marred as a result of disobedience. This accords with the statement of White noted earlier: "through sin the whole human organism is deranged" (cf. p. 177).

Through the appetite, the first man fell from his high state, and through appetite the race have been enfeebled.

Appetite and passion have brought reason into subjection.

Through the temptation to indulge appetite, Adam and Eve first fell from their high, holy, and happy estate. And it is through the same temptation that the race have become enfeebled. They have permitted appetite and passion to take the throne, and to bring into subjection reason and intellect (1923, p. 23).

The position as a result of sin, then, is:

1. The image of God in man is marred, and well-nigh obliterated.

2. Man's mind is not able to comprehend as formerly.
3. The appetites and passions have controlled reason.
4. Man's development is more limited.

Consequently, man is a mixture of good and evil, and the two elements are in conflict.

Not only intellectual but spiritual power, a perception of right, a desire for goodness, exists in every heart. But against these principles there is struggling an antagonistic power. . . . There is in his nature a bent to evil. . . (1903, p. 29).

White had the conception of man originally being endowed with a "vital force" which, at least in part, was electrical energy, and which has been progressively decreased by disobedience to God's laws (moral and natural).

God endowed man with so great vital force that he has withstood the accumulation of disease brought upon the race in consequence of perverted habits, and has continued for six thousand years. This fact of itself is enough to evidence to us the strength and electrical energy that God gave to man at his creation. It took more than two thousand years of crime and indulgence of base passions to bring bodily disease upon the race to any great extent. If Adam, at his creation, had not been endowed with twenty times as much vital force as men now have, the race, with their present habits of living in violation of natural law, would have become extinct. . . .

. . . it [degeneration] has been brought about by wrong habits and abuses, by violating the laws that God has made to govern man's existence (1923, pp. 22, 23).

Concerning this electrical force, White further wrote:

The influence of the mind on the body, as well as of the body on the mind, should be emphasized. The electric power of the brain, promoted by mental activity, vitalized the whole system, and is thus an invaluable aid in resisting disease. This should be made plain (1903, p. 197).

Once again the interdependence of the mental, physical, and moral has been emphasised.

Because the work of education is to restore man to the perfection in which he was created (1903, pp. 15, 16), man has to be transformed into the image of his Maker, his mind developed to comprehend divine things, his appetites and passions subjected to the control of reason, and all his powers developed harmoniously.

8. Man, Unaided, Can Make Only Limited Improvement.

White believed that reliance on self-development was not enough, because of man's imperfect nature since Adam's sin. Man cannot elevate himself.

It is claimed by some that the human race is in need, not of redemption, but of development, - that it can refine, elevate, and regenerate itself. . . . Humanity has no power to regenerate itself. It does not tend upward, toward the divine, but downward, toward the satanic (1913b, p. 73).

Education, she believed, was of no real value without God's aid.

Without the influence of divine grace, education will prove no real advantage; the learner becomes proud, vain, and bigoted (1913a, p. 94).

When God is not depended upon, the result of education is only to elevate ungodliness (1923, p. 258).

On the other hand, when consecrated to God, the student receives a new endowment of physical and mental power, as defiling habits are abandoned and the laws of God are obeyed.

The intellect is to be kept thoroughly awake with new, earnest, whole-hearted work. How is it to be done? The power of the Holy Spirit must purify the thoughts and cleanse the soul of its moral defilement. Defiling habits not only

abase the soul, but debase the intellect. Memory suffers, laid on the altar of base, hurtful practices. . . . When teachers and learners shall consecrate soul, body, and spirit to God, and purify their thoughts by obedience to the laws of God, they will continually receive a new endowment of physical and mental power (1923, p. 227).

Intellect is only supreme when dedicated to God. White stated, "He will learn the most useful of all lessons, - that intellect is supreme only as it is sanctified by a living connection with God" (1923, p. 450).

9. The Work of Education a High and Noble One.

It follows that, because education has to do with the whole man, and is the harmonious development of the physical, the mental and the spiritual powers, aimed at restoring in man "the image of his Maker" (cf. p. 178), it is a most difficult, important, and noble work.

The deeper the sense of responsibility, and the more earnest the effort for self-improvement, the more clearly will the teacher perceive and the more keenly regret the defects that hinder his usefulness. As he beholds the magnitude of his work, its difficulties and possibilities, often will his heart cry out, "Who is sufficient for these things?" (1903, pp. 281, 282).

There is no more important work that can be done than the educating and training of these youth and children (1923, p. 267).

No work ever undertaken by man requires greater care and skill than the proper training and education of youth and children. There are no influences so potent as those which surround us in our early years (1923, p. 57).

He who co-operates with the divine purpose in imparting to the youth a knowledge of God, and molding the character into harmony with His, does a high and noble work (1903, p. 19).

As a result, the teachers need to be chosen with the greatest

care.

In selecting teachers we should use every precaution, knowing that this is as solemn a matter as the selecting of persons for the ministry. Wise men who can discern character should make the selection; for the very best talent that can be secured is needed to educate and mould the minds of the young (1900b, p. 200).

The first requisite of the teacher is that he be what he wants his pupils to become. He must have a thorough understanding of the Bible, and have a close connection with God.

The teacher should be himself what he wishes his students to become (1913a, p. 65).

All who teach in our schools should have a close connection with God, and a thorough understanding of His word, that they may be able to bring divine wisdom and knowledge into the work of educating the youth for usefulness in this life, and for the future, immortal life (1900b, p. 153).

This means he must have a symmetrical character, be acquainted with manual labour, have a sound academic background, be master of the subjects he is to teach, be aware of human nature and the laws governing the growth of the individual, have a healthy body and sound habits, and live to serve God and man. All of these essentials have been dealt with in a later chapter (cf. pp. 240 - 242).

Of the work of education, White states:

The Christian aims to reach the highest attainments for the purpose of doing others good. Knowledge harmoniously blended with a Christlike character will make a man a light in the world. God works with human efforts (1913a, p. 505).

The essential work is to conform the tastes, the appetites, the passions, the motives, the desires, to the great standard of righteousness. The work must begin in the heart. Unless the heart is wholly conformed to Christ's will, some master passion, or some habit or defect, will become a power to

destroy (1913a, p. 505).

What do students carry with them when they leave school? Where are they going? What are they to do? Have they the knowledge that will enable them to teach others? Have they been educated to be true fathers and mothers? Can they stand at the head of a family as wise instructors? The only education worthy of the name is that which leads young men and women to be Christlike, which fits them to bear life's responsibilities, fits them to stand at the head of their families (1913a, p. 382).

Concerning specific teaching methods, White had practically nothing to say. She confined her remarks to general principles and emphasised that the methods used in the Garden of Eden and by Christ, were those to be followed in the school.

The system of education instituted at the beginning of the world, was to be a model for man throughout all after-time (1903, p. 20).

The system of education established in Eden centered in the family (1903, p. 33).

Our schools . . . should be family schools, where every student will receive special help from his teachers (1900b, p. 152).

He Christ came to show how men are to be trained as befits the sons of God (1903, p. 74).

Only through sympathy, faith, and love can men be reached and uplifted. Here Christ stands revealed as the master teacher (1903, p. 78).

What He taught, He lived (1903, p. 78).

Christ was a faithful reprover. . . . In every human being, however fallen, He beheld a son of God (1903, p. 79).

Because of the importance of education, all should be allowed to receive a schooling. The future of society will depend on this work.

. . . all our youth should be permitted to have the blessings and privileges of an education at our schools. . . . They all need an education, that they may be fitted for usefulness, qualified for places of responsibility in both private and public life (1913a, p. 44).

The future of society will be determined by the youth of to-day (1913a, p. 47).

10. The Bible the "Groundwork and Subject Matter of Education".

"Since God is the source of all true knowledge", wrote White, "it is . . . the first object of education to direct our minds to His own revelation of Himself" (1903, p. 16). This revelation is now imperfectly seen in nature, but more fully in the Bible.

Nature still speaks of her Creator. Yet these revelations are partial and imperfect. . . . We need the fuller revelation of Himself that God has given in His written word.

The Holy Scriptures are the perfect standard of truth, and as such should be given the highest place in education. To obtain an education worthy of the name, we must receive a knowledge of God, the Creator, and of Christ, the Redeemer, as they are revealed in the sacred word (1903, p. 17).

The study of the Bible develops and strengthens the intellect.

The Bible is a "grand stimulus", directing the life aright, and it contains wisdom, poetry, history, biography, and philosophy. It is the great educating power.

The word of God should be made the great educating power. . . . Here is the grand stimulus, the hidden force which quickens the mental and physical powers, and directs the life into right channels. Here in the word is wisdom, poetry, history, biography, and the most profound philosophy. Here is a study that quickens the mind into a vigorous and healthy life, and awakens it to the highest exercise. It is impossible to study the Bible with a humble, teachable spirit, without developing and strengthening the intellect (1923, p. 432).

These were high claims that White made for Bible study, but she repeatedly made them. Here is a further example:

The Holy Scriptures were the essential study in the schools of the prophets in Old Testament times, and they should hold the first place in every educational system; for the foundation of all right education is a knowledge of God. Used as a textbook in our schools, the Bible will do for mind and morals what cannot be done by books of science and philosophy. As a book to discipline and strengthen the intellect, to ennoble, purify and refine the character, it is without a rival. . . . Its teachings have a vital bearing upon our prosperity in all the relations of life. Even in our temporal affairs it will be a wiser guide than any other counselor. Its divine instruction points the only way to true success. There is no social position, no phase of human experience, for which the study of the Bible is not an essential preparation (1913a, p. 422).

However, more than a mere reading of the Bible is necessary for these results to be realised.

But the mere reading of the word will not accomplish the result designed of heaven: it must be studied, and cherished in the heart (1913a, p. 423).

The Bible is just as necessary to guide the researcher.

Men of the greatest intellects, if not guided by the word of God in their research, become bewildered; they cannot comprehend the Creator or His works (1923, p. 84).

Unfortunately, according to White, Christendom professes belief in the Scriptures as the word of God, but relegates them to an inferior position in the educational system. Instead, people rely on better educational facilities, greater skill, and innovations in methods. The state of society shows the inadequacy of these alternatives to Bible study.

The education given to the young moulds the whole social

fabric. Throughout the world society is in disorder, and a thorough transformation is needed. Many suppose that better educational facilities, greater skill, and more recent methods will set things right. They profess to believe and receive the living oracles, and yet they give the word of God an inferior position in the great framework of education. That which should stand first is made subordinate to human inventions (1900b, p. 150).

Thus, on the contentious question of morals, White believed that "morality cannot be separated from religion" (1932, p. 99).

11. Nature Study Important.

White repeatedly affirmed that the impress of the Deity is evident in the natural world. Nature is not maintained by any inherent energy, but the power of God. Man's physical organism, for example, is not like a clock which is set in operation and then goes of itself. The laws of nature are the laws that control human life. These laws are God's servants through which He effects results.

It is not to be supposed that a law is set in motion for the seed to work itself, that the leaf appears because it must do so of itself. God has laws that He has instituted, but they are only the servants through which He effects results. It is through the immediate agency of God that every tiny seed breaks through the earth and springs into life. Every leaf grows, every flower blooms, by the power of God.

The physical organism of man is under the supervision of God, but it is not like a clock, which set in operation, and must go of itself. The heart beats, pulse succeeds pulse, breath succeeds breath, but the entire being is under the supervision of God (1932, p. 9).

Upon all created things is seen the impress of the Deity. Nature testifies of God. The susceptible mind, brought in contact with the miracle and mystery of the universe, can not but recognize the working of infinite power. Not by its own inherent energy does the earth produce its bounties,

and year by year continue its motion around the sun. An unseen hand guides the planets in their circuit of the heavens. A mysterious life pervades all nature, - a life that sustains the unnumbered worlds throughout immensity. . . .

The same power that upholds nature, is working also in man. The same great laws that guide alike the star and the atom, control human life. The laws that govern the heart's action, regulating the flow of the current of life to the body, are the laws of the mighty Intelligence that has the jurisdiction of the soul. From Him all life proceeds. Only in harmony with Him can be found its true sphere of action. For all the objects of His creation the condition is the same, - a life sustained by receiving the life of God, a life exercised in harmony with the Creator's will. To transgress His law, physical, mental, or moral, is to place one's self out of harmony with the universe, to introduce discord, anarchy, ruin (1903, p. 99).

Accordingly, children are to be taught to reason from cause to effect.

Teach your children to reason from cause to effect. Show them that if they violate the laws of their being, they must pay the penalty in suffering (1913a, p. 126).

It is easy to see, in the light of these assertions, why White stated that "next to the Bible, nature is to be our great lesson-book" (1900b, p. 185).

These views are contrary to the commonly accepted theory of evolution. This was one of the reasons for the establishment of a separate Seventh-day Adventist system of education.

One reason why it was necessary to establish institutions of our own was the fact that parents were not able to counteract the influence of the teaching their children were receiving in the public schools, and the error there taught was leading the youth into false paths. No stronger influence could be brought to bear upon the minds of the youth and children than that of those who were educating them in principles of science. For this reason it was evident that schools must be established

in which our children should be instructed in the way of truth (1923, p. 285).

12. God Is a God of Love, and the Basis of Education is Love.

God is invisible, eternal and unchangeable.

He [Christ] spoke of the Messiah as a reliever of the oppressed. . . . The tide of divine influence broke every barrier down; like Moses, they [Christ's hearers] beheld the Invisible (1940, p. 237).

Jehovah engraved His Ten Commandments on tables of stone, that all the inhabitants of earth might understand His eternal, unchangeable character (1913a, p. 248).

His crowning grace is love. Wrote White, "You should have the crowning grace of God, which is love" (1885^c, p. 418).

God's character is revealed in a number of ways: through the Scriptures, through the influence of His Spirit on the heart of man, through science, through human associates, through the workings of divine providence, but, best of all, through Jesus Christ. Because a knowledge of God is essential to education, all these avenues of revelation must be used by the teacher.

In a knowledge of God, all true knowledge and real development have their source (1903, p. 14).

Many are the ways in which God is seeking to make Himself known to us. . . . Nature speaks to our senses without ceasing (1908, p. 89).

God speaks to us through His providential workings, and through the influence of His Spirit upon the heart. In our circumstances and surroundings, in the changes daily taking place around us, we may find precious lessons. . . . God speaks to us in His Word. Here we have in clearer lines the revelation of His character (1908, pp. 91, 92).

Happy the child . . . to whom the tenderness and justice and long-suffering of father and mother and teacher interpret the love and justice and long-suffering of God (1903, p. 245).

He who had stood in the councils of the Most High, who had dwelt in the innermost sanctuary of the Eternal, was the One chosen to reveal in person to humanity the knowledge of God (1903, p. 73).

As the interpreter of God's character, particularly His love, the teacher must reveal by his example, his words, and his methods the principle of love. Such love is the key to the child's heart.

He who would control his pupils must first control himself. To gain their love, he must show by look and word and act that his heart is filled with love for them (1923, p. 59).

Love is the key to a child's heart (1954, p. 271).

However, this love is different from the love based on impulse, and is a principle that underlies God's government, as well as being the foundation of Christian character. It reveals itself in sacrifice.

True love is a high and holy principle, altogether different in character from that love which is awakened by impulse, and which suddenly dies when severely tested (1913b, p. 176).

Love must be the principle of action. Love is the underlying principle of God's government in heaven and earth, and it must be the foundation of the Christian's character. This alone can make and keep him steadfast. This alone can enable him to withstand trial and temptation.

And love will be revealed in sacrifice (1900a, p. 49).

True love does not lead to indulgence, though

. . . the love that leads parents to indulge their children in unlawful desires is not a love that will work for their good. The earnest affection which springs from love to Jesus will enable parents to exercise judicious authority and to require prompt obedience (1954, p. 271).

There are two ways to deal with children. They have different results and are based on different principles.

There are two ways to deal with children - ways that differ widely in principle and results. Faithfulness and love, united

with wisdom and firmness, in accordance with the teachings of God's Word, will bring happiness in this life and in the next. Neglect of duty, injudicious indulgence, failure to restrain or correct the follies of youth, will result in unhappiness and final ruin to the children and disappointment and anguish to the parents (1954, p. 258).

Accordingly, love is the basis of true education, resulting in the highest development of every power, and the restoration of the image of God in man.

Love, the basis of creation and of redemption, is the basis of true education. . . . To love Him, the infinite, the Omniscient One, with the whole strength and mind and heart, means the highest development of every power. It means that in the whole being - the body, the mind, as well as the soul - the image of God is to be restored (1913a, p. 32).

PART III

An examination of White's ideas in the context of educational thought and practice in the nineteenth century, and her contribution to education.

CHAPTER VI

WHITE'S IDEAS IN THE CONTEXT OF
EDUCATIONAL THOUGHT AND PRACTICE
IN THE NINETEENTH CENTURY

In this chapter, White's educational ideas as expressed in writings up to 1903, are considered in the context of the educational ideas and practice of the nineteenth century, outlined in Chapter II. They are considered under the headings Administration, Curriculum, Teacher-Training, Methods of Teaching, and Miscellaneous. In this way an evaluation is made of her ideas in the light of theory and practice in the United States in the nineteenth century.

The year 1903 is chosen because in that year White's main educational book, "Education", was published, and by then all her main educational ideas had been expressed.

1. ADMINISTRATION

White (1923, p. 27), in 1872, criticised the ill-ventilated schoolrooms with their poorly constructed benches. In 1903, she claimed that many schools were still subject to the same criticism.

The physical inaction which seems almost inevitable in the schoolroom - together with other unhealthful conditions - makes it a trying place for children, especially for those of feeble constitution. Often the ventilation is insufficient. Ill-formed seats encourage unnatural positions, thus cramping the action of the lungs and the heart. . . . No wonder that

in the schoolroom the foundation of lifelong illness is so often laid (1903, p. 207).

The truth of these statements was supported from a number of sources (cf. pp. 75 - 77). White, therefore, advocated "homelike" buildings (1900, p. 208) built on "high, well-drained ground", providing good ventilation, comfortable seating and plenty of sunlight (1909, p. 274; 1903, p. 207). She also stressed that where possible they should be built in the quiet countryside, with ample land for cultivation (cf. pp. 136, 137).

Evidence that from 1849, when Henry Barnard published "School Architecture", such features received increasing attention, was given (cf. p. 76). Cubberley stated, in 1934, that:

. . . in 1848 the new Quincy Grammar School with its smaller classrooms and an assembly room, set a new pattern and standard in grade-school architecture. . . .

Beginning about 1900, a superior type of elementary-school building began to be erected. . . . There was also added play space, and an improvement in what had preceded in lighting, heating, ventilation, and sanitary arrangements. . . . That many school buildings, even in our cities, are not of this type, is unfortunately still too true.

. . . many new forms of desks and tables have been introduced . . . and in dozens of other ways the comfort, convenience, sanitation, and attractiveness of school buildings have been enhanced. Still more, instead of crowding two - or three - story elementary-school buildings on a quarter of a city block, as used to be done quite commonly, and with almost no play space, the whole tendency of the past twenty-five years has been toward buildings of not more than two stories, outside of the largest cities, and the provision of ample play-ground space (Cubberley, 1947, pp. 604, 605).

Thus, White's ideas from 1872 - 1903 were fully in accord with the growing tendency in the United States, especially after 1900, in the

location and health-arrangements of the school.

Concerning the staff, White emphasised that teachers should be carefully selected, high moral character being a major requirement (cf. p. 204). In many places in the U.S.A. early in the nineteenth century this appeared to be a theoretical requirement in that an examination and certification from the minister of the town was required. However, Carter, in 1824, said this was a "perfect farce" (Knight and Hall, 1951, p. 404).

In the early normal schools, pupils had, as one of the requirements for admission, to provide a certificate of good moral character. Other requirements were good health, a minimum age of sixteen, and an examination of the "common branches" (Drake, 1955, p. 379). These are in line with White's ideas (cf. p. 204), but it is apparent that, in practice, in the United States, they did not reach the standard that White advocated. Meyer (1949, p. 412) says, concerning character requirements,

In the cities the private lives of teachers have been pretty much their own, and as long as they comport themselves no worse than the average moral citizen, they may do as they please.

Linked with the standing of the teacher and teaching is the question of wages. Knight and Hall affirmed that "Until far into the nineteenth century. . . teachers were as poorly prepared, respected, and rewarded as the standards of the time required" (Knight and Hall, 1951, p. 465). White wrote that teachers were to receive "wages sufficient to support themselves and their families"

(1911a, pp. 340, 341), and that there was injustice if teachers were paid no more than "mechanical workers" (1951, p. 305). This makes interesting reading alongside such statements as that, in 1833, teachers generally did not earn as much as could be gained from the "humblest mechanical labor" (Knight and Hall, 1951, p. 413), and, "salaries began slowly to improve, so that by the end of the century schoolteachers ranked in income somewhat above the level of common laborers and somewhat below that of skilled laborers" (Butts, 1955, p. 470).

Since education is aimed at developing the whole man, according to White, a balanced school programme is necessary. This means "regulation of study, labor, and amusement", and attention to the cultivation of manners (1923, p. 22, 1946, vol. 4, p. 424). It also means a vocational guidance programme (1903, pp. 233, 267). White was by no means the first to suggest such a balanced programme. Rousseau, (1712 - 1778) for example, stressed "exercise of mind and body as relaxation one to another" (Rusk, 1954, p. 169). Likewise, Pestalozzi (1746 - 1827) emphasised the harmonious development of the physical, mental and moral faculties (cf. p. 94), and a writer in the Columbia Magazine, April, 1787, had recommended schools being formed that would combine work and study (cf. p. 29).

It has been noticed that, in practice, despite the manual labour movement, in 1900 the main stress in the elementary school was still on the acquiring of knowledge and skill in the 3-Rs (Butts, 1955, p. 572).

In the schools of fifty cities surveyed in 1903, "reading, language, spelling, penmanship, and arithmetic" absorbed "70 per cent of the class time". Of the remaining time, more "was allotted to music and drawing than to science or manual or physical training" (Wiggin, 1962, p. 170). The position in secondary education was much the same (cf. pp. 65, 66).

2. CURRICULUM

Around the time that White was born (1827), the elementary school curriculum was narrow, and usually consisted of reading, writing, and arithmetic (cf. p. 12). However, discontent with this curriculum was being expressed, Mann arguing for the introduction of practical subjects, and some states requiring additional subjects to be taught (geography in Massachusetts 1824, 1827; American history in Vermont 1827). In 1825, in New Harmony, Indiana, Neef gave manual training and science some emphasis, but these schools soon had to be closed. Similarly, in the 1830s and 1840s music had been introduced into the Boston public schools (cf. p. 17).

White, in her article of 1872, stressed the importance of the teacher "having an equal interest in the physical, mental, moral, and spiritual education of his scholars" (White, 1946, vol. 3, p. 135). Accordingly, she emphasised the physical aspect, especially through useful work, correct habits of eating, dressing and sleeping, and lessons on anatomy and preservation of health (White, 1946, vol. 3, pp. 138, 142). This useful work would include

agriculture and trades for boys, and cooking, garment making, and other household duties for girls (White, 1946, vol. 3, p. 156). For mental development in the elementary school, she particularly suggested the "common branches", and for moral and spiritual education, a study of God's word (1946, vol. 3, p. 160). By the "common branches", White meant spelling, writing, reading, speech, rules of English grammar, arithmetic and simple accounting (1913a, pp. 215, 219; 1930, p. 184). Of such importance were these that White (p. 234) said in 1903:

Even among students in the higher schools and the colleges, there is great deficiency in knowledge of the common branches of education. . . . A thorough knowledge of the essentials of education should be not only the condition of admission to a higher course, but the constant test for continuance and advancement.

The common branches were to prepare the students for life, as well as providing a foundation for higher learning. White (1903, p. 234) expressed it thus:

Many students devote their time to higher mathematics, when they are incapable of keeping simple accounts. Many study elocution with a view to acquiring the graces of oratory, when they are unable to read in an intelligible and impressive manner. Many who have finished the study of rhetoric fail in the composition and spelling of an ordinary letter.

MANUAL LABOUR AND MANUAL TRAINING

"Manual labour" schools were in existence in America at the end of the eighteenth century, and the beginning of the nineteenth century. Before then Locke and Rousseau had advocated pupils being taught a

trade. Pestalozzi had regarded manual activities as of equal importance with Latin, and it was one of his disciples that helped introduce manual labour into United States' schools. The movement spread rapidly until the 1850s, when it declined (cf. pp. 26 - 31). The extent of this decline is shown by the reluctance of Seventh-day Adventist educators in the 1870s and 1880s to implement White's ideas on manual labour (cf. pp. 136 - 144, 192).

White, then, was not advocating a new idea on manual labour in 1872, but she was advocating an idea that had largely been abandoned. However, the Morrill Act, 1862, helped restore interest in manual training and even, to some extent, in the manual labour scheme. From the 1870s, manual training was being introduced into the elementary and secondary schools of America. Nevertheless, Boykin's survey of eighty-two leading cities in 1889 showed that manual training had not been extensively introduced into the schools. Moreover, such training had generally been limited to woodwork (cf. p. 34). White's ideas on manual training were ahead of the general practice of her day.

AGRICULTURE

Agriculture, White had regarded as an important subject (cf. p. 137). So had a number of early Americans, such as Thomas Jefferson (1743 - 1826) and Benjamin Franklin (1706 - 1790) (Knight and Hall, 1951, p. 91). Thus, in the manual labour schools that developed, much of the work offered was in agriculture. By

the mid-nineteenth century, however, agriculture, together with the manual labour schools, was on the decline (cf. pp. 30, 31). One reason for this was the favouring of "practice without science" (Good, 1956, p. 288). White had warned of the necessity of combining theory and practice (cf. pp. 190, 192).

Interestingly enough, many college and university courses in agriculture, after 1850, failed for the opposite reason from that of the schools - they were unable to apply science to practical life. Yale was such an example (Good, 1956, p. 296).

After 1850, agriculture was slow in finding acceptance in the schools, partly because it was regarded as the "lowest in the scale of intellectual pursuits" (Butts, 1955, p. 502). The Morrill Acts, and the establishment of land-grant colleges helped, though, and a dozen agricultural high schools had been established by 1900 (Butts, 1955, p. 502). However, little progress had been made in introducing agricultural training into the elementary school before 1900 (cf. p. 38).

Once again it may be seen that White was advocating a subject that was not a common element in the curriculum at the time she wrote, but which became a more common element as time progressed. Moreover, she (1923, p. 319; 1913a, p. 273) had stressed the need for "educated farmers", and for regarding manual work as dignified, thus emphasising the need for research, and use of mental ability, in farming.

HOME ECONOMICS

As part of the useful work for girls, White had outlined the importance of home economics. Not only was this helpful physically, but it was an essential preparation for married life (1923, p. 75). In 1882, White (1923, pp. 74, 75) had criticised the education of her day in these words:

It is not so important that our daughters learn painting, fancy work, music, or even "cube root", or the figures of rhetoric, as that they learn how to cut, make, and mend their own clothing, or to prepare food in a wholesome and palatable manner. . . .

Washing clothes upon the old-fashioned rubbing-board, sweeping, dusting, and a variety of other duties in the kitchen and the garden, will be valuable exercise for young ladies. Such useful labor will supply the place of croquet, archery, dancing, and other amusements which benefit no one.

It is noteworthy that little attention was given to home economics in the elementary school before 1880 (cf. p. 47), although Mrs. E. Willard had taught it in her seminary in 1849, and Catherine Beecher had written three books on the teaching of home economics by 1869 (cf. p. 46).

The first formal course in home economics at college level was given at Iowa State University of Science and Technology in 1872. At the high school level it was connected with the place of science in the curriculum (cf. p. 47).

As with manual training, there was a division of opinion as to the purpose of home economics (cf. pp. 47, 48). At first,

discipline of mind was commonly accepted, so that graded exercises and standardized procedures were common, and these often led away from the practical and useful. Mrs. E. H. Richards wanted home economics in the high school to be an applied science course, rather than a course in manual arts (cf. p. 48). However, home economics, together with manual training, came to be regarded as vocational in character. The aim of home economics was "the promotion of worthy home membership", according to the Committee on Reorganization (1922) (Noble, 1954, p. 444).

Not only did White emphasise this subject, which was an uncommon one in schools in 1872, but she stressed its vocational nature:

. . . it is essential for every youth to have a thorough acquaintance with everyday duties. . . . it is indispensable that she (a young woman) learn to make good bread . . . and to perform efficiently the many duties that pertain to house-making (1903, p. 216).

This view did not gain the ascendancy in United States' schools until after 1914 (Noble, 1954, pp. 442, 444). By 1900, home economics was becoming an important subject in the education of girls (cf. p. 48), even though it was limited "to the study of food, clothing, and shelter" (Noble, 1954, p. 445).

PHYSICAL TRAINING AND HEALTH EDUCATION

In 1882, White had written, "The present age is one of unparalleled interest in education" but, she warned, "we should not close our eyes to the defects in the present system of education.

In the eager effort to secure intellectual culture, physical as well as moral training has been neglected" (White, 1923, p. 71).

Many before White had recognized physical health as an essential education, but in the nineteenth century in America little had been done in this direction (cf. pp. 42, 43). Cubberley states that the beginning of an interest in physical welfare of children only appeared between 1875 and 1880, with the introduction of Swedish gymnastics. Little else was done in the way of health education (Cubberley, 1947, pp. 606, 607). In 1903, it was found, in a study of fifty cities, that "more time was allotted to music and drawing than to science or manual or physical training" (Wiggin, 1962, p. 170). By that date, "sports had become the major part of the physical education program at all levels" (Drake, 1955, p. 365).

While White had emphasised the importance of physical exercise in the maintenance of health, she had pointed out that this exercise should take different forms according to the student's age. The young child should find such exercise chiefly in outdoor play (1903, p. 215), the first six or seven years being especially important for his physical development (1954, p. 300). However, the older child and youth should find it mainly in outdoor manual labour, for this is more beneficial than a set of formal physical exercises or games (1913a, p. 308).

Similarly, White explained that health education was more than a matter of physical exercise. It included such matters as dietetics,

temperance, hygiene, principles of health, first aid, care of the sick, physiology, anatomy, a balanced programme, use of speaking organs, and emotional control (1923, pp. 425 - 427). By contrast, such health education was not taught in the schools of the nineteenth century (cf. p. 43). Physiology and hygiene had been introduced into the curriculum after 1860, but it was largely a matter of "naming and locating the bones, muscles, and organs" (cf. p. 42).

Charles W. Eliot, in 1919 (p. 524) wrote:

The war with Germany has presented to the American people much new evidence concerning the grave defects in their own physical and mental condition and, therefore, presumably, in their training and education during at least two generations past.

He went on to discuss "physical defects in school children and drafted men; bad diet; the lack of systematic physical training; . . . tuberculosis; alcoholism; venereal diseases; . . . the lack of manual skill and training of the senses" (Eliot, 1919, p. 525). Thus White's claims and criticisms on matters of health education were substantiated.

It should be noted, though, that White stressed manual labour for the older child and youth, rather than formal physical exercises or games (cf. p. 224). This was certainly not, the practice in 1900 in public schools of the United States (cf. p. 40).

THE COMMON BRANCHES

White regarded spelling, writing, reading, speech, correct

written expression, arithmetic and simple accounting as essentials of education (cf. p. 219). She did not value them as a means of "mental discipline", but for their usefulness. Accordingly, in the study of arithmetic the work was to be made practical. The student, for example, was to keep an account of his income and expenditure, and to learn the value of money by using it. Simple accounting was to be considered as important as a knowledge of grammar in order that all might be able to deal adequately with business matters (1903, pp. 238, 239; 1913a, p. 218).

Similarly, mastery of one's own language was a prerequisite to further literary study, and was more important than foreign language study, such as Latin and Greek (1913a, p. 219; 1903, p. 234). In 1902, White wrote, "Teach fundamentals. Teach that which is practical", and again,

If your students, besides studying God's word, learn no more than how to use correctly the English language in reading, writing, and speaking, a great work will have been accomplished. . . . Many a laborer's usefulness is marred by his ignorance in regard to correct breathing and clear, forcible speaking (1902c, pp. 205, 207, 208).

White frequently stressed the importance of correct breathing, and clear, forcible speaking and reading.

These ideas were largely in line with the growing practice in America towards the end of the nineteenth century. The emphasis in the elementary school was certainly on the 3-R's. However, simple accounting must have been comparatively rare in the elementary school

for, in his survey 1888 - 1889, Boykin noticed that bookkeeping had been added to the course of instruction because 84 per cent. of the young people did not have any formal instruction beyond that level (cf. p. 45). This was in spite of advocates of this subject, such as Partridge and Mann, as early as 1825 and 1839 (cf. p. 43).

At the secondary level, academies had taught bookkeeping even in 1775 (cf. p. 43), and yet Butts and Cremin (1953, p. 440) state that while business subjects assumed a more important place between 1865 and 1918, the curriculum "remained heavily weighted in favor of linguistic, verbal, and book-centered education". Thus, the Committee of Ten, in 1893, did not name commercial subjects in any of its four proposed courses, but suggested the possibility of substituting commercial subjects for mathematics (cf. p. 45). White, however, regarded elementary bookkeeping as an essential study for all.

Likewise, real life problems were receiving increasing attention in arithmetic by 1900. A. E. Winship asked, in 1894, what could be eliminated from arithmetic, and F. H. Mc.Murry replied in 1904 that only what had "a clear relation to the needs of life should be included". Progressive schools have proceeded on such a basis (Good, 1956, pp. 445, 447).

One aspect of White's instruction on reading has not received much support from educators - the question of what should be read. She not only opposed the use of fairy tales and myths, but she also

appears to have opposed the use of all fiction. White disapproved of fairy tales and myths because they imparted "false views of life", and fostered "a desire for the unreal" (1909, pp. 446, 447). She disapproved of some types of fiction because it led to the reader living in an unreal world, and becoming unfitted for the practical duties of life. The nobler faculties became degraded by contemplating trivial subjects. Moreover, the mind, if kept in constant excitement, weakened the brain and nervous system, resulting in paralysis in extreme cases (1913a, pp. 134, 135). "Intemperate habits of reading exert a pernicious influence upon the brain as surely as does intemperance in eating and drinking" (1923, p. 164).

Even "high-class" fiction that contained "no suggestion of impurity" and that aimed "to teach excellent principles", White condemned as "harmful". This was because such fiction encouraged "hasty and superficial reading merely for the story", and so tended to "destroy the power of connected and vigorous thought". Fiction fostered love for "mere amusement", thus creating "a distaste for life's practical duties" (1909, pp. 445, 446).

This has posed a problem for Adventist teachers. Many, perhaps the majority, take the view of Snider: "Consequently, it is the use of the form, not the imaginative or fictive medium, that is right or wrong, wholesome or misleading, and therefore to be accepted or rejected" (Snider, 1942, p. 303). In defence of this view, he points out that White praised Bunyan's "Pilgrim's Progress" - a work of

fiction (Snider, 1942, pp. 296, 297). On the other hand, White's writings seem to condemn all fiction. A. L. White (1963), grandson of E. G. White, and Secretary of the Ellen G. White Publications, inclines to this view. If Snider's view were correct, it would be expected that White would approve of such books as "Uncle Tom's Cabin" and "Robinson Crusoe", but such is not the case (1882, p. 516). The net result is that Adventist schools generally keep fiction reading to a minimum.

BUSINESS EDUCATION

As well as elementary business training for all, White advocated specialized business training for those talented and interested in that field (1902b, p. 248). Business subjects were taught in some early high schools and academies, but it was not until after the Civil War (1861 - 1865) that business colleges began to flourish. This was in line with the rapid industrialisation and business expansion in the United States in those years. It was not until 1900, however, that the public high schools were gaining on the private business schools. In 1890, the first business high school commenced (cf. p. 44). White, then, was favouring a subject that was growing in importance as the nineteenth century came to a close.

GEOGRAPHY

White made no reference to geography by name. However, she did

write (1903, p. 269):

To awaken in the children and youth sympathy and the spirit of sacrifice for the suffering millions in the 'regions beyond', let them become acquainted with these lands and their peoples. In this line much might be accomplished in our schools.

This would suggest that geography should be taught, especially to gain a knowledge of people in foreign lands and the conditions under which they live, so that understanding and sympathy would develop. This was a far cry from the list of facts that had to be memorized, sometimes with the use of rhyme, in the older American geography textbooks.

After the Civil War, the physical and human aspects of geography gradually assumed importance over the political and statistical, largely owing to the work of Pestalozzi. By 1900, in its newer form, it was one of the basic subjects to be taught in the elementary school (cf. pp. 60). However, in the secondary school the older physical geography seemed to predominate for, in the four courses proposed by the Committee of Ten in 1893, only physical geography appeared, and then it was confined to the first year (1893, pp. 555, 556).

HISTORY

White regarded history as an essential study in school (cf. pp. 198, 199). However, it was not history as commonly taught that she was interested in - a mere record of the rise and fall of kings, victories and defeats of armies, and man's achievements. Rather,

she advocated a study of history that would lead to an understanding of "the causes that govern the rise and fall of kingdoms", and of how we are "bound together in the great brotherhood of society and nations", so that "oppression or degradation of one member means loss to all" (1903, p. 238).

The Bible, White regarded as the most instructive and reliable history, aiding its reader to understand the true meaning of events past and present, as well as pointing out future events through its prophecies (1903, pp. 173 - 179). Thus White rejected mere memorization of historical facts, and placed emphasis on deducing from a study of history, important principles and lessons for living to-day. For this purpose, study of the lives of great people, as in the Bible, was also helpful (cf. p. 199).

History was taught in some elementary schools in the United States before the Civil War, but it was after that war that it gradually became a required subject, American history being especially popular. The stress was on political and military affairs, as suggested by White, and it was largely taught by memory methods (cf. pp. 60, 61).

In the secondary schools and higher educational centres, the situation was much the same. History was taught in only a small fraction of these schools before 1893, partly because it was not supposed to have the disciplinary power of subjects such as mathematics, Greek and Latin. By 1896 - 1900, however, it was offered

in 45 per cent. of the high schools (cf. pp. 69, 75). The political and military approach remained dominant until the twentieth century, "when there was a gradual shift in emphasis . . . to the economic and social life of the people" (Leonard, 1953, p. 40).

White, then, in claiming a position for history in the curriculum, was ahead of her time, as she was in criticising the political and military aspects, and the stress on rote memorization. It is noteworthy, too, that she was out of harmony with such prominent theorists as Rousseau and Pestalozzi in this matter (cf. pp. 61, 91).

FOREIGN LANGUAGES

One of White's most radical departures from the curriculum practice of the nineteenth century was in her evaluation of foreign languages, especially Greek and Latin. In 1897 she wrote:

There are times when Greek and Latin scholars are needed. Some must study these languages. This is well. But not all, and not many should study them. Those who think that a knowledge of Greek and Latin is essential to a higher education, cannot see afar off (1897, p. 468).

In 1900 (p. 444), she added, "It is folly for students to devote their time to the acquirement of dead languages . . . to the neglect of a training for life's practical duties".

The daring nature of these statements is shown by the Committee of Ten's report 1893, when conferees in the sciences and social sciences "ardently desired to have their respective subjects made equal to Latin, Greek, and Mathematics in weight and influence in the schools" (Wiggin, 1962, p. 174). The same is illustrated by

the 1899 report of the Committee on College Entrance Requirements which recommended that in every college entrant's programme there should be 4 years of foreign language, "2 years of mathematics, 2 years of English, 1 year of history, and 1 year of science".

"Apparently, foreign languages were twice as important as English and mathematics and four times as important as history and science"

(Butts, 1955, pp. 504, 505).

The main reason for the central position of Latin and Greek in the high school and college curriculum was the well-nigh universal belief in formal discipline. Noble affirms that "the last half of the century may be regarded as the golden age of mental discipline" (Noble, 1954, p. 339). Mental discipline "tended to shape curriculum and method during the latter half of the nineteenth century" (Noble, 1954, p. 340). Even the scientists who were trying to obtain greater recognition for science subjects, such as Thomas Huxley, Faraday, and Sir Charles Lyell in England, "acknowledged the theory of mental discipline as a criterion for evaluating studies" (Noble, 1954, p. 342). In America, "Edward L. Youmans, Francis Wayland, and President F. A. P. Barnard of Columbia University took up the controversy on the side of the sciences", but, "No one in either country questioned the validity of the doctrine of mental discipline" (Noble, 1954, p. 342).

Thus White, in minimizing the importance of Latin and Greek, was showing disbelief in the theory of mental discipline. Moreover, she

claimed that if foreign languages were studied it should be mainly on the ground of usefulness (1909a, p. 537).

MUSIC

"The value of song as a means of education should never be lost sight of", said White (1903, p. 168). It had "wonderful power" to subdue rude and uncultivated natures . . . to quicken thought and to awaken sympathy, to promote harmony of action, and to banish . . . gloom and foreboding" (1903, pp. 167, 168). As well, it aided memorization.

Similarly, music could uplift the thoughts and inspire the individual, or it could serve evil purposes. In the home, songs that were "sweet and pure" would lead to cheerfulness, hope, and joy and "fewer words of censure". In the school it would lead the pupils closer to God, their teachers, and one another (1903, pp. 167, 168).

The first teaching of music in the United States' public schools, probably occurred in 1836, but it was twenty-five years before it was generally recognized as a subject of study, "even in the better city schools" (Cubberley, 1947, pp. 355, 356). Cubberley (1947, p. 428) states that the "development was largely checked for the next three decades".

"Public school music meant singing", and it was advocated on the basis of a serious subject, not an amusement. It was regarded

as "useful in oratory and capable of influencing the child's conduct" (Noble, 1954, p. 359). As for its help in memorizing, some older geography books had used rhyme and tune "to aid the pupil in his distasteful task" (Good, 1956, pp. 184, 185).

It is apparent that White's ideas on the value of music found an echo in the ideas of her time; that vocal music was the main type taught in the schools of the nineteenth century; and that music was only becoming commonly accepted in the schools at the turn of the century. "When the College Entrance Examination Board in 1906 added music to the list of subjects for the entrance examination, the act signalized the advance of music to the secondary level" (Nobel, 1954, pp. 359, 360).

NATURE STUDY

White regarded nature as next in importance to the Bible as a lesson-book. One reason for this was the belief that one shed light upon the other, and led to acquaintance with God and the laws through which He worked (cf. pp. 209, 176).

For the first six or seven years of the child's life, she taught (1954, pp. 300, 301), children should not be so much learning from books as from nature, and thoughts of God should be linked with nature. Much of this learning would come from the child's own questioning. At school, not only should pupils be told of plants and animals, but the actual plants and animals should be

observed (1903, pp. 103, 117, 118). Then the pupils should "learn to draw lessons and discern truth for themselves" (1903, p. 119). These were some of the reasons for the desirability of both home and school being located where nature's lesson-book was easily accessible (1903, pp. 100, 101).

Rousseau had similar ideas to this. At age twelve, he had argued, Emile may not be as good a reader of books as other children, but he will be a better reader of nature. Moreover, he was to discover science, not be taught it (cf. p. 49).

Such study was found in only a few American academies and normal schools early in the nineteenth century. Harris published "A Syllabus in Nature Study" in 1871 for the schools of St. Louis, but it was Agassiz who did most to promote an interest in nature study in that country. H. H. Straight, appointed to teach science at Oswego in 1876, was one who followed Agassiz's example and taught directly from nature. The height of the nature study movement was reached between 1890 and 1910.

Frebel, Bronson Alcott, and E. A. Sheldon, in agreement with White, all stressed nature study as a means of moral improvement and religious uplift (cf. pp. 49 - 51).

White's emphasis on nature study arising partly from the pupil's own questioning, and her stress on training the child to observe and to draw out lessons and discern truth for himself, had important implications that are discussed in the section on teaching (cf. pp. 243 - 245).

SCIENCE

Rapid industrialization after the Civil War had led to a much increased demand for science subjects in the school. So great was this demand, that the supporters of the classics were led to fear the rivalry of the science subjects, and criticised them on the basis of their mental disciplinary value. As a result, the new science texts were filled with definitions and abstract principles in order to better meet the requirements for mental discipline (cf. pp. 67, 68). There was also the tendency for science study to be "book instruction", and not until after 1870 did laboratory instruction begin to find a place in the high school. The chief reason for this was the lack of trained science teachers (Cubberley, 1947, p. 469).

White regarded the science subjects as important (cf. p. 176). From her remarks on nature study (cf. pp. 235 - 236), however, it is clear that she desired laboratory research rather than mere book learning. In this way would be opened up "vast fields of thought and information" (1904, p. 325).

Human reason alone was likely to lead to wrong conclusions in such research, though, because nature now is different from what it was originally (cf. pp. 176, 177). She believed that one such erroneous conclusion was the theory of evolution, and she frequently attacked what she called "false science" in words (1903, p. 227)

such as:

Evolution and its kindred errors are taught in schools of every grade, from the kindergarten to the college. Thus the study of science, which should impart a knowledge of God, is so mingled with the speculations and theories of men that it tends to infidelity.

She was not alone in such attacks, but "the hold of uncompromising supernaturalism was not as strong at the end of the century as it was at the beginning" (Butts, 1955, p. 474).

It should be noted that White's philosophy of education was based on supernaturalism and a belief in the historical statements of the Bible, including that of Creation. To her, the Bible and nature had the same origin, and so they could not conflict (cf. p. 176). If, therefore, the theory of evolution is correct, her philosophy must be incorrect in part at least.

While character education has long been an avowed aim of education in the United States (cf. pp. 51, 52), the growth of the public school system in the nineteenth century has meant that the reaching of that aim has had to be attempted more and more by other means than religious training. Another factor in the secularization of the school has been the theory of evolution (cf. pp. 53, 54).

This growing secularization of the public school was one of the main reasons for White's urging a separate school system for Seventh-day Adventist children and youth, so that the Bible could be the centre of the curriculum. She asserted (1882, p. 28), "In

the system of instruction used in the common schools, the most essential part of education is neglected, viz., the religion of the Bible". In the same address (p. 21), she had said, ". . . the study of the Scriptures should have the first place in our system of education".

In spite of this advice, White had to admit, in 1888, that for a time Bible had been excluded from Seventh-day Adventist schools, to their detriment (1923, p. 130). This suggests the extent to which secularization had gripped United States' schools.

"At the opening of the twentieth century", states Brubacher (1947, pp. 346, 347), ". . . two theories of moral education were developing side by side". In one the curriculum "was considered as already known or revealed in the Bible", and moral education consisted of bringing these known truths to the child so that they might be accepted and applied by him. This theory looked on man "as a fallen angel rather than as a rising primate", and was the one taught in the Sunday school.

The second theory, that of the secular school, saw moral education "in the ongoing experience of the child in a social situation. Moral knowledge was the result of choosing between alternate ends of conduct and evaluating them in the light of their outcomes or consequences." This view saw man as a "rising primate".

White agreed more with the first theory than the second. She definitely viewed man as having a bias to evil which he has little power

to change (cf. p. 178). She also stressed the importance of the Bible for both moral education and all-round education (cf. pp. 206, 207). However, the environment was also important. Thus both parents and teachers needed to be of high moral character in order to serve as suitable models for the children (cf. p. 204). To this modelling aspect, White frequently referred. Further, a favourable environment was one reason for her advising that both the home and the school be situated in the country, where possible, and that the home be made attractive.

The establishment of correct habits was an essential to character development, and the best time to start such habit formation was from babyhood. The first seven years of life were more important for character development than all it learned in later years (1897c, p. 200; 1903a, p. 193). As the child grew older, then the child's reason was to be enlisted so that he could discern how effect followed cause (1890a, p. 160). This resembled Herbart's notion of external control of the child until he had built up the necessary basis for self-control (cf. p. 108). Unlike Herbart, however, White did not believe that knowledge necessarily led to ethical conduct (cf. pp. 106 - 202). Rather, she declared (p. 196), "It is because . . . the word of God is given a second place in education, that . . . iniquity is rife".

3. TEACHER-TRAINING.

Although there was little training of teachers in America in

the early nineteenth century, the need for such was commonly recognised in 1900, and many schools had been established for that purpose (cf. pp. 77 - 81). To this White (1903, p. 276) testified:

The necessity of preparatory training for the teacher is universally admitted; but few recognize the character of the preparation most essential. He who appreciates the responsibility involved in the training of the youth, will realize that instruction in scientific and literary lines alone can not suffice. The teacher should have a more comprehensive education than can be gained by the study of books. He should possess not only strength but breadth of mind; should be not only whole-souled but large-hearted.

It was with the kind of training, then, that White found fault.

Cubberley agreed with this when he pointed out that up to at least 1900, even courses offered in education in universities and colleges were "quite elementary in character" (1947, p. 691).

While White realized the necessity of scientific and literary training, she stressed a knowledge of the laws of mental and physical development, experience in practical life, health knowledge, knowledge of principles of teaching (1903, pp. 275 - 279), and speech training (1913a, pp. 239, 240).

Of more importance than his academic qualifications, however, were his habits and principles (1872, p. 135). Personality characteristics were important:

Order, thoroughness, punctuality, self-control, a sunny temper, evenness of disposition, self-sacrifice, integrity, and courtesy are essential qualifications (1903, p. 277).

. . . his own heart should be richly imbued with love for his pupils. . . . He should have firmness of character. . . . (1872, p. 135).

Vigour of health was also necessary. She wrote (1903, p. 277):

For almost every other qualification that contributes to his success, the teacher is in great degree dependent upon physical vigor. The better his health, the better will be his work.

The student-teacher was to be a person of ability. ". . . the very best talent that can be secured is needed to educate and mold the minds of the young", wrote White (1900, p. 200).

It is clear that White's concept of the teacher and teacher-training went far beyond that actually achieved in teacher-training in 1900. Only after 1900 did the normal schools, for example, begin to require high-school graduation for admission (Tanner, 1965, p. 494). Again, Noble (1954, p. 311) declares that the "normal schools were for the most part 'sketchy', and ineffective". Meyer (1949, p. 406) wrote:

. . . as late as 1910 the greater part of teacher training carried on in this country was still restricting itself academically to the subjects of the elementary school, and giving its major emphasis to the development of teaching techniques. . . .

However, White's stress on a "more comprehensive education" (cf. p. 241) for the teacher, was exactly the direction that teacher-training institutions took in the twentieth century. "By the end of the first quarter of the century . . . the preparation of teachers had assumed more the nature of a broad professional training" (Meyer, 1949, p. 406).

4. METHODS OF TEACHING.

White (1903, p. 230) condemned two methods of teaching current in her day:

For ages education has had to do chiefly with the memory. This faculty has been taxed to the utmost, while the other mental powers have not been correspondingly developed. Students have spent their time in laboriously crowding the mind with knowledge, very little of which could be utilized. The mind thus burdened . . . is weakened; it becomes incapable of vigorous, self-reliant effort, and is content to depend on the judgment and perception of others.

Seeing the evils of this method, some have gone to another extreme. In their view, man needs only to develop that which is within him. Such education leads the student to self-sufficiency, thus cutting him off from the source of true knowledge and power.

Drake (1955, pp. 352, 353) noted that at the end of the nineteenth century, "Drill, the rote method, and mechanical reading were still in dominant use".

White asserted that the methods of the world's greatest teacher, Christ, were to be followed. These methods included "freedom from formalism and tradition", "originality", and "practiceability" (1913a, p. 160).

In parables and comparisons He found the best method of communicating divine truth. In simple language, using figures and illustrations drawn from the natural world, He opened spiritual truth to His hearers. . . . In this way He called forth their interest, aroused inquiry, and when He had fully secured their attention, He decidedly impressed upon them the testimony of truth (1893, p. 236).

It is important to notice the steps White outlined above - calling forth of interest, arousing inquiry, securing attention,

impressing the lesson. There are resemblances here to Herbart (cf. pp. 106, 107), Rousseau (cf. p. 91), and Pestalozzi (cf. p. 103), but not to the nineteenth century drill and rote-learning methods or theory of mental discipline.

Christ also "discerned the possibilities in every human being. . . .

The same personal interest, the same attention to individual development, are needed in educational work to-day" (1903, pp. 231, 232). This emphasis on personal interest and individual development were characteristic of the child-study movement and the teaching of Francis Parker (cf. pp. 122, 123), but foreign to most of nineteenth century practice.

"Jesus loved the children", too, "and always treated them with kindness and respect" (1900, p. 201). Pestalozzi had objected to the brutal discipline of the school, and wanted it replaced by "a strict but loving discipline" - a "thinking love" (cf. p. 96). Of Francis Parker, Dewey wrote:

What he did in breaking down the despotism, formalism, and the rigidity of the old-fashioned school he did . . . because he insisted on the love and faith which are the tokens of the highest character everywhere . . . (Benedict, 1942, p. 232).

White (1896, p. 178) pointed out:

. . . Christ drew His illustrations from the great treasury of household ties and affections, and from nature. The unknown was illustrated by the known

The Saviour in His teachings ever showed the relation between cause and effect (1913a, p. 398).

Consequently, she admonished:

Thus while the children and youth gain a knowledge of facts from teachers and text-books, let them learn to draw lessons and discern truth for themselves (1903, p. 119).

We are not merely to tell the child about these creatures of God's. The animals themselves are to be his teachers (1903, p. 117).

Our reasoning powers were given us for use . . . (1903, p. 231).

Thoughtful investigation and earnest, taxing study are necessary . . . (1913a, p. 483).

The "unknown" being illustrated by the "known" was the basis of Herbart's doctrine of apperception, and was also a teaching of Pestalozzi's (cf. p. 105). The stress on seeking out generalizations, reasoning from "cause to effect" was also a Herbartian doctrine, as was the application of what was learned (cf. p. 107):

Teachers should lead students to think, and clearly to understand the truth for themselves. It is not enough for the teacher to explain, or for the student to believe; inquiry must be awakened, and the student must be drawn out to state the truth in his own language, thus making it evident that he sees its force and makes the application (White, 1900, p. 154).

Another teaching of Pestalozzi, Herbart, and Froebel (cf. pp. 103, 105, 113) was the active nature of the child. White, too, pointed this out:

Overflowing with energy, eager to test their untried capabilities, they must find some outlet for their super-abounding life. Active they will be for good or for evil (1909, p. 396).

Life is too generally regarded as made up of distinct periods, the period of learning and the period of doing, - of preparation and achievement. . . . Cut off from the responsibilities of every-day life, they become absorbed in study, and often lose sight of its purpose (1903, p. 265).

Give their hands and minds something to do that will advance

them in physical and mental attainments (1896a, p. 36).

White condemned "the system of education carried out for generations" whereby "little children . . . have been kept confined in-doors to their injury" (1872, p. 135).

These ideas are similar to Parker's. "Education is not a preparation for life; education is life", he had said (cf. p. 122). "The torture of sitting perfectly still with nothing to do was ruled out and in came an order of work"

Just as Parker had stated in 1896 that the chief value of child study was to diagnose the personality of the child in order to best aid the child's growth (cf. p. 123), and Froebel had likened the school to a garden where children unfolded "day by day like plants" and where the teacher "kept his plot clear of weeds," and tended the plants "each in his way" (Benedict, 1942, pp. 116, 117), so White wrote:

The children and youth under the teacher's care differ widely in disposition, habits, and training. . . . he the teacher must have the sympathy and insight that will enable him to trace to their cause the faults and errors manifest in his pupils (1903, pp. 279, 180).

Not all reach the same development or do with equal efficiency the same work (1903, p. 267).

As early as 1872, she had written (p. 132), "They have not been directed and disciplined with respect to their peculiar constitutions and capabilities of mind, to put forth their strongest powers when required".

Similarly, White (1894, p. 286) agreed with Froebel that education should be based on co-operation rather than competition (cf. p. 113), but disagreed with Lancaster over the use of punishments, rewards, and rivalry between classes (cf. p. 84). "More harm than good results from the practice of offering prizes and rewards," she wrote (1913a, p. 270).

White (cf. p. 177), likewise, did not agree with Rousseau, Pestalozzi, or Froebel, that the child was born good (cf. pp. 89, 94, 114), or with Herbert that the content of the mind was inherently neither good nor bad (cf. p. 105). Nor did she believe in harsh discipline (cf. pp. 211, 212). The education of children was

not to be like the training of dumb animals; for children have an intelligent will, which should be directed to control all their powers. Dumb animals need to be trained; for they have not reason and intellect. But the human mind must be taught self-control. It must be educated to rule the human being, while animals are controlled by a master, and are trained to be submissive to him (White, 1872, p. 132).

Thus both over-control, as in the Lancaster system (cf. p. 84), and under-control, as suggested by Rousseau (cf. p. 94), were to be avoided (cf. pp. 211, 212). These ideas were somewhat similar to Herbert's and Froebel's (cf. pp. 108, 114, 115).

5. MISCELLANEOUS

The influence of the home and the child's early years had been stressed by White (cf. p. 180). Freud probably drew attention to

this more than any other person (cf. p. 125). However, Pestalozzi, Rousseau, Herbart, Froebel, and Parker had all contributed to emphasising this feature. Like Rousseau (cf. p. 90), White believed that the child's early years should be concentrated on physical development, not formal schooling. She advised (1897b, p. 300)

During the first six or seven years of a child's life, special attention should be given to its physical training, rather than the intellect.

In 1903, she wrote (p. 208):

Children should not be long confined within doors, nor should they be required to apply themselves closely to study until a good foundation has been laid for physical development. For the first eight or ten years of a child's life the field or garden is the best schoolroom, the mother the best teacher, nature the best lesson-book.

Rousseau agreed with this, although in his scheme the period of free, outdoor life was to continue until age twelve - the period of negative instruction (cf. pp. 89 - 91). Froebel acknowledged a similar purpose for the period of infancy (three to six or seven years of age), but thought it best achieved in his kindergarten through self-expression (cf. pp. 116, 117).

For White's ideas to succeed, the parents would have to be carefully prepared for their work. This she repeatedly emphasised, as below (1903, p. 276):

Never will education accomplish all that it might . . . until the importance of the parents' work is fully recognized, and they receive a training for its sacred responsibilities.

.....

Before taking upon themselves the possibilities of fatherhood

and motherhood, men and women should become acquainted with the laws of physical development, - with physiology and hygiene, with the bearing of prenatal influences, with the laws of heredity, sanitation, dress, exercise, and the treatment of disease; they should also understand the laws of mental development and moral training.

The grading of schools was another topic White considered.

"Let the student advance as fast and as far as possible in every branch of true knowledge", she wrote (1903, p. 18). Consequently, "The system of grading is sometimes a hindrance to the pupil's real progress. . . . The system of confining children rigidly to grades is not wise" (1913a, p. 177). The Dalton and Winnetka Plans, first introduced in 1919, were attempts to meet this very problem (Cubberley, 1947, pp. 528, 529).

White also stressed that schools should be

"family schools, where every student will receive special help from his teachers, as the members of the family should receive help in the home. Tenderness, sympathy, unity, and love are to be cherished (1900, p. 152).

Further, Let the older assist the younger, the strong the weak; and as far as possible, let each be called upon to do something in which he excels. This will encourage self-respect and a desire to be useful (1903, pp. 285, 286).

and, Everyone who has to do with educating the younger class of students, should consider that these children are affected by and feel the impressions of the atmosphere, whether it be pleasant or unpleasant (1893, p. 260).

These ideas remind one of Pestalozzi and Froebel (cf. pp. 96, 112, 113).

Finally, White stressed stages of development and the principle that the child's mind should be ready for the material that is presented. In her own words:

True education is not the forcing of instruction on an unready

and unreceptive mind (1903, p. 44).

Parents and children should aim so to cultivate the tendencies of the youth that at each stage of life they may represent the beauty appropriate to that period, unfolding naturally, as do the plants in the garden.

. . . Children should not be forced into a precocious maturity, but as long as possible should retain the freshness and grace of their early years (1903, p. 107).

Such ideas were doubtless behind Rousseau's different types of education for different age periods (cf. pp. 90 - 93) and his statement that "Nature wants children to be children before they are men" (Boyd, 1956, p. 38). Likewise, Pestalozzi had advised that the laws of development should be ascertained in order to aid the teacher (cf. p. 94), and Froebel believed in development according to natural law (cf. p. 114). However, Froebel's notion that the individual passed through the stages of development that the race had traversed, and the neo-Herbartian culture-epoch theory, were foreign to White's idea. It was Parker (1896, p. 79), particularly, who drew attention to studying the child in order to "apply the best conditions for the child's growth". Herbart, of course, did not believe in development according to nature. The mind was formed from without (cf. p. 106).

WHITE'S EDUCATIONAL CONTRIBUTION

The second half of the nineteenth century was remarkable for the number of educational reformers that appeared. Of these, White was one. She was undoubtedly responsible for the development of the Seventh-day Adventist educational system (cf. pp. 162 - 164),

and these schools were not to "pattern after any school in existence" (White, 1923, p. 221). Some of these early schools did pattern on existing ones (cf. 136 - 141), but gradually, as White's ideas were accepted, they became more distinctive (cf. pp. 141 - 144).

Examination of educational theory and practice in the nineteenth century reveals that most of White's ideas were not original. There were notable exceptions, such as the electrical nature of the brain and the influence of the mind on the body (cf. p. 188). Walter (1954, p. 54) wrote:

Twenty-five years ago Hans Berger, a German psychiatrist working in Jena, began to publish some strange little pictures consisting of nothing but wavy lines. They should have caused great excitement among his colleagues, because he claimed that they showed the electrical activity of the human brain. But in fact no one took them seriously. For several years no one even bothered to repeat his experiments.

What is noteworthy, however, is the comprehensiveness of her ideas, and their appropriateness in modern theory. As Professor Stratemeyer (1959, p. 13), of Columbia University, commented concerning White's "Education", published in 1903,

. . . this volume was more than fifty years ahead of its time

The breadth and depth of its philosophy amazed me. Its concept of balanced education, harmonious development, and of thinking and acting on principle are advanced educational concepts.

Similarly, Culver (1945, p. 158) wrote of the same book:

The book does not in its 309 pages of biblical descriptions infer principles that do not apply to our present concept of teaching and learning. Ellen G. White has taken every phase of education from department to techniques and discussed them from a biblical standpoint in a most intriguing way.

In the curriculum, for example, she urged the inclusion of the "common branches" (reading, writing, spelling, speech, rules of grammar, arithmetic and simple accounting), Bible, Manual training subjects (home economics for girls), physical training and health education, business subjects, geography, history, music, nature study and science. Foreign languages were to be included for those needing them. The similarity with the "core" subjects of the present New Zealand secondary syllabus is apparent.

Pestalozzi would have objected to the place of history in the syllabus, for to him it was a "tissue of lies" (cf. p. 64). So would Rousseau, at least until the child was sixteen (cf. pp. 91 - 93).

Concerning faculty psychology, too, White disagreed, as did Herbart, with the majority of the scientists and educationalists of the nineteenth century (cf. pp. 67, 111; Benedict, 1942, p. 119; Noble, 1954, p. 342), including Pestalozzi and Froebel. Although White did not mention the term, it is evident that she did not believe that if a person is given difficult arithmetic problems he would be a better reasoner in other lines, or that foreign languages had special virtues (cf. pp. 226, 232, 233).

In the field of teaching methods, White is again in line with modern concepts in attacking mere memorising, the common practice of her day (cf. p. 243), and emphasising instead, reasoning, seeking principles, activity, interest, and individual differences (cf. pp. 243 - 246).

White also had a higher concept of the work of the teacher, than was common in her day (cf. pp. 203, 242). For this, a much broader training was required than practised (cf. pp. 241, 242), and high character qualities. Even such matters as classroom atmosphere and grading, the necessity of child study, and readiness (cf. pp. 249, 250), received her attention. Moreover, the importance of the home, and the need for broad parental education (cf. pp. 180, 248, 249) did not escape her notice either.

Unlike Herbart, White did not teach that knowledge was all that was necessary for morals (cf. pp. 108, 239, 240) nor, like, Rousseau, that habit-training and morals teaching was unnecessary with the young child (cf. pp. 89 - 92). She stressed the necessity for Bible study, a matter that is receiving attention at the present time (Full, 1967, 298 - 324).

Some of White's ideas are debatable to-day. There is, for example, her objection to much of literature in the form of fiction (cf. pp. 227 - 229), that especially ran counter to Froebel's idea (cf. p. 118). There is also her tendency to criticise the use of games and sport for the older student (cf. pp. 222, 224), and her conviction that supernatural power was necessary to improve to any extent the moral nature of man (cf. p. 178).

Nevertheless, her achievements are many. In the words of Stratenger (1959, p. 13):

The objective of restoring in man the image of God, the teaching of parental responsibility, and the emphasis on self-

control in the child are ideals the world desperately needs.

. . . the book "Education" in certain parts treats of important curriculum principles. She was concerned with the whole learner - the harmonious development of mental, physical, and spiritual powers.

Today many are stressing the development of the intellect. But feelings and emotional development are equally important. In our changing society, the ability to act on thought and in terms of principle is central. It is this harmonious development that is so greatly needed, yet so generally neglected today.

Not the least of these achievements is the avoidance of the weaknesses in the thinking of the chief nineteenth century theorists, such as mentioned earlier (cf. pp. 251 - 253). No doubt, it is for reasons such as these that the Serbian Minister of Education translated and published in the Serbian language White's book "Education" in 1912 as his production (A. L. White, May 1, 1963, p. 9), and Tsunekichi Mizuno, Professor Tamagawa University, Former Head of the Tokyo Museum of Science, Former Director of Social Education for the Ministry of Education, wrote (1953):

We study Locke and Rousseau. We look up to Pestalozzi. We are taught by Flavel and Herbart. We are made to think by Kant and Hegel. And having been led by Thorndike and Dewey, we are now engaged in and devote ourselves to the "New Education".

But unless we come to know the God whose thoughts are the most profound, whose actions are the most holy, whose influence is the greatest among men, it seems to me a matter of impossibility to provide correct guidance and help for the child, the pupil, and the student. . . .

.

"Education", written with the inspired pen of Ellen G. White, has for fifty some years been a well-known book which has rendered the greatest possible service and joy to students, teachers, and parents the world over.

When I was studying at the University of Illinois, it was my privilege to read the book in its original language. I was profoundly moved by the book at that time, and it has been my desire ever since to recommend it to the educators in Japan.

Most remarkable of all is that Ellen G. White, herself, had but little more than three years of formal schooling (cf. p. 130).

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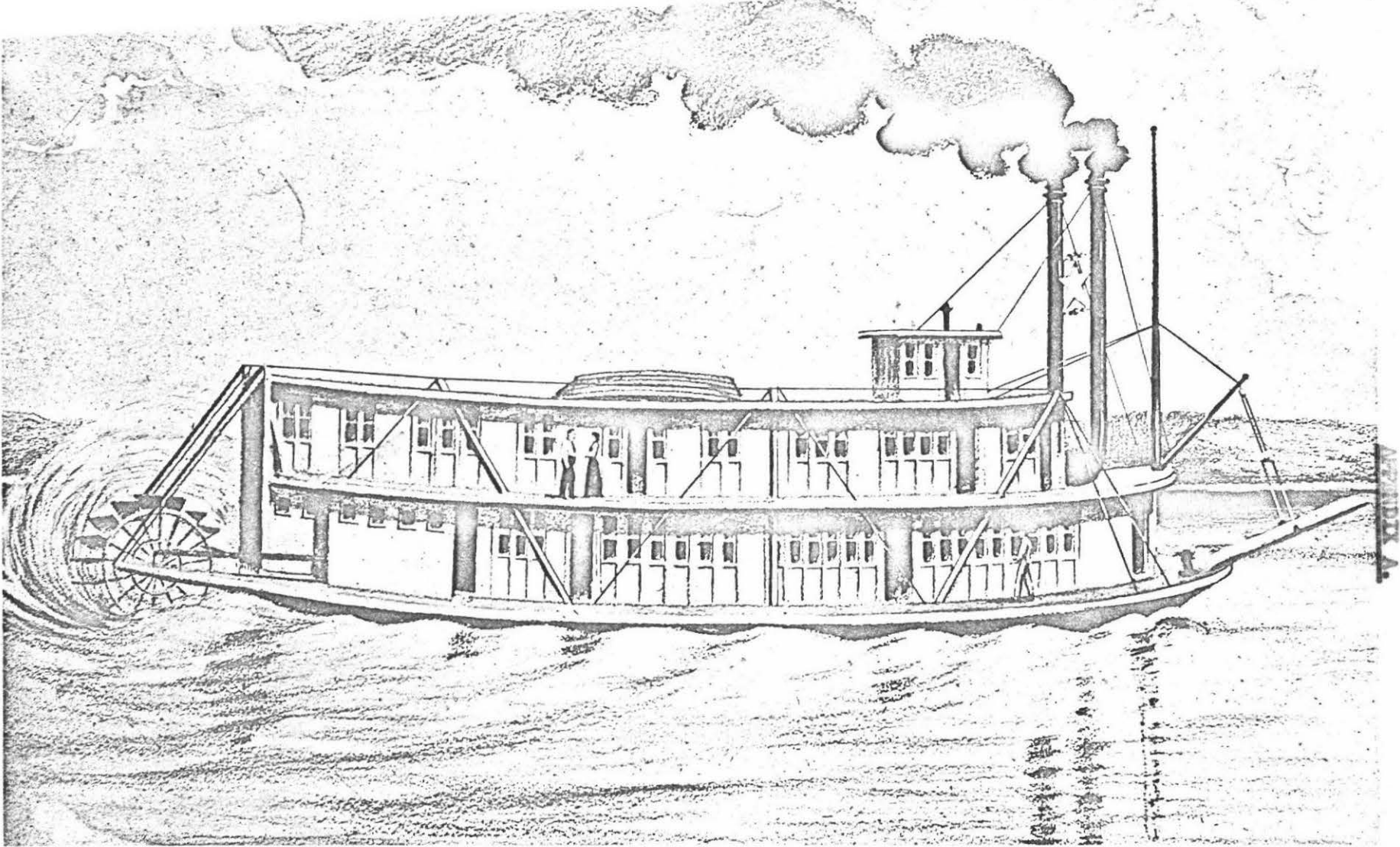
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PERSONAL CORRESPONDENCE

Letter from A. L. White, Washington, May 1, 1963.

APPENDIX



The missionary steamer, the "Morning Star," built in 1894 by Edson White on the Kalamazoo River near Allegan, Michigan. After launching it, he navigated this river boat more than 1,500 miles southward to Vicksburg, Mississippi, from whence he and his associates started and established gospel work among the freed slaves in Yazoo Valley, Mississippi. The "Morning Star" provided a home for Edson White and his wife, and other mission workers. It was also a chapel, print shop, dispensary and classroom.

Wisconsin Journal of Education



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A large storm cave was made into a kitchen and dining room for serving hot lunches. Advantage was taken of government commodities; and, through the WPA, a competent woman was assigned to the school. Lunch was served in a sanitary manner, amidst pleasing conversation. A garden project grew out of this and community gardens were motivated. The WPA worker canned vegetables for the school and taught the parents how best to care for the vegetables they produced.

Fundamental knowledge and skills were not neglected. As one would expect from children who were motivated through home and environmental experiences, the standards of achievement excelled former records, as was shown in prizes won and grades made in the county competitions. No, Si Smith did not neglect to teach subject matter; but he did teach it to children, and in such a way that their social, intellectual, and physical development were promoted while they were learning to make wholesome adjustments to life as they found it.

Rural School Opportunities

The teacher in the rural school has opportunities unexcelled by any other to get well acquainted with the child and his family, and to recognize and utilize environmental experiences and conditions. She, with the aid of the children, can assemble in a loose-leaf notebook interesting data regarding the homes and the community: about the land, the people and community resources, cultural, material and economic—and she may come to know most intimately the organizations and institutions that affect the child's life. These timely data may be used to motivate interests and activities and as an aid in interpreting and applying the subject matter of the texts. Once rural folk come to know the teacher and to discover her interest in their children, they will show a cooperative spirit that is gratifying. They will assist in rearranging, securing, and making needed equipment and will cooperate in developing a social and recreational life that makes for happy living together.

These things may be had only by a teacher who works diligently, loves children, appreciates people and is a continuous student of contemporary community life.

Professional Reading

Selected by The Reading Circle Board
from the State Reading Circle List

White House Conference on Rural Education, by the National Education Association, The Department of Rural Education, 1945. \$1.00 Paper; \$1.50 Board Bound.

This volume records the proceedings and outcomes of the first White House Conference on Rural Education held October 3-5, 1944. Two hundred thirty leaders in education, government, labor, industry, and agriculture from 43 states gathered in Washington upon invitation from President and Mrs. Roosevelt to consider the pressing problems of rural education. The following statement made by President Roosevelt revealed his attitude: "Rural teaching, country teaching, the teaching given in the small schools at the farm crossroads and in the little villages and towns has played a greater part in American history than any other kind of education."

Perhaps the most dynamic outcome of the Conference included in the report is the Charter for the Education of Rural Children. It constitutes an action program which foretells great improvement in rural education during the next decade.—A. W. ZELLMER, Wisconsin Rapids, Wis.

Education, by Ellen G. White, Pacific Press Publishing Association, Mount View, California, 1942.

A book entirely different from the usual philosophy found on the book store shelves. Ellen G. White offered "Education" to the public for the first time in 1903. It has since had nine American impressions during a period of more than four decades, which attests to the book's broad subscription. A second copyright was made in 1942 by "The Trustees of the Ellen G. White Publications." "Education" is a parallel of the principles of education as we understand and interpret them today as applied to the beginning of time and the introduction of our progenitors, Adam and Eve. The book does not in its 309 pages of biblical descriptions infer principles that do not apply to our present concept of teaching and learning. Ellen G. White has taken every phase of education from department to techniques and discussed them from a biblical standpoint in almost intriguing way.—L. D. CULVER, Stevens Point, Wisconsin.

Dec 1955

Education, in Serbian

W. B. White St Helena Col.

БИБЛИЈСКА

ПЕДАГОГИЈА.

Монографија из историје науке
о васпитању.

Написао

Паја Р. Радосављевић,

доктор филозофије, магистар и доктор педагогије; прави доцент
експерименталне педагогије и директор педагошког лабораториума
у New York University; прави члан хрв. педагошког ижевног збора
у Загребу; Member of the American Psychological Association, и т. д.

— Издање »Богословског Гласника«. —



КАРЛОВЦИ

ИШТАМПАРИЈА М. ЈАНКОВИЋА

1912.

ГЛАВА I.

Први принципи.

1. Извор и цијелъ васпитања.

Садржај: Шта је васпитање? Његови извори. Право «више васпитање». Васпитање у Едему. Божија намјера с човјеком Пави и подигнути. Љубав основица васпитања. Откривење Божије. Учење природно недовољно. Мјерило истине. Индивидуалност. Карактер. Највиши идеал. Приправни школи.

Обична идеја о васпитању је и сувише уска и сувише ниска по своме опсегу. Васпитање треба да је ширег обима, вишег циља. Право васпитање значи нешто више него ли просто предавање и учење изијесног наставног плана. Оно више значи него ли приправљање за живот који данас постоји. Оно треба да се бави васкопким бићем и са читавом периодом егзистенције што је човјеку могуће. То је хармонијско развијање физичких (тјелесних) психичких (душевних) и спиритуалних (духовних) способности. Оно приправља ђака за радост и весеље што долази од услуге у овом свијету, и за вишу радост што долази од више услуге у будућем свијету.

Врело таког васпитања истиче се у овим ријечима Св. Писма, ријечи које се односе на Бесконечно Једног: у Њему »је све благо премудрости и разума сакривено« (Кол. 2, 3). »у Њега је савјет и разум« (Јов, 12, 13).

Човјечанство је имало своје велике учитеље, мужеве гигантских умова и колосалног изумилачког духа, људе који су својим дјелима подстицали друге на мишљење и отварали видике на огромна поља знања и умјења. Ти људи слављени су као вође и добротвори своје расе и свог племена. Али постоји Један који је изнад свију тих