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EDUCATION AND INDUSTRIAL EVOLUTION

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Education and Industrial Evolution

BY

FRANK TRACY CARLTON, PH.D.

PROFESSOR OF ECONOMICS AND HISTORY
IN ALBION COLLEGE

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To the Memory
OF MY MOTHER
AND TO MY WIFE

PREFACE

The labor problem has always been one of the chief causes of economic thought and research. In recent decades this problem has held a predominant place in the minds of students of economic questions. Economists, when considering this complex problem, have often overlooked one very important factor,—education. John Stuart Mill stands pre-eminent among economists in recognizing the true value of education in the betterment of the masses and in the solution of the labor problem. The pages of this volume are devoted to a consideration of the educational problems which are vitally and indivisibly connected with the social and industrial betterment of the people of the United States. The author hopes that it may lead to a more general recognition of the truth that modifications in education are demanded on account of industrial and social evolution, and with this they should keep pace.

Portions of several chapters have already appeared as articles contributed to *The Engineering Magazine, The Popular Science Monthly, The Journal of Pedagogy,* and *Education.* For many facts and statistics the author is indebted to official publications of the United States government.

F. T. C.

Albion, Michigan.

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EDUCATION AND INDUSTRIAL EVOLUTION

CHAPTER I

INTRODUCTION

During the last century the productive powers of man were repeatedly multiplied by means of the utilization of the energy of coal and water through the agency of steam and electricity. President James has illustrated this fact very vividly. "It is not too much to say that the population of the single State of Germany, with an area not exceeding that of Texas, is equal to-day in working force to the combined efforts of the population of the whole world at the beginning of the nineteenth century. The United States has to-day within its borders an effective power in the engines at work, far surpassing the total possible power of the entire population of the world a century ago. In many lines of work one man, with the aid of a small machine, may do as much work as fifty or a hundred men could have done at the beginning of the century; while in other departments, owing to the development of the application of steam and electricity, one man may do what all the population of the world combined could not have accomplished a hundred years ago." As the direct result of this marvelous and unprecedented increase in the world's productive capabilities, the human race as a whole has been lifted from a

condition of constant and strenuous struggle for the bare necessities of life to a higher plane of material comfort. With the increase of material wealth has been ushered in the new spirit of democracy, a spirit which could not come into being until science and invention had cleared the way. The worker is now considered, theoretically at least, to be an end in himself. He is no longer conceived to exist merely for the benefit and profit of others. In an age of machinery and utilized natural power, at the end of a period of extraordinary advancement in material wealth and during an era of peace; leisure, culture, education, art and work are at last conceived to be the birthright of all, not merely of a favored few. Universal culture and education have heretofore been impossible because of the meager productivity of unaided man.

During the nineteenth century, greater changes in manufacture, commerce and agriculture took place than during the preceding ten centuries. The military basis of civilization was hastily swept away, and replaced by industrial foundations. New classes of people and new economic interests arose, and old ones disappeared or sank in relative importance. Manners, customs and ways of living were transformed. The ends of the earth were drawn into vital contact; the continents were moored side by side. In a word, social and industrial life was revolutionized. The qualities which count for national success and grandeur are no longer purely warlike or artistic; industrial capacity and skill now become absolutely essential. The warrior bows,

except under unusual circumstances, to the skilled mental or manual worker; the engineer with his slide-rule displaces the epauletted soldier. The strongest nation is the one most efficient from an industrial and commercial point of view. Industrial progress and educational advance began to assume important proportions early in the nineteenth century. In preceding centuries both industry and education were overshadowed by other factors which were characteristic of a more primitive and disjoined state of human society. In early times industry was in a large measure left to slaves and serfs; and education was confined to a narrow field and to a numerically restricted class of people. The sixteenth, seventeenth and eighteenth centuries, however, foreshadowed coming events. The history of modern education can be properly studied only from the point of view of industrial evolution. The economist and the educator here join hands; but unhappily neither has been able to grasp the real situation. Democracy, a wage-earning class and universal education are the social institutions which develop side by side out of the same soil,—one strengthens and protects the others. Early democracy was aristocratic; early education was likewise intended for the elect. The progress of democracy has been to admit one class after another into the charmed circle from which the ancient lowly were sternly excluded; during the same time education has been broadening its scope and enriching its content. These phenomena are not

isolated and unrelated; they are intimately and vitally joined to each other.

Two periods of scientific economic thought may be distinguished in the United States during the nineteenth century. The early period opened approximately with the educational revival of the 20's; and the second was formally ushered into existence by the organization, in 1885, of the American Economic Association. A new birth of economic thought seems to be approaching; economists are becoming impatient with the old formulæ. Theory and practice are drawing closer together; a new school of economists might almost be said to be in the process of formation. The concepts of education and of political economy held during the first half of the last century were narrow, much narrower than those now generally accepted. The earlier political economy, as a rule, considered man to be an animal in whom all other ambitions, aims, desires and loves were subordinated to the desire for wealth getting. The theory was purely a mathematical or mechanical one. Accept the premises and the rest followed as a logical consequence; but the premises were fallacious. The political economy of that period considered the "fictitious" economic man; modern economic thought studies the real man, the man of many and mixed motives. As a necessary result of the expansion in the scope of economic science, the relation between economics and the science of education has become intimate and important. Economics is now a study of man in his endeavor

to obtain the necessities, comforts and luxuries of life. Man, not wealth, is placed in the foreground. Economic science is interested in the many complex problems which are connected with the production, distribution and consumption of economic goods—goods which men desire and which require effort to obtain. Production and distribution are only means to an end, which end is the third, consumption of the material and immaterial goods, produced and distributed for the benefit and enjoyment of mankind. Judged from the point of view of the economic science this is, indeed, the ultimate end and aim of all human activity. In so far as education affects, in any manner, production, distribution or consumption, or in so far as it changes or modifies the efficiency, the tastes or the ideals of men, it has an economic and a social significance. The growth of democracy and the increasing participation of the masses in political activity and in the educational heritage of the age are accompanied by the dawn of new economic and educational concepts.

In recent decades the science of education, like economic science, has been passing through important and fundamental modifications. The emphasis has shifted from the leisure class ideal of education for culture and discipline to the industrial, utilitarian and democratic ideal of education as a means of improving civic and industrial efficiency. The older methods and concepts of education originated at a time when the older view of the workingman and of his sphere of life and

activity was held. Education, except perhaps the three R's, was not, in earlier periods of our history, intended for the laboring man; it was only for the "cultured" classes. Students of educational problems have only recently begun to recognize that society is no longer on a scholastic, feudal or military basis. Although education in the United States is free and compulsory, its growth has not been accompanied by that change in method and scope which should come with its extension to all classes in a democratic community. A modern democracy of the industrial type demands both an extension of educational privileges, and a departure from the traditional methods of instruction in order to fulfill the conditions necessary to prolonging its existence. The democratic view of education is just beginning to rise above the pedagogical horizon. Free compulsory education is not democratic, if it is of the kind and character which is valuable chiefly to the professional man, or to the man of leisure; nor is it democratic if it merely aims to increase the efficiency and speed of the employees in our great industrial establishments. Scientific engineering and financial questions have occupied the center of the stage during the last three or four decades; the endeavor to solve these problems has finally pushed into the foreground an entirely new and unexpected set of allied problems belonging to the field of social science; and is forcing them upon a reluctant society. Social, economic and educational questions are to be of vital interest and importance in the immediate future. The political

need of universal education has been particularly emphasized in the United States; it has often been thought of merely as a training for citizenship and for casting the ballot on election day. To-day, while not minimizing in the least the importance of this function, a far wider concept is beginning to rise above the educational horizon, heralding the dawn of a new pedagogical day. The economic and social functions of education are to be emphasized during this new era. If education performs its duty in this respect, good citizenship is the natural fruitage. If education is to light the path over which the car of progress is to pass, it must not only open its arms to all, but it must provide nourishment which is adapted to the educational requirements of all classes of individuals.

In the past all educational innovations have laid stress upon those elements which were least important to the mass of the people. In colonial New England compulsory education was insisted upon on religious grounds in order to benefit a puritanical priesthood or ministerial element. Great stress was laid upon higher education,—the classics, theology, literature. The motive for elementary education was purely religious. When scientific training was first introduced, special emphasis was laid upon advanced work and research rather than upon the more elementary work,—the dissemination of the results of research among the mass of the people. Technical education and manual training receive better financial support in the college and high school than in the elementary

school where the value of these branches to the mass of the people is particularly great. Our university and college professors and high school teachers are better paid and more highly honored than the grade school teacher. Indeed there is a gradation of salary and honor from university professors to the primary teacher; yet, pedagogically and sociologically considered, the latter is of greatest importance. Education began with the abstract and the far away, rather than as common sense and pedagogical science teaches, with the concrete and the near-at-hand. This fact can be explained on the basis of conflict of economic interests. Only within a few generations has the working class reached a position in the community from which they are able to effectively voice their demands. Higher education remains, in many cases, still merely a form of what Veblen calls conspicuous waste. The so-called "finishing school" may be classed under the head of conspicuous waste. (The sons of many wealthy men do not go to college because of a thirst for knowledge, but because it will give them social prestige.) College life is conceived to be a form of club life. In Belgium, Germany and France, where the social spirit is better developed, where the frontier influence has not been felt for generations, the education of the masses,—useful education as contrasted with ornamental and purely disciplinary education—has advanced further than in the United States.

The educator, like the politician, has in the past clung to the theory that well-defined class demarka-

tion does not exist in America; but recent innovations in education disclose an unconscious modification. It must soon be consciously and unreservedly accepted that there are classes and conflicting interests on this side of the Atlantic; and we must act accordingly. Leaders in education must recognize the existence of great social and economic inequalities, and must strive to reduce to a minimum the differentiations which are undesirable and which lead toward class hatred and class exploitation. History in modern times is a record of the struggle of the workers upward toward equal political, educational and economic privileges. The great movements in history have been consciously or unconsciously dominated by the struggle for a living, for economic betterment. The school, the college, the university and the professional schools should calmly and impartially investigate and teach the facts which social and industrial evolution present. When this is not the case, education may be, and frequently is, perverted from its true mission; it becomes an engine which builds up and strengthens class animosity and social rigidity. Education should benefit all classes, agricultural, commercial, industrial and professional, and the subdivisions within each of these classes. In the eye of the educator each should be of equal value. The school has hitherto been unduly influenced by the ideals, and has taught the ethics, the morals and principles which the commercial and propertied classes have upheld. It has entirely overlooked the fact that the ethical code of the

industrial worker and the ethical code of the agriculturist are both of necessity different from this and from each other. In the future, if education is to perform its proper functions, a somewhat different set of ideals must find a place in our scheme of education.

Industry and education in early days went hand in hand. "Under Mediævalism the guild and the university were not far apart." Early formal education was, however, directed chiefly toward letters and literature. The present-day separation of industry and education is a result of the carrying down of old conceptions into modern times. When science, industry, commerce and agriculture were first recognized as proper fields for school work, it was natural, perhaps inevitable, that machinery and methods similar to those which had been applied to the teaching of the classics and mathematics should still be used. The segregation of students, rigid class systems, the isolation of the students from the practical things of life, and the cultivation of the scholastic ideals, are, with slight modifications, still adhered to. But a reaction is at hand. The problem is to develop along with the purely cultural and disciplinary work of education, new functions which will increase the industrial, social and civic efficiency of young men and young women in the present industrial era. Both government and education need "democratising" in the best sense of the term. Education is now concerned with much more than the teaching of reading, writing, arithmetic, geography, political history,

languages, literature, and the like; it must be an integral and vital part of the experience of every future efficient member of the community.

The recent modifications and additions to the curriculum are indicative of unrest or of dissatisfaction with educational results. Our educational machinery has proved inadequate because it was only adapted to the performance of certain limited tasks. Great modifications are necessary in order to construct a system which will perform the varied and complex educational work which should be done to-day. New and fundamental concepts regarding educational principles are now needed which square with centralized and systematized industry, subdivision of labor, large urban populations, increase in the numbers of the laboring population, the growth of organized labor, dissimilar populations, enlarged governmental activities, and a democratic form of government. When our public-school system was devised only one of these conditions, the latter one, was in existence. Just as our representative form of government has broken down in an unanticipated way, so has our educational system failed to respond fully to the last call of the nineteenth, and the first demands of the twentieth century. In the educational, as in the political world, a bitter struggle is being carried on between those standing for the old and those advocating a newer, less individualistic conception and philosophy; and the latter are daily gaining ground.

Public education has for its goal the welfare of the individual in society, and of society itself. Urban populations and world markets have taken away much of the old, illusory freedom of the individual; he can at present do little for himself. Organized society must now do much which it formerly omitted. Coöperation is the watchword of to-day. Society must concern itself with the economic and social welfare of each and every individual member. Society controls through the state one of the great institutions—the school—which molds, develops and strengthens its future adult members. The school of to-day is distinctively a social institution. It aims at producing more than the intelligent citizen; it also seeks to produce the efficient worker, the efficient consumer, the morally and physically well-developed man or woman. Improvement of men, environment and institutions are the three prime essentials in the betterment of society; better educational methods and ideals are necessary in order that the work along the three interrelated lines may follow the much searched after path of least resistance. True education in the broadest sense of the term, involving both teaching and research, which is concerned with the improvement of men, the material and social environment, and of the legal, economic, political and religious institutions is then the vital and fundamental problem of modern times. To vitalize education, to keep it abreast with the demands of our social and industrial life is the

problem which now confronts us; and much has been accomplished in recent years.

In the case of a primitive people where division of labor was not practised to any important degree, all received practically the same training. Each was his own carpenter, farmer, smith and hunter. The duties of one man were similar in character and importance to those of any other member of the tribe or horde. In the case of modern society this is entirely changed. Differentiation of occupation is the basis upon which the complex structure of modern society is erected. In recent years the feeling that education is not accomplishing its true mission has manifested itself in a variety of forms. There has been a groping in the dark for something which will allow our educational system to supply those forms of training which recent industrial change and progress have caused to be dropped from the life of the average man. This groping in the dark is the result of the emphatic demand by the masses of the people for a "practical" education,—something which will aid them in their struggle for a livelihood. Advocates of the old, purely intellectual education may scoff at this innovation, this so-called debasement of educational ideals, this catering to the "common herd"; but it is demanded by the great mass of citizens whose will is registered at the polls and in the great arena of public opinion. A new class is rising into the saddle. The public schools and the state universities are the most susceptible to public opinion, and in these we find the greatest progress. Private

institutions, supported by endowments and private beneficence, are normally the strongholds of conservatism in education and in economic thought; but, on the other hand, private initiative usually clears the path for public action. Manual training, nature study, kindergartens, night schools, evening lectures, correspondence schools and play grounds are some of the direct results of educational agitation and unrest. These measures, while valuable and desirable, do not go to the root of the evil. We must reach the large percentage of American children who leave school at an early age; we must place practical, industrial and general education within the reach of the boy or the girl who is working, and it must be made to be an advantage to him or her to accept it; we must modify our conception of the aims, methods, and ideals of education.

Education is a fundamental measure by means of which the mass of the people can be helped; and that education is best which treats of those things which are near to and easily attainable by the masses. Classical and cultural studies are perhaps ideals toward which we may gradually bend our efforts; but high and lofty ideals as portrayed in art and literature do not appeal to the man who is seeking a job, or to the one who needs to know how to use his hands. Attention must first be paid to those things close to the every-day life of the poorer classes; we must utilize the threads of experience obtained by them in their daily life. Improvement of the individual is not a universal

panacea for all the ills of our social and industrial life; but until measures are taken to educate the great masses of the people for industrial life, other desirable measures are rendered practically futile. The latter resemble efforts to purify a putrid stream directed at a point far below the source of pollution. The efforts of reformers of all kinds, of labor unions, of charitable enterprises, and of philanthropic individuals are only of comparatively little value while a great mass of inefficient, unskilled, ignorant people contented with a low standard of living exist. Education of the industrial and social type can go to one of the sources of the difficulty, and enable other essential measures to obtain more efficient results.

In the past, nations and races have unceasingly passed through a cycle which led finally to degeneracy, decay and subjection to stronger, more virile, because more primitive, races. In the United States the enormous increase in wealth and the enlargement of the leisure class, especially in the case of the weaker sex, indicate that this nation is reaching a point in her national history which, if she is to follow the cycle traced by older nations, presages national degeneration. The problem of the twentieth century is to make education an engine for social betterment. Hitherto, educational progress has been conditioned by economic and social changes. Have we advanced far enough on the path of civilization to make it, in a measure, a directive agent?—is the question. Only through the study of industrial evolution can we hope to

discover the lines of development which lie just ahead, and thus be enabled to utilize education in order to hasten social progress. Any modern educational theory which does not rest back upon the basis of social and economic needs and progress is sterile and unscientific. If pedagogy or education is to be permanently ranked among the sciences, it must find data in addition to that furnished by cultural imperatives and psychological investigations.

PART I

THE MODERN EDUCATIONAL PROBLEM

CHAPTER II

EDUCATIONAL EPOCHS IN THE UNITED STATES

Although our public-school system is in some respects the most characteristic of all American institutions, a careful study of the fundamental, underlying forces which produced our educational progress has not yet been published. Few attempts have been made to study the forces or combination of forces which produced the transformation from the narrowly intellectual, semi-private, semi-religious basis upon which education rested during the colonial period, to the broad intellectual, industrial and social basis upon which the public-school system of to-day is placed. The world's progress is accomplished not by steady, stately strides, but by leaps and bounds separated by periods of comparative quiescence or even of apparent retrogression. In like manner our educational advancement which is a resultant of our industrial and social development, is not uniform but irregular. Educational progress is slow during one period, and rapid during another epoch. Educational progress is secondary to industrial and social advance, and consequently lags somewhat behind it in point of time. Periods of greatest economic activity are

followed some years later by educational activity, unless some disturbance or agitation turns the current into other channels. Education is ever vainly attempting to catch up with the car of progress. It follows industrial change as would a freight car follow a locomotive, if attached to the latter by a long elastic coupling. The engine would, in starting, move much faster than the car, but when approaching its destination the car would move more rapidly than the engine. Educational aims, ideals and methods are farthest out of step with the needs of the time when near the close of a period of prosperity, at a time when business and industrial activity is at its height. Educational history should be an orderly account of the educational needs, and of the progressive and conservative forces which mold the educational institutions of different historic periods.

At least three distinct periods or epochs in the development of our educational system may readily be discerned, and it is probable that we are entering upon a fourth. These periods are eras of educational agitation and progress. In the intervals between two epochs, progress is slower or not discernable. The early educational activity in New England constitutes the first epoch. It includes the latter portion of the seventeenth century and the opening years of the eighteenth. The "Educational Revival" of 1820 to 1850 clearly constitutes the second epoch. The third extends from approximately 1875 to 1895 or 1900; and the fourth period, if such there is, began with the new century. In

the first two periods education was purely an intellectual matter. The common school was only utilized to teach reading, writing and arithmetic. Not until the later years of the second period did history, geography or grammar find a place in the curriculum of the majority of the elementary schools. In the third period industrial and scientific education arises; manual training, domestic science, nature study, elementary physics and chemistry, and other branches of study are introduced into the curriculum. In the fourth period education assumes a distinctly paternalistic attitude toward the child; it is now considered to be an integral and vital part of the life of every human being. "Education is life."

The discussion of the first period may be confined entirely to New England. The early New England settlers were, with unimportant exceptions, middle-class Englishmen who were Calvinists. These settlers were a sturdy, independent class of men and women. The Norman conquest transplanted to England a new feudal aristocracy, and gradually changed the "Old-English thanehood into the finest class of rural gentry and yeomen that has ever existed in any country."[1] Social differentiation was not considerable until after the Revolution. The colonists brought with them English customs, traditions, law and government. These institutions were modified to meet the wants of a new environment far from the interfering hand of the English government. In short, the

[1] John Fiske, *The Beginnings of New England*, p. 30

colonists tried to make New England an improved and purified copy of Old England. While they accepted and adhered to many radical doctrines as to the rights of man, they continued the English common law with important modifications, they restricted the suffrage, and they did not hesitate to imprison debtors. England experienced, from the middle of the sixteenth century and into the early part of the seventeenth century, an important educational awakening; many schools, chiefly grammar, were established to take the place of those destroyed when the monasteries were suppressed.[1] The Puritans had been accustomed to schools, and consequently soon after their arrival on New England soil the formation of a school system was attempted.

The belief in Calvinism was an important factor in the educational history of this early epoch. "One of the cardinal requirements of democratic Calvinism has always been elementary education for everybody. In matters of religion all souls are equally concerned and each individual is ultimately responsible for himself. The Scriptures are the rule of life, and accordingly each individual ought to be able to read them for himself, without dependence upon priests. Hence, it is one of the prime duties of a congregation to insist that all members shall know how to read, and, if necessary, to provide them with requisite instruction. In accordance with this Calvinistic idea some form of

[1] Jos. Shafer, *The Origin of the System of Land Grants for Education.*

universal and compulsory education sprang up during the Sixteenth and Seventeenth centuries wherever Calvinism had become dominant,—in the Protestant parts of France and Switzerland, in Scotland, in the Netherlands, and in New England."[1] Calvinism "has proved one of the chief forces on promoting the education of the common people, and in fostering higher education in the modern world."[2] The English people "had also a strong feeling of the solidarity of responsibility which emphasized the evils inflicted upon the whole people, by the wrong acts of individuals and the need of national unity."[3] This feeling of mutual responsibility played a considerable rôle in promoting education; and the weakening of the ties as the settlements grew larger and more numerous, and as the settlers became more and more independent of each other, partially accounts for the relatively diminished interest in education of a later period. This clannish feeling found expression in the first educational enactment passed in Massachusetts in 1642. The selectmen of the towns were given power to investigate as to the training of all children under their jurisdiction, and authority was granted to impose fines upon any and all persons who refused to educate their children, or to render an account, when demanded, to the selectmen. Indeed, this act amounted to a compulsory educational law, but it did not provide

[1] Fiske, *The Dutch and Quaker Colonies in America,* Vol. I:33.

[2] *New International Encyclopedia,* article on Calvinism.

[3] Patten, *Development of English Thought,* p. 120.

teachers or schools. Education was left to home instruction, private tutors, or private schools. It was held that every head of a family was in duty bound to educate his children in order to promote the moral and religious well-being of the community.

This act was similar in its nature to our modern sanitary laws which require every householder to keep his house and yard in a healthful and clean condition so that his home will not become a menace to the community, and a focus of infection. Elementary education was at this time in the handicraft or household stage, and was primarily demanded for religious reasons. Family instruction was sometimes supplemented by the work of teachers who gathered a few children about them. Teaching was carried on much as was shoemaking or tailoring. The teacher found his counterpart in the itinerant journeyman of the period. Indeed, public bounty was first extended by the General Court, not to what we now call the common schools, but to the colleges. However, a few years later, in 1647, the date of the second Massachusetts law, we find supplemented by family instruction, "the outlines of a complete system of popular education in Massachusetts—the elementary, the grammar or secondary schools and the college—all supported by the contributions of the people, private beneficence, public taxation and legislative grants."[1] Towns of one hundred householders were ordered to set up a grammar school or pay a fine. In 1671

[1] *Report of the Bureau of Education, 1893-1894.*

and again in 1683 the penalties for non-compliance with this statute were increased. The first period was distinctly a middle-class educational era. There was in fact no other influential class in the community. The important and characteristic grade of schools during this epoch was the grammar school.

The town was the original unit in school government; but the system of local control and the strong bias against anything savoring of centralized authority led to the further subdivision into school districts for the purpose of directing educational affairs. With the development of the district system naturally and inevitably came the decline of the famous grammar school and the rise of the private academy. This marks the beginning of an educational declension which, it has been asserted, set in before the end of the seventeenth century. "This declension is commonly ascribed to the wars with the Indians and the French that wasted the blood and treasure of the colony; the political and social contentions that disturbed its peace; the uncertain relations that existed between Massachusetts and the Mother Country, and internal economic and social changes."[1] The powers granted to school districts were gradually increased down to about 1826. At which time only two limitations were placed upon their authority in regard to the management of the schools of the district: (1) The raising and apportionment of taxes, and (2) the qualifications of teachers. This marks the

[1] Hinsdale, *Early Education in Massachusetts*, p. 9.

extreme limit of decentralization in school affairs. The academy is simply a visible token of the decline of the grammar school, and shows that the wealthier members of the community wished to obtain better education for their children than could be received in the district schools. So while on the one hand the district system led toward democracy, on the other it increased class differentiation and antagonism. The demand for centralization which came with the second epoch, commonly called the period of educational revival, was coincident with the growth of cities, the increase of manufacture and of mutual interdependence. The interdependence of this era was due to the birth of division of labor and specialization of industry, and led eventually to what the socialists call "class consciousness." Horace Mann "stands in history as the representative of the urban school." The culmination of the development of the district is contemporaneous with the high water mark in New England of individualism, the theory of natural rights and of a *laisse faire* policy. The second educational period ushers in the demand for centralized school administration, tax-supported free elementary schools, and protection to American industries. The period of declension was an era of transition. Invention and progress in industry undermined the authority of the theocratic element and correspondingly increased the influence of the manufacturing and artisan classes.

The causes of this phenomenon may be summarized as follows: (1) Wars and internal dis-

sentions, and the formation of a new government, distracted the attention from the field of education. (2) The growth of the district system of educational administration injured especially the grade of schools which had been considered most important, namely, the grammar schools. (3) Decrease of mutual interdependence among the settlers and the consequent diminution in the strength of the spirit of clannishness. (4) Industrial progress which produced a new alignment of classes. At the end of this period of educational decline we find James G. Carter saying: "Under our present constitution, or for the last forty years, the schools have no doubt been vastly improved. But they have, most certainly, not kept up with the progress of society in other respects. Although their absolute motion must be acknowledged to have been onward, their relative motion has for many years been retrograde. And there never was a time, since the settlement of this country, when the common schools were farther in the rear of the improvements of the age in almost everything else affecting our condition and happiness than they are at the present moment."[1]

The first half of the nineteenth century witnessed the gradual destruction of domestic industry and the development of the factory system. Improvements and inventions in various lines of manufacture and communication followed each other in rapid succession. The Embargo Act, the War of 1812, the shipping regulations of foreign

[1] "The Schools in 1824," *Old South Leaflets*, No. 135.

nations adopted subsequent to the war, and the westward movement tended to rapidly shift capital and enterprise, particularly in New England, from commerce to manufacture. Canal and railroad building followed, immigration multiplied rapidly, the towns increased in size and importance, manufacture became an important economic interest. In 1790 Massachusetts had a population of 378,787 souls; fifty years later, in 1840, the number was 737,700, an increase of 94.75 per cent. During the same period the city of Boston increased in population 409.73 per cent. The number of people engaged in manufacture in Massachusetts increased from 33,464 in 1820, to 85,176 in 1840; in Rhode Island, from 6,091 to 21,271; in New York, from 60,038 to 173,193; or the numbers engaged in manufacture in the three states were approximately trebled in a score of years. In Massachusetts during the same period the number of persons engaged in commerce decreased from 13,301 to 8,063; and the number engaged in agriculture increased from 63,460 to 87,837. In New York, in 1840, only 28,468 persons were engaged in commercial pursuits.[1] Such sweeping changes in social and industrial conditions is indicative of unrest and agitation. This was an intensely dynamic period; social ideals, home life, customs, are all subjected to new influences.

By 1830 imprisonment for debt was practically abolished, manhood suffrage was attained in nearly

[1] See Tucker, *Progress of the United States;* and Chickering, *On Population and Immigration.*

all states, and the Congressional Caucus had disappeared. Following the hard times of 1819-1821, arose the great humanitarian movements of the epoch, including, among others, the development of labor organizations, the communistic settlement movement, and the demand for public tax-supported schools. Many of the humanitarian movements led directly to, or were finally overshadowed by, the anti-slavery agitation of the period immediately preceding the Civil War. At this time in the face of the westward migration and under normal conditions, the labor movement could not attain great strength. The demand for tax-supported schools, however, succeeded in the northern and western states. This period of educational awakening and social agitation established this principle in these sections of the United States so firmly that it has never been dislodged, and it is not now questioned. Education was transferred from a charity or rate basis to a free public system supported by taxation, and it was completely severed from religious control.

The arguments which were presented during this period of agitation in favor of free tax-supported schools may be summarized as follows: (1) Education increases production. (2) It diminishes crime. (3) It prevents poverty. (4) Education is a natural right of all men. (5) Universal education is necessary to preserve free republican institutions. (6) Free schools prevent class differentiation. The first three arguments are economic and appealed to practically all reputable

citizens; the fourth put the matter on an ethical basis and invoked the authority of the Declaration of Independence and of other Revolutionary literature. It received the support of the laboring classes and of the humanitarians of the period. The last two arguments were urged from a civic standpoint. The last three arguments, particularly the fourth and the sixth, did not receive the hearty support of the wealthy, large tax-paying class. In general, remembering that there are exceptions, we may characterize the opposing forces as follows: In favor of tax-supported public education for all children, the workingmen and non-taxpayers, the cities, and the Calvinists; opposed to this system of schools, the upper classes and the taxpayers, the rural districts, and the Lutherans, Quakers and similar sects. Such a statement, so contrary to many preconceived notions, is supported by a mass of details. Only a portion of the evidence can be here presented.

The attention should first be called to the evident fact that the progress of the world for centuries has been toward the betterment of the working classes; therefore it seems reasonable to argue *a priori* that, if progress continues, the program of the working people and non-property owners of one generation will be partially, at least, adopted by all classes of society in the next. As long as progress is synonymous with the uplift of the workers and the downtrodden, so long will their program, rather than that of the business or professional men, represent progress. The latter classes

in the community act as a flywheel which steadies progress and prevents disaster; but they always stand for controlling or modifying, not impelling, forces. This view is particularly illuminating when we take up the consideration of the present period of educational development.

During the 20's and 30's, labor union after labor union formally declared in favor of free universal education. Many periodicals sprang into existence to press these demands. In November, 1829, at a meeting of organized workers in New York, resolutions were adopted demanding for every child "a complete and systematic course of instruction,—at public expense." They urged "that the public funds should be appropriated (to a reasonable extent) to the progress of education upon a regular system that shall insure to every individual the opportunity of obtaining a competent education before he shall have arrived at maturity." As early as 1799 the Mechanic's Association of Providence demanded free public schools. The Equal Rights Party of New York City, among other things, pledged (1837) themselves "to procure a more extended, equal and convenient system of common school instruction." Stephen Simpson in his book entitled, *A Manual for Workingmen,* presents the following view of the situation in 1831: "The text of the friends of liberty was—to enlighten the people is to promote and cement the public virtue. The soundness of this text was never questioned anterior to the organization of a party [the Workingmen's Party], whose object it was to obtain it

from the legislature, as a right unjustly withheld. When public instruction was bestowed as a boon of charity, it found numerous advocates and met with no opponents; but now, when we justly demand it as a right and not as a charity—it is not only refused by some, but to our utter amazement, its consequences painted as baleful to the people and deprecated as having a fatal tendency upon the good order of government." It is needless further to enumerate the resolutions passed by workingmen and their representatives, but it seems appropriate to introduce the testimony of T. H. Green as to the forces which promoted public education in England. "If factory regulation had been attempted, though only in piece-meal way, some time before we had a democratic house of commons, the same can not be said of the educational law. It was the parliament elected by the more popular suffrage in 1868 that passed, as we know, the first great educational act. That act introduced compulsory schooling."

In the cities a large percentage of the people were workingmen and small taxpayers, and in the cities the need of educational facilities was clearly urgent. There were also better opportunities in the cities for carrying on an agitation on this, or any other subject. If we omit for the present Pennsylvania, where religious and national differences complicated the question, the antagonism is quite clearly marked between the cities and rural districts. In 1799, in Rhode Island, a local option school law was passed. Providence alone took advantage of this law. Four years later it was repealed by the

votes of the remainder of the state. The first free schools in Pennsylvania were provided in the city of Philadelphia. New York State, however, offers the most convincing and spectacular example of the antagonism between the cities and the rural districts in regard to tax-supported public schools. In March, 1849, the New York legislature passed an "Act establishing free schools throughout the State." The schools were to be free to all persons between the ages of five and twenty-one. Local taxation was provided to supplement the state tax. A referendum was allowed on this proposed law; the vote was 249,872 for, and 91,951 against, the law. Four rural counties only gave majorities unfavorable to the law. In New York county the vote was 21,052 for, and only 1,313 against. When, however, an attempt was made to put the law in operation, much hostility was manifested. "Many of the heaviest taxpayers had no direct interest in the schools; and in general wherever they constituted a majority of the legal voters of a district, they refused all appropriations for the support of the school beyond the four months required by law."[1] In 1850 the question of a repeal of this law was referred to the people. Forty-two out of fifty-nine counties favored the repeal, but the large majority given by the remaining seventeen was sufficient to prevent such action. The cities of New York, Brooklyn, Albany, Buffalo, Schenectady, and Syracuse were located in these counties. These cities

[1] Randall, *Common School System of New York.*

prevented the repeal of this law; the issue was clearly drawn.

Pennsylvania passed through a similar experience in 1834 and 1835. The law passed in 1834 encountered bitter opposition. "There were taxes, and there is no more certain method of stirring up the public opinion of a virtuous, thrifty and frugal people, such as then inhabited Pennsylvania, than by pricking their pocketbooks. They were willing to have reform, provided it did not come high, or they were not compelled to pay for it. A violent reaction arose. Nearly half of the districts in the State rejected the act or contemptuously ignored it."[1] Another phase of the opposition exhibits a striking similarity to the present opposition to legal limitations of the hours of labor and to other laws relating to the working people. "But these opponents of free education object to any compulsory proceedings on the part of the State, alleging that a law of this character, if passed, would be in violation of the liberty of the citizen, who has a right to do as he pleases, to worship God or not, as he pleases, to educate his children or not, as he pleases, and to live free from any restraint of any kind, whether civil or moral."[2] Martin, in his *Evolution of the Massachusetts School System,* makes the following pertinent observations: "It is curious to see how long the higher social circles of the commercial towns—Boston, Salem and Newburyport—clung to the old traditions, and how they

[1] McCall, *Life of Stevens,* p. 35.

[2] D. B. Duffield, *Barnard's Journal,* Vol. III.

resisted the encroachments of that leveling spirit which would break down the old social barriers. Thus in Newburyport, in 1790, when it was proposed to open primary schools for girls at public expense, the school committee of clergymen, doctors, squires and captains recommended that all girls who attended these schools should be considered as recipients of public charity. This the town rejected."[1]

The opposition in Pennsylvania was increased by the differences in nationalities and religious beliefs among the inhabitants. Pennsylvania was settled by a mixture of peoples, speaking different languages and adhering to different religious beliefs. "The new law (1833-1834) met with most favor in the northern counties. These had been settled principally by people from New England and New York, who had been accustomed to public schools and understood their advantages. It was comparatively well received in the counties west of the Alleghanies, where a diversity of wealth had not yet bred distinctions of class, and where different nationalities and different religious denominations had become so thoroughly mixed as to recognize an educational interest in common. Opposition to it was most formidable in the southern, central and southeastern portions of the State, and greatest of all in the counties where the people were principally of German descent."[2]

[1] Martin, p. 143.

[2] Wickersham, *History of Education in Pennsylvania*, p. 318.

In 1835, in Pennsylvania, the Democratic party was split into two factions; the question of free schools was one of the points of difference. The candidate of the wing opposing free schools was Rev. H. A. Muhlenberg, a Lutheran clergyman. This gentleman in a letter to the workingmen of Philadelphia, January 1836, stated the position of his countrymen thus: "The Germans of our State are not opposed to education as such, but only to any system which seems to trench on their parental and natural rights." As early as 1786 this prayer was introduced into the litany of the Lutheran church: "And since it has pleased Thee chiefly, by means of the Germans, to transform this State into a blooming garden, and the desert into a pleasant pasture, help us not to deny our nation, but to endeavor that our youth may be so educated that German schools and churches may not only be sustained, but may attain a still more flourishing condition."[1] Another writer on education in Pennsylvania tells us that "schools supported by the public were opposed by many of the wealthy class who had no sympathy with the doctrine of equality upon which the free schools were founded. Several religious denominations opposed the proposed law, since they were already maintaining at their own expense denominational schools for the purpose of inculcating the precepts of their faith. Many persons of German descent combated the free school idea because the instruction was to be given in the English language, and they feared

[1] Quoted, Kuhns, *German in Pennsylvania*, p. 117.

that it would result in the displacement of their mother-tongue."[1] The victory for the free schools was won in Pennsylvania by the New England man and the urban centers.

At the close of the second period the tax-supported public school was a firmly established institution. The value of education was considered, during this epoch, chiefly from three points of view, economic, civic, and ethical. New industrial and social conditions caused the agitation which overcame the opposition and transferred education from the rate or charity basis to a free, tax-supported foundation. Educational advance during the period may be directly attributed to the pressure of the working class and the urban community. Following the close of the second period, the slavery agitation, the Civil War and the reconstruction so absorbed the attention of the public that, for a quarter of a century, educational progress was slow and bore no important fruit.

The third epoch is a revolutionary era, if judged from the point of view of the functions of the school. The second period is especially interesting to the student of economic and social questions, while the third presents phases which attract the attention of the psychologist and the educator. Heretofore education had been purely an intellectual drill and discipline; the school was a mere intellectual gymnasium. This period opens by placing the emphasis upon the industrial and psychological value of

[1] Edmonds, *History of the Central High School, Philadelphia*, p. 21.

school work. A distinction must be drawn between the *economic* and the *industrial* value of education. It was recognized in the preceding epoch that education increased production, but its beneficial effect was then thought of as a secondary matter, or as a by-product. The educated man was conceived to possess good judgment and a high degree of efficiency; but the direct education of the hand and eye through the instrumentality of the school was not considered to be feasible or desirable. This period was also one of agitation and unrest. It, like the second, came after a severe depression which had been preceded by a war and a period of rapid industrial development. The most important educational innovations of the period are the general introduction of the laboratory, the kindergarten, drawing, manual training, domestic science and physical training. The industrial changes which followed the Civil War still further reduced the educational functions of the workshop and of the home. Boys were growing up in the cities with little or no opportunity to practically or regularly use hand and eye in a useful or productive way, or to come into contact with industrial operations. The school was obliged to take up new functions, to do much of the work formerly done by the home and the shop. The school now becomes a powerful institution which molds the life, character and industrial capabilities of the youth. Every increase in its function and policy means a further departure from the old *laisse faire* policy. It is worthy of notice that at the time when manual training was

beginning to be introduced into the public schools, the American Economic Association was founded. This association has stood from its inception for an extension of the power of the state and opposed to the *laisse faire* policy of the classical economists.

The introduction of new functions into the public-school system has not been accomplished without opposition. Manual training and laboratory work have, however, generally received the hearty support of the manufacturers, and the coöperation of the merchants has been secured through the addition of commercial branches. Labor unionists and unaffiliated workingmen have not as a rule actively urged the adoption of manual training. They have felt that the work given was impractical, or, if practical, that it tended to increase competition in certain trades. They have, however, favored the introduction of the kindergarten, and provisions for free text-books. The workingmen have turned to private correspondence schools for practical assistance; but, in the near future, continuation schools modeled after those of Europe will probably be included in the public system. When this is accomplished the sphere of usefulness of the correspondence school will be contracted.

It was during the third epoch that the new science of pedagogy, if we may dignify it by the name of science, put forth its first shoots. The old "reservoir" notion as to educational methods became obsolete; education grew to be something more than cramming facts and syntax. The child came to be recognized as a growing plant which must be

supplied, if he is to develop properly, with certain material which must be presented in the proper form and at the proper time; and it was further perceived that the work of the school was conditioned by, and dependent upon, the experience given the child by the home, the playground and the shop, store, farm or office. The industrial and social environment which surrounded the child of the last quarter of last century was educationally deficient in many respects. Psychology and physiology have pointed out the necessity of certain forms of training—hand-work, eye-work, leg-work, etc. Industrial and psychological needs are the two coöperating forces which broadened the scope of education during this period, and developed the so-called educational "fads." The progressive professional educator, the manufacturer and the business man joined hands, and they were not actively opposed by the workingmen. Manual training and domestic science were first introduced into the high schools, and only found tardy recognition in the grade schools where their psychological value is greater and their industrial value less than in the high school. When we remember that progress in society, like the motion of material objects, is merely the resultant of many forces, it is not difficult to account for this phenomenon. The manufacturers and business interests are naturally only directly concerned with manual training from an industrial point of view, and their interest was therefore centered on high-school manual training and technical instruction of higher grade. The interests which

advocated manual training from the scientific or professional standpoint were less effective if measured by concrete results. Trade education has not been advocated from the psychological or pedagogical point of view, and has, in many instances, been actively opposed by the workingmen. These facts are perhaps sufficient to account for its absence from the public-school system.

The nation seems to be standing to-day on the threshold of a new educational epoch,—one which the future historian will be able to differentiate from the one which has been designated as the third. The fourth period promises to be intensely democratic,—semi-socialistic. At the outset two phenomena especially attract our attention. (1) The unskilled workers are for the first time exerting a powerful influence in the councils of labor unions; the new and rapidly developing form of labor organization is the industrial union, in contradistinction to the older trade union. (2) Women's organizations or clubs, are beginning to exert a powerful directive influence upon social, political and educational affairs. Another important factor in the combination of forces is introduced by the entrance of women of the middle class into industrial and professional pursuits. In 1900 about one in every seven adult females living in the cities of the United States was a wage-earner. Women are no longer confined to the narrow round of home duties as they were in earlier generations. Whether this change in the life and work of women is beneficial or harmful need not here be discussed; the

fact confronts us, and it tends to modify and farther enlarge the sphere of the modern school system. These three phenomena are the visible results of the action of forces which are, in no small measure, responsible for the educational progress of the last few years. The beginning of this era is marked by the transfer of the emphasis from the psychological to the social and recreational value of education. Sociological, rather than psychological considerations are now placed in the foreground.

In this brief historical survey the attempt has been made to point out, in a general way, the relation which has existed between educational advance and social and economic progress in the United States.[1] The massing of these historical data furnishes the background for a more detailed consideration of the educational methods and needs of the present era. The science of education has been, and is to-day, greatly hampered because the real forces which cause and guide educational progress have not been seriously and patiently studied; in reality these forces have, as a rule, been ignored or rejected by educators. Until the intimate relation between education and industrial evolution is clearly recognized, the newly born science of pedagogy or education can never become truly scientific.

[1] For a more detailed study of the first and second periods, see the author's monograph, *Economic Influences upon Educational Advance in the United States, 1820-1850.* Bulletin of the University of Wisconsin, 1908.

CHAPTER III

THE RELATION BETWEEN EDUCATIONAL ADVANCE AND INDUSTRIAL PROGRESS

Writers and students who have turned their attention to educational problems have almost without exception given adherence to what may be called the "great-man" theory of educational progress. They have maintained the thesis that educational advance has been chiefly, if not wholly, due to the efforts and the perseverance of certain great personalities, who, by the sheer force of personal ability and merit, have pushed their particular contribution upon a reluctant public. During the first period of great educational activity in the United States, according to this theory, our educational progress was attributed to Horace Mann, Henry Barnard, James G. Carter, Samuel Lewis and others. Without in any way depreciating the value of the labors of these able and earnest men, it is just and proper that recognition be given to the underlying social and economic conditions of which these men were, in reality, only the outward and visible manifestations, and which produced the situation that enabled them to carry their propaganda to a more or less successful issue; and which, indeed, indicated to them the need of such work and filled them with the

zeal and ardor necessary to carry it out in the face of determined and powerful opposition. Mann and his associates exercised a "directive" influence, as Professor Lester F. Ward expresses it; but a further search must be made for the "impelling" forces. Only when the student comes to the more recent period of manual, scientific and commercial training, and of recreational education, does he find any important recognition of the underlying influence of social and industrial changes. Even in this period little has been done except to point out in a general and casual way, the fact that industrial progress and the growth of cities have led to many haphazard additions to the curriculum, and have been the real cause of bitter conflicts between the "reformers" or "fadists," and the "conservatives." The reformer, educational or otherwise, is a product of his time; if he is successful, it is because he has, in a measure, correctly interpreted the hitherto vague and undefined demands of the classes in the community which are rapidly rising in influence and importance.

The many striking and important social and industrial changes which have occurred during the last two or three decades, make many new demands upon our educational system. In recent years the broad conception of education as a lifelong process has been generally accepted. It is no longer conceived to be solely confined within the walls of school, college or university. Many different agencies—the home, the playground, the press, the pulpit, the lecture platform, the library, the labor

union, the store, the shop, the farm, the office, the society,—all supplement and complete the work of the school. In considering the duty and work of our public-school system at the present time, or at any other period, attention should be paid to the functions which these other institutions are able to perform at the time under consideration. The school is normally a time and labor-saving device, as well as an institution which forms the character and aids in the development of the individual, and in the progress of society. It should convey to the student the accumulated experience of past generations, it ought to show the significance of his daily experience, and coördinate the latter with his studies and investigations; it ought to train him so that he can and will wish to continue his education by the aid of these other secondary educational agencies; and lastly, but not least, it should attempt to supply any deficiencies which change may develop in any one or all of these other agencies. The real function of the school is to adjust the individual to his environment—physical, industrial and social.

In the study of educational problems at the present time, two important, but often overlooked or neglected, facts confront the investigator. In the first place, the social environment, the sum total of influences which bear upon the life of the individual, has been increased in extent,—in other words, the entire world has been drawn closely into touch. People, intelligence, goods, now come from and go to the most distant parts of the globe quickly, surely and regularly. On the other hand,

occupations and certain characteristics of home life have changed so as to tend to produce narrow views of life, and to confine the vast majority of individuals within narrow grooves of action and thought; the tendency is to cause the individual to live in "parenthesis," disconnected from the great world thought and action. While modern communication and transportation, and world markets demand a broader life and tend to produce broad, liberal views of society and of the world; occupations have been specialized and subdivided until the life of the majority of individuals is cramped. Our daily work and home environment, whether rural or urban, tend to contract and astigmatize our view at the very period when democracy and the idea of a community spirit should thrive and be actually transformed into a reality. This is indeed a grim paradox of modern industrial life.

The earlier forms of industry gave the worker a relatively broad outlook; division of labor and specialization of industries tend to narrow this vision. As the division becomes more and more minute, the production of goods requires the co-operation of a constantly increasing number of workers. Each one forms but a link in a great industrial chain, and consequently sees only a minute part of the entire operation necessary to make the completed article. Machine production aims at making a uniform and interchangeable product. The workman is unfortunately bound down to a rigid and monotonous routine; he becomes in time almost automatic in his movements.

He struggles blindly on, working and producing, without recognizing the end in view, without feeling that he, himself, is an integral and necessary factor in the formation and operation of a great industrial machine or organism.

The school must aim to demonstrate the social necessity of each worker's task, and to give a clew to the great, intricate industrial labyrinth. The problem of the relation of labor to capital cannot be solved until the work and function of all factors of production are clearly understood by a majority of the people; when such a condition obtains, the question of the proper distribution of wealth will be greatly simplified. The school attempts to meet the new economic conditions by enlarging its curriculum; it now aims at more than mere mental training and discipline. Manual training, nature study, kindergartens, athletics, physical training, commercial training, agriculture, domestic science, cooking, sewing, drawing, modeling, painting and music are now incorporated into the course of study. These added features are merely tentative attempts to give training which was formerly provided outside the school, but which cannot be so provided under present conditions. Much of this work has been added in a haphazard manner, in order to fill a vaguely defined need, without proper arrangement or agreement with the older portion of the school curriculum. These additions, the direct result in many instances of a vigorous popular demand, have increased the importance of the school, and have made it a more potent factor in

the industrial, economic, and social progress of this country. Nevertheless, after this enlargement and enrichment of the course, there still remain many gaps in our educational system which are yet to be bridged over.

The order in which these additions have taken place is fairly well defined. As scientific discoveries and the practical applications of steam and electricity multiplied, our industrial methods underwent an almost complete transformation. A universal need for scientific and technical knowledge was felt. The first notable change from the time honored curriculum was made in response to this requisition. The physical sciences, physics and chemistry, were advanced to a position of equal rank with mathematics and language. Next appeared a demand for the kindergarten, manual training, drawing and domestic science. This was the result of a conscious or unconscious recognition of the undesirability of a wide separation of hand work from head work, aided by the call of manufacturers for young men possessing trained hands and eyes. The need of such training was not urgent before the widespread development of the factory system. Treading on the heels of the manual-training movements came physical training, night and vacation schools, training for citizenship, nature study, school gardening, the study of agricultural science, and the special school for the truant and the "incorrigible." Not all of these additions to the work of the school are to be found in any one system, but each has been somewhere

recognized as a desirable feature of the educational program. In general, it may be affirmed, that as a people pass from a semi-primitive agricultural stage with isolated, nearly independent families, to the more complex industrial life involving mutual interdependence and specialization of occupation, the importance of the education gained within the school increases relatively to that acquired outside.

What is the significance of these changes to society? It seems indisputable that the importance of the school relatively to that of the home in the education of youth, has increased and is still increasing. This fact grows naturally out of the changed functions and environment of the home of the present, as compared with that of immediately preceding generations. Home training is highly individualistic; school training is not. The state educates the young in order to advance the welfare of society, in order to form the good citizen,—the efficient producer and consumer. The desired result is the elevation of the standard of living of society,—a social benefit. The mass can, however, be elevated only by acting upon each individual composing it. The school becomes society's agent for the promotion of its collective welfare; its purpose is chiefly directive. As society is recruited from the young, it is necessary that the incoming generations be worthy successors of the outgoing. The attention should be fixed upon those institutions which train the growing child, and not so much upon those corrective and repressive institutions which are needed because

the early training and direction of their inmates were not what they should have been. Too much money is spent upon the diseased tree, but not enough on the growing twig. The functions of the school should include the intellectual, physical, industrial and moral training of the young, and of the older persons as well; the greater the efficiency and effectiveness of the school, the less the need for corrective and repressive institutions.

The cure for many industrial and social ills is to be found in the proper use of increased leisure which improved industrial methods makes possible, and which the modern ideal of democracy proclaims to be the birthright of each and all. Leisure makes possible study, social intercourse and the expansion of the life of the individual to the measure which the modern world community spirit demands.

At the beginning of the last century the United States was a weak nation possessing an unknown immensity of undeveloped resources. In a century it grew to be one of the richest and most powerful nations of the earth,—an acknowledged great power. Development of resources was the demand and the necessity of the period. Exploitation of natural treasures and constant expansion was the program of the century. Resourceful, self-reliant, and individualistic men who were willing and able to devote untiring energy to the task of building up the material strength and resources of the nation, were needed, and became the familiar, successful and progressive type of American manhood. The fundamental, all-absorbing economic question was

production which was carried on chiefly through the exploitation of natural resources. The rough and crude form of frontier life reacted upon the entire people, and left an imprint which many generations will not entirely eradicate. As long as the frontier remained there was continual contact with the new and primitive. This type of civilization tended to continue and to perpetuate itself long after the conditions which caused it had passed into history. The frontier type of society is highly individualistic; it resents the interference of organized society in any form. In such a community might often spells right. It places little or no limitation upon the use or abuse of property. The right of the individual completely overtowers the right of society.

After the disappearance of the frontier a different set of conditions confronts the people of the United States. Widely separated farming communities or sparsely settled mining districts, and the presence of immense tracts of practically free land, demand one system of ethics, one code of human relations, and one kind of educational principles and precepts; while densely populated cities, the scarcity of free land, and increased mutual interdependence make imperative a new scheme of social relations. The disappearance of the frontier induces a weakening of the individualistic and a strengthening of the social qualities of the American people. Sociological, as well as psychological, principles begin gradually and timidly to creep into the educational world. Society must adjust itself

to a more crowded environment; and the problem is to make this adjustment along the lines of least resistance. New social, industrial, agricultural, commercial, educational, ethical and legal forms now become necessary. What is desirable and even highly commendable in a new, fertile, undeveloped, and expanding country may become a positive menace and hindrance in an older, better developed, and more densely populated nation. New aims and new ideals are requisite to this adjustment from the old to the new. Education now assumes a position of greater importance than it held in former generations. Changed environment, crowded cities, more intensive and more scientific agriculture, quicker and more regular methods of transportation and communication are producing effects which are plainly noticeable in the life, thought and action of the entire nation. It is, however, extremely difficult for a people schooled for generations in the university of self-reliance and of individual liberty to graciously accept the restrictions and modifications which this new era makes necessary; but such acceptance is inevitable. If education lags behind, rather than precedes, this changing sentiment, if it is merely passively carried along with the stream, instead of actively aiding in controlling its progress and direction, it fails utterly to effectively perform one of its most important duties—that of minimizing the friction of readjustment to a new environment and a new set of social and industrial conditions. This need of adjustment

should be recognized by educators, and intelligently dealt with.

The men of the present are not Robinson Crusoes, they live in a busy world peopled with millions of other similar fellow creatures. An individual is what he is because of the existence and influence of other men; he is distinctly a social product. Development of the individual is the resultant of individualistic and of social demands; but the latter are now beginning to take precedence over the former. Purely psychological and individualistic needs and desires must more and more be modified by those of a sociological character. Society is a complex and delicate organism or piece of mechanism; the wishes and ambitions of the individual must, in an increasing measure, be subordinated to and dovetailed into the needs of society considered as a whole.

The disappearance of the frontier leads to the gradual elevation of the moral tone of the people. It is an important factor in assigning greater importance to questions of distribution and consumption. Business and political ideals are higher to-day than formerly. Many political methods which were in vogue as late as 1896, are not considered to be in good form to-day. The doctrine that property is a social trust is gaining ground as it could not have done twenty or forty years ago. We are examining closely the methods employed in wealth production. The monopolist and the men of great wealth are now put on the defensive. Each must justify the social utility of his industrial

power, or of his amassed fortune. Race solidarity and the brotherhood of men are now shibboleths. This spirit of brotherhood is first manifested between members of the same trade or society—comparatively small groups; but gradually it enlarges its scope and becomes more inclusive. Today the laboring man is found preaching the solidarity and mutual interest of all workers in the United States—skilled and unskilled alike. A great strike is conducted upon a clear recognition of this principle, one which could hardly have arisen into consciousness if a great mass of fertile and easily accessible land was still our national heritage. Such a change as this calls insistently for new ideals in education.

America is an enormous assimilative cauldron. Here are gathered nearly all the tribes and peoples of the earth in one great heterogeneous mass; and the public-school system is the official assimilator. It deals with the young and plastic. Excepting those who attend private and parochial schools, our laws bring all the children of the entire country under the influence of the public-school system. The immigrant comes to us from an entirely different environment; he has developed under different influences. His home life is not the same as ours; his child possesses other concepts, traits and ideals than those of the American boy or girl. The process of assimilation usually means the molding of this people in conformity to the so-called Anglo-Saxon cast. It is forgotten that these people have many characteristics and traits which might well be

grafted into our civilization and thus perpetuated. Miss Jane Addams has done much to emphasize this important fact. She points out that it is characteristic American "complacency" to utterly ignore the past experience of the immigrant who comes to our shores. Ernest Crosby makes the indictment more sweeping and severe. "And not content with stifling the originality of the immigrant, we must needs carry our missionary zeal for uniformity to foreign lands in the hope of destroying all individuality. In Anglo-Saxonizing India and Japan we are crushing out the most wonderful of arts beyond a possibility of resurrection. We are the Goths and Vandals of the day. We are the Tartars and the Turks. And the countries which we overrun have each its own priceless heritage of art and legend which we ruthlessly stamp underfoot." Some attempt certainly should be made to preserve and continue the desirable traits and gifts of the different alien people who crowd to our shores, and to assimilate these traits into the sum total of our national characteristics. Few educators have as yet seen the possibilities and the desirability of progress in this direction.

It should be noticed that not until after our frontier was practically a thing of historical significance only, did the immigration from Southern Europe begin. These people lack individual initiative; they live in little communities. With the rise of modern industrialism and of urban life, our civilization took on aspects which were attractive to the more docile and less individualistic emigrant

of many sections of Europe. The traits of these people are more nearly consonant with the life of to-day than that of the early individualistic Anglo-Saxon frontiersman. The assimilation of these races and of their culture may modify our civilization and traits in a very desirable manner. A Greek immigrant, in a letter recently published, clearly states the proposition. "In this country there is a great movement against the foreigners and especially those of Latin, Slavic and Jewish origin. The Latin and Jew (altruist and sentimentalist) will give in this country some of their qualities that the northern people don't have. The Americans (egoists and individualists) need some of our blood to change their character in the next generation." There is, however, another side to this question which will be touched upon later.

The rapid growth of cities has been a marked feature of recent growth and development. The city of to-day is the result of a rapid and unhealthy growth. People have been rudely drawn from a rural environment and quickly sucked into these great uneasy vortices of industry and trade. The ideals, customs, and habits of the rural community have gone with them to this new environment, and still cling with great tenacity. Only in recent years have the city dwellers awakened to the fact that they are really dwelling in an environment which calls for new, non-rural rules of action and of association. The nature of the city itself has been modified. It is larger, more crowded, more dependent upon arteries of trade and transportation,

and upon the supplies furnished from the outside. The race must adapt itself to urban conditions as they exist to-day; we must learn to live and to thrive in densely populated centers. If the United States is to continue on its present course of advancement and progress, the city must be made clean, healthy, moral, and it must be well governed. The majority of the successful business and professional men of to-day were born in rural districts. In the past the country has furnished the bone and sinew of the city, and, as a necessary consequence, it has been drained of many of its best and most progressive citizens. The city cannot indefinitely continue its parasitic existence. Already one third of our population are urban dwellers. A much larger percentage of our successful and progressive men and women must in the future be drawn from the city-born and city-bred population; hence, the urgent need of improved conditions in our cities.

The modern city is a mere industrial establishment; but it must be made a cluster of homes. Healthy and wholesome home surroundings can only be obtained through education as to the sanitary and esthetic requirements of urban communities; and these efforts must begin with the child. The cities have been "great sores upon the body politic," because they have experienced such a rapid development that society has been unable to modify itself rapidly and sufficiently to meet the requirements of the situation. A twofold weakness of our educational system is revealed at this point. The curriculum and the methods of the city school

have not been sufficiently modified to meet the requirements of children, living in a crowded city, with little opportunity for constructive work or healthful recreation. Some progress has been made in this direction as will be pointed out later, but there is still great need for further improvement. On the other hand the rural school has assisted in augmenting the growth of the cities and in encouraging the drift away from the farm. Its curriculum has absolutely ignored, with a few very recent exceptions, the fact that the farm presents problems which require education and training to solve. "Every book they [the country children] study leads to the city; every ambition they receive inspires them to run away from the country; the things they read about are city things; the greatness they dream about is city greatness." The problems connected with the city, those relating to labor, and all our great industrial and social questions, are at the root questions of education.

However, after the faults of the city have been examined and laid bare, it is but just to recall that the cities have ever stood in a forefront of the educational advance and in the development of labor organizations. Our free tax-supported schools, for example, originated in the cities. A striking illustration of the position of the cities is found in the result of the referendum of 1850, which established free schools throughout the state of New York. The vote revealed a sharp division of urban against rural counties, and the former stood for progress and for better educational facilities.

Without entering exhaustively into an analysis of the situation, five reasons may be assigned for this phenomenon which is by no means confined to the Empire State: (1) A large percentage of our city population are industrial workers who are small or non-taxpayers. (2) In the large cities are found great masses of accumulated wealth which can be taxed. (3) Here the home first lost its industrial character and its surrounding playground, and as a result much of its educational possibilities. (4) People are crowded closely together in cities, evils and needs are more in evidence than in rural districts. Also, the opportunities for agitation and propaganda are more numerous. (5) Pauperism and juvenile crime are more prevalent and disturbing in cities than in the country.

Industrial progress has brought about the separation of the workers into distinct, well-defined classes; particularly marked is the division between the manual workers and the brain workers or the managers of the business. Professor Veblen remarks that the progress of industry has relieved one class of workers "of the cares of business"; and they "have with increasing specialization given their attention to the mechanical processes involved in the production for the market." The remarkable increase of the indirect method of labor is a factor in the modern industrial problem. The workers no longer produce directly to satisfy their own wants; each produces for others, while all furnish something for each individual. It is a roundabout process; the connection between effort and

satisfaction is hidden. The direct reaction between effort and satisfaction has been superseded by a very complex social and industrial chain of actions and reactions. The worker often becomes a drudge, a drone, an unthinking piece of mechanism, partially because he does not recognize or feel that his work has any social significance, because there is little apparent causal relations between effort and wages. Industry has been "depersonalized."

Modern specialization of industry, diversification of demands, and increase in the variety of consumption have tended to divide the population into a large number of classes and interests. Progress has always resulted from class struggles, the clash of interests; but to-day the form of this contest has become complex. There are the familiar traditional classes,—landowners, manufacturers, merchants, professional men, and laborers; but each one of these classes is now split into sub-groups on the one hand while, on the other, many individuals may be placed in two or more classes or sub-classes. Nevertheless many difficulties and obstructions now face the workman who aspires to become an employer, who struggles to rise out of his class. John Mitchell believes that the workers are, as a rule, acting on the principal that they cannot rise out of that class. For the vast majority it is once a wage-earner, always a wage-earner. The amount of capital now required to set up in nearly every business is large. Even the farmer who runs in debt for his farm, finds it almost impossible, in many sections of this country, to pay off the

mortgage from the profits of the farm. The amount of money required to enter the iron and steel business is measured by hundreds of thousands or millions of dollars. Consolidation of business interests reduces the numbers of managers and superintendents. The great industrial concerns and the railroads are becoming large civil service systems. A man must enter their employ in his youth, at the bottom, remain with the company year after year, gradually working into better paid and more responsible positions. But he always remains an employee. The young man can no longer work hard for a few years, save a few hundreds or thousands of dollars, and then set up in business as an employer of others, many of whom will follow in his footsteps within a few years. The person who now accumulates a small amount of property is obliged to turn the management of it over to others. Investments in stocks and bonds, deposits in savings banks, insurance, and like modes of investing property take the place of investment in landed property or in a business managed by the property owner. Management by proxy becomes the rule, not the exception. The corporate form of business requires the concentration of large amounts of property under the control of a chosen few. The savings bank, for example, is merely a collective form of investing in which the investments are made by the banker rather than by the hundreds of small investors themselves. The discipline that comes from the care and management

of property is lost on the great multitude of workers of to-day.

Also, coincident with this phenomenon is the above-mentioned change in the character of the multitudes of immigrants who are flocking to our shores. In the report of the Commissioner-General of Immigration, for 1904, an official of the bureau who has been conducting extensive investigations in Europe, writes from there as follows: "The average immigrant of to-day is sadly lacking in that courage, intelligence, and initiative which characterized the European people who settled in the Western States during the eighties." The personal initiative, adaptability, and self-reliance of the American has ever been the pride of the nation; but the environment, business methods, and opportunities which aided in the production of these characteristics are undergoing modification. Industry and commerce offer opportunity to only a few, for the development of these valuable traits; and immigration brings us a class of people who are also sadly deficient in these qualities.

"The machine process is a severe and insistent disciplinarian in point of intelligence. It requires close and unremitting thought, but it is thought which runs in standard terms of quantitative precision. Broadly, other intelligence on the part of the workman is useless, or it is even worse than useless."[1] Unfortunately under present conditions, the above quotation states what is true in many cases of subdivided labor. Extreme subdivision of

[1] Veblen, *Theory of Business Enterprise*, p. 308.

labor has reduced the unskilled worker to the level of an automatic piece of machinery. Brains, ideals, everything which go to make up the real human being and to differentiate him from the automatic machine are at a discount. The man becomes a "hand." The internal organization is now placed on a scientific, calculated basis. Time cards and exact methods of determining the cost of labor and material are now essential to every well-regulated business. Every step from the first displacement of the raw material until the finished product is in the hands of the consumer is carefully calculated.

The chief motive for subdivision of labor is given by the opportunity to hire unskilled, low-standard-of-living workers at an extremely low wage. "Thus division of labor is, in the last analysis, nothing but one of those processes of adaptation that play so great a part in the evolutionary history of the whole inhabited world: adaptation of the tasks of labor to the variety of human powers, adaptation of individuals to the tasks to be performed, continued differentiation of the one and of the other."[1] But, if this differentiation is carried so far as to tie the individuals down to such a narrow routine as to prevent their rising in the scale of life, it is a bar to human progress. The immigrant is one of the causes of subdivision of labor. Where labor unions are strong enough to establish a minimum wage, some modifications may be looked for; but the question which society must face is: Can society afford to allow certain of its members

[1] Bücher, *Industrial Evolution*, p. 299.

to be reduced to the condition of human automatons? If it is held that certain classes in the community cannot be improved or raised to a higher level, then indeed the caste form of society is treading close upon the heels of the American people.

Division of labor, perhaps even minute subdivision of labor, may be considered to be a permanent factor in industry. Modern industry is more productive, many times more productive per worker, than the older, more simple forms; and as a result a shorter working day is allowed the worker. This grinding, unvarying, monotonous, joyless sort of working period should be balanced by broader social life, by better, more elevating use of leisure time. In short, as one's work becomes exact and narrowing, one's leisure time should bring variety and breadth of experience. The suffrage has been extended to practically all the male population over twenty-one years of age; but in order to exercise the franchise intelligently, as it was recognized in the days of Plato and Aristotle, the citizen must have leisure time to study and discuss the social and political problems of the day. If this leisure time is not properly or wisely utilized, the "boss" and the "machine" flourish. The great multiplicity of clashing interests also offers opportunity for the shrewd and unscrupulous politician to play interest against interest, and to win political control and personal gain through careful manipulation. In any industrial democracy the problem

of the utilization of leisure becomes one of the important and vital problems.

Looking again at education from a purely economic point of view, aside from ethical considerations, the aim, let it be repeated, should be to develop not only more efficient producers, but also more efficient consumers. All men must be considered from the side of consumption as well as of production. The end and aim of normal economic activity is consumption of economic goods. Other things being equal, consumption should be directed toward those articles which the country is best adapted to produce; it should also be directed away from the excessive demand for the raw and crude economic goods, toward a greater variety in quantity and quality of demands. As Clark has shown, the tendency of dynamic economics, as seen from the purely economic point of view, is toward variety in consumption and specialization in production. But after a certain point is passed specialization in production tends to prevent greater variety in consumption. These economic considerations, as well as those of an ethical or social nature, set bounds beyond which specialization ought not to pass. This limit is not fixed and invariable. For example, the man who has an avocation, who utilizes his leisure in such a way as to broaden his view of life, so as to exercise many different sets of muscles and brain cells, may specialize his work much more minutely without individual detriment or economic and social loss, than the man who talks shop, or does nothing to diversify his tastes or to open up

new lines of thought and action during his leisure hours. In the terms employed by the economist, the ideal point of equilibrium is where the descending curve of the social value of the products due to additional subdivision is met by the ascending curve of disutility due to long-continued and narrow specialization on the part of the individual members of society. Other things remaining the same, the additional products which come into being through increasing subdivision, gradually diminish in value as increment after increment is added, according to the well-known law of diminishing utility; and on the contrary the detriment to society as a whole increases as individuals are forced into narrower and narrower rounds of duty.

Ethical considerations lead directly and unequivocally to the conviction that men must not be treated as machines, that the true end and aim of industry is the production of men, not the multiplication of profits. True long-run economic aims coincide with ethical ideals. As Walt Whitman has taught us: "Produce great men, the rest follows." Primitive industry was always a means to an end which was plainly seen; it was never an end in itself. It has remained for modern times to heap up complexity, confusion, and cross-purposes until the fundamentals have been hidden from view. When the methods of modern complex industry come into collision with the true economic and ethical demands of society, the former must be modified. It is one of the functions of education to harmonize the demands of these two apparently conflicting

and opposing forces. It should so train the members of society as to allow the greatest possible advantage to be taken of efficient productive methods consistent with the welfare and best development of the individual members of society of all classes and conditions.

Both the internal and external organization of industry now tend to remove variety, irregularity, risk, chance, and speculation. The business of the future calls for the manager and the administrator rather than the speculator or the promotor, for the steady, routinized, narrowly specialized worker rather than all-round men so familiar in the early industrial history of the United States. The traits of the pioneer, the backwoodsman, and the hunter, those traits due to varied and changing experiences of the early settler, continue, however, and are transmitted from generation to generation long after the stimuli which produced them has ceased to act and has been overwhelmed by the rising tide of civilization. If modern life offers inadequate opportunity in the ordinary course of daily life for the expression of these inherited impulses, if they are inhibited from all beneficial or desirable expression, they will find expression in abnormal or undesirable ways. Gambling, sport of all kinds, drinking, carousing, are some of the many forms in which these inhibited traits find a vent. The assimilation of the recent immigration will dilute and diminish the strength of these characteristics; but they should not be smothered and cast aside,

they should be utilized and turned into new and modern channels of activity.

Mr. John A. Hobson in a recent article touches upon this point. "The factory employee, the shop assistant, the office clerk, the most typical member of modern industrial society, finds an oppressive burden of uninteresting order, of mechanism, in their working day. Their work affords no considerable scope for spontaneity, self-expression and the interest, achievement and surprise which are ordinary human qualities. It is easily admitted that an absolutely ordered (however well ordered) human life would be vacant of interest and intolerable; in other words it is a prime condition of humanity that the unexpected in the form of happening and achievement should be represented in every life. Art in its widest sense, as interested effort of production, and play as interested but unproductive effort, are essential."[1] If modern industrial and commercial life is being placed upon a stable, sure, scientific, calculable basis, if chance and luck are being replaced by skill and efficiency, if routine and dead uniformity are replacing all-round effort and variety, if the home environment is becoming more monotonous and artificial, other social institutions must furnish pleasurable change and variety. If elevating institutions such as the school or the church do not cope satisfactorily with the situation, other much less desirable ones will, and the spirit of gambling, of riotous living, of carousal, of living for the sake of sport, will enter

[1] *International Journal of Ethics*, January, 1905.

society and take a firm hold. Old instincts are not easily eradicated; education must never overlook them. The recent additions and contemplated additions to our educational system are the concrete results of some of the attempts which have been made to cope with the question in a more or less intelligent manner.

The entrance of the United States and other important industrial nations upon a policy of commercial expansion, the growth of imperialism, and the prevalence of the desire to exploit the less industrially progressive nations, mark the beginning of a new epoch in our national life. Specialization of industry and subdivision of labor now assume new aspects. Capital becomes international, while labor still remains upon a national basis. Mr. Hobson and others have pointed out that the backward nations will now assume the place hitherto occupied by the great mass of the unskilled in the home country. Humanitarian and democratic tendencies are in danger of receiving a check. Capital in a new, rapidly developing country finds opportunity for investments in improvements; but in a more highly developed, but still progressive country, it is obliged, unless there are opportunities for investments in foreign countries, to seek investment in directly productive enterprises which produce articles for the consumption of the great mass of the people. If there is no opportunity for foreign investment of capital, industrial progress will necessitate an improvement in the consumptive power of the masses. Economic and ethical aims

begin to draw into closer relationship. The possibility of enormous investments of capital in South America and Asia is something which threatens to affect the industrial, social and educational welfare of the American people. "Once encompass China with a network of railroads and steamer services, the size of the labor market to be tapped is so stupendous that it might well absorb in its development all the spare capital and business energy the advanced European nations and the United States can supply for generations."[1] China and the Chinese workers are a danger because of the low standards of living which prevail in the Asiatic nation, and the consequent ease with which the Chinese people may be exploited. If increased manufacturing and commercial activity in China is not accompanied by a corresponding increase in the standard of living, the American farmer and the American workman are doubtless imperiled by the situation. The educational movement of the last two or three decades is essentially a working class movement, and its future is bound up in the welfare of the industrial and agricultural classes.

[1] Hobson, *Imperialism*, p. 334.

CHAPTER IV

NEW AIMS. IDEALS AND METHODS IN EDUCATION

The many recent modifications in home, industrial and social life inevitably lead society toward new social, educational and moral ideals. During the last century industrial and scientific progress outran all other forms of development. A problem of to-day is to bring our educational, legal, economic and social values and ideals into harmonious relations with the present industrial situation. There is a continual conflict between the ideals and customs established under conditions existing in preceding generations, and newer ones called into being by changing economic and social conditions. The aims and ideals which were presented to the schoolboy and the schoolgirl of a generation ago are not as appropriate and fitting now as then. Society needs time to adjust itself to the kaleidoscopic changes of the last quarter of a century. Time is, indeed, required to remodel and to reconstruct our educational system upon a new basis; in order to perform this task intelligently, efficiently, and with the least possible friction, consideration should be given to the aims and ideals which education ought to present to the students of to-day.

The haphazard, patched-up condition of our school curriculum is the result of a conflict between the traditional and the practical ideals in education. The former overlooks almost completely the dynamic view of the world; its eyes are turned backward toward the past. It magnifies the desirability of disciplinary and purely cultural studies; and on the other hand it minimizes the value of, and often sneers at, the practical and the concrete. An extreme example of this spirit is presented in the familiar story of the old college professor of higher mathematics, who chose that subject for his speciality because, he believed, no practical use could ever be made of it. On the contrary, the partizans of the practical studies are prone to forget the lessons of the past, and to see only the immediate monetary value of the training which they advocate. The clamor and confusion arising from the contentions of these two opposing factions have prevented or retarded the general acceptance of certain aims, methods and ideals which are of fundamental importance at the present time.

The American public-school system—the word "system" reveals one of the crying evils in educational work and philosophy. Everything is systematized, "routinized," standardized, averaged. All the children of the nation are crowded, pushed or pulled through similar courses of study at as nearly uniform speed as possible,—a common mold is used for each and for all. The teachers are obliged to teach according to a minutely prescribed system—ten minutes for this and fifteen for that—

this subject must be presented in a certain manner at a scheduled hour, and that by another method at another hour. Logical, methodical development of the subject is made a fetish. No matter whether the child is well or ill, over or under-worked, naturally quick or slow of comprehension, or whether he is or is not aided at home by the parents; the system operates like clockwork in the vain attempt to produce a fictitious, although much talked about, average child. Stern financial necessity is the father of much of the routine, overcrowding and system found in the public schools; but on the other hand it is, in no small measure, due to the worship of a methodical "business" administration which turns out fine, accurate and minutely detailed reports at the expense of the spontaneity, originality, individuality and health of both teachers and pupils. This demand for uniformity or standardization may be partially attributed to the potent influence of our mechanical and industrial processes. Every machine-made article must be interchangeable with companion articles; it must not appreciably deviate from a standard. This is what Veblen calls the "machine process." If industrial life has been reduced to a rigid unvarying system, the school ought so to conduct its work as to impart variety and non-uniformity. If the former tends to produce uniform types of workers, the latter must foster individuality, and develop individual traits and characteristics. The school must save the race from the monotony and dead uniformity with which it is

threatened by modern industrialism with its standardization and mechanical repetition.

For many years the school has been gradually increasing its importance as a factor in molding the life and ideals of the young. The family—the home life—has hitherto furnished the best field for individual instruction, for the development of originality and self-reliance. At the time when the home influence is tending to weaken owing to new social and industrial conditions, the school is, on the other hand, in danger of becoming a mere educational factory. Mass—factory—instruction inclines toward uniformity, lack of originality, and absence of personal initiative on the part of those thus instructed. Three stages of educational development may be discerned; domestic, when practically all instruction was given in the home by the parents or masters; the handicraft stage, represented by itinerant teachers or the old district-school system when education was confined to a narrow formal curriculum; and the factory stage, best represented by the graded schools of a large city. But as the students are dissimilar units and must fill dissimilar rôles in the economy of the world, artistic, rather than interchangeable, products should constitute the true output of the school. The school should become a studio, rather than a factory; the fourth stage will be the arts and crafts stage of educational development. Two great obstacles now confront us: lack of money and of well-trained teachers.

It is a physiological and psychological axiom that men are not created equal, they differ widely in strength, endurance, adaptability for certain kinds of occupation, and in various other ways. If no two trees of the forest, or no two flowers of the garden, are exactly identical, surely the variations between members of that infinitely more complex organism, human society, must be considerable and important! One race of people differs widely from another in their physical, mental, and moral characteristics. The kind of education which is best for one people is not necessarily good for another. Differences and variations between members of the same race or family appear early in childhood, and environment tends to accentuate and increase these variations. There is no absolutely fixed, unchangeable standard of educational values which the schoolmaster can apply at all times and under all circumstances. The educational equation contains many unknown and independently varying factors. The school must accept graciously the existence of these manifold differentiations. It ought to recognize that the education which is efficient and appropriate for one individual is often extremely wasteful when applied to another, particularly in the higher grades of the public schools and in the college or university. And moreover, different subjects and methods may find appropriate periods in the life of a child when they may be most profitably presented and employed, when the work of instruction may proceed along the line of least resistance. It is not wise and not proper to shirk this difficult

problem by resorting to a purely imaginary character,—the average child—although the latter course may be much easier and may prevent undue increase in educational expenditures. It is the duty and function of education to bring to efficiency the desirable traits and powers with which each child is endowed. "Desirable" is not a fixed concept, but is modified by time, place and stage of civilization.

"Another fact which sentimental philanthropy habitually ignores, is the co-existence of types in the moral world. This is a fact parallel to that coexistence of organic types which biology makes clear to us. Though higher and higher forms have successively taken precedence in the struggle of evolution, this rarely means the complete disappearance of earlier types. Thus, on the earth today are examples of the most typical forms of organic life, from the unicellular protozoan to the highest mammals. Similarly in the moral world, any great city presents a co-existence of moral types from savagery to civilization."[1] Our school authorities also ignore this "fact." The school also deals with many types of moral nature. While progress—evolution—has evolved high moral natures, not all have been raised to these high levels; many are still living upon a lower level,—a level corresponding to that of generations now long past. In addition to the various physical and intellectual traits of school children, a great variety of moral types also complicates the situation. The ideals and subjects which appeal to one child may leave

[1] Griggs, *The New Humanism*, p. 181.

his neighbor absolutely unmoved. As each particular soil is best adapted to some particular agricultural crop, so is each particular young mind best adjusted to some special form of training and kind of work. Furthermore, barren soils by proper treatment become fertile; in like manner will the dull, unprogressive, or apparently incorrigible child blossom and develop into an efficient and worthy adult if he is given proper treatment and proper mental and bodily nourishment. But individual, not mass, treatment is necessary. Economic and social considerations urge the study of these facts. The class system ought to be modified so as to do away with its most objectionable features.

Society is an organism in which each individual has his appropriate sphere of action. Progress is fast or slow in the proportion in which each individual is enabled to fit himself for, and to perform his appropriate function. Education should be an organized attempt to put the right man in the right place. Many other institutions, manners, customs, traditions, laws and prejudices oppose such efforts, but educational endeavors should be steadily and everlastingly directed toward this goal. Each individual should strive to play well his part in the great realistic drama of life; he should not be tempted to play a part which belongs to others. A prominent feature of the work in the school of the future, although it is almost entirely neglected at the present writing, is to be the direction of the student toward his proper work and place in life, toward the niche for which he is best adapted. Not

to make professional men and students of all; but to direct toward, and to fit each student for the work and position in life for which he is best suited, is indeed the ideal end and aim of education. The attainment of such a Utopian ideal need not, of course, be expected under the present social and industrial environment, only approximation is anticipated. The student has been compared to a bit of raw material, and the teacher to the mechanic whose duty it is to be instrumental in adapting this raw material to its appropriate form of service and in fashioning it into proper shape. Each bit of human material which comes into the teacher's hand is unlike any other bit; no two are identical, each requires special treatment. Each pupil should be directed and fashioned so as to nicely and properly fit the groove in which his life should run. The rules and regulations which have produced rigidity and inelasticity in our educational system ought to be modified with a view of adapting instruction to the child's requirements and peculiar demands. It is not conceived that a committee shall examine the student, and thereupon artificially and authoritatively decide upon the particular course or occupation for which the child is best adapted. And it certainly is not advocated that the school should be used to deepen or to continue class demarkation, or to uphold the creed that the son of a working man should, as a matter of course, be a manual laborer, and the child of a financier, a banker. The true conception is that the school should bring to the surface the latent possibilities of each and

every child. One function of the school is conceived to be that of breaking down artificial individual inequalities, and replacing them by natural individual differentiations.

The modern ideal of a school is not that of a mere place where students congregate to listen, to study, and to be repressed. It is rather that of a hive of activity, a place where practical and personal experience is broadened and made intelligible. Each child brings to the school certain valuable threads of experience which ought to be utilized when possible. If education aims to fit all for the so-called "genteel" occupations or professions, these will of necessity become over-crowded, misery and discontent will be increased rather than be diminished, and universal compulsory education will prove to be a curse, not a blessing, to a vast number of its recipients. Mr. Mallock has written: "In other words, the only true equality of educational opportunity is an equal opportunity for each, not of acquiring the same knowledge, but of acquiring the knowledge and of developing the faculties which, given his circumstances and given his natural capacities, will do most to make him a useful, a contented, and a happy man." Psychology assists the educator in discovering the proper materials to be given and the appropriate periods when these materials should be presented, as well as the correct methods of obtaining attention, arousing interest, and forming good habits of thought and action. When the proper material and the correct order of presentation are approximated, waste in

education will be reduced to a minimum. But it must never be forgotten that the teacher always deals with special cases. Sociology, on the other hand, teaches that it is the duty of each person to follow the occupation which psychology points out for him; only in this way may the highest possible development be achieved both individually and collectively. Judged from an economic standpoint, society should prepare men in proper numbers, according to the requirements of the different occupations, and further productive energies ought to be so adjusted as to produce the correct amount of each different kind of goods, with a view of preventing a surplus or a scarcity of men in any trade, or an over or under-production of any class or kind of goods.

"Each mind," writes Emerson, "has its own method. A true man never acquires after college rules. What you have aggregated in a natural manner surprises and delights when it is produced." Dislike of school work is only the external symptom of a partially concealed cause. Repression, the endeavor to teach along lines which are not those of natural development, the use of second-hand knowledge where first-hand might be utilized, bear the bitter, though natural, fruits of dislike of school and its tasks, and destroy the desire for knowledge and intellectual growth and development. Premature attempts to force the book, grammar, literature, spelling, writing, upon the unprepared and unwilling child, act as a damper upon originality and spontaneity. Many pass through the ordeal, but

multitudes fall by the wayside. How many care for books or study who leave school before graduating from the high school? More drawing and painting, more work with plastic materials, more shop and laboratory work, more contact with nature, and less memory drill and text-book study, are needed. Experience makes smooth the path which leads toward knowledge. Dry, unthinking repetition of texts, or study of subjects utterly foreign to the child's experience, is almost valueless. A book ought not to be used until a need is felt for it. Think of the mockery, the uselessness, the utter folly of teaching grammar, for example, in the fourth grade, to children who are scarcely able to comprehend the simplest of abstract terms! Expression cannot be taught through mere impression. We learn to write by writing, to work by working, and to talk by talking. Hubbard, of Roycroft Shop, has caught the educational ideal of the future as have few others. "In the future our children shall go to school—not be sent or sentenced. Nothing is of any value except what you work for. Things given you and thrust upon you are forever alien to you—separate and apart, and will be moulted very shortly." The world is full of men who are, on account of misdirected ambition, at cross-purposes with their real work in life. Some men naturally find expression by means of words—writing or speaking; others by means of constructive work—sculpture, painting, architecture, business, engineering, commanding men. The school has heretofore laid too much emphasis upon the

former; it has faithfully, almost fanatically, tried to make all find expression in that way, and has not provided adequate opportunity for the latter sort of expression.

In the city, for example, man, not nature, forms the chief item of interest in the environment. The city child's experience is with human beings rather than with natural objects. Stories of forests, caves, rivers, or mountains find no awakening response in the mind and heart of the child of the city whose life is bounded by brick walls and stony pavements. He is easily interested, however, in his city, in its streets, geography, buildings, parks and markets, in the methods of procuring and distributing its food and water supply, in the lighting of its streets and homes. He will be eager to learn about the occupations of its inhabitants, of its railroads and its street-car lines, of its government,—policemen, firemen, council, mayor, elections, etc.,—of its schools, libraries and art galleries. Interest excited by such means will give the teacher many opportunities to lead the child toward broader, more general and more imaginative subjects.

The prejudice against manual labor is deep-seated, and the result of the influence of many centuries. It comes down to us from the days of Aristotle, from the time of slavery and of serfdom, from the age of chivalry and of warrior barons. Yet, it seems strangely out of place in these days of universal suffrage and of democracy and in a republic founded to give equal rights to every man and special privileges to none. To live in idleness and

luxury upon the fruits of the labors of others was, in past centuries, to live a life of honor and distinction; and this ancient and now false dogma has filtered down through the long course of years into our life in the latter part of the nineteenth and the first portion of the twentieth centuries. The most distasteful part of many kinds of manual toil arise not from the work itself, but from the treatment accorded the toiler by his fellowmen. To be lowered in the estimation of one's fellows as a result of the calloused and grimy hand is often the real degradation and the distaste for his trade which is felt by the manual worker.

This prejudice is real and is supported by venerable authority. Burke has written that "the occupation of a hair-dresser, or of a working tallow-chandler cannot be a matter of honor to any person,"—and Higher Authority also informs us that "the wisdom of a learned man cometh by opportunity of leisure; and he that hath little business shall become wise. How can he get wisdom that holdeth the plough, and that glorieth in the goad; that driveth oxen and is occupied in their labors, and whose talk is of bullocks?" Education instead of aiming to uproot and destroy this feeling seems rather to tend to continue it. Here the finger touches one of the weakest spots in our public-school system. In the public school, children of all social classes are brought into intimate relations upon a nearly equal basis. It should emphasize the social value of all kinds of work. It ought to proclaim in no uncertain tones that the man who does

his best, who makes the largest contribution to the welfare and happiness of society, in view of his personal and environmental conditions, is worthy of the highest praise. The educational system of this country, as a whole, still has the conscious aim and purpose of training each child for mental or clerical work. "Not until the term artisan has come to be as honorable as the term artist," says Bliss Carmen, "will we have real freedom."

Can a modern industrial democratic nation grow so powerful that it can overlook the common elemental necessities of man,—food, clothing and shelter? Will not our entire educational and industrial system become top-heavy and rotten at the core, if we neglect the proper education and training of that great mass of future citizens who are to be voters as well as toilers in the store, shop, and on the farm? A modern industrial nation cannot continue to progress unless the manual workers are efficient and well cared for; and a modern democratic nation cannot hope to be progressive unless the great body of its citizens are intelligent. All cannot be lawyers, politicians, doctors, captains of industry, bankers, clerks, agents, and the like; yet, there is to-day a surplus of this class of people. Increased cost of living and scarcity of efficient workers in the face of great improvements in the methods of production indicate that there is an over-supply of indirectly productive workers and of non-producers. Our schools have not comprehended their responsibility for this situation.

The Austrian sociologist, Gumplowicz, observes that "fortune hunting, an idea that the peasant never knows and seldom incites the nobleman, is the great object which attracts the middle class." This quotation affords an explanation of the great predominance of wealth-seeking in the United States, of the emphasis which is laid upon the accumulation of great wealth. We have been, and are, a nation of middle-class people, ideals of trade, commerce and business profits appealed to all in the past; but recent industrial progress has narrowed the opportunities to pass from the position of an employee to that of doing business for "one's self." Hard and fast lines of demarkation between the employed and the employer classes are becoming clearly defined and hard to overlook. The conflict is now on between two diverse sets of ideals,—the business man's and that of the wage-earner,—although older ideals still survive which are almost wholly unfitted to modern life.

Many of these time-worn and traditional ideals are still held up before the child in the public schools; these were adapted to a local environment, and considered only the needs of the so-called upper and middle classes. Men like Pestalozzi, Froebel, and Herbert Spencer foreshadowed coming events and insisted upon other educational aims and ideals. The Grecian, the Roman, and the medieval ideals were all adjusted to small localized, non-industrial communities, resting upon the basis of slavery or serfdom. Still held under the spell of these now outgrown ideals, the child is taught to emulate the

warrior, the man of leisure, the statesman, the captain of industry, totally unmindful of the obvious fact that only a small, decreasing percentage can reach such positions. We are everlastingly proclaiming and boasting that there is room at the top; but we are apparently little concerned with the welfare of that great mass of humanity which must, of necessity, occupy what are commonly called the lower rungs of the ladder. Our educational efforts are chiefly devoted to preparation for a few positions; our educational system is, if we except some recent hopeful tendencies, crowding all toward these as a goal. Yet, society is much like a pyramid; its stability depends upon the nature of its base rather than upon that of its apex. A world environment, world markets, universal education, the uplift of the working classes, make obsolete old ideals, customs and manners. Let us hold up before the eyes of the young men and women of to-day, new twentieth century ideals:—the inventor, the engineer, the chemist, the wise physician, the scientific farmer, the skilled mechanic, the woman who understands the economics of the household, the worker, mental or manual, who excels in his line of work, whether that work be the direction of the affairs of a nation, of a farm, or of a household. Forever past is that epoch in the world's history when warriors and kings appear to be the sole makers of history. To-day work, not idleness, is demanded. Production, not destruction, utilization, not waste, are demanded of men. We must teach

that it is braver, better, and more useful to live nobly than to die heroically.

In support of this contention the following quotation from an article written by a well-known social settlement worker and philanthropist, Mr. J. G. P. Stokes, is worthy of attention: "Until recently it appears to have escaped public notice that this constant emphasis [given by the school] upon the importance of personal success, unless safeguarded by suitable ethical training, tends subtly to the development of selfish propensities, that lead the individual to disregard or subordinate the interests of others, in the furtherance of personal ends, and that lead to unsocial attitudes, and to unfriendly rivalries and ill-feeling, and to wrong doings of every sort. The constant encouragement given to personal ambition for personal triumph and personal reward tends to develop a desire similar to that possessed by the criminal offender, who, in seeking his personal gratification, gives no proper regard or consideration to the relation of his acts or of his course to the welfare of others or to the welfare of the community." The grasping monopolist is but one remove from the robber baron of the Middle Ages. Just as the latter, after he had served his purpose, was finally forced by organized society to cease his depredations, so must the former be shorn of his power to divert social income into private pockets, to levy toll upon the public. The school—a democratic institution—ought to accelerate, not retard, this process. Let the lure of personal success which causes one to ride rough-shod

over one's fellows and which introduces the crude ethics of the struggle known as the survival of the fittest, be no longer held out by our teachers. In the school, at least, we may hope higher and nobler ideals will find a resting place. These words of President Roosevelt form a fitting motto to be hung on the wall in every schoolroom of the land, "To each man there comes normally the chance so to lead his life that at the end of his days his children, his wife, those that are dear to him, shall rise up and call him blessed, and so that his neighbors and those who have been brought into intimate association may feel that he has done his part as a man in the world which sadly needs that each man should play his part well."

The city boy or girl has little or no useful work to do. This constitutes one of the serious menaces and dangers of city life, and furnishes an explanation of the marked superiority of the country boy over the city youth of past generations. Socrates taught that to deprive a child of the opportunity to perform useful services was to deprive him of much needed experience in life. President Eliot believes that "enabling the children to make something, or do something, which is acceptable to other people ought to be a leading object at every school." The early years of one's life should be a preparation for useful work in after years. Work is the natural occupation of each and every individual. Service, not wealth, should be the end and aim of human activities; the present interdependence of individuals and the complexity of modern industry teaches

this lesson. Varied industry is best for all, but modern life is drifting toward extreme specialization. Pure mental labor or pure manual labor narrows and stunts the growth of the individual. This man may be best adapted to perform mental work; but if he never uses his hands, muscles, and eyes in hard or skilled manual work, a vast field of experience remains forever as a sealed book to him; the laborer cut off from all opportunity for mental growth and enjoyment is placed close to the level of the animal, or of the machine. In order to insure well-rounded development, mental and manual work should fall to the lot of every man and woman, irrespective of all artificial class distinctions. Manual training and domestic science have been introduced into the curriculum of the public schools as the result of an attempt to remedy the lack of opportunity for useful manual work in the life of the majority of our city school children. At present this work is not entirely satisfactory. The problems given are necessarily artificial, and do not savor sufficiently of the actual practical work and conditions outside the schoolroom. Occasionally this obstacle is partially surmounted and the boy may, at irregular intervals, make some useful articles for the home, or the girl prepare a meal for guests at the school.

The monastic ideal of education is now obsolete; education should be an integral part of life. In order to better prepare for future usefulness of the students, school work and practical work should be drawn closer together. Coördination of theory

and practice, both as to time and place, is desirable. The customary wide separation of the two is the cause of serious waste of human energy. Both industry and the students are injured by the isolation of the high school, the college and the university from the practical affairs of the industrial and commercial world; but improvement in this direction is noticeable, particularly in many of our state universities. The professors are taking an active interest in the industrial, political, technical and scientific progress of the world, and the students are being taught to consider the present as well as the past. When the practical side of education is considered, however, the average teacher of to-day is found to be an obstacle. As Professor De Garmo, of Cornell University, once said in a lecture, "The teaching profession is filled with uneconomic women and quiet-loving men." Another lecturer was so impressed by this condition that he asserted, "All teachers should work a portion of the time, in order that they may come into actual contact with the industrial and economic life and problems of to-day." These may be extreme views, but they point out a real evil in regard to the teachers in our public schools, and in many colleges and universities,—an evil which is plainly seen by our workingmen. Undoubtedly, "that which is treated with respect in school, whether it be arithmetic or grammar, cotton picking or hog raising, religion or politics, will rarely be an object of contempt after school."

Although cultural studies ought not to be omitted or neglected, after all, preparation for earning a livelihood is an extremely important duty. Education should impart power to do and ability to accomplish. The world needs the doer and the thinker united in one individual. Do our high schools, colleges, or universities emphasize sufficiently this practical side of school training? Seclusion and quiet do not impart the power to do, and uneconomical and parasitic conditions do not aid in producing future breadwinners. The high school and the college are open to the young men and women who have leisure, whose parents are financially able to support them through a long period of dependence, but entrance through their portals is extremely difficult for young workers. Many of the most desirable and capable students are obliged to leave school at an early age on account of financial circumstances. Their parents are unable to keep them in school; they must earn their own bread and butter. Our public-school system should stand ready to assist this class of young people. Universal public education is a delusion if the children of the less financially able are not allowed to receive its benefits because school and business hours conflict. Night-school work, half-day work, or some arrangement between shop, office or store on the one hand, and the school on the other, should be tried. No class of students can excel a wide-awake, energetic class of breadwinners, and, it may be added, the best kind of a worker is also a student. The student and the

worker combined simultaneously in one individual is excellent. Work during vacation is good, but work during the school term is better. Contact with the material and practical things of the world makes one a better student. Hard and fast curricula must bend to the wind of modern necessity; the public school must open its doors to the young workers.

To be thrown upon one's own resources is rarely an evil, and is usually a benefit. Many high-school and college boys would be gainers in the end if their allowances and remittances were reduced to a minimum. It is undoubtedly true that the youth of to-day requires a longer probationary period than the child of more primitive people, but it is also true that the best and most logical way to prepare a student for service in the great world of affairs is not that of keeping him a dependent and non-producer up to the very day when he is launched upon the unknown sea of business or professional life. A life of economic dependence, and isolation from the business and industrial world, have proven stumbling blocks in the career of many promising young men.

The world is one vast moving panorama. New scenes, new conditions, new kinds of people, are constantly coming into view. Industrial, economic, educational and moral forms and problems are subject to constant modification. Everything is dynamic, nothing is static. The ideals and needs of to-day differ from those of yesterday, and those of to-day may not be desirable to-morrow. Edu-

cation should aim to keep abreast of this great, throbbing, changeable world current, but the industrial development and social changes have been so rapid during the recent decades that educational development has, of necessity, lagged far behind. The ideals evolved during a century of great material progress and of rapid exploitation of natural resources, are not adapted to a century in which distribution, not production, of wealth furnishes the most vital problems. Therefore, only through the introduction of new aims, ideals and methods into the theory and practice of education can the school become an efficient tool, working for social and economic progress in the present era.

CHAPTER V

WOMAN AND INDUSTRY

In considering the education of the girl, the educator and the economist are brought face to face with a condition which is both unique and perplexing; old theories and traditions of woman's work, education and sphere of influence do not square with the necessities and limitations of to-day. Nevertheless, these inherited prejudices and traditions are particularly deep-seated and abiding; although changed home environment and the altered functions of the home call for a modified view as to the position of women. As a necessary preliminary to the consideration of the education of women, a survey must be made of the effect which modern industrial progress has produced upon the social and industrial functions of women. The decline of domestic or household industry and the rise of the factory system have greatly modified the internal organization of the home. Recent industrial transformations have altered the relations between husband and wife, and between parents and their children. Industrial evolution during the last two or three decades has not only increased the educational value of the school relatively to that of the home, but it has exerted a tremendous

influence upon woman as the mother of the race. Any discussion of the education of women which overlooks or minimizes the importance of these facts is superficial and almost valueless.

Primitive industry was placed almost entirely in the hands of the female sex. Woman was the primitive world's worker. But as the centuries glided by her sphere of industrial duties passed through many modifications. Gradually, almost imperceptibly, her sphere of activities was contracted until it finally comprised only household duties. But the march of industrial progress in recent decades has gradually diminished the amount of household work. As year after year has rolled over the threshold of the present, the home has lost, one by one, many of its important and characteristic functions. Particularly when located in a city it offers very little opportunity for observation of, or participation in, constructive work of any kind. The home chores are few; there is no wood to split, no garden to hoe, no cow to milk; no blacksmithing is done, no shoes are made, no cloth is spun, no wagon or sled is constructed; all this work is now performed elsewhere. In fact, the city home provides no regular or systematic work of any importance for the youth, and the facilities furnished for healthful play and recreation are also inadequate. The home was formerly a workshop, school, sleeping place, nursery, dining room, hospital, kitchen and laundry. Besides furnishing protection and shelter to parents and children, it combined the practice of many useful arts under one roof.

Gradually its varied functions have been dropping from it, and have been transferred to specialized workmen who occupy isolated workshops. Tools, shoes, clothing, furniture, butter, cheese, etc., are now rarely manufactured in the home. In many cases laundry work is performed elsewhere; much of the cooking is done by outsiders; canned goods, bread, pastry, breakfast foods, and even warm cooked meals are prepared outside and brought into the home ready to eat. Coöperative housekeeping is a possibility, if not a probability, of the near future. Modification is constantly taking place. The school is stretching out its arms toward the nursery, and is welcoming the little child into the pleasant and healthful atmosphere of the kindergarten. The sick are often sent to the hospital instead of attempting to care for them in the inconvenient and ill-prepared home. The physician and the dentist examine and prescribe for the school children in some of our large cities and in many German municipalities. The reduction in the amount of industrial activity carried on in the home, and the changes resulting therefrom, are vital factors in any study of the education of the girl. If no attention is paid to these changes, if we resolutely close our eyes and say there should be no modification in the sphere of woman's activity, discussion is futile and leads to mere dogmatism.

Although the modern home still performs many of the functions of the primitive one, modern home life differs greatly from primitive home life. While the effect of the influence of home and of

parents upon the young ought not to be underrated, it must be conceded that the complexity of modern life subjects the child of to-day to many influences which did not affect the child of former generations. This change must be acknowledged and considered. Whether it be for better or for worse need not be here debated; the situation exists. The reality must be faced and the problems resulting therefrom solved. The life of the past is forever behind us; the present and the future alone vitally concern us. During recent years a considerable percentage of the women of the United States have passed from under the influence of what Professor Patten would call an intensely "local" environment into contact with a "general" environment; as a result the "clinging vine" is no longer the ideal toward which the eyes of American women are turned. The wife and mother is not kept so closely within the home as she was in past generations. She has acquired a host of interests and duties of which our grandmothers knew nothing, and she is interesting herself in national, state, municipal and educational affairs. The woman whose mental horizon is limited by the four walls of her home, or by the confines of her immediate neighborhood, must perforce entertain narrow and warped views of life; but these new interests lie outside the home circle, and necessarily exercise a broadening and strengthening influence upon her. The American woman has become a powerful factor in the land, and her direct influence is destined to increase rather than to diminish. Society will ultimately be

obliged to cease clinging blindly and tenaciously to an ideal only appropriate to the past. The familiar traditional home and housewife were fitted to the period of domestic industry in the days before industrial progress had taken many strides toward the great industry with its necessary accompaniment,—subdivision of labor. Female industry is at present going through even a greater and more trying transformation than that through which the work of men has passed; woman's work is still in the transitional stage.

If the old view of woman's work and field of activity is not abandoned, the woman of the future must of necessity become more or less of an idler, a dependent, or else assume the thankless and discouraging rôle of a person who performs, in a wasteful and laborious way, tasks which could and should be done much more economically and much better outside the four walls of home, in specially prepared and efficiently equipped plants and workshops. The change from the domestic to the factory system "has released a vast amount of labor formerly done within the home by women with these results: either this labor has been diverted to other places, or into other channels, or has become idle." Public opinion has prevented much of this labor from being "diverted to other places," and has also retarded the movement of certain forms of work out from the home. Sewing, cooking and canning, for example, have by no means entirely departed from the home, and may not for many years be entirely performed outside the home.

Some writers have noticed that the movement of industry out of the home has caused eras of fancy-work, and of club work—"intellectual fancy-work." Middle-class women, not wishing to be idle, have diverted their energies into these channels with results which have not always been hopeful and encouraging. Idleness or useless forms of work are as undesirable in the case of woman as in the case of man. Work and useful activity are the birthright and the boon of each and of all, both male and female.

At present there is, undoubtedly, a growing tendency for woman to follow her work out of the household. In 1900, according to the census reports, there were 21,776,754 females in the United States, between the ages of fifteen and sixty inclusive. About one third of this number, or about 7,250,000, may be considered to be urban dwellers. The number of female wage-earners reported was 1,031,609. It is safe to assume that nearly all of the wage-earners lived in the cities and towns. Therefore, on the basis of this assumption, about one in every seven adult females living in the cities of the United States is a wage-earner, and goes outside the home to earn wages. A large percentage of these women, however, are unmarried, so it is safe to assume that this movement, in so far as it has up to date affected the home, is not as significant as the statistics indicate. Nevertheless, the inevitable tendency will be to add continually to the labor-avoiding methods of doing housework, more work will in the future go out of the home,

and the house of the future will be simplified. The dirt problem which is one of the most vital and distressing of domestic problems will be made less difficult to solve by the removal of the smoke nuisance, by the use of central heating plants exactly as we now use central lighting plants, and by the reduction in the number of creases, carvings and corners in furniture and house furnishing which offer convenient receptacles for dirt and dust.

The women of the race are standing at the parting of the ways. Two alternatives are offered them: useful and efficient labor to be performed outside the traditional household, or leisure and sex-parasitism. Although sporadic and isolated exceptions may exist in many places for several generations to come, the modern tendency toward specialization and large scale industry leaves no permanent middle ground. When an old art is dying out in consequence of being superseded by a new art, attempts are invariably made to complicate needlessly the processes employed in the old art,—to make work.[1] The efforts of the various housekeeping magazines point toward the decline and decay of household industry as a separate and unified form of industry. One of the important functions of these numerous journals is that of earnestly striving to dignify useless work through the introduction of various and sundry complications.[2] This situation should be discussed from the economic viewpoint and from that of race preservation.

[1] Mitchell, *The Past in the Present*, p. 22.

[2] Commander, *The American Idea*, Chap. XI.

A score of years ago Professor Lester F. Ward wrote: "Woman is half of mankind. Civilization and progress have hitherto been carried forward by the male half alone. Labor and production are now suffering from the same cause. It is high time that all the forces of society were brought into action, and it is especially necessary that those vast complement forces which woman alone can wield be given free rein, and the whole machinery of society be set in full and harmonious operation."[1] From an economic point of view there is much to be said in favor of the above argument. Women are gradually entering industrial and professional pursuits. If many of this sex are drafted into the industrial field the amount of leisure time for the workers should be increased. Every transfer from the class of useless workers or the class of idlers to the ranks of useful labor ought, in a normal economy, to tend to reduce working hours and to increase leisure. The entrance of women into industry should, therefore, be accompanied by a decrease in the average number of hours worked per day by all workers. If, however, it is accompanied by long hours and the displacement of considerable numbers of male workers, a fall in the standard of living of large numbers of the laboring population seems inevitable. The normal result of an orderly, systematic introduction of women into industry would be increased leisure for all and higher standards of living. In reality, this social change, like all others, will be accompanied by more or less suffering and

[1] *Dynamic Sociology*, Vol. I : 657.

hardship. Increased leisure ought not to mean idleness; but social enjoyment, intellectual enjoyment, or the pursuit of an avocation. The same economic laws and the same law of wages apply to woman as to man. If women are partially subsidized, if some work below a "living wage," the wages of all women are affected and incidentally those of men, unless union organization prevents this undesirable result.

Race degeneration and decay first manifest themselves in womankind. The future of the American people is wrapped up in the solution of the problem of the future sphere of woman's activity. If woman goes outside the home in order to become an industrial or professional worker, we are face to face with a serious problem as to the care and training of children, and the maintenance of marital relations. It has been repeatedly and vociferously declared, with a large measure of truth, that when married women become wage-earners in industries carried on outside the home, the cleanliness, healthfulness and moral influence of the home is unfavorably affected. Granting that this be true, it may reasonably be asked: Is not this evil situation due, on the one hand, to unfavorable conditions now obtaining in modern industry, and, on the other hand, to the fact that the work of the household has not as yet been sufficiently simplified? Are not the evils which now rise so ominously above the social horizon those which must inevitably accompany an era of transition? Are we not mistaking, because of insufficient investigation, merely tem-

porary and superficial ills for permanent and deep-seated diseases? Shorter hours and better sanitary arrangements in factories will undoubtedly follow the entrance of large numbers of women into industry, and the organization of female workers into strong labor organizations affiliated with those of men. Thus the peculiar evils of factory work will be diminished.

Industrial history unmistakably points to the conclusion that woman's household industry is doomed. Little will permanently remain, and what does remain can, in a large measure, be most efficiently performed by specialized workers going from one household to another. Household work when thus performed will attain a professional dignity which has hitherto been entirely lacking. Scrubbing and baking, brewing and sewing on a small scale cannot be as readily dignified as when performed on a large scale. Scientific precision and expert knowledge may find profitable application to these occupations when performed on a large scale. The chief cook in a large hotel or apartment house may well rank in professional standing alongside the physician. The operators of a compressed air carpet cleaner are a grade above the man with the wire carpet beater. The worker in an airy, well-ventilated garment factory is more expert than the sewing-machine operator in the sweat shop, or in the home dressmaking establishment. The two important questions are: How can industry be so modified as to make it healthful for workers whether they be men or women? How can women

be best prepared for industrial and professional occupations under the new conditions? The first question must be answered by means of legislation and trade unionism, the second by our educational authorities.

If these two problems are resolutely studied there is no good historical reason for believing that racial deterioration must be the inevitable result of woman's work outside the home. The mothers in all nations, when the latter were at the summit of their national strength, have invariably been workers, not idlers or parasites. One of the dangers which flow out of the enormous multiplication in wealth production in modern times is idleness—parasitism—on the part of large classes of men and women. In the past history of the world parasitism affected only a small percentage of the population. But in recent years the productive capacity of society has so increased that, with proper adjustment of work and equitable distribution of the products of labor, hunger and famine need no longer be feared by the masses in Western countries. Unfortunately, as hunger and famine retire into the background, a new menace—sex and class parasitism on a wholesale scale—confronts society. In the case of inferior animals, as well as in the case of human beings, the strong, true, normal mother has ever been a worker. Idleness begets degeneracy in woman as well as in man, and the idleness of the woman is the more dangerous to the welfare of the race. "Other causes may, and do, lead to the enervation and the degeneration of a race; the

parasitism of its child-bearing women must."[1] In short, working women, not women of leisure, have normal instincts. Only working women can be the mothers of a strong and vigorous race. "Our problem is so to adapt the world to the woman who works that she may combine motherhood with industry."[2] The crux of the "woman problem" and one important factor in the question of "race suicide" lies wrapped up with the contraction of the sphere of woman's work. The outward expression of parasitism among the well-to-do of the present era is found in such phenomena as bridge whist parties, sensational banquets, automobile races, horse shows and various other forms of dissipation and lust; or in the case of those only partially on the road toward parasitism, expression is found in some form of intellectual or manual "make-work," or in the needless complication of relatively simple duties. The vital evils are, however, deeply hidden, and manifest themselves more slowly in point of time.

Woman, herself, is not oblivious to the danger of her position. She has given voice to the cry: "Give us work, or we perish." "We demand that in that new strange world which is arising alike upon men and women, where nothing is as it was, and all things are assuming new shapes and relations, we demand that in this new world we also shall have our share of honored and socially useful

[1] Olive Schreiner, *Cosmopolitan*, Vol. 28 : 192. See also Parsons, *The Family*, pp. 346-7, 354.

[2] Commander, *The American Idea*, p. 268.

human toil, our half of the labor of the children of woman."[1] Economic considerations and the necessities of racial progress demand that woman continue, but under new conditions, to be an industrial worker. One of the most important functions of education in the decades which lie just ahead will be to aid in adjusting industrial affairs so that industrial or professional activity may not be inimical to motherhood.

[1] Schreiner, *Cosmopolitan,* Vol. 28 : 54.

CHAPTER VI

EDUCATION OF WOMEN

The home and the school are two great bulwarks which have safeguarded Occidental civilization and culture. Other institutions have indeed made valuable contributions, but to the home and the school we are indebted for the noblest fruits of Western development. Although we may revere and honor either or both, it must not be forgotten or overlooked that these words do not stand for fixed and unyielding concepts; these two institutions are ever in a state of mobility and fluxion. As the years pass by, all industrial and social institutions undergo constant change; the relative importance and value of this function of one increases, while that function of another decreases. A readjustment is necessary in order to meet the new situation satisfactorily. Progress is change—growth on the one hand, decay on the other. New functions and duties devolve upon certain social institutions, and some of the old functions are gradually transferred from one institution to another. New inventions, new methods of rapid transportation, increased trade, the growth of cities, have changed radically and almost fundamentally the relations existing between the home and the

school. Just as the factory has borrowed many of the functions formerly exercised by the home, so on the other hand has the school assumed many of the duties which once devolved upon the home.

Boys and girls grow to manhood and womanhood under the guiding and dominating influence of three important and, in a large measure, distinct social institutions—the home, the school and the playground. These institutions are chiefly responsible to society for the growth and proper mental, moral and physical development of the child. Each has its own distinct duties and functions, but the division is not fixed and invariable, nor is the line of demarkation between the special fields of each always easy to draw. To-day's demands upon each are different from those of yesterday, and the future requirements will not be identical with those of to-day. The nature and character of school work and home duties are in a state of evolution and of rapid adjustment to unique conditions and unusual situations, which are the result of recent social and industrial changes and progress. In past generations the influence of the home overshadowed that of the remaining two institutions. In the home the child received the major part of his training for his after life. The home produced and prepared nearly all the food consumed by the members of the family; much of the work which is now carried on in the factory was then performed in the home. It was the scene of diversified industry as well as the center of the child's social life; in contrast, the school was merely the place where the famous three

R's were expounded to the unwilling youth; the playground was broad and spacious, often consisting of an entire farm. This rural playground was, to a considerable extent, under the watchful eye of the parents; the opportunity for mischief and the danger from immoral influences were reduced far below those offered by the city street or alley. The disappearance of the playground and the loss of many forms of industry are two of the chief causes of the educational inefficiency of the city home of to-day as contrasted with the rural home of one or two generations ago.

The industrial transformations which have already been considered are visibly affecting the influence of the home upon the child. Indeed, in many of the poorer homes of the cities where both father and mother are wage-earners, the function of the home has been reduced practically to that of a mere eating and sleeping place. Amusement, social intercourse, the meeting with friends, all those happy associations which usually cluster around the concept of home are transferred to the public meeting place, the theater, the summer garden, the saloon, the club, the street corner and the dance hall. Such conditions are undoubtedly abnormal, and do not represent the true line of progress; nevertheless, it is a fact that in the future the child will be more and more given into the hands of the trained nurse, the skilled kindergartner, the playground director and the teachers of academic studies and of manual training. Whether the home be good or bad, the child of the future must, in a

larger measure than did the child of former generations, come under the influence of specialists and experts who are not members of his family; and the child is more and more to be called beyond the walls of his home. The recent changes in the scope and functions of the school point in this direction. In the case of the "undesirable" home, it is now generally admitted that there are excellent reasons for the substitution of school for home influence; but if the mother is to spend more of her time outside the home, if she is to be identified with interests which are not of the household, the school must stand ready to assist in a larger measure in the care and training of the children from all homes, good, bad or indifferent. As a direct result of the decrease in the functions of the home and the changing status of women, the scope of school work is being gradually extended. On the other hand, our educational and industrial life has become so complex that few mothers are capable of assuming entire charge of the care and training of the child. The education and training of children, like the manufacture of delicate and intricate pieces of mechanism, demand the work and energy of skilled workers in special lines.

The belief, so prevalent, that the home is always the best place for young children to be, and that they should be under its influence as much as possible, is unfortunately not always warranted by the facts. Many parents have no conception of the conditions which are necessary for the intellectual, moral and physical well-being of children. The

influence of many homes is vicious, degrading and, in some cases, immoral. In so far as it is possible to remove the young from such an atmosphere, and to substitute a better environment, to that extent is the moral and ethical advancement of society aided. The rights of the family are not so sacred and inviolable as many persons stoutly maintain. Society has the right, and it is its duty, to demand such conditions in the home as will give the young opportunity for healthy development, both morally and physically. No plea for the rights and integrity of the family should be allowed to befog the issue. The rights of society are paramount and take precedence over those of any social or governmental institution. This is the lesson which modern industrial and social progress is teaching us.

As long as homes exist which are not desirable living places for the young child, society ought to protect itself by taking the child wholly or partially from the care of the parents forming that home. Care must be taken to prevent parents from feeling that all the responsibility for the welfare of the child is taken from their shoulders. There is a tendency, however, to exaggerate the dangers of paternalism of this sort. Fears are expressed which sound very similar to those manifested at an earlier period against tax-supported public schools. For example, Dr. Wayland in his *Political Economy* (1837) argues that the expenses of the public schools may be provided "partly by a general fund; this fund should, however, never defray more than a portion of the expense, for no man values highly

what he gets for nothing." The free public school has, nevertheless, won a firm foothold, and free text-books are being accepted as a matter of course. May not further steps in the same general direction be also attended by good results? But severe social condemnation should be visited upon parents who bring children into the world for whom they manifestly will be unable to provide properly.

The parental school teaches educators a valuable lesson. The school of the future will certainly use some of the methods and mechanism of this institution. The parental school is designed to take the place of the home in cases where the latter is deficient in the qualities which are requisite for a good home. Work, physical exercise and drills, play, and the ordinary school routine enter into the curriculum at these schools. The child is kept at the school day and night under the care of competent instructors. It becomes temporarily the home of the pupil. In the future, borrowing some of the features of the parental school, the regular public school will probably take the child from morning until the latter part of the afternoon. Noon meals will be served, and the study periods will be interspersed with work and play appropriate to the grade and age of the child. The school will become a workshop and a playground as well as a place for study and reading of books. The book will be considered to be a workshop aid, and will be used when the child in his conflict with various obstacles sees the necessity for it. The book is only a tool, a means to an end, and is effectively

used only when the child realizes the need of it. The book represents experience received second-hand. In order to assimilate its contents thoroughly and completely, first-hand actual experience and contact with materials must be allowed.

These changes will not be worked out in a day or a year; but slowly and surely the school is adding to its functions and broadening its scope. If woman is to engage in industrial pursuits, or to participate in the educational and political movements and agitations of the day, she must neglect or be relieved of many of her household cares and duties. The public school is the one institution which can be utilized to care properly for the children during the daytime. The training and care received by young children from expert kindergartners and primary teachers is superior to that which the average mother can give, and infinitely better than that usually received from the household servants, or the older brother or sister. Ignorance on the part of even a few is expensive to the community. The most important work of the school should be that of compensating for the weakness and inefficiency of the home as a training school for the young, or that of counteracting its maleficent influence. The growing educational importance of the school, as compared with the home, points toward a wider diffusion of knowledge and toward greater equality in education and culture. Homes are greatly dissimilar as to internal and external environment, and home training is consequently of very different quality and characteristics. The

school—any one particular school—offers a practically uniform set of conditions for all pupils. As the influence of the public school increases and is extended to all children, the artificial inequality among men is reduced. A distinction must be drawn between natural and artificial inequality. The variation in human ability is much greater at present than would result solely from natural inequality, and is the result of unequal diffusion of knowledge and of unequal economic opportunity. The great differentiation between men of the same race and nationality is chiefly one of environment, of circumstances which need not be referred back to the distant past. In so far as useful instruction and training—mental, physical and industrial—is extended to all, will exploitation of the poor by the rich, the uneducated by the educated, the mass by the few, be decreased and made difficult.

Women are to play an important rôle in determining the trend of education in the future. They are to influence and modify educational aims and methods; they will do much to fix the value and determine the scope of the work of the public school. But the woman whose time is entirely occupied with household cares and duties cannot enter upon the broader field of work and activity which many of her enthusiastic sisters are prophesying for their sex. If the great mass of women are to take their place beside men in the industrial, professional or educational world, more of their home duties, educational and otherwise, must be turned over to specialists, who will perform the work out-

side the home or come to it at stated intervals. There is no other probable solution; the maid-of-all-work is an anomaly, a survival, in the industrial field.

The enhanced importance of the school in the education of men and women may, therefore, be expected to produce two distinct and important results. First, it partially removes one of the most difficult barriers which has long obstructed the upward path for the female sex. Secondly, it tends to produce a more uniform diffusion of knowledge, a greater equality in environmental conditions, and as a result a more equitable distribution of opportunity. Woman, in urging the introduction of the so-called educational "fads," is building even better than she anticipated. Education—the wide diffusion of accumulated knowledge and experience—is a lubricant which diminishes the friction in social adjustments to new environmental conditions.

It must not, however, be forgotten that although the home is losing many of its former functions, although the mother is called out of the home for a portion of each day, there is no valid reason for believing that the home will not continue to be the greatest and most basal of all American institutions. The care of the children during a portion of the day, the choice of their diet and clothing, the duty of making the home comfortable, pleasant, inviting and healthful must still devolve in some measure upon the wife and mother. Although in the future a considerable portion of what was the household work in the past will be performed by specialists,

the mother's training for the management of a household, judged in the light of to-day's experience, will ever remain an important factor in the development of the young.

The chief reasons for the diminished educational value of the home may be summarized under three heads. (1) The industrial functions of the home are gradually disappearing. (2) The play space in the immediate vicinity of the city home, and which is under the direct supervision of the mother, has been greatly reduced or has entirely disappeared. (3) Industrial changes are affecting the status of woman; she is losing her position as a housekeeper. The tendency is to drive her out of the home into industrial or professional pursuits, or to convert her into an idler. In either case the importance of the mother as an educator is diminished. If the mother is an idler, she is living an abnormal life, and her influence is not of the proper kind. On the other hand, the time of the working mother is occupied in attending to many duties not pertaining to, and usually conflicting with, the care and training of children.

The above considerations make it evident that the problem which confronts the school during the present period of transition is an unusual and a peculiarly difficult one. The education of the girl presents a double task during the period of adjustment to city environment and to new industrial methods. The girl must be prepared to be a home maker in the old sense of the term, and also an industrial worker; she must be fitted for the

traditional sphere of woman with its multiplicity of duties, and also for earning a livelihood in competition with men in the industrial, commercial and professional world. A woman ought to know how to cook and to sew, she should understand the relative nutritive values of different foods and be familiar with the elementary principles of household sanitation and home decoration, and she ought to be able to properly care for her children. On the other hand, a woman should be able to support herself outside the home, if occasion demands it. Many will not give assent to the last proposition; but do such persons look the matter squarely in the face? Do they not take refuge in an appeal to the past? In the future all women may become wage earners, but this is a contingent which will not arise at least in the immediate future. Cooking, for example, may at some future time be done entirely outside the home by well-trained experts; but until that time comes the wife and mother should be prepared to undertake the feeding of the household. Indeed, training in domestic science and in the care of a home are to-day even more important than in the past, because the stamina and vigor of a race of city dwellers are dependent in such a large measure upon proper diet and proper ventilation of homes, schools and workshops. The natural conditions surrounding the child living in a rural district are more healthful than the artificial environment of the city. The improperly nourished and ill-cared-for child of the country has a better opportunity for health and strength than one correspondingly

neglected in the city, although both are seriously handicapped.

The discussion of the proper preparation for earning a living need not be entered into at this point. If women enter into industrial and professional life, and work beside men, this portion of their training must, of necessity, approximate that of men. What especially concerns us now is to show the vital importance of training for home making, and to emphasize the economic and social importance, at the present time, of domestic science in the public schools of this country.

It has often been asserted, by those familiar with the condition and manner of living of the poor, that the latter live upon food which is badly cooked, poorly served, not wisely selected and of little variety. The vast majority of the people of this progressive country have little knowledge of the value of food stuffs or of the importance of a well-chosen diet. There is more than a modicum of truth in the adage which certain makers of breakfast foods are fond of quoting: "Tell me what you eat and I will tell you what you are." Diet is one of the great factors in determining the growth and development of the child. In the past, however, little thought has been given to the feeding of the human animal. Our cooks have not been experts; they have known little or nothing of the proper combinations of food, of the nutritive value of certain foods, or of the proper methods of preparing and of serving foods. When man lived an outdoor life almost exclusively, this was not of as much

consequence as it is when he leads a more sedentary life, as it is since he is confined the major portion of the day within four walls. Dyspepsia, Bright's disease and other modern ills are the penalties for non-adjustment and non-conformity to the requirements of modern city life. But more vital and dangerous to society are the consequent stunting and weakening of the child. Improper food and diet make the weakling, the degenerate and the inefficient.

An elementary knowledge of cooking, sewing, household sanitation, the keeping of household accounts, the decoration and care of the home, should be given to all the girls in our ward schools. If we wait until the high school is reached we fail to give this training to a large percentage of those whose home training in these arts is little or none. Domestic science, or household economics, in the college is good, domestic science and art in the high school are better, but cooking, sewing, sanitation and household art in the elementary and night schools are best,—these are essential to the improvement of the home of the next generation. This fact should be proclaimed by every woman's club, by every teacher's association, and by every organization devoted to the social, educational and economic advancement of the poorer classes. There is little danger of placing too much emphasis upon this point.

The position of a woman in charge of the home is one which is extremely potent for good or for evil. The physical and moral welfare of each child

is, now as in the past, largely determined by the mother, and therefore the future of the race is to a considerable degree in the keeping of the female sex. Improper food and squalid and uninviting home environment are among the chief supports of the brewery and the saloon. Real, effective temperance work begins at this point. Improvement in home conditions and provision for social meetings and enjoyment in wholesome and inviting surroundings will strike deadly blows at the great evil of intemperance. Dr. Corwin, in charge of the welfare work of the Colorado Fuel and Iron Company, has made this significant statement: "To a hungry man a home's attractiveness begins at the table. But if he come home to a supper of tasteless, indigestible food, served without any attempt at making it inviting or the table attractive, is there any wonder that he seeks the saloon for stimulants?" The work of the school should render efficient service in the prevention of both physical and moral disease.

The high price of food is partially the result of a demand for, and the consumption of, more food than is needed to maintain health and vigor; it is also in a measure due to wasteful and improper, or partial, utilization of food stuffs. Consumption in a given country or locality should be so adjusted and proportioned as to utilize, where possible, those goods which may be produced at least expense. "Many times the amount of food might be obtained, with no increase of proportional cost, if the people would be content with a diet containing the different articles of food in that

proportion which will allow the land to be employed in the production of those commodities for which it is best fitted."[1] A more economic consumption would decrease the relative proportion of workers engaged in producing the necessities of life, thus enabling a greater amount of the comforts of life to be produced,—a potent factor in raising the standard of well-being.

A scientific knowledge of the nutritive value of different foods would enable consumers to find and to use proper substitutes for a food, as for example meat, the price of which has suddenly been raised. If such knowledge was general throughout the country, the consumer would be able to prevent or at least to check arbitrary and unreasonable changes in the price of many food stuffs.

Education and economics enter their protests against the useless frittering away of woman's life in a foolish and senseless round of so-called social duties, in making extraordinary quantities of "fancy work," or in the performance of duties which could be better attended to by specialists outside the home. Education is no longer to be considered an end in itself. Art for art's sake, culture for culture's sake, and education for the sake of an education are ideals which ought to be forever relegated to the rear. Education is a means to an end, it is a tool; it better prepares the raw material entrusted to its care for the duties which will devolve upon each bit of human material. To earn a living and properly to perform the duties of parenthood are

[1] Patten, *Premises of Political Economy*, p. 62.

important obligations which will devolve upon a large percentage of those now in school. Can we afford to overlook the practical things of life when preparing our school curriculum? Whatever may be the verdict as to many of Herbert Spencer's educational theories, certainly all must admit that he did a commendable and valuable service in emphasizing the value of the practical things with which education should deal. Surely, if it is worth while to prepare, publish and spread broadcast bulletins regarding the proper treatment and care of cattle and hogs, it is also worth while to devote some time and attention to the needs of the growing child. One of the most fruitful and ever-present sources of depravity and crime is the improper nourishment and care of children; and this is chiefly the result of ignorance. Which is likely to be of the greatest value to the average man or woman,—to be able to analyze a sentence, or to determine in an approximate way the value of different food materials? Is it better to be able to read Latin, or to understand how to breathe deeply and correctly? Is it better to be able to bound China, or to drive a nail? The notion that an educated man or woman should do no useful work, manual or otherwise, is out of date and pernicious. Education should aim to produce the useful, energetic manual or mental worker, no matter whether the student be male or female.

The young women of to-day are developing in an atmosphere which is radically different from that which enveloped the early years of their grand-

mothers. Their point of view regarding their own work and position in the economic and industrial world will inevitably be greatly modified by the change. Professor Patten has told us that "the city home of the future will be built by two who are educated, side by side, in the public school, whose industrial careers are side by side in the factory, whose plans of life, formed by the same city outlook, have resulted in like powers and parallel interests." The concept of wide and irremovable differences in the qualifications and abilities of the two sexes in the intellectual and industrial world will disappear in the light of these new relationships.

The proper education of girls is one of the most important problems connected with the improvement of conditions in the crowded industrial centers of our country. The need here is especially great and important. Girls have entered our school system and have followed the curriculum devised for the boys. In the upper grammar grades and in the high school their work should be different in many respects from that of the boys. On the other hand, a cultural training, while important and desirable, is not, or should not be, the chief aim of the teacher of girls. Under the now existing circumstances, the duties of the husband take him outside the family circle for the greater portion of each day, on him now falls as a rule the entire burden of furnishing the necessities and comforts of the home; the duties of the wife still keep her within the home to a greater extent, on her still rests a portion at least

of the burden of preparing the food and clothes, and of caring for the household. As long as these facts remain nothing can so ennoble womanhood as a thorough study and preparation for the duties of home making. Such training ought not to be overlooked in order to give the girl a knowledge of literature, languages, civil government, or a preparation for earning a livelihood. But, on the other hand, ability to earn a livelihood and actual entrance into the industrial world will also do much to exalt womanhood and to place woman upon a high plane, to make her independent of the whims and caprices of the other sex. And, if the analysis of social progress presented in the preceding pages is accurate, training for industrial and professional pursuits will, as the years go by, occupy an increasingly important place in the educational program for young ladies.

CHAPTER VII

THE INDUSTRIAL AND EDUCATIONAL VALUE OF MANUAL TRAINING AND LABORATORY WORK

The introduction of manual training and laboratory work into the public-school system as a permanent and valued part of its curriculum is one of the first and one of the most significant features of the recent era of educational advance. The parallel between this era and the earlier one is striking. In each case a war was followed by rapid industrial progress and wild speculation, leading to a severe industrial depression. This crisis was, in each period, followed, as has been previously mentioned, by the rapid growth of labor organizations, the spread of propaganda of various sorts, and by a vigorous agitation in favor of public education. The introduction of manual training and of laboratory work definitely marks an important modification in the conception of the purpose and methods of school instruction, and is the visible manifestation of the influence of important changes in industrial methods and social conditions. The laboratory and the manual-training school are not content with mere passive receptivity on the part of the student, but require self-activity and

constructive work. The introduction of these two educational accessories indicates to the student of educational progress that the home had, by that time, lost much of its industrial character, and that division of labor was then an important factor in the industrial world. At that time the school passed from the old to the new concept of its duties; education then became more than mere intellectual gymnastics and memory drill. Mere passive reception of the words and ideas of teacher and text-book was then necessarily replaced, in some degree, by personal observation, judgment, manual skill and actual contact with materials and apparatus. The use by the teacher of apparatus to demonstrate the laws presented in the text-book or in the lecture marked a long step forward; but the actual placing of that apparatus in the hands of the pupil was still more important. The value of this kind of experience and training may be considered from two, not necessarily conflicting, points of view,—educational and industrial. What is its value as a training leading to a well-rounded character and intellect; and what is its value in training up a body of efficient workers in all kinds and grades of industrial work?

As has been observed in preceding chapters, in earlier generations the need of the kind of training which these two features of our modern curriculum impart was small, and moreover it could be obtained outside the school. Only recently have accurate quantitative and qualitative methods of measurement been introduced into all industrial

processes. Interchangeable parts of machinery require that two pieces be almost identical. The variation of the fraction of the hundredth or even of the thousandth of an inch will often render a piece worthless. The chemist, the physicist and the engineer are now indispensable in the industrial world. If the home still offered the same opportunities for training in manual work, and if it still afforded the same chance for contact with materials as it did under more primitive conditions, such training would nevertheless be clearly inadequate to meet the present requirements, as our skilled workers and engineers require training in accuracy. On the other hand, the work in our shops has become so specialized that a boy from the time of his entrance is forced into a rigid and monotonous routine, usually that of tending automatic or semi-automatic machines. He is able to observe or learn little beyond the few simple operations required of him. As a consequence he soon gets into a rut, and is unable to change readily to another kind of work unless it is of a similar routine character. It is this unreasoning, uncomprehending boy who becomes the inefficient and unreliable workman. Apprentices are given better opportunities, it is true, but only a limited number of engineering establishments receive apprentices.

The value of the home and the shop as factors in the training of future foremen, workmen and engineers has greatly decreased as a result of the changes just mentioned. As this function of these two important institutions atrophies, the school is

obliged to take upon itself new obligations; and its proper sphere of action enlarges to meet the new situation. The technical school, the manual-training high school, ward-school manual training and the laboratory have been grafted on to our educational system to meet the demands for boys who possess trained hands and eyes,—boys who are able to plan and to execute,—boys who are industrious and not afraid of overalls and jumpers,—boys who have to a high degree the power of applying knowledge to industrial operations. The value of a good home in the building of character is not minimized or called into question. But the changed environment in and about the home, its complete isolation from productive industry, cooking excepted, has caused it to lose its leading position as a factor in industrial training.

The future of manufacture depends largely upon the new human material which is supplied to the shop and factory. Brains, the ability to do, not stores of unassimilated and unapplicable knowledge, is the great need and demand of to-day in the machine shop and the foundry as well as in the counting house and the Congressional chamber. The school must be looked to in the future to fill this standing order for trained, resourceful men.

Lines of demarkation must be carefully drawn between the trade, the manual-training and the technical school. All three are important; each has its legitimate sphere, but their ends and aims are different. Manual training aims to give all students training of hand and eye. It tries to give students

experience and actual contact with materials and processes. The trade school turns its energies toward fitting the student for some particular trade. The manual-training school, on the other hand, attempts to give a more general training. The latter does not aim to train carpenters, blacksmiths, machinists, or mechanical draftsmen, but it does strive to give the student a first-hand knowledge of industrial operations and processes. On the other hand, it does not aim to present the scientific principles of engineering; this function belongs to the technical school. The call for manual training is a direct result of the extensive modifications in our industrial and social life; its aim is primarily disciplinary. Although manual training fits young men for certain classes of occupations rather than for others, this is an indirect and incidental result. High-school manual-training work is more highly specialized than ward-school work, and is undoubtedly more valuable for the future mechanic or engineer than for the lawyer or the merchant. The ward-school manual work is, on the other hand, almost, if not quite, equally valuable for all students. The trade school ought to complete the school training of a skilled worker who has taken the manual-training work which should be given by the public schools. The trade school is to the skilled artisan what the technical school is to the engineer; and the technical school is to the manual-training high school what the college is to the English or Latin high school. The manual-training high school is

designed to furnish a preparation for the trade school, the technical school or for apprenticeship.

The technical school provides preparation for students who intend to become professional mining, electrical, civil, mechanical, textile or chemical engineers. The trade school has never been a part of our public-school system, while the manual-training work is now found in the curriculum of all our good city schools. Nearly all, if not all, of our State Universities have technical departments. Domestic science is properly a subdivision under the general head of manual training. This work is to the girls what shop work and mechanical drawing are to the boys. Before the sixth or seventh grade the work is rarely differentiated according to sex; after that period as a rule it is. As in the case of the work for boys, domestic science is given primarily for its educational value; the practical lessons are subordinate although very important.

Manual training aids particularly two classes of workers in the industrial field: first, the young men who are fitted for, and able to take, advanced technical work; second, those who must go directly from the grammar or high school into the shop, or in some cases into the trade school.

The latter class must not be overlooked or neglected as unimportant. It is unfortunate that as yet our school curricula are drawn up primarily to benefit the small percentage who go to college or technical school; secondary consideration only is granted the larger number who go directly into their life work. The future progress and prosperity

of the country is as dependent upon a trained rank and file in the shops as upon the superior character and training of our superintendents and engineers. The value of higher technical training is dependent upon the efficiency of the preparatory work in a twofold manner. The quality of the work done by a student in the technical school is materially affected by the kind of training which he has previously received in the preparatory schools; and the best engineer needs competent workmen in order to carry his projects to a successful issue. Our technical schools might be the best in the world; their graduates might be the very skilful engineers, chemists, superintendents and designers, and yet if the workmen who are to be directed by these men are inefficient and unskilful the results of their combined efforts would not be encouraging. Our industrial system would be top-heavy.

The boy who goes into the shop in his early youth must be taught neatness and accuracy; and he should understand the elementary principles of wood and metal working, mechanical drawing, algebra and geometry, and have a fair command of the English language. If the boy can be kept in school until the end of his sixteenth year this amount of training can be given him. The last two years of this course, which are the first and second years of the average manual-training high-school course, are extremely important. The value of this work is often underestimated. Technical education was introduced before manual training, and when the

latter was first recognized it found a place only in the high school. Gradually, grade by grade, it has crept down toward the kindergarten until, in many American cities, manual training is found in each of the twelve grades. The universal introduction of such work into the public-school system should be demanded by clear-sighted employers and labor leaders; but, in order that the young man may reap the benefits the school age must also be raised. If the employer and employee will unite on this proposition, it will mean much in the future. In the long run the interests of both are certainly harmonious in this instance. A well-trained class of workers means the maintenance of industrial supremacy, and the greater likelihood of peaceful relations between employer and employee. Ignorant, inefficient and "sweated" laborers are a menace to industrial growth and development.

The large number of students, living in all sections of the United States, who are taking work in the correspondence schools, in public, private or Y. M. C. A. night schools, testifies to the great demand for elementary technical education and manual training. Many of these persons left school at an early age because they were unable to receive instruction of this character. School teachers are, as a rule, very conservative. They are too often far removed from the practical affairs of life, and few of them have received such an education as will make them appreciate the need of industrial and manual training. This movement toward greater emphasis on industrial education must be

accelerated by those actively engaged in industrial pursuits. The latter should be keenly appreciative of the need of well-prepared timber for the future industrial edifice.

Turning our attention to the other boy, the future technical-school student, the question immediately arises: What preparation does he require? It may be safely assumed, with little fear of controversy, that intellectual training alone does not properly fit any boy, especially one who is to be engaged in engineering pursuits, for the active duties of life. It is extremely desirable, if not absolutely necessary, that the youth who is to be the future engineer, superintendent, foreman or manager should receive a careful training of hand and eye, and that he should be brought into direct and personal contact with materials and machinery before he enters the technical school at the age of eighteen or nineteen. This experience can be given him in the public schools. The preliminary work for the engineer need not be differentiated from that given the skilled workmen. Both classes should receive the same instruction.

If this instruction were given in all or a majority of city and village schools, the manual-training high school would relieve the technical school of the necessity of teaching joinery, wood turning, elementary pattern making, forging, elementary machine-shop work, and much of the simpler work in mechanical drawing. In drawing, for example, the graduate of the manual-training high school should understand orthographic and isometric projection,

perspective, tracing and blue printing. He should be able to execute neat, accurate and well-lettered working drawings of existing machines, but he should not be expected to design such machines.

Manual and mental training must ever proceed hand in hand; the one is not complete without the other. Exactly as the arithmetic, the algebra and the geometry taught in the high school are preparatory to the work in higher mathematics of the technical school, should the shop work and drawing be preparatory to laboratory work and machine design. The present duplication of equipment and consequent waste of energy can be avoided. The technical school has its own definite and urgent problems to solve; it ought not to be asked to maintain this preparatory work, which should be given to all who enter industrial pursuits, workmen as well as engineers.

The American workman is intelligent and resourceful; as a consequence he is a very efficient man. The United States, thanks to its material resources and the sturdy character of its inhabitants, has forced itself into the front rank of industrial nations. Shall it continue in this desirable position? It has cherished one institution which, if properly utilized, will enable an affirmative answer to be returned to this question. This is the American public-school system. By means of its efforts the present high grade of intelligence and efficiency can be maintained, but its future ideal must be to find the proper work for each of its students. The school must say emphatically that a first-class

machinist, a good fireman or an excellent carpenter is to be preferred to a second-rate lawyer, physician, minister or teacher. The necessity for primary, grammar and secondary manual training is great. The schools have too long given a major portion of their time and energy to a training which was particularly beneficial to the professional man. The foundation of industrial education should be laid strong and well; good work in ward and high schools is essential to future progress in the arts and sciences.

A careful study ought to be made as to the extent and character of the industrial work which might profitably be introduced into the public-school system; manual training, particularly in the ward schools, is still in an unsettled and experimental stage. The methods employed and the extent and character of the work given are by no means uniform. The employer and employee as well as the educator must consider this question; out of the conflict of opinion good will come. Let it ever be remembered that competent men are needed in all grades of industrial work, and that the public school should render valuable service in supplying this demand.

The manual-training work given in our public schools is not opposed actively by labor unions. As it is not the purpose of manual-training schools to teach trades, students are not graduated who are likely to become competitors, in the immediate future, of the men who are now in the various trades. The graduates of these schools need several years

of practical experience before becoming skilled journeymen, although the length of the term of apprenticeship or probation is usually shorter than that required of the non-graduate. In the end, it is believed, a better and more efficient workman is developed as a result of the manual-training work.

Labor unions do rightfully demand that the requirements for entrance into a skilled trade shall not be broken down by the influx of young men solely trained in the schools. They demand that the standard of skill be kept high in order that the standard wage received may keep up the standard of living. The unions do strenuously insist that the trade school shall not be used to neutralize the work of the unions. This demand is as rational and as just as the demands of lawyers, physicians, clergymen and teachers for rules and regulations which act as barriers against unrestricted entrance into those professions or trades. "When trade schools limit themselves to improving the theoretical, technical and practical knowledge and skill of those who are already entered upon a trade, unions seem to approve and in many cases to participate in conducting them." The continuation school in Europe is in general approved and given moral support by the trade unions. These schools aim only to give opportunity for the development of those who are actually at work in their chosen trade. Organized labor does not antagonize scientific instruction, manual training or industrial training except in those cases where it is so given as to be deemed a menace to the interests of the wage

earners. In other words, they pursue the same course which any other economic class would follow under similar circumstances. In recent years many of the most ardent advocates of industrial and trade education have been men bitterly opposed, or unfriendly, to labor unions. This fact has naturally caused union men to look with suspicion upon many proposed plans for industrial training. Any attempt to use the public-school system to "smash" labor organizations is a vicious perversion of its true functions.

CHAPTER VIII

THE EDUCATIONAL AND INDUSTRIAL SIGNIFICANCE OF THE ARTS AND CRAFTS MOVEMENT

The arts and crafts movement of to-day is a part of the great democratic movement in education. It proclaims to the world that beauty, skill and education are for all; that the common thing should be made beautiful, and the beautiful, universal. The importance of the movement is, however, often overestimated. The abuse of the machine and of its products by the friends of the arts and crafts movement is due to an unwarranted exaggeration of the educational and social value of hand labor, and to the mental construction of an ideal but mythical state of society which, it is asserted, existed prior to the development of the modern factory. In fact, the machine has its sphere, and the hand likewise its important industrial function. In an era dominated by the machine, a movement emphasizing the importance of hand work has a high industrial and educational value. If the machine enables us to produce the necessities of life for all, it is, nevertheless, the skilled human hand which must adorn and beautify these products. The hand must find its province where the machine cannot go. In its proper sphere the machine may

make beautiful things, and may even far excel the hand. It is not the use of the machine, but the abuse of machine production, which should be deprecated; without the machine much of our present material comfort would be impossible.

Art is a form of industry, and industry properly applied always brings forth a work of art. The mechanic, fashioning the accurate and splendid tool, produces a true work of art; the man, forming with infinite care and patience the lenses of the great Lick telescope, brings into being another work of art. The automatic screw machine and the powerful steam engine are as certainly works of art as the paintings or the sculpture of the great masters of the Renaissance. There is, and can be, no real art considered entirely apart and distinct from industry and the industrial life of the people. As Emerson has said: "Beauty must come back to the useful arts and the distinction between the fine and the useful arts be forgotten." "To give people pleasure," declares William Morris, "in the things they must perforce use, that is the great office of decoration; to give people pleasure in the things they must perforce make, that is the other use of it." Art is a way of doing things and resides in the common as well as in the uncommon, at home as well as abroad, in the present as well as in the past. "The purpose of art," writes J. Q. Adams, "it would seem, should be to idealize work."

The old craftsmen were artists. They wrought with infinite care as much for the satisfaction of doing good and true work as for the money value

of the product. The products of the craftsman's skill were few, and only the ruling classes were privileged to possess them. The laboring masses were busily engaged in obtaining the bare necessities of life; no thought of comfort, art or education entered into their lives. The craftsman did unite art and industry; but the modern conception of democracy did not exist. On the other hand, the modern workman is only a link in a great industrial chain. He repeats, in a monotonous routine, certain simple movements; no realizing sense of the true social value or significance of the work which he performs ever comes to him. Long hours and routine work crush the individuality and ambition out of him.

The specialized worker necessarily has narrow views of life; his ability to enjoy is limited. The opportunity and privileges of both working and leisure hours are only partially utilized. It has been said that for a man of twenty, pleasure is business; of thirty, business is business; and of forty, business is pleasure. It might further be maintained that there is little pleasure outside of business for the ordinary man of forty or fifty. Business, the grind of daily life, has engrossed the entire energies of the man. Enjoyment in life means enjoyment of leisure and of work. The unskilled laborer enjoys neither—why? His work is monotonous and wearing, the surroundings of home and workshop are not inspiring, and he has received no training which will aid him in finding and

utilizing the few opportunities for rational enjoyment which come to him.

The present arts and crafts movement is a protest against and a reaction from the minute division of labor now employed in manufacture, and the stripping of the artistic features from industry. Articles are made to sell more particularly than to serve a useful and important service. Profit, not service, is now the watchword of industry. Art in the crafts would emphasize service. The arts and crafts movement aims to give dignity to the worker, and to teach that all should be workers. The man of leisure is a drone and a parasite. The efficient service of each individual is needed by society. Only when all are workers and each striving to do his best work does society approach an ideal condition.

The arts and crafts movement needs educated producers and consumers. The task is a double one; the workers must be trained to produce good work, and the taste of all consumers must be educated so that they will demand good articles. Shorter hours and the right use of leisure will give an impetus to the demand for better qualities of goods; and thus variety and handicraftsmanship will to some extent replace interchangeability and machine production. All civilized men demand the necessities of life—food, clothing and shelter—of a character not greatly dissimilar; these common requirements lend themselves readily to machine production. Industrial operations in which machinery is the chief factor are directed toward producing

the greatest possible quantity of a uniform quality; therefore, as far as inventive skill will allow, the machine and natural forces, rather than human skill and energy, are employed in producing goods which satisfy the common needs of all men. The class of work in which skill is the determining factor aims to improve the quality rather than to increase the quantity produced. As the demand for the latter class of goods increases, the call for skilled workers will also increase.

There are indications of a revival of those industries involving more skilful hand work. More interest is being manifested, throughout the country, in art, architecture and the products of the various handicrafts. The increased attention paid to art and drawing in our public schools is another indication of the coming change in the spirit and demands of the American people. The result of such training on the next generation will be great, and its effect cumulative on the succeeding one. Industries involving artistic ability and intricate manual skill are incapable of minute division of labor. The gain resulting from the centralization of industry and the division of labor is very small in this class of work. It is well adapted, however, to small factories and workshops, and forms an appropriate kind of industry for small villages. If there is to be any considerable revival of village industry, it must come through an increase in the demand for the products of skilled manual work.

The use of steam and the lack of adequate rural transportation facilities forced the abandonment of

village industry and built up the existing great industrial centers. In recent years the increasing use of electricity for the distribution and application of power is changing the location and internal arrangement of our shops. This, together with the rapid growth of suburban and interurban electric lines, is placing the villages and rural community in a better condition for industrial pursuits. The separation of agriculture and manufacture will, as a result, probably be less in the future than in the present or the immediate past.

Two great forces, in addition to the work of the school, may be discerned to be removing the obstacles in the path of the arts and crafts movement —the decentralizing tendency of electricity when used to transmit power, and the growth of the labor movement which demands shorter hours and better shop conditions. Just as the manual-training movement was a result of economic and industrial changes, so is the call for art in the crafts the result of such forces. As the machine displaces workers, many are pushed higher up in the industrial scale. Such a phenomenon must also be accompanied by an increased demand for the products of skilled workers. This movement is not something evolved out of the minds of a few thoughtful devotees of art, but is in harmony with and dependent upon the needs of industrial and educational life. It is an evolutionary movement.

The building up of an industry involving skilled hand work such as the well-known Roycroft Shop at East Aurora, New York, is significant. This

kind of industry is appropriate for small villages. If there is to be any considerable revival of village industry it must come through this class of work. The extended use of electrical distribution of power will not revolutionize the forms of industry involving the use of much machinery and the division of labor, although it may modify and improve the conditions, and be of great benefit to the laborer and to society. One valuable feature of the revival of interest in the arts and crafts should be an earnest endeavor to keep alive particular small industries and to continue the special skill of each people who migrate to this country. This, indeed, should be one of the peculiar tasks which the arts and crafts movement should take upon itself.

Numerous arts and crafts societies have recently been formed in the larger cities and in many small villages of the land. Many individuals may also be found who are working in private studios or workshops. Chicago was one of the first of American cities to take an active interest in this movement. The Chicago Arts and Crafts Society, probably the pioneer American society of this nature, was organized at Hull House in 1897. The Hull House Labor Museum was opened in 1900. The textile department is the most interesting and complete part of this institution. It was organized "for the purpose of exhibiting industrial processes in various stages of their evolution, and thus offering a sort of education in industrial history in the form in which it would be most easily comprehended, and at the same time emphasizing the dignity and

importance of labor."[1] Hull House is situated in a portion of the city inhabited by foreigners. To the labor museum the foreign women come to carry on their various kinds of industries,—spinning, weaving, dyeing, hammock weaving, basket making, etc. Syracuse, New York, is a well-known center of this movement. The Craftsman Workshops are located in this city. In these shops a variety of work is produced such as furniture, leather work, needle work, metal work. These workshops are operated under the motto: "We have pledged ourselves never to produce anything that degrades a man to make or sell. We have set before us ideals of honesty of material, solidity of construction, utility, and adaptability to place, and æsthetic effect,"—an ideal worthy of John Ruskin or William Morris.

In Boston an arts and crafts high school has been proposed as a part of the public-school system. During the school year, 1903-1904, the students of the Toledo University School formed an Arts and Crafts Society. This was continued the next school year, any person in the city being made eligible to membership. The shops of the school were thrown open at certain periods of the week to members of this society.

In certain districts of Kentucky, Tennessee, Georgia and North Carolina, attempts have been made to revive the domestic industries of spinning, weaving, rag-carpet making, etc. A writer in the

[1] "Revival of Handicrafts in America," *Bulletin of the Bureau of Labor*, No. 55, p. 1584.

Bulletin of the Bureau of Labor offers the following justification for this effort: "The revival of domestic weaving and rug-making is of economic importance chiefly as a means of providing employment for persons living in rural districts and having little else to occupy their time and interest during the winter months, and also for city men and women who are incapable of supporting themselves at more difficult occupations." The School of Education of the University of Chicago has utilized the study of the textile handicrafts in connection with its elementary school. It emphasizes the value of the simple handicrafts in the process of educating the child. Weaving has also been introduced into the schools of the city of Minneapolis.

Very closely related to the arts and crafts movement is a movement for beautifying our towns and cities, resulting from the associated activity of many public-spirited individuals. Charles Mulford Robinson, in his book entitled *The Improvement of Towns and Cities,* enumerates a long list of civic improvement societies of various sorts, all of which have for their object the improvement of our municipal housekeeping. These societies and local clubs aim to improve the character and æsthetic quality of public property,—property which is owned and enjoyed collectively. Some of the specific objects for which these associations are organized are the planting of trees and shrubs in the public streets and boulevards, street cleaning, park improvement, the removal of billboards and artistic planning and grouping of public buildings.

Every improvement in a town or city which tends to enhance its beauty or to make it more cheerful and attractive tends also to better the social and educational conditions in that community. The arts and crafts societies and the various civic improvement leagues are very important subsidiary educational agencies.

CHAPTER IX

ORGANIZED LABOR AND EDUCATIONAL PROGRESS

One of the most important, significant and characteristic economic and industrial phenomena of recent times is the development of labor unionism. The rapid growth of labor organizations in numbers and in influence during the last two or three decades has given to this movement a place of great importance. Modern industrial and social conditions have prepared and fertilized the soil from which the present army of organized workers has sprung. The labor movement is part of a great social adjustment which is raising an important class in the community up to a higher economic and social plane of life. It is like modern educational advance, distinctly and positively a democratic movement. Labor's place in history is definitely marked by the institutions of slavery and serfdom. Only in recent generations, after repeated multiplications of the world's productive capabilities, has labor been given a place of theoretical equality with military service and professional practice; the labor union aims to uphold the honor and dignity of labor with the hands, to give practical value to ethical ideals as to manual labor. Precedent and

dominant class interests are strong forces acting in direct and unceasing opposition to the aims and ideals of the labor movement. Precedent assigns labor to a lower social and political plane, while progress with the wand of industrial efficiency ever points upward and onward toward release from ceaseless toil and social degradation.

In uneducated primitive communities precedent becomes a fetish, or is crystallized into hard and fast law. Approximately as the rate of national progress or change increases does the authority of precedent decrease and its glamour fade away. Precedent—the past—has its lessons for all times, but it ought not to be applied unmodified to present conditions. Precedent represents the balance struck between opposing classes and interests in times and circumstances now forever behind us. Its unmodified application to to-day's problems is a blind attempt to substitute a former equilibrium of social forces for that of to-day. Education should look into the past in order to show, as far as possible, the conditions formerly extant. It should point out the forces which make for progress, and should assist in assigning precedent to its rightful place in the social order of to-day. The present is continually, unceasingly passing into the past, and the future is ever on the threshold of the present. Action to-day is precedent to-morrow. The dominant issue to-day is industrial freedom and equality, the striking down of precedents which shackle the limbs of the awakening labor movement—the spirit of true democracy; and two great interwoven factors

in the struggle are universal education adapted to the needs of all, and the institution of organized labor. The concept of universal education as a powerful economic and social engine did not rise to a prominent place in the social consciousness until organized labor became a powerful factor in our industrial life. The labor union has been characterized as a great Americanizing agent. Naturally it ought to be and is an efficient aid and complement to our educational institutions.

"Trade unionism is the assertion of the principle that men have common interests, not only in their particular trades, but also through every department of life, and that it is their duty to help each other in difficulty, and to defend each other when in danger, in short, that individual advancement is good when it does not hurt the general welfare."[1] The school should, and actually does, emphasize personal efficiency, usefulness as a producer, and economy in consumption. It seems that the school must necessarily lay stress upon the individual's characteristics. The union, on the other hand, stands for solidarity, for brotherhood; if not as yet for all men, at least for a considerable portion of mankind. The union emphasizes mutual interdependence and the subordination of individual advantage for the good of the whole. In its ideal form it stands for the betterment of society and for the growth of altruism. The ethics of organized labor and the ethics of cutthroat competition are radically different. The labor union did not become a great power until

[1] Dyer, *Evolution of Industry*, p. 99.

competition reached an advanced stage in its development, until combination in many fields began to replace competition and the alternatives offered the laborer were few, until the latter came face to face with the difficulties in obtaining a job which are at present so familiar. Economic interest makes for combination and integration. This phenomenon is also visible in the world of capital, but the latter is impersonal; many units can be held by one man as well as by more than one. Labor, on the other hand, is personal, and the unit is the labor power of an individual. Each man is the seller of his own individual labor power. One man cannot take unto himself the labor strength of many individuals. Notwithstanding this vital difference, units of labor are forced into a compact union just as many units of capital gravitate into one company or combination of companies. The union man is in some respects like a share in a corporation; injure one man or injure one share and you injure the whole. Competition leads, in many cases at least, to combination, and combination brings forth a new ethic, a new and high code of morality in regard to those within the combination, and perhaps finally in the dim and shadowy future, let us hope, in regard to all mankind.

The great growth in numbers and considerable increase in strength which has come to the labor union movement in recent years is due in a large measure to an increase in class consciousness. An important class-conscious wage-earning class was not possible at a period when nearly every worker

expected to pass sooner or later from the position of employee to that of employer. In the America of many small competing industries and of free land a class-conscious body of wage-earners was practically, but not entirely, non-existent. Trade unionism and class consciousness could not attain a strong foothold until the frontier disappeared, and until centralization and the systematic exploitation of natural resources and of special privileges were the rule. But to-day, with no frontier, with centralized industries, with a large decrease of employers and managers relative to the number of employees, with the growth of social rigidity, the aspect is totally changed. Trade unionism, socialism, exploitation, class conflict, now become familiar terms.

Federation and coöperation for mutual benefit only become possible when the workers have time and opportunity to receive and assimilate the benefits of culture and education. National and international unions signify a higher grade of intelligence, and a more socialized view of life, than the older forms of organizations with their individualism and lack of mutual coöperation and aid. History teaches that nations wax strong and powerful only when they band together in compact, coöperating states. Isolated and mutually distrustful tribes, lacking strength and coherence, are pushed to the wall by the strong arm of the organized tribe or nation. Primitive tribes frittered away their strength fighting each other until a stronger, because more closely united, people came and

dispossessed them of their homes and heritage, and transformed them into a subject class or caste. Similar conditions obtain in regard to the laboring class. Individual bargaining against organized corporate capital is hopeless; the individual is sweated exactly as the conquered tribe was exploited. Only as the workers gradually emerge from their lowly estate, only as machinery makes possible a shorter working day and universal education, does the opportunity of coöperating together or of organizing into large units become a reality.

When this view of coöperation, or of class solidarity, is accepted by a large mass of individuals, a still broader and more utopian conception comes in sight, that of universal coöperation—a union of employers, employees and consumers. The idea emerges from the chaos of the past that the industrial world, rationally considered, is a great cooperative establishment for the material and social good of all,—not of one sect, class, race, but of all sects, classes and races. This idea inevitably leads to the dawning recognition of the fact that the division of mankind into superimposed and distinct layers called castes, or classes, is due to artificial, legal, political, religious or economic conventions. Each individual, as was previously pointed out, is in reality best adapted to a particular vocation; it becomes, according to this concept of society, the duty of our schools and other educational institutions to assist each individual member of society to find his proper vocation. The welfare of society and of humanity is best advanced when all

individuals and all nations are playing their appropriate parts without social or industrial friction. Such a condition is merely a shadow-like ideal toward which humanity is slowly and falteringly groping its way. The labor unions seem to have grasped this ideal more firmly than has any other organization, with the possible exception of the church, but they necessarily fall far below the mark in actual practice. If labor unions are exclusive, if they aim at benefiting the few at the expense of the many, is it entirely unexpected? Mistakes certainly will be made; men with better opportunities and training are guilty of aggression and of class prejudices and hatreds. The mental horizon of the wage-earner is, as yet, perforce limited. The counterpart of the "arrogance" of wealth is too often found in the intolerance and slight consideration shown by organized workers toward their weaker, unorganized and often misguided brothers. However, the brutality of a labor monopoly is certainly no worse than that of a capitalistic monopoly, although it manifests itself in a somewhat different and less subtile form.

There is no gainsaying the fact that the labor unions and farmers' organizations have always stood for high ideals and broad conceptions of humanity. As early as 1829 a labor paper, *The Working Man's Advocate,* demanded among other things no imprisonment for debt, a general bankruptcy law, no monopolies, the freedom of public lands, a mechanics' lien law, equal rights for women,

no chattel or wage slavery.[1] These demands were called "shocking" by clergymen and property owners of that time. A motto of the Knights of Labor reads: "An injury to one is an injury to all"; and the Boot and Shoe Worker's Union declared, "Each for all and all for each." In 1832 the New England Association of Farmers, Mechanics, and other Workingmen wished to remedy the following evil: "An illiberal opinion of the worth and rights of the laboring classes; an unjust estimate of their moral, intellectual, and physical powers; an unwise misapprehension of the effect which would result from the cultivation of their minds and the improvement of their conditions."[2] The editor of the *Independent,* commenting on an article entitled, "New York Subways," says: "Mr. Warner establishes his assertion that the element in the community which from first to last has clearly seen the true public interest, has formulated it in unequivocal language and has battled for it in the forum of public opinion and in the legislature, has been the despised and maligned labor unions."[3] For centuries the progress of the world has been steadily toward the betterment of the position of the laboring classes. As long as this movement continues the demands which workingmen make at any particular time and which are then bitterly opposed will a few years later be generally accepted as just and proper by all classes in the community. As

[1] See article by the author, "The Workingmen's Party of New York City," *Political Science Quarterly,* September, 1907.

[2] Quoted by Ely, *Labor Movement in America,* p. 51.

[3] *Independent,* March 9, 1905, p. 561.

long as the uplift of this class continues, much of their program at any given time will represent the true trend of progress. The professional, agricultural and commercial classes act as a balance wheel and serve to check excessive or ill-timed demands of the working people. True progress is always a compromise,—a resultant of many divergent forces. Friends of labor unions often point with pardonable pride to the many now well-established laws and institutions which were originally supported chiefly by workingmen; but if we premise that progress is toward betterment of the workers' position, this result might be anticipated *a priori.*

One of the most commendable and important demands of labor organizations, viewed from the standpoint of social welfare, is that for legislation restricting the employment of children and fixing the maximum number of hours per day which may be required of women and children. Workingmen and students of social and industrial questions have for many years keenly appreciated the evils and dangers which inevitably result from the employment of immature children in factories and mines. If progress is to continue, each generation must bring into existence a new set of workers whose vigor, education and ability is not less than that of itself; this is nothing less than a fundamental social axiom. Every child is entitled to childhood. In the modern civilized world it is not necessary to force him to be a breadwinner at a time when medical science, psychology and pedagogy tell us he ought to be playing in the open air and bathing

in the sunlight, or to be receiving in the school some of the accumulated experience of preceding generations. All other aims and aspirations of the union are dependent upon keeping children from the numbing and deadening effects of overwork, and giving them reasonable opportunity for play and education. The breaker boy and the child in the cotton mill cannot be properly prepared for the duties and obligations which may devolve upon them when they have grown to manhood or womanhood.

Better educational facilities, shorter hours, opportunities for better use of leisure time, depend upon the organization of a strong band of men and women of all working classes, skilled and unskilled industrial workers, farmers, clerks, teachers, writers and others, extending into every state, city, and hamlet of the United States. Not less, but more, organization is needed. Organization, education and the ballot-box are the three fundamental features upon which progress and justice in a modern democracy must ultimately rest. Specific projects for social, economic or industrial betterment receive their strength and potency from these three fundamental institutions. The child-labor laws of the northern states are enabling the southern states to build up parasitic industries resting upon the insecure foundation of child labor, child enfeeblement and ignorance. Until organized labor can extend its strong arm over the children of these states, and make its protest felt in the state legislatures, the outlook is discouraging. As has often

been pointed out, industrial legislation is extremely difficult to obtain in America because of the number of states which must legislate upon these subjects, and because it is frequently of temporary advantage to the manufacturers and merchants of a state if labor legislation is "killed," or not rigidly enforced. This is a new phase of the old problem of the "twentieth man."

Much of the opposition to child-labor laws, factory legislation, eight-hour laws, etc., is based, in most cases at least, not upon the general welfare of society—including all classes—but upon certain narrow private or class interests. The demands of labor are also undoubtedly especially favorable to certain classes in the community; but if these demands make for the welfare, betterment and prosperity of the great mass of society, they are worthy of attainment. If the so-called "monied interests" are attempting to prevent or emasculate child-labor legislation, tenement-house reform, provision for better schools, the initiative and referendum, eight-hour day legislation, municipal ownership of public utilities, railroad-rate regulation, and other legislation which tends to reduce the surplus or "forced" gains now undoubtedly accumulating in the hands of a favored few; if, as Professor Giddings believes, we are witnessing the decay of "republican institutions," then the hope of the future depends upon the education and organization of the working people, and new blood and new ideals are needed at the helm. The socialists and many others believe that the "trading class,"

as Mr. Ghent calls it, has failed in its control of the nation, and that it must suffer others to take up its task.

It is not difficult to understand the cause, or to trace out the source of the bitterness of the struggle which accompanies the gradual uplift of the lower classes. "It is difficult for people to whom life is easy to appreciate the conditions under which others are compelled to struggle. This is the curse of success. Class judgments are always wrong, for each class appreciates its own positive excellences and the limitations of others. The reason for this is that one is known from within, the other from without."[1] Great differences in social standing, occupation or experience necessarily produce lack of sympathy and absence of mutual understanding. It has been said that the vexed problems of labor versus capital would be solved, easily and quickly, if the capitalist were obliged to work side by side and live among his employees. But humanity is struggling laboriously upwards toward the light. Over twenty years ago Professor Ely wrote: "The word humanity means more to-day than at any past period in the history of the race. The extension of practical ethics has been accompanied by an intensive growth. The stream has deepened. Yet the ethical ideas of most people move chiefly along horizontal lines, and do not extend up or down to those above or below them in rank or position. Social lines are considered ethical lines."[2] As labor

[1] Griggs, *The New Humanism*, p. 194.
[2] Ely, *Labor Movement in America*, p. 312.

organizations become more and more inclusive these lines are pushed farther and farther apart. The skilled and the unskilled are joining hands, and teachers, public employees and other professional and semi-professional workers are being gradually drawn into the union fold. More and more inclusive organization tends finally to transform class antagonism into race solidarity.

The labor union was originally a mere fighting organization. It was obliged to struggle for a right to exist as an organization. Its early endeavors were chiefly negative, but in recent years a positive program is being prepared. Many labor unions in this country are emerging from the fighting, destructive stage into an era of constructive work. To-day, with a large and rapidly increasing membership, the strength of organized labor is sufficient to make it the most potent factor in the movement for the betterment of the masses. The possible social and industrial value of our public-school system is beginning to be recognized by labor unions and farmers' organizations as never before. The free public school appears when and where suffrage is practically universal, when and where the workingman has political power.[8] Free public education for all children is, however, of little value to the mass of the people unless child labor is suppressed, unless reasonable factory legislation is secured, and unless a short working day is obtained for all

[8] *Educational Advance and Industrial Progress in the United States, 1820-1850,* by the author, published as a Bulletin of the University of Wisconsin, April, 1908.

workers. After the public school became an established institution the next step was to obtain legislation which would enable all to receive some of the benefits. The unions of the decades immediately following the close of the Civil War actively urged laws providing for an eight-hour day, the abolition of child labor and compulsory education.

The National Labor Union, organized in 1866, stated "that the first and grand desideratum of the hour, . . . is the enactment of a law whereby eight hours shall constitute a day's work in every State of the American Union." This union recommended among other things the establishment of workingmen's lyceums and reading rooms, and the establishment of newspapers devoted to the interests of the industrial masses. The preamble of the constitution of the Knights of Labor asked for "the prohibition by law of the employment of children under fifteen years of age, the compulsory attendance at school for at least ten months in the year of all children between the ages of seven and fifteen years, and the furnishing at the expense of the State of free text-books." The original platform of the American Federation of Labor, adopted in 1881, contained clauses demanding compulsory education, prohibition of employment of children under fourteen years of age, and the enforcement of the United States eight-hour law.

Some of the more recent union utterances indicate a tendency to make more specific demands for education. The Massachusetts State Branch of the American Federation of Labor, 1902, asked for

shorter hours, "not only because by so doing you create work for more, but it also furnishes the opportunity for improved education, and with it improved conditions of labor." The preamble of the constitution of the American Labor Union, adopted in 1898, demanded "the education of all children up to the age of eighteen years, and state and municipal aid for books, clothing, and food." The Amalgamated Association of Street and Electric Railroad Employees of America wish "to establish schools of instruction and examination for imparting a practical knowledge of modern and improved methods and systems of transportation and trade matters generally." The International Union of Steam Engineers conducts a regular course of lectures in the winter in order "to educate our men in all the latest electrical and mechanical devices." The organized laundry workers of the city of Chicago arranged a course of lectures for the winter of 1904-1905. Many of these lectures were given in the public-school buildings.

The labor unions believe in a "practical education." Perhaps the following extract from the writings of a partizan of organized labor furnishes a good illustration of its position. "Labor organizers were among the first to advocate the kindergarten and the school of technology, long before both became the popular institutions which they are to-day. Unions have not up to the present time [1901] favored 'manual' training schools or 'trade' schools, because there has been good reason to believe that these schools would not be managed

by efficient teachers or be of any practical value to the industrial world. Workingmen have always championed the practical, as against the academic, in matters of education; and thus, because they have opposed the projects of theorists, have sometimes been unjustly abused as obstructionists."[1] Trade schools have been especially feared because of the possibility of utilizing their graduates to break down apprenticeship rules, and to disrupt union organization. It seems reasonable, however, to assert that in recent years the direct and immediate initiative for specific betterment in education comes first from educators and students of social and industrial questions; but the force which makes their demands effective, which causes them to be introduced on a large scale, is the influence of the leaders of that class which will be most directly and vitally affected by the particular educational advance.[2] And at the bottom, concealed from the casual observer, is the prime moving force—economic and social conditions. The strength of the labor movement is now needed to actively work for, and thus to accelerate, the improvement of the school system as it now exists in the United States, and to aid in making that system a more potent factor in the betterment of the masses.

[1] Casson, *Organized Self-Help*, p. 202.

[2] See "Humanitarianism, Past and Present," by the author, *International Journal of Ethics*, October, 1906.

PART II

ACTUAL OR PROPOSED ADDITIONS TO THE EDUCATIONAL SYSTEM

CHAPTER X

INDUSTRIAL AND TRADE EDUCATION

The Kindergarten Movement

The kindergarten movement is particularly important because it was really the opening wedge of the great movement which is now lifting our educational system to a higher and broader plane of usefulness,—usefulness for all classes and ages of students. At about the same time that the kindergarten was winning a place in our educational system, drawing began to obtain a foothold in the schools. The idea that the schools could and should develop the ability to use hand and eye now gradually began to impress itself upon the minds of many of our more progressive educators. The kindergarten and drawing are the forerunners of the manual-training movement of the decade 1880-1890. The former were the first definite indications of the growth of a belief that the school owed the child any other duty than that of mere intellectual training and memory drill. The kindergarten was the first step toward the conception that the school must, under modern conditions, absorb certain functions formerly performed by the home, that education ought to become a powerful factor in molding the social and industrial

progress and life of a people, and that play was a necessary and vital factor in the education of each and every child. These conceptions were at that time radical in their nature.

The father of the kindergarten movement, Friedrich Froebel, established the first kindergarten in Germany in 1840. About thirty years later the first kindergarten in the United States was opened in Boston. According to Miss Susan E. Blow, one of the pioneers of the kindergarten movement, "The history of the kindergarten in America is the record of four sharply defined movements: the pioneer movement, whose point of departure was the city of Boston; the philanthropic movement, whose initial effort was made in the village of Florence, Massachusetts, and whose greatest triumphs have been achieved in San Francisco; the national movement, which emanated from St. Louis; and the great maternal movement, which, radiating from Chicago, is now spreading through the United States." The kindergarten movement owes its visible inception to the initiative and efforts of private individuals. This will also be found true of the manual-training movement, the playground movement, the vacation school, the trade school, the correspondence school and other educational innovations. Private individuals must first demonstrate the worth of the new educational principle, and later the classes in the community most interested in the particular movement force the public authorities to add this to the work of the school.

Manual Training

The well-known educational reformer, Pestalozzi, may be called the founder of industrial training. His famous school at Neuhof was an industrial school for poor children. Here he substituted the study of things for that of their symbols. To Finland belongs the honor of first recognizing the pedagogical value of manual training. It was introduced into that country by Cygnaeus, and in 1866 was made obligatory in all primary and normal schools. At the Philadelphia Exposition in 1876 the Russian industrial exhibit accelerated the agitation in this country which resulted during the following decade in the rapid introduction of manual training into our city schools. The pioneer manual-training school was opened in St. Louis in September, 1880. The first manual-training work in Boston was given three years later; in 1885 the first classes in cooking were opened in that city. The Boston Mechanics' Arts High School was not opened until 1891. Chicago Manual Training School opened in 1884; the Scott Manual Training School of Toledo began its work in that year. Baltimore also made a beginning in 1884. In 1885 Philadelphia started its first manual-training school. In 1890 thirty-seven cities of 8,000 or more inhabitants gave instruction in manual training; in 1894, ninety-five; in 1896, one hundred and twenty-one; in 1898, one hundred and forty-six; in 1900, one hundred and sixty-nine; in 1902, two hundred and seventy.

Manual training in the United States was first developed in the high school, and has been gradually working down through the grades toward the kindergarten. In many cities it has at last joined hands with the latter, and a continuous system of manual training extends from the kindergarten to the end of the high school. Manual training in the grades below the high school is more important and desirable than high-school manual-training work, for two reasons: it reaches a much larger number of pupils, and at a time when training of hand and eye should properly begin. Too little time is however ordinarily allowed for this work in the grades. Two or three hours per week are an insufficient amount of time. More stress should be laid upon this important part of elementary-school work. Laboratory and shop methods rather than library methods ought to predominate in our elementary schools. The young particularly need to find opportunity for expression. Impressions given an elementary-school boy or girl by text-books or through talks by teachers are of greatly reduced value unless supplemented by opportunity for expression. Accuracy and regularity are lessons which well-chosen manual training teaches. Culture, good habits, accurate and sound judgment, and ability to do are not imposed solely from without, but are a development of what is within the child. Statistics issued by the Bureau of Education show conclusively the great need of expansion of the elementary-school manual training. While high-school manual-training work may not be desirable or

equally valuable for all students, and perhaps ought not to be required of all, provided elementary-school manual training is required of all students, psychological and physiological considerations indicate that this work should be given to every child in the elementary schools.

The general purposes of a course in primary-school manual training, viewed from the pedagogical standpoint, have been well stated as follows: "(1) Storing the mind with true conceptions of forms and colors and developing the ability to acquire new concepts; (2) developing the ability to select from masses of materials that which is appropriate for specified or desired purposes; (3) directing the attention to the essential elements of the beautiful in nature and in art, neglecting in such attention the accidental, thus developing the beginning of an artistic standard; (4) training the hand to use, shape and arrange material with neatness, accuracy and taste, that the learner may express artistically, *i.e.* with truth and beauty; (5) teaching the use of tools adapted to the age and strength of the child and to the character of materials employed." The instruction in drawing, although usually differentiated from that of manual training, is essentially a part of that work. Drawing should naturally proceed from the full arm and body movements of the lower grades to the more accurate and more confined movements of the seventh and eighth grades. The mistake of requiring small and accurate drawing from the children in the lower grades should be avoided. The avisability of teaching

writing to children under ten years of age has been seriously questioned on the ground that children under that age ought not to be confined to such delicate and accurate movements as are required in writing.

Domestic Science or Household Economics

Domestic science in the public schools is a specialized form of manual training. Separate instruction for the girls usually begins with the seventh grade. In the college, household economics is a form of technical training. In the Toledo University School the amount of time devoted by the girls to domestic science is one and one-half hours per day. The course is practically as follows: *First year,* plain sewing and free-hand drawing or clay modeling. *Second year,* cooking and free-hand drawing, clay modeling or wood carving. *Third year,* dressmaking and free-hand drawing, clay modeling or wood carving. *Fourth year, first semester,* advanced cooking or dressmaking and free-hand drawing, clay modeling or wood carving; *second semester,* millinery and free-hand drawing, wood carving or clay modeling. In the free-hand drawing department special attention is given to house decoration and furnishing. In the cooking department considerable time is devoted to the selection of foods, food values, house sanitation and allied topics. Special classes are arranged for adults. Courses in domestic science are now found in the curricula of many institutions of college grade, particularly in the state universities and state agricultural colleges.

Pratt Institute and Teachers College (Columbia) conduct courses in domestic science. In the department of home economics at the University of Wisconsin among the courses offered are the following: House sanitation, house decoration, selection and preparation of foods, the teaching of domestic science, household economy, dietetics, home economics. One professor and one instructor are in charge of the work.

A very comprehensive and commendable tentative program for the teaching of household arts in the elementary schools was presented by a committee to the Lake Placid Conference on Home Economics in 1901 The following is an abbreviated outline of that program: *First and second grades:* Mats and baskets of raffia. Simple gifts. Weave small baskets. Grind and parch corn. Make cakes of cornmeal. Cook fruits and roots. Study primitive life. Nature study. *Third grade:* Make banners and tents for knights and sails for ships. Make useful articles for the home, such as cheese-cloth dusters, dish towels, etc. Advise home work. Make table cloths, bed spreads, etc., for a model of house. Study linen and silk. Make plain bread. Cook a few cereals. Talk about proper mastication. Cleanse utensils. Dust room and desk. Study decoration of model of house. Study age of chivalry and age of adventure. Talk about dirt, and animal and vegetable life. *Fourth grade:* Further study of furnishing and construction of model of house. Simple sewing. Making of beds. Filter and boil water. Talk about water. Cleanse

glassware, woodwork and paint. Study life in early settlements. *Fifth grade:* Ventilation and heating of schoolroom. Ventilation and sunlight in model of house. Disposal of household wastes. Sweeping and dusting. Continue sewing and basketry. Study of air and heat. *Sixth grade:* Sewing. Darning. Patching. Buttonholes. Discussion of clothing. *Seventh grade:* More advanced sewing,—aprons, skirts, etc. Study leading textile industries. Economic planning and cutting of materials. Price, quality, etc., of materials. Cooking. Study of stoves. Make fire. Toast bread. Bake and stew apples, etc. Study utensils. Care of refrigerators. Clean stoves and sinks. Laundry towels, etc. Study artificial lighting. Care of eyes and sight. *Eighth grade:* Food materials, where produced, etc. Action of heat, cold, fermentation, etc. Study effect of high and low temperature processes on starch, vegetable fibres, albuminoids, gelatine, fat, etc., as shown in the cooking of different articles. Home management. Personal and household accounts. Weighing and measuring. Plan simple meals. Practice setting and waiting on table. Simple principles of balance of food. Simple dishes for the sick. Care of dining room. Talks on marketing.

Such a course, if adopted, would offer fine opportunities for correlating nature study, science, industrial evolution, history, geography, arithmetic, simple lessons in hygiene and sanitation, and manual training. It affords a rational way of arousing and retaining the interest of the pupil and of combining

the cultural and practical in an indissoluble union. The demand which such a course makes upon teachers is not small, and shows clearly the necessity of thorough training,—a training of a somewhat different nature than that which is usually given in the typical normal school of to-day.

Mrs. Linda Hull Larned, sometime president of the National Household Economic Association, draws a distinction between the character of the work in the elementary schools and in the high school or the college. "In the elementary schools this subject is called domestic science, but when it reaches the high school or college, or enters the woman's study club, it is household economics, because it then embraces all the 'ologies' and 'isms' which have to do with human life, as well as those sentiments and emotions which cluster about the home. In this higher sense then it is not only the science of housewifery practically applied, but it is the esthetics of home building and the ethics of home making." This is the comprehensive view held by the enthusiastic friends of domestic science. Mrs. Larned presents an outline for an advanced course of study. The chief topics considered are food, shelter, clothing, physical hygiene, municipal housekeeping, household expenditures, home handicraft, household management, and miscellaneous topics. The topic shelter is, for example, subdivided as follows: situation and structure of house; the sanitary cellar; the disposal of waste; investigation of modern methods of lighting, heating, plumbing and ventilation; decoration and

furnishing from the standpoint of utility, health and beauty; usefulness or uselessness of modern appliances and equipments; care and preservation of household furnishings and utensils.

From an industrial and economic point of view instruction in domestic science is certainly as important as instruction in any other form of industrial training. The introduction of domestic science into the public-school curriculum, the scientific study of food values and of sanitary science, the wider outlook and the broader training of women, are very hopeful signs which are now well defined upon the horizon of the American educational world. "Undoubtedly, the first thing to be taught in any school is the science of health, the value of healthy homes, of pure air and water, proper clothing, physical exercise, and, above all, what foods are necessary for a healthy existence, and the proper methods of cooking these foods." "Food is the point on which turns the whole problem of democracy." Good health is essential to the welfare and happiness of each individual, but it can be obtained and preserved only by the fulfillment of certain elemental conditions. Proper quantity and quality of food and drink, reasonable cleanliness of person and environment, pure air both day and night, deep breathing, work and rest, are some of the essentials which must obtain if good health and good citizenship are to be expected. Ignorance of the elemental requirements for good health is the root of many evils. The saloon, the drug store, patent medicines, the enormous number of physicians, and the high

rate of infant mortality may all be laid primarily to ignorance and blind adherence to tradition. Education can best combat these evils through instruction of the female sex in domestic science.

Although so much may be said in its favor, domestic science still, as a rule, occupies a subordinate place in our school curriculum; and when it is given an important place, in many cases too much attention is paid to expensive dishes and methods of serving, and to the furnishing of large and costly dwellings. More stress should be laid upon the simple, but good and healthful. The details of household expenditures should be studied, and students should be taught economy in buying and in the utilization of goods for household consumption. Teachers need a larger knowledge of the home conditions and environment of the pupils. The curriculum and the methods employed ought, of course, to be adapted to the needs and circumstances of the pupils. Until this is recognized by all teachers the work in domestic science will not reach its highest efficiency.

In conclusion, the following quotation from a daily newspaper may not be amiss. "Domestic science is by far the most important of all sciences. It is also the oldest of them all. It means the science of cooking, of eating, of cleansing, of sleeping,—of living. Unless people do these things correctly they will fall sick. And when they are sick they become unhappy and thus make those around them unhappy. . . . The chief obstacle in the path of domestic science has always been lack of coöperation

between students. The knowledge gained by the painful and mortifying experience of one woman is not shared by her with her sisters. They, too, have to go through the same disagreeable experiences to find out the same things. If there was a common fund of knowledge into which all new discoveries might be put, and from which any woman might draw the accumulated experience of centuries and apply it to her own present dilemma, much needless toil would be saved." To conserve this knowledge, to add to it, and to disseminate it are the chief functions of the more advanced work in domestic science or home economics.

The Trade School

Under this heading schools will be discussed which have for their chief aim the teaching of some mechanical trade and the preparation of their students for a place in the ranks of skilled workers. The friends of the trade school believe that the apprenticeship system is no longer useful in training skilled workers; they firmly believe that the duty of training such artisans must hereafter devolve upon the school. In its simplest form the trade school merely tries to perform the duties of the old apprenticeship system. The student spends nearly all of his time in the workshop. Skill in some craft is the sole end and aim; this sharply differentiates it from the manual-training school. However, some of the more recently established trade schools are lengthening the time of instruction and aiming to give their graduates a

broader training,—something more than a purely technical training.

The New York Trade School is the oldest and perhaps the best representative of the original type of trade school. This school is said to be the largest and best-equipped trade school in the United States. It was founded in 1881 by Col. R. T. Auchmuty. The cost of land, buildings and equipment was about $300,000, and the cost of maintenance is about $33,000 per year. Both day and evening classes are maintained. The school year is six months in length. The day classes meet six days per week, and the evening classes two to four times each week. The method of instruction was originated by Col. Auchmuty. "At first the student is put on work that is simple, but as skill and workmanlike use of tools are acquired he is advanced to work that is more difficult and complicated until he is made familiar with the various branches of his trade." Emphasis is laid upon actual practice, and very little attention is paid to theoretical or scientific training. The instructors are skilled mechanics.

The Wilmerding School of Industrial Arts of San Francisco, California, is a good example of the later type of the trade school. Mr. J. C. Wilmerding bequeathed the sum of $400,000 to establish and maintain a school "to teach boys trades, fitting them to make a living with their hands with little study and plenty of work." This school was opened in 1899 and has well-equipped shops. The latest and best shop appliances are used. It devotes its attention chiefly to the building trades, while the

California School of Mechanical Art in the same city turns its attention to the machinery trades. In addition to the practical work the Wilmerding School gives instruction in drawing, mathematics, English, business forms, geography, history and civics. "It is intended that the graduates of the school shall be well-instructed workmen in the trades which they select, and intelligent citizens." A four-years' course is given. No tuition is charged. Any boy is admitted who has completed the work given in the ward schools. The instructors in the academic departments are college graduates and the shop instructors are skilled artisans. By contrasting these two schools we see that much progress has been made in regard to the methods, aims and purpose of trade education. The Wilmerding School recognizes that the workingman is to be a citizen as well as an artisan. It emphasizes the necessity for a broader and more thorough training than can be given by means of a short, purely practical course of instruction. The best bricklayer is not the one who merely knows how to lay the wall and mix the mortar, but the one who adds to this an understanding of the requirements of citizenship in a democratic country.

In New England and the South many textile schools are found. This form of trade school is a comparatively recent departure. In 1895 Massachusetts passed an act authorizing the granting of state aid for the establishment of such schools, to the extent of $25,000, provided the municipality would grant an equal sum. The provisions of this act

were limited to cities having at least 450,000 spindles. Under this act the Lowell, New Bedford and Fall River textile schools were organized. In the South there are textile departments in Clemson College, the North Carolina College of Agriculture and Mechanical Arts, the Georgia School of Technology and the Mississippi Agricultural and Mechanical College. The typical course is three years in length, with courses in cotton manufacture, wool manufacture, designing, chemistry, dyeing and weaving.

The tendency of trade and textile schools is toward higher entrance requirements and broader curricula. The textile instruction in the Georgia School of Technology is dignified by the name of textile engineering, and is made coördinate with the other branches of engineering,—civil, mechanical and electrical. The graduates in textile engineering receive the degree of bachelor of science. On the other hand, the technical school, while not reducing its requirements, is trying to adhere more closely to the practical demands of the engineering and industrial world. This may finally bring it to pass that the distinction between trade and technical education will become one of degree rather than of kind. As manual training has forced its way into the public-school curriculum, and as technical education is now provided by state colleges of agriculture and mechanical arts, so finally will a broad preparation for the skilled trades find a place in our scheme of public education.

"Self-Supporting" or Half-Time Schools

The attempt to closely unite education and labor has brought forth a kind of school which has at different periods been called "manual-labor," "half-time" or "people's industrial" schools. In the earlier forms the method employed or proposed was simple. The student was furnished with work in a shop or on a farm. One half of his time was devoted to practical work, thus enabling him to pay his expenses; the other portion of his time was utilized in study. The "manual-labor" schools organized in New York State, in the period 1825-1850, were of this character. The Oneida Institute was one of the first established. All of these attempts soon resulted in failure. A manual-labor department was established early in the history of Oberlin College. According to a circular issued by the institution, manual labor was considered indispensable to a complete education and necessary for the preservation of the student's health. Saw mills, grist mills and other establishments were operated upon a commercial [illegible] but eventually the enterprises proved to be failures. Professor Commons observes: "Not even the most enthusiastic modern advocate of manual-training schools as a solution of the educational problem could have set forth more glowingly the advantages of this system." All were required to work, rich and poor alike, because it gave the student exercise while defraying his expenses, because it aided in forming habits of frugality and of industry, because it furnished an acquaintance with the common things of life, and

because it met the wants of man as a compound being. The more recent proposal of Mr. M. P. Higgins is a sort of modern revival of this older idea. He proposes to join a well-equipped machine shop, operated on a commercial basis, with the ordinary technical school. The students would work one half of the time in the shop under practical shop conditions and discipline. Expert machinists would be employed to oversee the work. Mr. Higgins believes that in this manner all the benefits of the best form of apprenticeship would be retained, and, at the same time, thorough scientific and technical instruction would be given to the workers. The "self-supporting" school is diametrically opposed to the traditional monastic ideal of the college. It reverses the Aristotelian dogma that leisure is necessary for education and culture, and proclaims that only through work and activity is a person enabled to achieve true education and culture in modern society.

Correspondence Instruction

The almost phenomenal development of correspondence instruction is a fact to which the educator should give thoughtful attention. Correspondence instruction is now offered in almost every conceivable branch of knowledge,—law, journalism, art, languages, science, drafting, engineering, physics, domestic science, music and nursing are a few of the many subjects which different institutions claim to teach by mail. The kind of "schools" giving correspondence instruction vary from the

individual, at one end of the line, who aims to make money easily by advertising to give this instruction, to such large and reliable institutions as the University of Chicago and the University of Wisconsin at the other.

Dr. William R. Harper, the late president of the University of Chicago, is said to be the father of modern correspondence instruction in the United States. In 1880 he instituted a correspondence course in Hebrew. From 1885 to 1895 Chautauqua Institute employed this method to some extent. In 1892 the University of Chicago made correspondence instruction a feature of its university extension work. In the early nineties the now familiar private technical correspondence schools began to be founded. Among the chief schools of the latter class may be mentioned the International Correspondence Schools, Scranton, Pennsylvania; the American Schools of Correspondence, Boston, the Correspondence Department of the Armour Institute, Chicago; and the Electrical Engineer's Institute of Correspondence Instruction, New York. The Scranton school, which is one of the oldest of its kind, recently claimed an enrollment of over 300,000 students. The average age of students is about twenty-six years; and more than eighty per cent. know nothing of fractions when they begin.

The questions naturally arise: What has caused this enormous growth of correspondence instruction? Is it a permanent or a temporary feature of education? The demand for technical and practical instruction is due to the new industrial conditions

upon which so much stress has been placed in previous chapters. This demand has so far outrun the ability or the inclination of the school authorities to meet it that extraordinary measures must be resorted to. The demand existed; the correspondence school arose to meet it, and to increase it as well, because the typical correspondence school is merely a business proposition. The correspondence schools have taken advantage of the fact that a man is always interested in his own occupation; they have firmly grasped the fact that he will study if he can be convinced that by so doing he will reap the reward of increased wages in the near future. One favorite motto used in advertisements is: "To earn more, learn more." Their advertisements usually contain statements from their students as to increased salary. These schools have been successful in obtaining thousands of students because they have given, in a simple and direct manner, what the pupils need, and because they have placed before the prospective student the direct, immediate, concrete result of study in their school, namely, an increase in wages. They have taught the orthodox economic doctrine that increased efficiency leads to higher wages. The private correspondence school thrives through good advertising and soliciting, and because it ostensibly furnishes the "goods" which the people demand,—goods which are unfortunately as yet not adequately furnished elsewhere.

Some private correspondence schools may be "fakes"; the methods employed and the aims placed before the student may not be of the best; but they

have a mission and some are doing a good work. A solicitor of one correspondence school once told the author that the company made its profits, as did old-line insurance companies, from the students who purchased full-course scholarships, and who soon dropped out. He said that he was often obliged to urge men to enroll who, he felt sure, would not profit by the work, and who would soon drop out. But the company looked to him for concrete results, and his salary depended upon the numbers enrolled. With the establishment of well-organized evening instruction in our cities and towns the demand for correspondence instruction will probably diminish or be changed in character. It may then be devoted chiefly to work of a higher grade, similar to that given in a college or technical school. In some form it seems probable that this kind of instruction is to continue; but the private, organized-for-profit correspondence school should be supplanted by the public school. One State University, Wisconsin, has already gone into this work on a large scale.

The success of this new method of instruction also has its lesson for the student of educational problems. It makes it clear that when the student cannot go to the school or to the university, these must be brought to him. This lesson is already bearing fruit such as university extension, farmers' institutes, good roads object lessons and the train schools for farmers. The institution of learning of the future will not be solely devoted to the little band of fortunate individuals who can gather in its halls, but will become a center from which learning

and practical aid will be disseminated through correspondence courses, university-extension work, special classes, bulletins, leaflets and books to a vast number of toilers in classrooms, factories, offices, stores and on farms. The aim will be to make all students, wherever they may be and under whatever conditions they may live. Instruction ought to be so given as to meet the wants and fit the ability of the various kinds and classes of students and workers. The correspondence schools have furnished text-books which are far superior, for the use of the class of students for whom they were designed, to any written by the average professional text-book writer. The text-book ought to fit the student, instead of requiring the adjustment of the student to it. Different styles of treatment are necessary for the same subject. Pedagogical requirements must by no means be overlooked,—and by adopting this method they may be truly followed and emphasized. No hard and fast pedagogical method can be applied effectively and economically to individuals of widely dissimilar home, class and professional environment. To furnish the proper material in the proper form to each individual, is the problem. The correspondence school has made progress in this direction.

The correspondence school allows each individual to progress just as fast as he is able; the class method is avoided. There is no holding back or crowding ahead. On account of this feature it seems as if something might be done in an organized, systematic way toward utilizing the leisure

time of men engaged in seasonal industries, as, for example, the farmer's time during bad weather, and the mechanic's time when he is temporarily laid off. If suitable reading and opportunity for instruction by correspondence or otherwise were offered, and the case presented in a businesslike way, the disadvantages and dangers of irregularity of work might be partially removed. The difficulties in the road are great, but the need is also urgent.

The International Correspondence School offers nearly half a hundred courses in technical instruction. The following are selected from the list to illustrate the great variety of instruction attempted: shopkeepers' course, electrical engineers' course, telegraphy, mechanical drawing, building contractors' course, municipal engineering, sanitary plumbing, lettering and sign painting, coal-mining course. A synopsis of the coal-mining course will give an idea of the extent of the work. This course is designed to fit the needs of mining engineers, miners and mine officials. It aims to present to the student every detail which is necessary to fit him for any position in the anthracite or bituminous fields, or to pass the examinations for mine foreman or state inspector of mines. The subjects taught in this course are arithmetic, geometrical drawing, geometry and trigonometry, gases met with in mining, mine ventilation, mine surveying and mapping, economic geology of coal, prospecting for coal, locations of openings, shafts, slopes and drifts, methods of working coal mines, mechanics, steam

and steam boilers, steam-engines, air and air compressors, hydro-mechanics and pumping, mine haulage, hoisting and hoisting appliances, surface arrangements of anthracite and bituminous mines, coal-cutting machinery, dynamos and motors, electric pumping, signaling, haulage and lighting. Certainly, this is an ambitious, comprehensive and practical course. Can such a course be properly and thoroughly given by correspondence methods? Undoubtedly, in the majority of cases, not as well as in a good night or continuation school; but the correspondence method reaches the student wherever he may be. This is its great merit. Its facilities are equally at the command of all whom the postal service reaches.

In recent years household economics is claiming a place in correspondence instruction. A correspondence school announces a "complete course in household economics." "This course," their catalogue announces, "is intended for the home-maker, mother or daughter, who desires fuller knowledge of the subjects required to make her work more interesting, her management more efficient and her home-making more successful." Lesson papers will be sent to the student on the following subjects: chemistry of the household, household bacteriology, house sanitation, food and dietetics, scientific principles of cookery, the house,—its plan, decoration and care,—household management, home care of the sick, study of child life, care of children, textiles and clothing, physiology and hygiene. In the lessons on the care of children, which are written by a

professor in a well-known medical college, the following are the chief topics treated: the new-born baby, clothing, surroundings and care, development and growth, natural and other foods, artificial feeding, milk modification, milk and food formulæ, general rules for feeding, food disorders, feeding during second year, feeding of older children, children's ailments.

The Negro Industrial School

The immigrant furnishes many complex and difficult industrial, social and educational problems for the people of the North, and the negro fills a similar rôle in the South. The Civil War and the former prevalence of slavery delayed industrial development in this important section of the country. During the last quarter of a century, however, a new industrial South has been developed. Cotton factories and blast furnaces are being built, and busy industrial villages are supplanting the old-fashioned towns. In the twenty years from 1880 to 1900 the number of cotton factories increased about fourfold. Agricultural progress has kept pace with the industrial development. This rapid, almost unprecedented, growth has emphasized the need of new educational methods. The southern people are now awake to the necessity of technical and industrial training for both white and black. President Winston, of the North Carolina College of Agriculture and Mechanic Arts, voices the sentiment thus: "The South needs workers, trained and skilled workers, in every department of industry.

Rude labor will not suffice, even in agriculture. Our cotton crop has been trebled in thirty years. Improvements in cultivation, in machinery, in fertilizers, and in utilization of waste products have produced this wonderful result. The methods of slavery would mean bankruptcy. Thirty years hence our crops will be trebled again, and the methods of to-day will mean bankruptcy then. The same is true of all our industries." In other sections the growth of technical and textile schools for the whites of the North and the South has been presented; it remains for this section to point out the industrial position and the educational needs of the negro.

"The negro now has a monopoly of the trades in the South, but he can't hold it unless the young men are taught trades in the school." This true prophecy was uttered by Booker T. Washington in 1884. The census of 1900 proved conclusively, what common observation had led many to believe, namely, that the negro is fast losing his position in the trades. Many different reasons may be given for this phenomenon, such as the unreliability and irregularity of the negro, race antagonism, opposition of the labor unions. Mr. Washington is still firm in his conviction as to the value of negro industrial education; but some are skeptical. One writer states: "It would be almost useless to equip a considerable number of colored men with the mechanical trades, for they could find no opportunity to ply them." Continuing, he argues that the negro is not driven out of the trades because he is

unskilful; "but it is simply a case of the stronger element driving the weaker to the wall." The problem of the negro is an extreme type of the race problem which immigration has laid at the door of every large city; and the negro himself is becoming a factor in the city problem. The negro population of the United States seems to be moving toward the larger cities on the one hand, and toward the Gulf States on the other. The negro is like a child; he lacks the centuries of training in self-reliance and initiative which is the heritage of more fortunate races. Slavery tended to eliminate the virtues which modern civilization holds most dear. The problem here, as in the case of every race having a low standard of living and existing on a low plane of morality and economic efficiency, is that of a gradual improvement in those conditions. An abrupt, rapid transformation of the race as a whole cannot be anticipated. The negro is among us; he cannot be removed, nor can he be excluded as are the Chinese. Just as long as he remains as he now is, will he be a menace to all higher classes of labor. If the race becomes fitted for a position in the industrial world, if its members become capable of being independent producers, it will find its proper place in the complex industrial life of to-day. As Professor Commons has pointed out, the fundamental educational principles which apply to the undeveloped races are mechanical aptitude, thrift and accumulation of property, and mutual self-help. The second of these principles may be difficult of realization under modern industrial con-

ditions, but the first and third we may hope to apply. Purely intellectual training, the study of literature and the classics, to the exclusion of science and manual training, merely unfits the negro for any accessible and useful position in life. The evil effects of such training in a modern industrial country are here exhibited in their most aggravated form. If manual training, domestic science and industrial education are extremely desirable features in the education of the whites, surely every fair-minded and unprejudiced thinker must grant that they are essential for this comparatively undeveloped negro race.

The negro industrial schools of the South have grasped the true spirit of industrial education more firmly than many northern schools. Such schools as the Hampton Institute and the Tuskegee Institute can teach many lessons to the educators connected with schools for the whites. For example, the principal of Hampton Institute, where negroes and Indians are educated together, observes: "When they come into the school, we do not put them into books, we take them to our laboratory. For instance, every boy and girl is put into the chemical laboratory and the physical laboratory, where they get the first principles of these things so that they shall know something about air and water and soil. Then they begin to write about these things, and they begin to talk about them, and then gradually we introduce them to books; but we put the doing of the thing first all the way through." If Hughes of Toronto and Dewey of Columbia are excepted,

we shall look long and earnestly before finding educators of the white race who have made such progress in the theory of education. The Hampton Normal and Agricultural School was founded by a northern man, General S. C. Armstrong, at Hampton, Virginia, in 1868. This institution has been the model for the other industrial schools for the colored race. Booker T. Washington has been greatly influenced by the ideals of the Hampton Institute. "The work of Hampton Institute," he writes, "has not only resulted in turning the attention of the negro population to the importance of industrial education, but has had a marked influence in shaping the education of the white South in the same direction."

The representative institution of to-day is the Tuskegee Institute, of which Booker T. Washington is the principal; and a study of it will be best for our present purpose. It was opened in 1881, as the practical result of an appropriation of $2,000 by the legislature of Alabama for the education of colored boys and girls. Since 1883 the state has allowed it an annual appropriation of $3,000; recently $1,500 additional has been allowed annually for the support of an agricultural experiment station. The school opened in a small church with an instructional force of one, and thirty pupils; at present it owns about 2,500 acres of land, possesses about half a hundred buildings, employs over seventy-five instructors, and gives instruction to at least one thousand young men and women. The annual cost of maintaining the institution is at least

$75,000. This sum is derived from various sources, such as state appropriations, an endowment fund made up of federal land grants, and gifts and bequests of friends of the school, donations, and tuition fees from students. These fees are an entrance fee of $1.50, and room and board amounting to about $8 per month. Both day and night schools are maintained; the latter is for students who are too poor to pay the entrance fee and their board. They are given opportunities to work for their board and room. Those taking day work pay their board and devote their entire time to study, excepting for six work days in each month; on these days they are required to work. "The use of intoxicating drinks and tobacco is forbidden, as are also dice playing and card playing. Students are not permitted, while in school, to take part in any political mass meeting or convention." The course of study is four years in length. In assigning trades to men students, the student's intelligence, natural ability and physical capabitities are given careful consideration. Both literary and trade instruction are given to each student.

The following trade courses are given: agricultural courses for young men, dairying, market gardening, practical agriculture, stock raising, bee culture, horticulture, free-hand drawing, carpentry, blacksmithing, printing, wheelwrighting, harness making and carriage trimming, painting, plumbing and foundry work, machine-shop practice, shoemaking, brickmasonry and plastering, brickmaking, sawmilling, tinsmithing, tailoring, plain sewing,

dressmaking, millinery, cooking, laundering, nurse training, housekeeping, mattress making and upholstering, canning, architectural and mechanical drawing. This institution is a large trade school of a type similar to the Wilmerding school. It combines theory and practice. Actual practice is given on the farm and in the shops. All the brickwork and plastering of the buildings belonging to the school have been done by students. Harnesses are made both for use at the school and for sale. Consequently, in many respects it is also similar to the school proposed by Mr. Higgins.

Apprenticeship in the United States[1]

The apprentice working side by side with a journeyman who is skilled in all branches of the work of his craft is rarely found at the present time. The methods employed in the modern shop have reduced the number of all-round men; and, at the same time, have made the adequate instruction of beginners a burden for the journeyman. To become skilled in more than some simple, minute class of work, the learner must be transferred from journeyman to journeyman, from department to department, from machine to machine. At the moment when the apprentice becomes proficient in any particular class of work, or in the operation of some machine, he should be transferred to some other class of work, or other machine. However, the personal interests of the foreman, and the immediate considerations of

[1] See article by the author in *Cassier's Magazine*, April, 1905.

profit and of output, lead a foreman to keep a boy continually upon one class of work rather than to transfer him at the proper psychological and pedagogical moment to other kinds of work. The foreman is naturally more interested in the production of machines to-day than in the training of boys who are to become skilled workers at some indefinite future time. The apprentice, like the average immigrant of recent decades, is an unskilled, low-wage worker. The constant temptation of the employer, in the face of competition and the ever-constant demand for more profits, is to subdivide the work in his establishment and pass certain portions on to the apprentice, exactly as has been done in the case of the immigrant. Where this is accomplished or where no apprenticeship system is established, the apprentice receives no adequate instruction; and sooner or later the quality of work done in that shop inevitably deteriorates, unless there exist outside sources from which a supply of skilled workers may be drawn. Such an industry becomes parasitic. In the past Europe and the small shop furnished a considerable portion of the foremen and skilled men in our large shops. To-day it is believed that these sources are drying up, and, as a consequence, the apprenticeship question is now important.

Temporary expediency is unfavorable to the introduction and maintenance of a thorough apprenticeship system; but when an establishment looks several years ahead the question assumes a totally different aspect. With the growth of the corporate

method in industry, calculations for many years in the future become habitual; and as a result more consideration is being given to the labor side of each industry. Apprenticeship is desirable chiefly for two reasons: to furnish an adequate supply of skilled men, and to maintain and improve the character and efficiency of workers. Manufacturers cannot afford as a business proposition, all ethical and philanthropic considerations aside, to neglect suitable provisions for teaching apprentices. If the United States is to maintain its present high rank as an industrial nation provision must be made for a future supply of trained and skilled workers. It has frequently been stated that the old form of apprenticeship has passed out of existence; this statement is probably correct, but a new form of apprenticeship is rapidly coming into being.

Within the last ten or twelve years two important private investigations have been made as to the prevalency of apprenticeship in the machine shops of this country. In the first inquiry it was found that 85 out of a total of 116 shops investigated—builders of engines and pumps, tool builders, railroad shops and locomotive shops, and miscellaneous machinery builders—took apprentices. In the second inquiry it was found that 73 out of a total of 112 shops took apprentices. Railroad shops and locomotive builders are most strongly committed to this policy; 22 out of 25 investigated took apprentices. In the shops having the most advanced and commendable systems, night-school work or correspondence instruction is required of apprentices.

A foreman of apprentices is also employed. It is his duty to see that the young men have proper instruction, and that they are promptly advanced from department to department. The Baldwin Locomotive Works, Philadelphia; Brown and Sharpe Manufacturing Company, Providence; The Westinghouse Company, Pittsburg; The General Electric Company, Schenectady; and Hoe and Company, New York, are among the best examples of firms which have established thorough apprenticeship systems.

At a recent date The Baldwin Locomotive Works indentured three different classes of apprentices. Members of the first class were not to be over seventeen years and three months old at the time of entrance. A good common-school education was required, and the apprentices were obliged to attend night school two evenings per week for the first three years The term of apprenticeship in this class was four years. The wages per hour for the first, second, third and fourth years were, respectively, five, seven, nine and eleven cents. At the completion of the four years a bonus of $125 was given each apprentice. Members of the second class must not be over eighteen years of age at the time of entrance. They must have completed an "advanced-grammar" or high-school course, and were required to attend night classes in mechanical drawing during the first two years. Their term of service was three years, at the end of which time a bonus of $100 was presented to each young man. The third class was designed for graduates of

colleges or technical schools. No regular night work was required, but the members of this class were asked to read technical journals, and to hand in synopses of various articles. Members of the third class were indentured for only two years.

During the year 1904 many agreements as to apprentices were ratified between The International Machinists' Association on one hand, and railroad companies on the other. These agreements were all similar. The number of apprentices to be allowed in any railroad shop was one to every five journeymen. The length of indenture was four years of three hundred days each. The company agreed to give the apprentice adequate instruction, and to change him at regular intervals from one job to another. The policy employed "is aimed to protect the railroad against a scarcity of skilled labor, for which it has a continual demand. It may be further serviceable in stimulating the loyalty to the company and protecting the *esprit de corps* of the organization." An agreement between the Mason Builders' Association and the Bricklayers' Union of Boston and vicinity provides that apprentices must be able to read and write English, and emphasizes the desirability of educating the apprentice, particularly as to the strength and quality of materials and the science of construction. Both parties agreed to join in an effort to establish a school for members of the trade.

From a consideration of these examples it is evident that successful apprenticeship involves, in the eyes of both employer and employee, more than

mere shop training. The best apprentice is a student as well as a worker. In recent years there has also been a rapid increase in the number of laws regulating and restricting employment in certain trades, and requiring that these trades shall not be practised except by well-qualified persons. The federal government and at least three fourths of the states have passed statutory provisions requiring the examination and licensing of persons practising trades other than those included in the so-called higher professions, such as stationary, locomotive and steamboat engineers, plumbers and gasfitters, horseshoers, barbers. These requirements increase the demand for school training. The old principle of granting a monopoly to those who have attained a certain proficiency seems to be returning to favor. If the state is restricting and raising the requirements for entrance into a trade, it should stand ready to offer adequate opportunities for obtaining the requisite knowledge and training required by law.

CHAPTER XI

TECHNICAL, AGRICULTURAL AND COMMERCIAL EDUCATION

Technical Education

The United States Military Academy at West Point is the "cradle" of American engineers. All technically educated civil engineers of the early part of last century came from West Point. As early as 1802 two civil engineers were graduated from that institution. All the early engineers were "civil" or "military" engineers. The differentiation of engineering into mechanical, electrical, mining and chemical is a later development. The Renssalaer Polytechnic Institute of Troy, New York, founded in 1824, was the first technical school in the United States for the sole purpose of giving instruction in engineering. Laboratory work in that institution was originally included under the head of amusements. The University of Michigan was the first state university to open an engineering department. This branch of the work was made equal in rank with that given in other departments. The Colorado School of Mines was the pioneer in mining engineering.

The passage of the land grant act of 1862 marks the beginning of a new era in technical and agricultural education in the United States. About sixty state colleges of agriculture and mechanics' arts have been founded under the provisions of this act. The last fifteen or twenty years have been marked by a rapid increase in the number of engineering students in the various technical schools of this country. In 1889, it has been estimated, there were 3,000 engineering students in this country; in 1899, about 10,000; while in 1905 the total was not less than 20,000. If this estimate is correct, there was a sixfold increase in less than a score of years.

The most interesting and significant token of progress is, however, found in the enrichment of the technical-school curriculum. Fifteen years ago the course of study for engineering students was usually limited to those subjects which directly pertained to the work of an engineer; and the concepts of the duties and field of an engineer were, at that time, very narrow. To-day the engineer is becoming a man of affairs in the broad sense of the term; he is now one of the leaders and directors of modern industry. He is expected to be more than a mere technical expert. The growth in the complexity of modern life has been reflected in the training and requirements of the modern technical student. Many teachers of engineering are now advising students to take a complete college course, or at least two years of such work, before taking up purely professional studies. The necessity of a broader curriculum is now being generally recognized;

coupled with this is an attempt to make the work and teaching of the technical school square with the demands of practical engineering work. This phenomenon merely affords further illustration of the effects of recent progress upon education.

Agricultural Education

The Agricultural College.—Agriculture, as well as household industry, has been called a "belated" industry. Many partial explanations may be given to account for this fact. Agriculture as a science is dependent upon many other more fundamental sciences, such as chemistry, physics and botany; it could not develop or reach a scientific basis until the latter were also placed upon a firm foundation. Agriculture is something near at hand, it is familiar to all; scientific investigation invariably begins with the far off and the unusual. Again, as long as large quantities of free and fertile land were to be found upon our western frontier, there was little demand for increased fertility; the economic motive, which prompts investigation and improves efficiency, was not strong. As a consequence the entire development of agricultural education may be said to have occurred during the last fifty years; and the last twenty years have encompassed the major portion of that development.

The first American agricultural college was established, in obedience to a provision in the state constitution, in 1857 at Lansing, Michigan. This pioneer institution opened with a faculty of five, and a student body of sixty-one. In 1859 the

Farmer's High School (now the State College) of Pennsylvania was opened for students. Three years later followed the Morrill Act, which led, as has been noted, to the establishment of a long list of state institutions furnishing instruction in scientific agriculture. To Michigan and Pennsylvania, however, belongs the honor of being leaders in this important educational movement.

Agricultural education in the United States may for convenience be roughly divided into three divisions: First, the courses of the agricultural college. This agricultural college may be a separate institution, a department of a university, or it may be affiliated with a mechanical department of a technical school. Second, agricultural and nature study courses in the secondary and primary schools of the small towns and of the rural districts. Third, agricultural extension work of various kinds.

The college is the oldest of the three forms. In general two kinds of college courses are given, long and short. The former is usually four years in length and leads to the degree of bachelor of science or bachelor of agriculture. The requirements for admission and the nature of the work vary considerably in different institutions. The short courses are designed for students who can spend but little time in residence at the college. Such courses are designed to give a maximum of useful knowledge in a short period of time.

The College of Agriculture of the University of Wisconsin is a good example of the best type of agricultural college at the present time. The aim

of this department as stated in its catalogue is "First, to develop agricultural science through investigation and experiment, and to disseminate the same through bulletins and reports. Second, to give instruction in agriculture at the college. Third, to disseminate agricultural knowledge among the farmers of the state by means of institutes and popular publications." The following courses are offered: (1) a graduate course for advanced students, original investigators and special, well-trained students; (2) a long course which offers "scientific training in agricultural chemistry, agricultural physics, horticulture, animal husbandry, dairying and agricultural bacteriology"; (3) a short course, which is of a practical nature; (4) a dairy course for young men who intend to operate cheese factories and creameries; (5) a farmers' course, which is designed for farmers,—men who are actually engaged in the industry,—this course covering a period of only two weeks; (6) a housekeepers' course, or conference for the wives and daughters of the farmers in the last-named course.

The requirements for admission to the long course are the same as those for the College of Letters and Science of the university. In the short course the student must be at least sixteen years of age and have a good common-school education. To gain admission to the farmers' course the candidate must be at least twenty-five years of age. According to the catalogue for the school year of 1905-1906 the number of students in the college of agriculture was: long course, 136; short course,

322, of which 137 were attending for the second time; dairy course, 163. In the winter of 1905 about 200 farmers were in attendance in the farmers' course. The criticism that the agricultural college educates the student for other work rather than for farming seems to be well taken when directed against the four-year college course; but the short course does not lead away from the farm. The most recent and encouraging feature of agricultural education is the development of short courses. The four-year course prepares the student for teaching, experiment-station work, or other scientific work, rather than for actual farming. This instruction is valuable, it is necessary; but it produces the scientist rather than the farmer. Agriculture is in reality an art rather than a science. The farmer should be considered to stand in the same relation to the scientist as does the skilled mechanic to the engineer. The farmer must utilize the methods which the agricultural scientist originates as a result of his investigation, laboratory experiments and analysis.

In the University of Wisconsin the short course covers two terms of fourteen weeks each. The first year's work includes lectures in feeds and feeding, breeds of livestock, agricultural physics, plant life, dairying, veterinary science; laboratory practice in stock judging, agricultural physics, dairying; a course in farm bookkeeping; and recitation and drill in parliamentary practice. During the second year lectures are given on animal nutrition, breeds of livestock, agricultural physics and meteorology,

horticulture and agronomy, elementary agricultural chemistry, veterinary science, agricultural economics and bacteriology; laboratory practice is afforded in stock judging, physics and meteorology, horticulture and agronomy; and work is given at the forge and bench. In the dairy course lectures and class work are given on milk, creamery accounts and management, cheese making, bacteria in the dairy, heating and ventilating, care and mangement of the boiler and engine, feeding and management of dairy stock, breeding and selection of dairy stock, and parliamentary practice; laboratory work is assigned in milk testing, butter making, cheese making and dairy machinery.

The farmers' course is merely an improved form of a farmers' institute. The farmer is called to the university, where better instruction can be given him than at any other place. In the case of the institute the university workers go to the farmer; in this case the reverse happens. Two lectures daily are given, and the remainder of the day is devoted to stock and corn judging. This course was first instituted at the University of Wisconsin in the winter of 1904. The housekeepers' conference was first held in the winter of 1905. At this conference, which lasted for ten days, lectures or demonstration lessons were given on the food problem of to-day, beverages, physical development, house sanitation, need of public-school instruction in domestic science, care of children, household bacteriology, some uses of cheese, European farmhouses, cereals, breads, cuts of beef, fruits and

vegetables, winter eggs, food for the sick, household accounts, propagation and care of house plants, the kitchen garden, food adulteration, water supplies, dangers in water and milk, raising poultry, cleanliness in the dairy. The two ten-day courses are tentative attempts to reach and help the adult farmer and his wife. If successful, these courses must be primarily useful and practical. The popular and successful lecturers should be familiar with conditions on the farm. They must be in sympathy with the farmer and his wife, and must take a keen interest in the welfare of the rural family. The success of a teacher is in a large measure dependent upon his ability to adapt his methods and materials to the class of students under his instruction.

The University of Wisconsin devotes six buildings to agricultural research. The farm land is divided into two tracts of one hundred and twenty-five and two hundred and twenty acres respectively. Four model barns have been built not far from the main agricultural building. The academy and cheese factory is placed upon a commercial basis. Farmers bring their milk to the dairy building. Butter and cheese are made; some milk is pasteurized and sold to consumers. It is intended to be a model creamery and cheese factory. The dairy department of the Iowa State College of Agriculture and Mechanic Arts is also in operation on a commercial basis during the entire year. During the summer season from 15,000 to 25,000 pounds of milk are daily converted into butter and cheese.

Two new departments of the University of California should be mentioned at this point. A course has been arranged with a view to studying the agricultural and mechanical problems of the arid regions of the West. Some of the problems to be studied are "the construction and operation of canals, reservoirs and pumping plants, the distribution of water, the social and legal problems connected with the ownership and administration of irrigating plants, the chemistry of the soil, the comparative needs of agricultural staples for water." The increased use of irrigation opens a wide field for the student of agricultural and mechanical problems. The other department is designed to train men for the care and management of sugar-beet plantations and factories.

Agriculture in the Public Schools.—Nature study, agricultural physics, chemistry and economics, if taught in the public primary and secondary schools to students living on the farm, should answer the same purpose for this class of students which apprenticeship and continuation schools do for the skilled workers in shop and factory. The ideal place for a school is in a rural environment; but even under desirable natural conditions the results in the rural schools have not been encouraging in the past. The most obvious and natural material has been neglected. Inefficient and poorly paid teachers and ultra-conservative school directors, small and unsupervised schools, and an apathetic feeling in the community have limited the teaching to reading, writing, arithmetic, history, geography

and perhaps a few other branches. The text-book is too often blindly followed. When other branches have been introduced the best methods have not always been employed.

In past generations agriculturists have taken leading parts in American and English social and political life. The belief is firmly planted in the American heart that intimate relations with the soil are necessary for good citizenship and for the true development of the physical strength and the moral virtues of the individual members of society. The rural school, if its natural advantages are properly utilized, if centralization is practised so as to enable competent teachers and suitable apparatus to be furnished, has a fine opportunity for combining manual training, outdoor work, nature study, science and literature in a way which will enable the teacher to discover the capabilities and special ability of each student. The teacher will be able to instill a love for useful work, to create a love for nature, and to train the powers of observation. These qualities are the best sort of a balance-wheel to moderate the insane desire for wealth, power and profits which is a characteristic of the present era; or at least which was characteristic of the one which has just passed into history. Such a training will develop clear-headed and wholesome-minded men and women to whom the insistent advocates of the modern creed of service may not appeal in vain. Farm life, in spite of its disadvantages, and they are many, does offer one great advantage—variety of occupation. The farmer performs different tasks

each day, and the nature of these tasks changes with the seasons. A knowledge of the sciences underlying the art of agriculture will remove the feeling of drudgery and will immeasurably enhance the enjoyment and benefit to be derived from this occupation.

A county superintendent struck the key-note in regard to the future of rural education when he asked: "Along with his [the country boy's] study of the kangaroo, the bamboo, and the cuckatoo, why not study the animals on the farm and the proper feeding standard for them, the care and composition of the soil of the farm, the improvement of the types of grains and vegetables, and the protection of birds beneficial to the farmer? Instead of all of the boy's arithmetic being devoted to problems, more or less theoretical, on banking, stocks, exchange, brokerage, alligation, and partnership, why not some practical problems with reference to farm economics?" This is sensible; but do not forget the girl. A similar change of base should be made in regard to her studies. In the choice of educational matter and methods in the rural school is found one more illustration of the perversion of the familiar pedagogical maxim,—"from the concrete to the abstract, from the known to the unknown"—by the old, threadbare prejudice against the study of the useful and the familiar. The present insistently demands that the shackles of the past be broken, and that our teachers face the future.

The story of the soil and its formation, the work of the earthworm, how nitrogen is abstracted from

the air, are all marvelous, interesting, educative and practical. The study of wheat, oats, clover, weeds, the apple tree are as interesting and as disciplinary, and certainly more useful, than the study of rare plants and hothouse flowers, or of the mythical heroes of mythology and romanticism. A study of the common birds and bees will arouse more interest, if properly presented, than a study of the bird of paradise or of the zebra, or of the labors of Hercules. A farm is truly the "greatest of all laboratories," and yet we are only beginning to realize its possibilities.

Dr. True of the department of agriculture divides secondary agricultural education into five classes: "(1) high schools connected with agricultural colleges, as in Minnesota and Nebraska; (2) separate agricultural high schools endowed by the State, as in Wisconsin, Alabama, and California; (3) private agricultural schools, as in New York, New Jersey, Pennsylvania, and Indiana; (4) agricultural courses in normal schools, as in Missouri; (5) agricultural courses in public high schools." The first agricultural high school was organized in Minnesota. In that state one third of the studies given are of an academic nature; one third, of work in the sciences upon which agriculture rests, personal investigation by the student rather than mere book study being aimed at; and one third relates to the practical affairs of the farm and household. The Minnesota high-school course covers three years of approximately six months each. Six months are therefore available for practical work upon the

farm. It is in reality a winter continuation school, made practical and feasible on account of the seasonal character of farm work. The different subjects which are included in the curriculum are as follows: *First year,* music, gymnastics, English, drawing, farm arithmetic, agricultural botany, comparative physiology, agronomy, carpentry, blacksmithing and military drill. *Second year,* music, gymnastics, algebra, agricultural chemistry, agricultural physics, agronomy, animal husbandry, dairying, horticulture and military drill. *Third year,* music, gymnastics, home economy, geometry or civics, entomology, zoölogy, agricultural chemistry, agronomy, poultry culture, animal husbandry, dressing and curing meats, forestry, and veterinary science. Instead of shopwork and a portion of the work in agriculture, the girls are given courses in domestic science. The school "offers a practical course of study designed to fit young men and young women for successful farm life, and it serves as a preparatory shool for the college of agriculture." It is estimated that nearly all the graduates remain upon the farm.

In 1901 the state legislature of Wisconsin, acting upon the advice of State Superintendent L. D. Harvey, passed a law authorizing county boards of education to establish and maintain county schools of agriculture and domestic science. It was provided that "instruction shall be given in the elements of agriculture, including instruction concerning the soil, the plant life and the animal life of the farm. A system of farm accounts shall be taught. Instruc-

tion shall also be given in manual training and domestic economy and such other subjects as may be prescribed." Each school was also required to have connected with it a tract of land of at least three acres in area. This land is utilized for experimentation and demonstration. Provision ought also to be made for older students who may wish to attend for short periods during the winter. Normal training should be carried on in connection with the county agricultural high schools in order that suitable teachers may be provided for the county schools,—teachers who are in sympathy with the movement to extend nature study and elementary agricultural training into the elementary schools. Normal training is provided for in the Dunn County schools, located at Menomonie, Wisconsin. The lack of properly trained teachers is now one of the most serious difficulties standing in the way of the introduction of nature study and the elements of agriculture into the primary and secondary schools of the rural districts. Manual training and domestic science had to contend, and in fact are still contending, with the same problem; but the crust of tradition and prejudice is being broken through, and the farmers and the manual workers are beginning to realize that education can be of concrete, practical value to them and to their children. If these two classes strenuously demand the work which they need, teachers and schools will be forthcoming to supply the demand. The agricultural high school and college, farmers' institutes, agricultural experiment stations, and the United

States Department of Agriculture are the chief agencies which are now educating the farmers of this country as to the importance of science and nature study for the successful farmer of to-day and of the future.

The Farmers' Institute.—Farmers' institutes—adult farmers' schools—are now held in practically all of the states. Since there is as yet no central organization, great diversity is found in the methods employed and in the form of organization. The total sum appropriated by all the states and territories for this purpose was, in 1903, $187,226. The maximum appropriation, $20,000, was allowed by New York. In 1904 this total was increased to over $210,000. During the year ending June 30, 1903, 3,179 institutes were held. The total number of daily sessions amounted to 9,570, with a total attendance of about 900,000. These institutes "have been an outgrowth or extension of the 'open' or 'public' meeting held by the state or local agricultural societies."

The purpose of the farmers' institute is "to carry valuable agricultural information to farming people at their homes"; oral instruction by expert agricultural scientists is the method used. In recent years some attention has been given to the needs of the farmer's wife. One or more lectures on domestic science and kindred topics of interest to the wives are usually included in the program. In Illinois the plan of devoting a half-day session to the interests of the boys has been tried. Sometimes premiums are offered for the best samples of corn

grown by a boy, or for the best report upon the methods of growing some crop.

The "Hysperia movement," which originated in Hysperia, Michigan, was an attempt to bring the farmers and the rural teachers together for mutual improvement, social enjoyment, and "to unite the farmers who pay the taxes that support the schools, the home makers, the teachers, the pupils, into a coöperative work for better rural schools." The meetings were held on Saturday evenings during the winter term, in the different school buildings. "Programs were arranged so that the participants in discussions and in reading of papers were about equally divided between teachers and patrons." This plan has since been adopted in other townships in Michigan. Such a scheme fills the gap between institutes, offers opportunities for social gatherings in rural communities, and interests the farmers in the welfare and progress of rural education. To get the parents to come to the school building and to meet and discuss school affairs with the teachers is a long stride in advance in either urban or rural districts.

The United States Department of Agriculture.— The first separate appropriation for agricultural purposes amounted to $35,000, and was made in the year 1854. The department was separately organized in 1862, but did not become an executive department until 1889. Since that time the head of the department has been a member of the Cabinet. The duties of the department were outlined in the act of 1862 as follows: "To acquire and diffuse

among the people of the United States useful information on subjects connected with agriculture, in the most general sense of the word, and to procure and propagate among the people new and valuable seeds and plants." The appropriations for the department, including the weather bureau, for the fiscal years ending June 30, 1904, 1905, 1906, respectively, were $5,978,160, $5,902,040, and $6,882,690.

The work of the department is organized as follows. Bureaus: weather, animal industry, plant industry, forestry, chemistry, soils, entomology, statistics; divisions: biological survey, accounts and disbursements, publication, library; offices: experiment station, public road inquiries. In these different departments an immense amount of work is being done for the benefit of the farmer and of the consumer. For example, the department is interested in contagious diseases of animals, meat inspection, distribution of seeds and plants, introduction of new plants and grains, diseases of fruits and crops, forestry extension and management, investigation of foods, drugs, etc., survey of the soil in the United States, study of foreign markets and trade, work of damaging insects, agricultural education, problems of irrigation, good roads and a multitude of other important matters. Millions of copies of publications are issued and distributed annually. In affiliation with this department are agricultural experiment stations, aided by national funds and located in every state and territory. This department is the fountain head of a mag-

nificent, unequalled system of scientific and educational work in agriculture. It is blazing the way, and a statement of its work is *à propos* to the topic of agricultural education.

Schools of Forestry

The movement to preserve the forests and to initiate economic and scientific study of forestry has borne fruit in the shape of the Bureau of Forestry and in the schools of forestry which are now established in connection with several universities. The first school of this nature was established in 1898. At present Yale University gives a two-year graduate course; the number enrolled in 1904-1905 was about sixty. The Biltmore Forest School, located at Biltmore, North Carolina, has an undergraduate course of twelve months' duration. The University of Michigan, like Yale, has established a two-year course of graduate work leading to the degree of master of science in forestry. The Yale School grants the degree of master of forestry to its graduates. Harvard offers a four-year undergraduate course in connection with the Lawrence Scientific School. Undergraduate courses are also given in the University of Maine and the University of Nebraska. A recent magazine article states that there are over forty institutions of learning in this country which offer some instruction in this new economic science.

Forestry is really a form of agriculture; but the time which must elapse between planting and harvesting is very long. This fact, coupled with the

important and obvious social, economic and climatic reasons for the cultivation of forests, has made governmental initiative and action necessary. Foresters will, almost without exception, be government officials, so that a school of forestry is in reality a training school for a special kind of expert government employees. From another point of view, forestry is a trade, and a school of forestry is a form of trade school.

Commercial Education

Trade and technical education, and instruction in the art and science of agriculture, deal directly with the production of economic goods; commercial education has for its function the training of those who distribute goods, those who transfer the goods from the producer to the ultimate consumer. Keeping pace with the development of modern industry, commercial operations have rapidly increased in intricacy and complexity of relations. As might be expected, the history of commercial education presents many phases of development similar to those already noted in trade, technical and agricultural education. The early commercial school or "college" took a very narrow and purely practical view of its mission; but, as time goes on, a broader and broader concept of the field and value of the business or commercial school is attained. Starting from individual initiative in the form of the well-known business college, this work is being gradually taken up by the public schools and by the universities of the United States. The original schools

and nearly all of their successors down to a very recent date had an extremely narrow and definite aim These institutions grew and multiplied in response to the demands of business men for better trained clerical workers. By 1897 dissatisfaction with this rudimentary curriculum began to be manifest. In that year, in an address before the Federation of Business Teachers, the following paragraph appears: "The training which the American commercial college gives its pupils, while good in a way, is extremely narrow and little more than rudimentary. It cannot be properly called business training; it is merely clerical training. While this kind of training may have satisfied the requirements in the past, and while there may be a certain demand for it in the future, I believe the time has arrived when the American commercial school should cease to be a purely clerk factory and educational repair shop, and should assume the duties and position of a real business training school. In order to do this it must raise the standards, broaden and deepen its course of study and lengthen its time requirement." If we substitute the word technical for commercial the argument would sound very familiar to those interested in technical education. It is the old cry for broader educational foundations; a cry forced from us by the pressure of economic changes.

One of the leaders in modern commercial education advocates three kinds of business training to meet the requirements of as many classes of students. These classes are "(1) those who are compelled to take positions at fourteen years or

younger, who at best complete the course of the elementary school through the grammar school; (2) those who can give three or four additional years to training, who are able fairly to complete the course of the secondary school; (3) those who can give yet other years to higher training." This gentleman, Professor C. A. Herrick, advocates some form of day or evening continuation school, the commercial high school or a commercial course in a high school, and commercial instruction in the college or the university. It will again be noticed that these demands run parallel to those of technical and agricultural education.

Another paragraph in the same article is significant. "Commercial education is necessary to relieve business of the monotony of its routine, to raise the business man above the machine. If one is to rise above the mechanical performance of his duties in business, it must be by a broader study and a more complete understanding of the processes of business. German training gives to the man who goes into trade a markedly different attitude than is given to him by Anglo-Saxon education. With us the business man finds his livelihood in business, his life is elsewhere; the German finds in business a means of life as well as livelihood; he loves business and devotes himself unreservedly to it." Consciously or unconsciously the author of the above paragraph touches one of the fundamental weaknesses of American education in the past. It has taught that business or the pursuit of a trade was something apart and distinct from real living; that

earning a living was a necessary evil, not an essential part in the development of men. It has created the false impression that life was lived in the leisure, not in the working, hours. This is a logical consequence of a restricted view of the province of education. As a result of a broader conception of business education, the curriculum has been enriched by such studies as commercial arithmetic, commercial geography, commercial history and commercial law. Business education is becoming broader, more scientific and systematic.

CHAPTER XII

THE CONTINUATION SCHOOL

In 1900, seven out of every eight children in this country which glories in its public-school system, did not attend school after their fifteenth birthday. Over eighty-seven per cent. of our future men and women are going forth into their life work without proper preparation and without adequate opportunity to receive the benefits of education after they have entered the treadmill of daily life. The greatest national industry is the production of efficient, capable and well-trained men and women; and yet our educational mechanism only gets a firm grasp upon about one in every eight individuals who pass their fifteenth birthday. The typical American child of to-day has only received the training offered by the first six or seven grades of our public school. The business enterprise which was no more efficient in its methods of shaping its product than is the American nation would pass quickly into bankruptcy. This indictment as to the true efficiency of our educational system is severe, but unfortunately true.

The greatest educational and industrial need of to-day is for schools which will assist and train the young workers who leave school for various reasons

at an early age. The public-school curriculum is adapted to the needs of the young man or young woman who is not obliged to commence earning his or her living at an early age. If, however, the young student is obliged to leave school to go into the shop, the store, or the office as soon as our compulsory education laws permit, the benefits of free instruction are placed out of his reach except in a few isolated cases. In other words, the instruction given in the latter portion of the public-school course is accessible only to him who has sufficient funds to enable him to remain in school until the end of his eighteenth year. The boy or girl who works must rely upon other facilities. Here is the great industrial army of boys and girls who are unable to receive anything but the rudiments of an education.

There are thousands of young people in our various private, night and correspondence schools who are receiving instruction in branches which are or ought to be found in the curriculum of the public school. This important class of students ought to be reached through the agency of our public schools. These young men and young women realize that they need the assistance of education in their daily work, and they are industricus; but the public school is not within their reach. It is in session at precisely the time of day when our young workers must be earning their daily bread. Before the shop, the office, or the store closes, the school door swings shut, except, of course, where the public night school is established in a permanent, systematic manner.

By means of compulsory education laws many unwilling children are forced to attend school. They are led triumphantly to drink of knowledge, while this great army of workers thirst for such instruction as will make them better artisans and better citizens. Although approximately fifty per cent. of our skilled workmen are foreign born and foreign trained, we still neglect to adequately provide for the future. Only in recent years has this important phase of education attracted attention. The private, correspondence, and Young Men's Christian Association schools which have sprung up all over this broad land of ours are more or less successfully and faithfully offering industrial, trade, scientific and commercial education to our ambitious workers. The cost of tuition in many of these schools is high, and the work in these, as well as in the majority of our public night schools, is usually not well systematized or organized. The training given in many of our night schools is fragmentary, and falls far short of accomplishing what it should. Systematic, well-organized and well-coördinated courses which are designed to aid actual workers are needed. However well the private night school or the correspondence school may have answered the purpose in isolated cases, they are not the proper institutions to permanently provide for the great bodies of workers who need such instruction. It is the public, not the private, school which must perform this function. We should copy the good features of the European continuation-school system.

It is frequently urged that these young workers, our future skilled artisans, desire trade and technical instruction. Such training is called special education,—a training for the few at the expense of the many,—and therefore it is said that such work should not be given a place in the public-school system which is supported by public taxation. An unprejudiced consideration of the case will, however, reveal the fact that much of our present public-school instruction is really special; particularly is this true of that given in our high schools. This instruction is especially valuable to one who wishes to become a lawyer, doctor, minister or teacher, or to one who goes from the high school to the college. Even if this were not true, it could hardly be maintained that all taxpayers are not vitally interested in the industrial progress of the country. If it can be shown that the public-school system may do much to improve the knowledge, skill and efficiency of our future workers all the arguments which have been employed in regard to the support of schools by public taxation may also be used in this contention. Further, it must not be forgotten that the function of early public-school education was in a large measure utilitarian,—the training of ministers and teachers. It aimed, when prolonged beyond the three R's, to educate only those who did not work with their hands,—to train a professional class. The people of the United States are committed to the doctrine of free public education; but it should be carried to the workers

as well as to the young men and young women of leisure.

The schools are criticized on the ground that the teaching is not practical, and that the student entering a shop must unlearn much that has been taught him—a statement that has sufficient truth in it to make it dangerous. One of the chief reasons for such conditions is found in the wide separation in point of time of theory and practice. An abrupt and complete separation of school and business is not desirable, but at present it can scarcely be avoided. The home, the shop and the school ought to be brought more closely into touch with each other. If apprentices, other young men and young women entering upon their life work, were given good opportunities to carry on school work at the same time, as is done in Germany and in other countries, we certainly should be much nearer a rational solution of the apprenticeship and other vexatious industrial questions. Public night or half-day schools ought to be established in every city and town; industry, economics and education should with one accord make this demand upon the taxpayers of the United States. Some valid and serious objections are urged against night-school work. It is often said that the young man or young woman who has worked hard during the day is not in proper physical or mental condition to carry the burden of night-school work. The author has, however, taught many night-school classes which seemed to utterly refute this proposition. The nature and duration of the daily work of the

student, of course, enters largely into the question. With the general introduction of an eight- or a nine-hour day the force of this objection is diminished. The success of many night and correspondence schools tends to prove that night-school work can be made efficient, and that it is worthy of further development. The increase in the custom of giving a half-holiday each week offers another opportunity for school work.

The possibility of utilizing a portion of Sunday for the purpose of instructing those who are busy on other days of the week is perhaps remote; but a calm, unprejudiced, unbiased consideration of the question will disclose some good arguments in favor of such an innovation. In fact, many ministers seem to have tacitly given recognition to the value and desirability of secular instruction on Sunday by converting the evening sermon into a semi-popular lecture upon social, economic or political questions of the day. The church does not reach the majority of wage-earners to-day; and Sunday is frequently made a day of demoralization by all classes of people, rather than a day of improvement and rest. A Sunday school for workers affords a wholesome, elevating, profitable and desirable way of utilizing a few hours of each Sabbath day. It is at least better than many of the devices now employed to pass away time on that day. Industrial and economic efficiency is at the root of all moral improvement; if Sunday instruction will improve the former, it is worthy of a trial. The teaching of that which will improve the skill and

broaden the view of men cannot be immoral whether it is done on week days or on Sunday. The experience of Germany is not to be spurned with contempt; it is worthy of thought—of calm consideration. The following quotation illustrates the point in a concrete manner: "The sentiment of the library commission [Wisconsin] favors the opening of the public library reading rooms on Sunday, at hours that do not conflict with church services. This is wise and humane, for otherwise those who most need the books, working people, could not use them, and would be restricted for their Sunday reading to the Sunday edition of the daily paper. Of the Wisconsin libraries which have recently reported to the commission, twenty-seven have Sunday service."[1]

As was mentioned in the discussion on the correspondence school, the idea of utilizing, through school work of some sort, the idle periods in a seasonal industry, or of providing training and education for men who are out of employment, is very attractive. If local conditions are favorable, continuation schools open a portion of the day as well as in the evening might, with profit, take up such work. In time employers would naturally turn to such schools for workmen; and immediate, concrete, economic motives would lead idle men to enroll in such a school.

The continuation school is particularly valuable for the apprentice. The general establishment of such a school would go far toward solving the

[1] *South Atlantic Quarterly*, January, 1904.

apprenticeship question in this country. One of the officials of the Baldwin Locomotive Works writes: "We depend upon the various night schools established throughout the city [for technical instruction], and we pray for the establishment of more and better night schools, to give instruction for that portion of the training of the apprentices."

These schools are favored by employers because the best student is one who is working as well as studying. There are many who are willing to subscribe to the statement of Thomas Davidson: "No one who has ever taught a class of intelligent breadwinners will return willingly to academic teaching." A boy who is not diligent is frequently changed into a good student by taking him from school for a short period of time and obliging him to earn his daily bread. He gets an insight into the affairs of the business world which teaches him that the school is an institution which can aid and benefit him.

The public-school system as it is organized cannot reach the class of people who are in the greatest need of it. The continuation night school is to be the worker's high school and must be adapted to the needs of the working classes. A continuation school is not, or should not be, a trade school. Trades can be best taught in close connection with practical work. It is difficult, if not impossible, to duplicate in the school the commercial and competitive conditions which obtain in the shops. As has been mentioned, the trade school is opposed by labor unionists because it sends from its doors semi-

skilled workers who tend to depress the general level of skill and to lower the wages in particular trades. The trade school is also liable to unduly increase the number of workers in certain trades. The continuation school, however, avoids these reasonable objections. It deals as a rule with persons who are already at work; it supplements the narrow training which they are daily receiving from their work. Education, not mere book learning, is the cure for many industrial evils; but the false conception that the sphere of education is entirely distinct from the business and industrial world must be cast overboard. Much of the present labor trouble is due to adherence to outgrown educational ideals, the lack of proper educational facilities, and the absence of broad views and calm reasoning which are the logical results of correct educational methods.

The recent decrease in the number of hours worked per day by the average wage-earner will enable much to be done toward giving young workmen better educational facilities, and makes the present particularly opportune for the advocacy of the continuation school. Increased leisure should bring more culture and more rational means of enjoyment. Long hours are a sure preventive of the educational and the economic advancement of workers as a class. The question of the education of workers in trade and industry is of national importance from at least two points of view. Our industrial and commercial supremacy depends upon the existence of a skilled body of wage-earners, for which there is to-day an increasing demand; and the

success of a democratic form of government rests upon the intelligence, integrity and economic independence of the great mass of its citizens.

Local needs and local influences must always be considered in the adoption of a course of study for the continuation schools; but in a general way an outline can be drawn up. The housekeeping schools of Belgium and the English schools for girls offer excellent models for the work to be given girls. The program should include hygiene; care of children, sick and old persons; knowledge of simple remedies; principles of domestic economy; nutritive value of different foods; cooking of simple meals; methods of making use of foods "left over"; domestic accounts; market value of foods; practice in distinguishing freshness and quality of supplies; care of house and furniture; house sanitation; washing and ironing of woolen, cotton, flannel and linen goods; plain sewing, mending, darning, piecing, and the determination of the cost of apparel made; care of yard or court; care of flowers and shrubs. This outline roughly indicates the character of the course in housekeeping which is needed in all of our cities, villages and rural districts. Not alone in continuation schools is such a program desirable, but in the regular work of our public schools as well. The general adoption of such a program would mean great improvement in home conditions throughout the United States. In addition to the above program girls should be admitted to courses in art, business training, mathematics, literature, and in other academic studies. All work should be

of a practical nature and should aim to make the girl a better housekeeper, stenographer or factory employee. Cultural aims must not be overlooked, but, if the work is to be successful, these must be subordinated. Furthermore, the character and nationality of the students, their home and store or shop environment, and the ideals of the community in which they live, should be given due weight in the determination of the methods to be used in presenting the various subjects.

The boys will require a greater amount of option. The boy who is employed in a machine shop may be used as an example. He needs training in arithmetic, plain geometry, applied mechanics, and perhaps in algebra; mechanical and freehand drawing; elementary physics and chemistry, and English, supplemented by lectures on travel, scientific topics, development of machinery, applied electricity, history, civics, art and hygiene. By judicious treatment arithmetic, geometry, algebra and applied mechanics can be taught together as one subject; in fact, this is the proper method to be employed. The practical side must be ever kept uppermost in these schools; otherwise the interest flags and the attendance decreases. Problems must be given which might actually come into the everyday experience of the student worker. As far as possible students from the same trades should be placed in the same class, in order that practical application of the fundamental mathematical and scientific principles may be made to a particular trade.

No man can become a skilled worker to-day who

does not understand the scientific principles underlying his trade, who does not understand why certain methods are preferable to others, who is not able to act upon his own initiative in cases of emergency. Much must be learned outside the shop. In other words, a trade cannot be properly learned without a school. The industrial value of school training varies with the different occupations. In the machine-building trades it is almost indispensable; in some unskilled classes of work it is of much less direct value. But, if a man is more than the machine he tends, he needs a training which will allow him to look beyond the narrow, almost automatic routine of his daily life. Industrial and scientific training will make him a better citizen, worker and parent. That education is best which lies close to the life and experience of the student. It should gradually unfold new ideas, present new phases of life and lead to a higher plane of life. The continuation schools should, as has been intimated, eventually become an integral part of the public-school system; but at first, as has been the case with many other reforms, private philanthropic individuals must probably take the initiative. If a number of such schools could be established in some large city a concrete example would be offered to the thinking people of the United States, and the value of this work could be practically demonstrated. In one well-known city a fund of three million dollars was left a few years ago in the hands of trustees for the purpose of establishing a school or schools for industrial training in that city. If

such a fund could be utilized so as to build up several, for example three, schools in different sections of a city where the industrial population make their homes, this would afford a fine opportunity to work out the details of the curriculum. This sum is sufficient to build and equip three buildings and still leave a sufficient sinking fund to pay current expenses. Each building should become a community center. Here clubs and societies could meet. The buildings ought also to be equipped with reading rooms, a gymnasium and a swimming pool.

Until some such measures as are here proposed are put into actual operation, all attempts to improve the industrial and home conditions of our working classes are made under disadvantageous conditions. Let us go to the bottom and begin by attempting to purify the source. Economic conditions are the cause of much degradation; a large percentage of vice and crime is the product of low standards of living and unhealthy conditions.

The fact that the continuation school for actual workers offers a promising field for philanthropists should be emphasized. It is more necessary than additional libraries, laboratories, or universities; and more practical and far-reaching than social settlements, associated charities, or factory "welfare" work; both employers and employees should unite in demanding the establishment of these schools. To take an active part in the movement for properly training the heterogeneous mass of young people who are growing into manhood and womanhood is worthy of our most earnest endeavors.

CHAPTER XIII

THE TREATMENT OF THE TRUANT AND THE JUVENILE DELINQUENT

The urban population of the United States is rapidly increasing. Year after year it becomes more and more necessary for us, as a people, to learn to live and thrive in the crowded city. The rural districts cannot much longer serve as the feeder for the city. If in the future there cannot be produced in the American city men and women who are strong and efficient intellectually, physically and morally, American civilization is imperiled. Yet in the crowded schools of our large cities the problem of the truant and delinquent or so-called "incorrigible" child has assumed serious proportions. The solution is difficult; but the demand for it is imperative. The modern city with its crowded quarters seems to increase the number of children of this class; our cities are indeed the breeding places of criminals and paupers. In the thickly settled districts of all our important cities children are growing to manhood and womanhood who are improperly nourished, whose home surroundings are bad. who are given little or no opportunity to learn habits of industry or regularity,—in short, who are almost of necessity destined to a life of inefficiency,

ill-health and moral peril. Statistics indicate that the number of juvenile criminals is largest, relatively to the total population, where the greatest urban and manufacturing centers are located. The same is true of almshouse paupers.

In order to become better acquainted with the characteristics of the juvenile delinquent let us study a composite picture which has been painted by one who understands him. "He is twelve and one-half years of age, one of seven people living in three rooms. These rooms are such as can be rented for $7.50 per month. Eight dollars and sixty cents per week pays the rent, buys fuel, clothing, pays the fee required in the parochial school, in short, provides all the required needs of this family. There is no place for health recreation. The house is crowded, dreary, uninviting." Jacob Riis believes that "it is the home itself which constitutes their [the children of the poor] chief hardship." Some years ago an Englishman personally investigated the history of one thousand criminals. He found that two hundred and fifty, or one fourth of the total, were brought to that condition through the influence of bad company. A prison warden recently made this observation: "The higher the character of the daily pursuits, the greater the unlikelihood of falling into crime; the more secure the employment, the higher the earnings, the lower the percentage of criminals." Bad home environment, unfortunate street influences, and lack of regular and healthful occupation are three extremely potent causes of criminality and pauperism. The picture of the

juvenile delinquent is indeed a sad one; but it is a typical representation of the environment in which thousands of precious young lives are growing to manhood and womanhood.

Forty or fifty children from a great variety of homes now come to each of our primary classrooms,—children whose home life and playground experiences are radically dissimilar. One child perhaps lives in a two- or three-room shack, and plays in the street or the alley; another dwells in a mansion, and plays in a well-shaded yard. The parents of one child understand and appreciate child nature; he is properly nourished and clothed, and the character of the home life and surroundings is excellent. The child occupying the next desk may be kicked and cuffed at home; he is poorly fed and clothed. These two children, for example, of radically dissimilar experiences and opportunities, come to the classroom and are mingled with two score other restless youngsters of like age. Heredity and environment have done their work; no two of these children are equal in physical endurance, mental ability or moral stamina. Yet, almost of necessity, our public-school system is attempting to force these children into lockstep. Financial conditions, educational traditions and unsympathetic public opinion are guilty of causing enormous pedagogical waste. It should be axiomatic that children from a great variety of homes, subject to very different home influences, cannot be effectively and efficiently dealt with *en masse*. Boys whose only playground is the street are in a very different

receptive mood from those who are favored with large and commodious playgrounds; the boy whose home atmosphere is elevating should be treated differently from the youth whose home exerts a depressing influence.

A child is a bundle of energy which seeks legitimate outlet In order that the child may develop normally such outlets must be provided. The home, the school and the playground must furnish the boy or girl with opportunities to exercise, to express himself or herself, to develop and grow into good and useful manhood or womanhood. In too many instances each institution pursues a repressive policy which is often detrimental to the child. In many cases, no doubt, this is due to circumstances which do not readily admit of change. The child lives in a small home. As a consequence, his noise is almost of necessity repressed and he is sternly rebuked because of it. His street games are interfered with and interrupted by the passer-by, older boys or the policeman. He goes to the schoolroom, and is told to sit still for, to him, a long period. His teacher gives him a book and expects him to study it; the book presents ideas which are often completely foreign to his experience. He has nothing in common with this printed page, no clue whereby to connect it with his experience outside the schoolroom. Is it strange that truant and "incorrigible" boys are found in our city schools? Must it not be expected that the boy and his teacher will sometimes clash in regard to their ideas of

right and wrong? Is it extraordinary that the boy often looks upon older persons with suspicion?

No boy or girl is wholly bad or depraved. "There is no such thing as a bad boy." Buried somewhere beneath the rough and often coarse exterior can be found a heart. The heart should be cultivated rather than trampled upon, as it so often is. Much could be done toward the uplifting of mankind if we would only search for the heart in a boy and then try to lead it in the right direction. "Get at the heart of the boy and you have won the head of him and his fellows. You have won the coming generation over to a higher line of conduct." Rowdyism and crime are to a large extent due to pent-up energy which has not found proper vent; vice is misdirected energy. A restless, eager, alert, active child needs continual opportunity to play, to work, to construct and to tear down. As Dr. C. R. Henderson has written: "The boy must be kept busy till he is sleepy, and he must wake up and get up at a regular minute or he is in danger." Education, from the psychological point of view, consists in giving proper direction to the normal activities of the child, and in the formation of regular and good habits of action and expression. The rush of population into the urban centers and the loss of the home industries has deprived the city boy of his home chores and of his playground, and we are just awakening to the fact that a substitute must be furnished or the city boy will not attain a normal and healthful development.

In school he is repressed and kept quiet; when he comes out of the schoolroom he is ushered into a world in which no special provision is made for him. Our homes, with perhaps a few exceptions, provide no special place for the child; the architect seems to be utterly oblivious of his presence. If he is continually restrained by the policeman on the street, the parents in the home, and the teacher in the school, the natural and inevitable result, if the child is normal, healthy and vigorous, is attempted evasion of rules and regulations. Particularly in the crowded and poorer districts of the great cities is the child an outcast. He is obliged to shift for himself, and the street, of necessity, becomes his playground and loafing place. Such a life inevitably breeds irregularity and distaste for any regular occupation; it allows the child to grow up in idleness, and throws him into contact with bad and immoral influences. It is not strange that there are so many truants, "unruly boys," and juvenile delinquents; rather is it a matter of astonishment that there are so few.

A child does not get into mischief just for the sake of mischief, but because he must do something, because he must find an outlet for his surplus energy. There is always some particular liking or desire which, if discovered, offers an entrance to the heart of a child. In order that the school may be directive, not repressive, it is necessary that the teacher study the motives and impulses of the young from the standpoint of the latter. Their motives, ideals and ambitions cannot be appreciated from

the adult point of view; if the teacher is unable or unwilling to take the point of view of the child, the opportunity of helping the youthful student at critical periods in his life is lost. A prominent educator has said: "The child loves to be obedient; he loves law, not restrictive, but directive." The author believes that teachers of manual training, nature study, drawing, or kindergarten work will agree with this statement. We give the child problems which are to him new and foreign; we make him a mere solver of artificial problems. He has his own personal experiences, he has his own problems which he is very anxious to solve; but these are resolutely cast aside and not utilized by the teacher.

If children are found in our crowded schoolrooms who chafe under and are not readily amenable to the discipline there in force, it should be clear that the correct kind of training is not or cannot be given them. No teacher, no matter how conscientious or efficient she may be, can properly treat particular cases in a school of forty or fifty bright, energetic and restless children. Many cases require special treatment; and viewed from a purely financial point of view—let the taxpayer take notice—it is more desirable to treat the case now than later in the career of the particular individual. Many children in the crowded schoolrooms of our densely populated cities will, if left to their own devices, become unworthy specimens of humanity, or perhaps criminals. Yet these children are not bad; they are "morally sick." Improper training

and environment in both home and school have, in a large measure, made them what they are to-day. Work and treatment should be given which will turn them toward better ideals and good citizenship, and which will aid in the formation of regular and good habits, for good habits are the basis of crime prevention. For example, a boy whose only playground is the street, and who is continually thrown into contact with an undesirable class of companions, soon gets the notion that it is manly to smoke cigarettes. Now no amount of lessons on physiology or talks on the evils of smoking will have any lasting effect upon that boy. If he is to give up what now seems to him to be an essential of manhood, a very strong concrete motive for such an action must be given him. A new inspiring ideal must be held up before him; and this must be one which appeals to the youth, not merely to the adult. Athletics is one particularly beneficial agent which should be employed in the treatment of such cases. No successful athlete can be an habitual smoker of cigarettes; in general, his habits must be good. Here is disclosed one of the great benefits of well-directed athletic sports. The desire to excel in athletics, and the emulation of such excellence is a deep and abiding trait in the young. As Emerson has well said, "Man can only be reformed by showing him a new idea which commands his own." But we should do better than this; we should aim to so form the habits and character as to make reforming unnecessary. The possibilities offered by manual training, domestic science,

athletics, nature study, gardening, excursions, vacation schools, drawing, modeling, etc., are many and very inspiring to the student of educational problems.

There are two phases in the problem of the truant, the so-called "incorrigible" child, or the juvenile delinquent. First, the school curriculum and methods must be so modified as to work positively and effectively toward the diminution of these forms of moral disease among the young. Secondly, the treatment of the case after it has reached the acute stage. Much of the discussion in this book bears upon the first phase; but specific treatment will be deferred until the last chapter. The remainder of the present chapter will be devoted to a consideration of the "special" school for the treatment of truants and others who do not readily conform to the regulations which are necessary in the public schools as they are organized to-day. Four classes of such schools may be mentioned,—the truant, the day industrial, the parental and the reform school.

The truant school need not detain us. The truants and unruly children are segregated here, but receive no special treatment. Little can be said in its favor except that it removes this class of children from the regular classroom. The next step in advance brings the day industrial school. The children who are sent to this school live at home, but are kept at the school during the greater portion of the day. One meal is usually served at the school. The parental school, however,

represents the highest and best in the treatment of the truant. This is a combination of home and school under a single management. These special schools should not be so much reformative as directive. Children requiring special care and treatment should be placed in special schools where the classes are small and where individual treatment can be given. Here skilled teachers will endeavor to preserve for future good citizenship the child who, if left to his own devices or to the mercies of an ungraded school, will become an unworthy specimen of humanity. These truants and unruly children are misguided; they need sympathy, intelligent aid and coöperation. They should be treated as students, not as criminals. These future citizens must be cared for in an educational, not a penal, institution. Emphasis should be laid upon this fact. Bolts, bars, locks or high walls are not found in the best institutions of this character; there is nothing about them to indicate the correctional institution. A stranger visiting the Chicago Parental School, for example, would not guess that it was a school for truants and morally imperiled children. In this school much stress is laid upon regularity and constant employment. Military drill, manual training, gymnastic exercises and farm work are added to the curriculum of the city schools of Chicago. "Physical training is not a fad, not merely beneficial, but a necessity in the training of truants," writes a former principal.

The child always desires to use hands, legs, eyes. In the parental school advantage is taken of this

desire. Healthy children are not lazy; they are active, and we have only to turn their activities into proper channels under proper conditions in order to utilize them for the building of character. The changed mental attitude of the child who is given manual training, gardening and gymnastics leads logically to the conclusion that our regular elementary-school work should contain a greater amount of this sort of training. More careful experiments, made in a school utilized as a pedagogical laboratory, are needed in order that intelligent aid may be given educators in their attempts to substitute a more rational system of training for elementary-school children than our present haphazard, pieced-together curriculum is able to offer.

The ordinary public school cannot remedy bad environment, directly at least. Good results can only be expected in the majority of truancy cases when the surroundings and daily life of the child are modified or completely changed. The parental school takes the child out of the bad and familiar surroundings and thus has a real opportunity to strengthen these morally imperiled children. Proper treatment of the young offender is much cheaper than the cost of the crime and of the imprisonment of the older delinquent; and if we are able to reclaim the young boy, a producer, a worker, is given to the city in the place of an idler and destroyer Let it again be noticed that if we can look no further than our pocketbooks, and many cannot, the argument is still favorable to modern preventive methods in the treatment of the young

offender. Retribution and reformation are to be displaced by prevention.

The benefit of parental schools is threefold. They are desirable from the standpoint of the good student, of the unruly and truant child, and of the teacher. Parental schools remove a source of irritation and danger from the good and obedient student; they give positive aid to the other class of students; and, lastly, they relieve the overburdened teacher. Compulsory education can never be a success until day industrial and parental schools are added to the public-school system, or until the ordinary school is more closely fashioned after the parental school. If the school system becomes better prepared to practically aid the child, to take advantage of his experience and desires, the amount of truancy and incorrigibility will decrease, as this is the result of abnormal conditions in school or home, or in both. As education approaches the dignity of a science, as the cumulative effect of better schools and better homes is felt, generation after generation, as our cities and homes are made habitable and healthy, the truant and the "incorrigible" will gradually disappear.

The reform school is an institution "necessary for youth who have committed acts which would send an adult to the state penitentiary, as larceny, arson, stabbing." The best reformatories, as for example the Elmira Reformatory, utilize manual training, military drill and regular work. "The occupations should be, as far as possible, agricultural and horticultural, and the educational

influences should tend toward a career in the country. Even for rural industry the elements of a trade should be taught. Since many boys from cities are certain to return to their homes, a great variety of trades must be taught to meet their wants."[1]

The Chicago parental school is probably one of the best of its kind in the world. It is an integral part of the public-school system. This school was opened in 1902. It is located in the northwestern part of the city, on a fifty-acre lot, remote from the crowded portions of the city. The environment is practically rural. The school is organized on the cottage plan; the children are divided into groups of about thirty, and each group is placed in the care of a man and his wife. The attempt is made to reproduce as far as possible real homes and family life in a good environment. "As the home and social conditions of the boys committed to this school are not the best possible, we aim to give them a good home and proper training in manners and morals as well as intellectual culture. To this end we are careful to select, as family officers, men and women of education and refinement, and the remarkable change in the deportment of paroled pupils of this school, noted by teachers and principals, is largely due to the influence of our 'family instructors.'"[2] The report states: "What these boys most need is good diet and hygienic exercise. We emphasize our dietary." Food, environment

[1] Henderson, *Dependents, Defectives, Delinquents*, p. 239.
[2] First Annual Report of the Chicago Parental School.

and physical exercise,—if these three elements act beneficially upon the child, half of his battle of life is won. Only a small percentage of children who are improperly nourished, whose environment is depressing or demoralizing, or who have little opportunity for healthful physical exercise and work, can hope to rise above the level of their surroundings. We talk much about equality of opportunity in education, but we often overlook the facts in the case. The real value of the parental school lies in placing the child in a good environment, feeding him in a wholesome and simple manner, and providing work and regular exercise for him. The George Junior Republic, about which so much has been written, is in reality a private parental school. The experience of this school adds to the testimony as to the value and necessity of regular occupation and wholesome environmental conditions.

In Cook County jail, Chicago, the author once witnessed a most pathetic sight. In an upper room of that grim and forbidding structure some twenty-five or thirty juvenile criminals were being given military drill, light gymnastic exercises and instruction in vocal music. The squad was in charge of the matron of the institution, assisted by two or three inmates. Jailor Whitman remarked, "These boys have no idea of right living." They were criminals because of their environment and lack of proper training. Mr. Whitman firmly believed that this daily drill and exercise, teaching them to act in unison with others and to move with precision, would be of much benefit to these young

unfortunates who were temporarily in his charge. What a social waste, because the proper formation of these young minds has been neglected!

"The evils of poverty are not barren, but procreative; the workers in poverty are, in spite of themselves, giving to the world a litter of miserables, whose degeneracy is so stubborn and fixed that reclamation is almost impossible, especially when the only process of reclamation must consist in trying to force the pauper, vagrant and weakling back into that struggle with poverty which is all the time defeating stronger and better natures."[1] The improvement of the environmental conditions in our cities and villages will conduce to a lower birth rate for those populations who now have an undesirably large one. Misery and a high birth rate are boon companions. The proper enlargement and exercise of the true functions of public education are at the root of the economic and social betterment of modern democratic society.

[1] Hunter, *Poverty*, Preface.

CHAPTER XIV

NEW EDUCATIONAL PROJECTS

This chapter is devoted to a discussion of certain recent actual or proposed extensions of the functions of the school—innovations which tend particularly to enlarge its social character. These new functions are typical of the democratizing tendencies in modern education. As yet, they are nearly all in the experimental stage, and have by no means attained the full measure of service which may be expected of them. The active propaganda in favor of the parental school, the continuation school, and the various educational innovations discussed in this chapter marked the opening of the fourth period in our educational history. These educational innovations are clearly semi-socialistic in their nature, and several of them have received the support of a new social power,—the women's organizations. A severe crisis or long-continued trade depression would probably cause the public to direct its attention toward the school and would so crystallize public sentiment that the majority of these additional educational functions would soon become permanently added to the work of the public school, instead of being supported in a half-hearted way or of standing in danger of being discontinued or

curtailed with every change of school administration. New educational projects which the present era makes desirable are opposed, as has always been the case in educational history, by the immediate economic interests of the taxpayer on the one hand, and on the other by the conservatism and apathy of the great mass of the people, which of course includes the taxpayers. Only when industrial and commercial conditions become unpropitious does a demand arise on the part of the masses which breaks down all barriers. In the early era of educational advance in the nineteenth century, progress was checked by the continual westward emigration, the slavery agitation and communistic projects. The attention of the people was drawn from the question of education into other channels. To-day the greatest danger from reactionary tendencies seems to lie in imperialism, —in the overshadowing of local issues by foreign politics.

The School as a Social Center and a Playground

The school of the future is to be an almost continuous affair, with functions which vary with the time of day and the season of the year. In a score or two of years the present functions of the school will be looked upon as rudimentary, as representing an early stage in the development of the economic and social duties which properly belong to this important institution of society. Social intercourse with others and play-activity are now generally

recognized as two vital constructive factors in the education of young men and women; but boards of education and teachers have not all as yet recognized that the school should consider and actively direct these two educative activities. In earlier generations supervision was perhaps unnecessary; but crowding into cities has placed great restrictions upon these essential activities, or has caused them to be carried on in such a manner and under such auspices that they become instruments which promote an abnormal rather than a normal and healthy development. The evil has been recognized for many years; but the remedy and the method of applying a remedy were not so apparent. Many have seen clearly the evils of the street gang, the saloon, and the dance hall, for example, and have immediately cried out for suppression of the evil by the hand of the law. They would remove the effect, but leave unchanged and unaffected the causes which have brought these crying evils into being. Crime, vice, disease, inefficiency and pauperism are produced, of course, by no single, glaring cause, but rather by a multitude of forces of various kinds. These evils are but the outward and signal manifestations of social maladjustments which are not visible to the impulsive and superficial observer. Mere repression is only an external remedy, and usually a very inefficient one. The wise social physician must look beyond consequence to cause. Curative measures are desirable; but in preventive measures lies the hope of the world. Professor Patten has pointed out the line of least

resistance in words which ought to be burned deeply into the memory of every one interested in human progress and in world betterment: "Vice must first be fought by welfare, not by restraint; and society is not safe until to-day's pleasures are stronger than its temptations. . . . Amusement is stronger than vice and can stifle the lust of it."

Of all the forces which are inducing these social maladies we are, in this section, particularly concerned with the two which grow out of the unnatural perversion of the desire for and the necessity of play and social intercourse. Street gangs are natural products of the innate need of exercise, and of meeting with one's fellows. So far this is natural and therefore good; the evil creeps in chiefly on account of the conditions which obtain in cities, and in villages as well, and because few attempts have been made to intelligently turn the activities of this group of young people into healthful and beneficial channels. The newsboys of a large city are usually addicted to swearing, smoking, petty gambling and perhaps petty thieving. The street is their training school—in many cases their home. Many unthinking people would probably say that the majority of the street boys were "hopeless"; yet Mr. John Gunckel of Toledo has organized the newsboys of that city in such a masterful way that many of the faults and frailties of the average newsboy have been overcome. He has worked faithfully year in and year out; he has held meetings for the newsboys, has organized a union and various minor clubs and associations.

This gentleman has succeeded in building up a public opinion among this class of boys in that city which is good and which augers well for their future. The energy, the ambition, the impulse, the ideals were all there before Mr. Gunckel took hold of this work; he skilfully directed the boys away from the breakers of crime and profanity into the quieter waters of higher ideals and nobler aspirations. This is not easily done; but, the point is, it can be done, and it pays the community to have it done.

The saloon and the dance hall, against which so much is said, are places where adults and young people congregate for social enjoyment and diversion. The industrial worker, tied down for long hours to a monotonous, ceaseless repetition of simple movements, comes home to a small house crowded with people of various ages; a poorly cooked and badly served meal is hastily swallowed. This disposed of, the tired worker finds no place within the home where friends may be taken, no opportunity to play games, or even perhaps no quiet corner in which to read a book or a magazine. What happens? He or she goes outside the home for comfort, for social enjoyment and for diversion. The saloon, the poolroom, the cheap theater and the dance hall stand open and aggressively invite all comers. They are warm, well-lighted and comfortable. Unless a substitute can be furnished for these features of city life, so long will the youths and adults be drawn into the net which drags them down. The degrading and demoralizing influences of our city life have been made so cheap that there are few

too poor to partake of them. The ennobling and uplifting influences are, alas, usually expensive. In modern life the individual is so helpless; he is bound and restrained in a thousand ways. Society must provide those things which he needs but cannot obtain unaided. Without the aid of many collective agencies the life of the city dwellers must become barren and unprogressive. These impulses and these human needs, which are products of the historic or pre-historic past, are not to be readily and completely changed; they must be accepted and turned to good use. Society as a whole is to-day in a large measure responsible for the development of each and every individual; its institution, the public school, must take up the work of providing opportunity for social intercourse and play. It should take up the work which many social settlements and playground associations have started. Make the schoolhouse and the "field house" community centers.

New York City has taken the lead in this matter. In that city, during the recent winter, many of the public-school buildings were kept open. "Several thousand boys and girls over fourteen were entertained in them with basketball, gymnastics, checkers, ping-pong, picture books, dancing, and club meetings." In the summer many more are open in the afternoon for "games and light manual instruction." The roofs of the school buildings have also been utilized in the summer for children to play games and dance to simple music. Enthusiastic temperance workers and reformers of many kinds have a

promising field for work if they will preach steadfastly the gospel of the community center as a public-school function.

At the annual convention of the American Federation of Labor in 1904, President Gompers proposed that the local labor unions ask for permission to meet in the public-school buildings. If labor unions and clubs and societies of various kinds are to meet in the school buildings, if the children are to come here in the evening to play games, if reading rooms are to be established, some modifications from the conventional schoolhouse plans must of course follow. Each building must have at least one assembly room or lecture hall. The desks must be so fastened that they can be easily removed. The teaching and janitor force must be enlarged. But the expense will be slight in comparison with the results to be anticipated.

The school garden is another innovation which has been tried in some of the eastern cities. This is merely an extension of the manual-training movement, and offers a good opportunity to correlate it with nature study. Nearly every city has many vacant lots which might be profitably utilized by the school authorities for playgrounds and school gardens. When we have accepted the view that manual training, nature study, agriculture and many other new subjects are necessary in our school curriculum, we can hardly avoid adding to the list of school activities directed play, vacation schools, lecture courses and reading rooms. They follow logically as a matter of course.

Mr. Hearne has told us that in Japan the local temple grounds are utilized as places of amusement; festivals and various social functions of the people are held here. Children at all times use the temple groves and grounds as playgrounds. In this respect, what the temple and its grounds are to the Japanese, the school and its yard should become to the American youth. As the Japanese entwine their religion and their temples into their daily life, so should we of the Occident make education and the school a part and parcel of our social and industrial life.

In Prussia, in 1897, at least 2,000 schools had public play and gymnastics combined. In German cities the school authorities hire teachers to "guide the children in their games, suggest new ones, decide disputes, answer questions with regard to things new to the children, and make themselves generally useful without becoming oppressive by exercising school authority." In Boston a number of the school buildings have been thrown open for free lectures and concerts, and in one school at least rooms have been thrown open in the evening for the purposes of study. One of the teachers is present to preserve order and render assistance. Germany has advanced so far along this road that teachers are being trained in normal schools of play. In Toledo the municipal authorities give sleigh-rides to the younger school children. Horses and bob-sleds belonging to the city departments are utilized for this purpose. In the winter some cities flood the playgrounds and convert them into public

skating rinks. Professor Zueblin states that in Chicago, during the winter of 1901-1902, "no fewer than two hundred" municipal skating rinks were established. Many vacant lots were utilized for the purpose. It is estimated that in 1907 Chicago possessed over ninety-three acres of playgrounds; Philadelphia, one hundred and ten acres; and Boston, two hundred acres. A physician estimates that "the city of Philadelphia spends more resources and employs more agents in the interests of public health to-day than did the whole English-speaking world a century ago."[1] The gymnasium, physical training, athletics and organized play are rapidly becoming integral parts of our educational work both for adults and for the young.

Closely connected with the increasing importance of the school as a playground and a social center, and supplementing its work, is the movement to provide free public baths and free concerts for the public. Municipal baths are now maintained by many cities. In Brookline, Massachusetts, provision is made in the high-school program for swimming during school hours. Squads are sent twice a week to the municipal bath houses. The boys are sent in the forenoon and the girls in the afternoon. In both Chicago and Toledo the free band concert has proved a boon to thousands of people on hot, sultry summer evenings and afternoons. The school buildings could also be utilized in the winter for indoor concerts, at very little expense. The old medieval conception of the

[1] R. C. Newton, *Popular Science Monthly*, August, 1907.

worthlessness of the human body is rapidly passing. The first decade of the twentieth century is indeed witnessing the "renaissance of the physical conscience." The school is no longer a mere "brain refinery"; education is now "humaniculture." Modern industry, with its routine work, its sedentary occupations and its growing cities, coupled with increasing leisure for all workers, has forced the problem of physical training and of amusement upon society. An industrial people which neglects these essentials must inevitably perish. The early and crude attempts at the solution of the problem have been chiefly the results of a blind outcropping of the instinct of racial preservation, joined with a humanitarian impulse stirred by the sight of the crowded and cheerless city. The hopeful and important results which have already been achieved presage that a great forward step will follow a systematic and scientific study of this problem.

The Utilization of the Summer Vacation

The rise of the vacation school is significant for two reasons. First, it emphasizes the desirability of play, manual training and contact with nature as a part of our educational scheme. Text-books are rarely used in a vacation school; books are only referred to as the necessity arises, or as the child feels the desire for further instruction in regard to some particular subject. Secondly, the vacation school is an attempt to fill up a gap, during the summer, which modern industrial conditions have created. A rural community has little need

ordinarily for a vacation school. When the inhabitants of the United States were almost wholly rural, the long summer vacation was utilized by placing the young people at work on the farm, while the younger children busied themselves the entire day in play in the open air. Economic and climatic conditions conspired to produce the long summer vacation,—a very desirable feature in the physical, industrial and intellectual education of the time. Eventually it came to be a dogma that the intellectual worker, young or old, needed a long rest each year. Under city and village conditions these advantages in a large measure disappear; the vacation degenerates into a period of demoralization instead of one of rest, or rather of desirable and beneficial change of occupation. As a result, the vacation school, the summer camp or excursion to the country for the young, and the summer school for the older students, have become well-known institutions, and are destined to secure permanent places in our educational system. The harvest field on the one hand, and the restriction of the function of the school to purely intellectual drill and discipline on the other, can no longer be offered as valid excuses or sufficient reasons for the continued adherence to the traditional school and college calendar.

The first vacation school was established in Boston in 1885. Many other cities soon followed; but all of the early schools were established by private initiative. In 1899 vacation schools were established in New York City under the supervision

of the Board of Education. Such schools had already been maintained for four summers under the auspices of various private associations. In 1902, 32 school buildings were utilized for this purpose with an average attendance of 12,916 pupils; in 1903, the figures were increased to 54 and 18,927 respectively; but in 1904, for financial reasons, only 39 buildings were utilized during the summer, with an average attendance of 17,446 pupils. The total expenditures for the vacation schools of this city were $42,751.44 in 1902, $122,121.30 in 1903, and $73,847.77 in 1904.[1] These items form only a very small part of the total expenditures for the schools of New York City, which were $27,848,853.16 in 1903-1904.

A typical program of work in a vacation school usually allows about forty minutes each for such subjects as nature study, drawing, music and gymnastics, gardening, manual training or sewing. Vacation schools are desirable both from the educational and the economic point of view. They are in all respects cheaper and better than reform schools, and are made desirable, as are playgrounds, on account of the crowded conditions of our cities. The vacation school illustrates another form of encroachment on the part of the school upon the former functions of the home and of the playground. At least one great university, Chicago, has fully recognized the uselessness of the long summer vacation. This university divides its school year into four quarters of twelve weeks each. The

[1] Palmer, *The New York Public Schools.*

work of the summer quarter counts towards a degree exactly as does the work of any other quarter. By attending during the entire four quarters of each year, students may complete the usual four-year college or undergraduate course in three years.

The School City

By means of the school city an attempt is made to give the children, in a practical manner, a knowledge of the functions and the problems of government, particularly of local government, and to illustrate the duties and obligations of citizens whether of a school or a city community. The plan, as now usually carried out, is said to have originated in the mind of Mr. Wilson L. Gill. It has been tried in several different cities, among which are Philadelphia, Chicago and Toledo. Mr. Gill was invited to Cuba by General Leonard Wood, and spent some time introducing the system into the schools of that island. The apparent success of the George Junior Republic, which is managed on a self-governing basis, has led many other institutions to pattern after it. The real, although most forgotten, prototype of the school city is probably Fellenberg's school at Hofwyl, Switzerland. Fellenberg was an educator of great merit whose name is worthy of being ranked alongside, if not above, those of Pestalozzi and Froebel. The school at Hofwyl was organized in 1805, and continued in operation until the death of its founder and master over forty years later. Robert Dale Owen was a student in this school.

This distinguished pupil gives the following description of the government of the institution: "We were proud that our republic had no laws but those we ourselves had made. It had its council of legislation, its courts of judges, its civil and military officers, and its public treasury. It had its annual elections by ballot, at which each student had a vote; its privileges and honors equally accessible to all; its labors and duties shared by all."[1] Later in its history these formal methods were cast aside as cumbersome and unwieldy, but the spirit of the institution was unchanged.

The school city tries to impress upon the children the idea that they are participants and sharers in the duties and responsibilities of the school community. Emphasis is laid upon the rights and privileges of others, upon the necessity of coöperation in keeping the school building and school yard clean and neat, upon the fact that the school property is their property and that they are responsible for its proper use. The school city tries, through its governmental machinery, to create a strong public sentiment in favor of law and order. It makes plain to the student body the simple proposition that the noisy and disobedient student violates the rights of others,—that the boy who cuts his desk or destroys shrubbery in the school yard is destroying the property of the entire school community. In short, it is a "moral and civic apprenticeship."

[1] R. D. Owen, *Threading My Way: An Autobiography*, pp. 152-3.

Any means which can genuinely and permanently interest the student in current events or in local, state and national administration and government, is very desirable. The school city is, in reality, an extension of the laboratory method. By means of it teachers try to form good citizens; they train students on an experimental stage where many of the conditions are prescribed in advance. It is, however, the spirit rather than the machinery upon which the emphasis must be laid. The skilful teacher should never relax his authority, but must gradually mold public opinion in the school so as to bring about the desired result. The possibilities and chances of success also seem to be greater in the elementary than in the high school. In the latter, unless very skilfully managed by the principal and teachers, it is often considered by the students to be a sort of play government and is liable to receive only a sort of contemptuous allegiance. At least this was the result of experience in Toledo. One of the best ward schools in that city has been operated for several years as a school city. Among the officers are a mayor, councilmen, and sanitary and health officers. The result has been good, but the system has not been extended to the other ward schools. The Toledo University School, of high-school grade, tried the school-city plan for two years, and the result may undoubtedly be counted a complete failure. The superintendent lost control of the mechanism, and the would-be young orator was given too great an

opportunity. The necessary interest and school sentiment were not aroused.

There is danger to-day, in this age of world-wide politics and international interests, of overlooking or neglecting the near-by, the home community, and local welfare and interests; there is a danger of abandoning rigid inspection of local matters because of an appeal to larger, more distant affairs. At this time, when the air is filled with rumors of imperialistic policies, it is well for the school to lay emphasis upon the forms of local government; it is right that the school should train the young men and women intrusted to its care to take an active interest in local matters, and to understand the machinery of the local government. If the local government is kept pure and efficient, the state and national government will also be honest and efficient.

If the school city can give to the child of the immigrant a true conception of the plan upon which our government rests, truly a great work will be accomplished. Heretofore their great teacher, and the teacher of many native Americans as well, has been the too well-known ward "boss." From him the future American citizen has learned the lessons of civic duty and of civic ideals. Only one institution, and that not a public but a private one,—the labor union,—has really taught the lesson of democratic government. The trade union has been and is a great Americanizing and unifying force. But even the labor union has taken on some of the undesirable features of our political institutions.

The "boss" and the "machine" have found lodgment in the management of this most democratic of institutions. And is this not to be expected as long as our present condition of low civic morality continues? The trade union has been the great school of modern democracy to thousands; but it labors under certain disadvantages which do not affect the school. Two of these disadvantages may well be mentioned; the labor union is at present necessarily a fighting organization, or at least it must be prepared for industrial warfare, and it deals with the adults whose opinions and ideals are not as easily modified as those of school children.

Whether the school-city plan be generally adopted or not, the fact remains that the school ought to display greater activity in regard to the practical teaching of good citizenship. Something more concrete and real should be given than mere platitudes regarding liberty and freedom. Duties, rather than rights, ought to receive the greatest attention. We hear much about the sacred rights of the free American citizen; but there is an ominous silence upon the subject of the sacred duties of the same individual. The right of the ballot is made the chief feature of every talk to the student upon citizenship; but not so frequently are they told of the imperative duty to vote, and to vote for what they conceive to be the best principles or the best man. The school city is right in principle because it employs the laboratory method. It substitutes doing for passive assimilation of grandiloquent phrases. It is still in the experimental stage, but is

worthy of further study and consideration. In proportion, however, to the density of population, to the extension of the market area, to the multiplication of interstate and international relations, to the centralization of industry and to the growing inequality in the distribution of wealth, the complexity of the duties of citizenship increases, and the necessity of training for citizenship becomes important.

School Savings Banks

According to statistics which have been gathered on this subject, there are about eight hundred public school savings banks in the United States. The number of depositors on January, 1905, was nearly ninety-one thousand. The total deposits for the year 1904 were $1,367,930, or an average of a little over $150 for each depositor. Los Angeles ranked first in the number of banks, namely fifty-three. The school savings system has been tried in more than a hundred cities, among the number being Los Angeles; Pittsburg; New York; Lynn, Massachusetts; Toledo; Grand Rapids; and Evanston, Illinois. The first bank of this sort is said to have been established in France in 1834. Mr. J. H. Thiry, of Long Island City, first introduced the system into the United States.

What are the merits and demerits of the school savings-bank system? Many wealthy and self-made men of to-day are very liberal with advice; they tell and reiterate to the rising generation the story of how they started on a dollar a day, how

by careful frugality and the saving of their pennies they became rich and influential. Viewed in the light of such testimony, coupled with these old ideals of success, the school savings bank is an extremely desirable and important department of school work. If, however, we examine the matter, if we trace the career of these "self-made" men, it is usually discovered that exploitation of natural resources, or the ownership of valuable privileges or franchises rather than mere frugality furnished the real foundations of their wealth getting. To-day, by mere saving neither the wage-earner nor the average salaried man can become well-to-do. Conditions are totally different now from those of a quarter- or a half-century ago. Advice based upon the experience of a half-century ago is not exactly pertinent to the situation to-day. The school saving system and its value must be judged in the light of present conditions.

The wage-earner and the salaried man of to-day are obliged in a large measure to place dependence upon insurance rather than upon savings. The pensioning of policemen, firemen, teachers, railway men and industrial workers are live topics in political and industrial circles. An extension of public activity along this line is probable in the future. Thrift is still, however, a highly desirable personal characteristic. The main value of the school savings system appears to lie in the elimination of the small, useless and harmful expenditures for such articles as candy or cigarettes, or for such amusements as pool playing or cheap theaters. It should

aim at improving consumption, rather than at the teaching of mere saving in order to see the dollars accumulate. By accumulating considerable sums, relatively speaking, consumption will be directed naturally into better channels. A large sum is much more likely to be spent in a beneficial manner than are smaller sums; consumption is in such cases improved by postponing it. Again, the man who has saved a little, who has acquired the commendable habit of looking a little way into the future, is more independent than the one who has not, and who is living from hand to mouth.

If the school savings system will lead to the development among the pupils of a habit of calculation, of counting the cost, it will be worth the trouble and extra labor which must be incurred where it is made a part of the public-school work. If it can be utilized to aid in doing away with the undesirable system of buying on credit to which so many wage-earners cling, it will indeed be a valuable addition to the functions of the school. The old hackneyed arguments in favor of a school savings-bank system should be cast upon the scrap heap. These arguments may have been valid a generation or two ago, but to urge them in good faith to-day is to exhibit narrowness of mental vision.

University Extension and Traveling Libraries

These two movements aim chiefly at reaching the adult working population. The avowed purpose of these important educational activities is to bring to the door of every adult an opportunity

of combining recreation and instruction. The correspondence school and farmers' institute are very similar in their essence to the two educational activities now under consideration. Professor Herbert B. Adams, of Johns Hopkins University, was one of the leading spirits in preparing the way for university extension work. In 1890 the American Society for the Extension of University Teaching was formed. Two years later that pioneer in many lines of university work—the University of Chicago—took up this line also. University-extension courses were instituted in many cities during the early nineties, but to-day there are only three large centers,—Philadelphia, New York and Chicago. In a recent college year the University of Chicago gave over two hundred courses at about one hundred and fifty secondary centers. The attendance was estimated at about 43,000. The progress of university extension has not been as encouraging as its original promoters anticipated, but it has performed an important service. It has demonstrated the possibility of reaching the adult. The free lecture courses of some of the larger cities are probably due in a large measure to the impulse given by this movement. If this extension movement has done no more than to point out to boards of education the need and the value of popular lectures, it has accomplished much. The duty of teachers and of boards of education is not wholly performed when an effort is only made to reach those whom the compulsory education forces into the schoolroom. The

school should go out into the highways and the byways and prepare a table for all comers.

Fundamentally, the traveling library and university extension have one and the same aim. The former goes to the small, isolated community and the little crossroads; it reaches the people whom the university-extension movement cannot hope to touch; it goes where the permanent free public library is impossible or inadvisable. "Fastnesses of illiteracy in the mountains of Kentucky, Tennessee, Alabama and Georgia are being stormed, with a rain not of bullets, but of books and pictures, and while the proud mountaineer is suspicious and fearful of patronage in these free books, yet the boundless joy of his children is winning him to look upon the traveling library with favor." The traveling library reaches the mountaineer of the South, the farmer of the North, and the miner of the West. The books of this little library supplement and enrich the work of the rural school. While of course book learning is only a small part of true education, the use of the book will do much to relieve the tediousness and monotony of life, to give nourishment to new thoughts and higher ideals, and to improve the efficiency of the readers.

To the island continent of Australia belongs the honor of the original conception and utilization of the traveling-library system. The public library of Adelaide, Australia, in 1859 sent out eight such libraries of thirty volumes each. To Melvil Dewey of New York belongs the credit of starting the movement in the United States. In 1892 he sent

out from the State Library at Albany several libraries of one hundred volumes each. The traveling libraries have been defined as "small collections, generally fifty in number, of the best popular books, fiction, juvenile, history, biography, science, which are sent from one station to another, at intervals of six months." Only seven years after the beginning was made in New York by Mr. Dewey, "there were 2,500 traveling libraries in the United States, containing 110,000 volumes, which were read by nearly one million people."[1] The National Federation of Women's Clubs and the farmers' institutes of many states have taken hold of this work, and in states where no appropriation is allowed have sent out many libraries. During the seven years preceding 1905 the Illinois Federation of Women's Clubs created and sent forth on their journeys 300 traveling libraries. More than a score of states now maintain library-extension boards. The next step which has been proposed is to obtain the passage of a law which will permit the delivery of the books through the rural mail delivery at a very low cost. Such a scheme is well worth consideration and seems to be a step in advance in the attempt to reach, interest and encourage the adult.

The work of the Wisconsin Free Library Commission is worthy of further mention. This commission was established in 1895 and from the first recognized the importance of the traveling library. In addition to the libraries of the state commission, several counties in the state maintain local traveling

[1] *Chautauquan*, October, 1902.

libraries, and the State Federation of Women's Clubs has aided in the work. In August, 1900, there were 238 traveling libraries in this state, of which number 54 were controlled by the state commission. In 1902 this number had increased to 305; and in January, 1905, to nearly 400. German, Scandinavian, municipal government and study libraries have been successfully circulated. In at least one county, Portage, a traveling picture "library" has been tried. These pictures comprise "flowers, landscapes, marine views, game and religious subjects in photographic and brown and colored lithographic reproductions." Each picture should be accompanied by a short account of the subject and the author. These libraries were circulated through the medium of the schools, the teacher being asked to invite the pupils and their parents to the school for an occasional evening to enjoy the pictures. Such a movement will aid in brightening the walls of many bare and somber schoolhouses. In the schoolroom art, sunlight and cleanliness should be invoked to aid the teaching process; but, alas, how often these efficient aids are neglected!

Transportation of Children to and from School

This topic may be considered under at least four different aspects: (1) Township consolidation of rural schools and transportation of children by means of wagons; (2) transportation of rural children to town or city schools by means of the steam

or electric railroad; (3) transportation of city children to schools situated in a pleasant suburban environment, in order that they may receive the benefits of fresh air, large playgrounds, contact with nature, and contact with agricultural life; (4) excursions for school children (*a*) from country to city, and (*b*) from city to country.

The consolidation of the rural schools is taking place as the result of a demand on the part of the farming population for better rural schools. It is an attempt to introduce the graded-school system and to bring the rural school up to the standard of the city schools. Where the graded system can be substituted for the one-room, ungraded school of the small district better teachers and better apparatus may be provided, although it leads to the more rigid system which large classes necessitates. The consolidation of schools seems to be a phase of the modern tendency towards centralization of authority and management. A Massachusetts law of 1869 provided that the school committee "may use" funds for transporting school children to and from school. In Connecticut a law passed in 1889 provided for the discontinuance of small schools and for union with schools in adjoining districts. In 1893 transportation of pupils was authorized. In Ohio a special law of 1894 authorized consolidation of schools and transportation of pupils in Kingsville Township, Ashtabula County. By 1903 twenty-four states had passed laws permitting the consolidation of rural schools and the transportation of pupils at public expense. The usual conveyance

is a wagon or a sled; but in several districts the trolley has been utilized. During the winter of 1900-1901, for example, a trolley car was run at the expense of the town of Stamford, Connecticut, to convey school children from Shippan Point to one of the town schools.

The concensus of opinion seems to be that the consolidation of schools tends to improve the schools in the rural districts, since it is possible to employ better teachers and to obtain more efficient and effective supervision. In Kingsville some of the advantages claimed are as follows: "The line between the country-bred and the village-bred youth is blotted out"; higher classes may be taught; the attendance is larger and more regular; the school year has been lengthened as a result of consolidation; "all parts of the township have been brought into closer touch and sympathy"; and "the cost of maintenance is less than that of the schools under the subdistrict plan."[1]

In New Zealand the railroads are utilized to bring the children from the rural districts to the city schools, thus enabling many country children to attend the well-equipped city schools. Three months' season tickets are sold on the state railroads to school children for from two dollars and fifty cents to five dollars, according to the age of the pupils. Pupils in the primary grades are carried free. These tickets are sold to all places within a radius of sixty miles of the school. "This gives

[1] See *Arena*, July, 1899; also Reports of Commissioner of Education.

them a possible one hundred and twenty miles a day for three to six cents, in round numbers, or twenty to forty miles for a cent. If a child goes in and out six miles each day, he rides twelve miles for three cents."[1]

The possibility of utilizing our city and suburban electric roads for the transportation of city children to well-located suburban schools is worthy of careful consideration by our city school authorities. The environment of many of our city schools constitutes one bad feature which, in many cases, can be adequately remedied only by removing the school itself. The children could gather at some one, or at several, sheltered points, or a sufficient number of cars could be run on to a siding at some convenient point or points, and the children could be conveyed to the school in cars chartered for this purpose. In the case of vacation schools, this matter is of even greater importance than in the case of the regular schools. Many of our city schools have small or no playgrounds, and are surrounded by brick walls and stony pavements. The constant hum and clamor of the street sounds unceasingly in the ears of the child. Saloons, billboards, dirt, smoke and ashes are familiar elements in the environment. Trees and grass are conspicuous chiefly by their absence. On the other hand, if the school is located in a rural or suburban environment, it could be placed in the center of a large field. Trees, shrubs, flowers and grass could now occupy prominent places in the environment of the school.

[1] Parsons, *The Story of New Zealand*, p. 386.

Tennis courts, hand-ball courts, fields for baseball and basketball, playgrounds and gardens could be provided for the students. In fact, several school buildings might well be grouped together in one large field, and be provided with a central heating and lighting plant. A noon meal would, of course, be provided for the students. Manual-training shops, domestic-science laboratories, gymnasiums, swimming pools and the like could be utilized by all classes in the different schools of the group.

The value of land in the suburbs is, of course, much less than that located in the more central portions of the city. The saving of interest on the additional issue of bonds necessary to purchase a new, or to enlarge an old, central location over that required to purchase land in the suburbs would practically pay for the expense of transportation, which should be at cost to the company. If the view that the school of the future will exercise supervision over the child from early morning until late in the afternoon is accepted, this plan appears to offer a rational and happy solution of the problem, at least in the case of schools now located in the crowded and undesirable sections of our cities.

Excursions are now usually a part of the program of a well-organized vacation school; but New Zealand seems to make much greater use of this educational feature. Excursions are frequently arranged in that island for the country children as well as for those confined to the city. A flat rate of four miles for one cent is given by the railroads to the school excursionists. "By these excursions

the country children come to town, where they are received by school committees who conduct them over museums, newspaper offices, gas works, ocean steamers, etc., and explain everything. A thousand city children see fields of waving yellow wheat reaped and bound; see orchards, forests, mountains, lakes and glaciers; view dairy farms and creameries; and learn about the country and the life of the country people."[1] It is needless to dwell upon the educational value of such sightseeing for both the rural and the urban child. If the children of New Zealand—a country possessing no large, crowded cities with the consequent wide separation of rural and urban life—are benefited by such excursions, surely the value to American children is not small.

Medical Inspection in Schools

The duties of medical inspectors for the public schools are well stated as follows: "(1) The supervision of the sanitary condition of school buildings and their appointments; (2) the supervision of the carrying out of the regulations concerning the hygiene of instruction and appliances; (3) the care of the health of public-school children and aiding the public physicians in preventing and combating contagious diseases, determining the physical defects of children for the purpose of continuous observation or special consideration during school hours, and the supervision of the physical training in so far as it is directed in school." This

[1] Parsons, p. 387.

is the ideal form of inspection. Medical inspection is employed in the schools of cities in Sweden, Austria, France, Egypt, Belgium, Holland and Germany; in the United States several cities have introduced such a system—Boston in 1890, Philadelphia in 1892, Chicago in 1896, and New York in 1897.

Medical inspection is in actual practice usually confined to examination of children in order to prevent the spread of communicable diseases. In the schools of New York City both medical inspectors and nurses are employed. The inspectors examine eyes, throats and skin of children; the nurses give aid and advice in the treatment of simple ailments, treat certain cases, such as eruptions on the skin or the presence of vermin. Thorough inspection and treatment of this sort is one of the best possible preventives of the spread of communicable diseases. In our crowded cities the necessity of such treatment is almost self-evident to the thoughtful individual.

Consideration should, however, be given to the first and second clauses in the list of duties as outlined above. This is a much neglected field. The school itself through its buildings, equipment and methods is a fruitful source of disease among children. "As far as schools are concerned, the causes among school children are to be found mainly in the long deprivation of freedom, the restricted benefit of pure, fresh air, the unaccustomed quiet position in sitting, the confined activity of the muscles, and the premature and often protracted

mental effort." These conditions are all removable and will be removed as progress is made toward a more natural and saner method of developing the mental and physical capabilities of the young. Good ventilation, proper lighting, comfortable desks, sufficient exercise and change of occupation are proper subjects for the advice of physicians. The kindergarten, manual training, physical training, nature study, vacation schools, and many other recent educational innovations are signs of progress. The vital, positive work of medical inspection in the schools should be the removal of all those features of school work and apparatus which tend to reduce the physical and mental vigor of the student, or to induce weaknesses which may offer a foothold for disease. Ignorance on our part or on the part of others with whom we are forced into contact is a fruitful source of disease. It would be difficult to measure or even to roughly estimate the economic and social value of the work of conscientious medical experts who can act in conjunction with the teacher and board of education for the prevention of disease and weakness, and for the removal of the conditions which are fruitful causes of these evils. Prevention, rather than cure, is, of course, the ideal. Medical science has not developed its preventive side as well as it might because the economic motive for so doing is lacking. This is not a wholesale indictment of the medical fraternity; this condition is merely due to the frailties of human nature, and the same phenomenon appears in all persons and in other

professions. The permanent employment of physicians at reasonable salaries would place physicians in such a position that economic motives would lead them to make a careful study of the prevention of disease. Then the work of such men in the school would soon lead them to the home, and to the betterment of home conditions.

Dullness, stupidity, ill-behavior are often due to poor sight, poor hearing, bad ventilation or improper nourishment. Medical inspection should discover these defects and prescribe the proper treatment of the child for his physical welfare; and the teacher or principal, by means of the information furnished, will be able to better work out the proper line of treatment for his educational development. The transmission of this information to the parent ought to aid in obtaining a more rational and sympathetic treatment of the child by his parents and associates.

Two fundamental and unanswerable arguments may be made in favor of medical inspection and care for the children in our public schools. It is an essential safeguard against the spread of contagious and infectious diseases, and it is a means of raising the national standard of mental and manual efficiency and skill. On the other hand, if the state as the result of economic necessity and by means of legal regulations makes school attendance compulsory, it ought to replace the parental care and watchfulness by the skilled attention of competent medical practitioners. Compulsory school attendance forces the child into contact with many other

children from a multitude of homes, and at the same time it removes the child from the eye of the parent. Safeguarding the health of the children is a correlative of a compulsory school law. Duty to society and to parents demands medical inspection, the school physician and the school nurse.

The School Nursery

In the homes where the mother is obliged to go outside to work, the child is necessarily left to the tender mercies of the older brothers and sisters. Lacking proper opportunities for play in the home, the street becomes the natural playground for the very young child as well as for the older ones. The nursery becomes as essential in connection with the school as is the playground or the kindergarten. This increasing supervision and control of the young by the school may not give ideal results, it may not be as beneficial to the child as the average home training of the past may have been, but the facts of the case must be considered. The home of the past of which we think when this question is raised, sheltered the mother all day. "Where mother is, that is home." If the mother is not there, if the playground has vanished, if fresh air and open spaces are negligible quantities, if there is no daily round of chores, what is there left of this traditional home that is more sacred than the public school, the public kindergarten, or the public nursery? The truth is that many city homes no longer afford opportunity for the proper care and

treatment of the growing child. The school must care for them or they will go uncared for. It must take them from the cradle and minister unto them until they are men and women. Until the school teachers, the school authorities and the general public actually recognize the breadth of the mission of the public school, many, many innocent and helpless children will be doomed to walk the downward path which leads to failure, inefficiency, ill-health and crime.

The evolution of the city home and of the city itself has been worked out as the result of purely temporary individual economic motives—the lure of large and immediate profits has fashioned the situation. The child, broader social aims, and the happiness of society have been overlooked because the ideals and ethics of the frontier were carried unmodified into our city civilization. To the school now comes the problem of partially, at least, preparing a place for the child, of protecting him, in the name of social welfare and of national progress, from the insidious encroachments of private economic interests. "If the school were to assume a larger responsibility for the child, it would find it necessary to begin with nurseries to care for the smaller children whose parents must go to work."[1] It must go further; it must provide a place and suitable recreation or occupation for children of all ages while parents are at work.

The schools of the city of Paris furnish a concrete example of work of this character. There is

[1] Hunter, *Poverty*, p. 206.

a system of so-called "maternal schools" which are free to all small children. These schools are, in reality, kindergartens. "To bridge the somewhat abrupt transition from the tender and indulgent methods of the mistresses of the *écoles maternelles* [maternal schools] to the more formal and rigid system which prevails in the regular primary schools, it has been found well to establish a system of so-called *enfantile* schools for children between six and eight. These are for the more timid, sensitive, or backward."[1] More rational methods in the regular primary schools ought to remove this "abrupt transition." An extension of some of the methods of the kindergarten into the primary grades is undoubtedly desirable. But Paris has introduced another innovation which, Dr. Shaw states, has been successful. "This is the system of *garderies,* or *classes de garde,* for small children whose parents are employed away from home during the day. In many cases—the instances were numbered by the thousand—young pupils were released at four, while their parents could not return from their work for two hours or more. Such children are now kept in custody by some one connected with their school, are allowed to play under safe conditions, and are sent home at the proper hour." Certainly, this is a simple, sane solution of one of the problems facing those responsible for the youth of our cities.

[1] Shaw, *Municipal Government in Continental Europe,* p. 119.

Feeding School Children

By the following statement Robert Hunter, in his well-known book entitled *Poverty*, startled many complacent Americans who have supposed that real poverty was almost unknown in this republic. "There must be thousands—very likely sixty or seventy thousand children—in New York City alone who often arrive at school hungry and unfitted to do well the work required." Superintendent Maxwell also says, "What a farce it is to talk of the schools providing equal opportunities for all when there are thousands of children in our city schools who cannot learn because they are always hungry." And the pertinent question arises in the minds of many: Why compel children to come to school and go through the motions of studying and learning when in reality they are, in many cases, physically incapacitated? If many in our city schools are not properly fed, if many cannot do efficient work because of lack of food, logic as well as humanitarian ideals ought to make clear the necessity of backing up our compulsory education law by the school dining room. Paternalism? The cry of paternalism,—the diminution of individual responsibility—is, of course, heard in the land every time society assumes functions formerly performed by the family or by the individual. Certainly this is paternalism, but of a kind which modern complex conditions make a necessity. It is urged against feeding school children, as it is against free medical attendance and advice, that it tends towards pauperization and irresponsibility;

but if it aids in building up healthy bodies and active minds it acts as a preventitive of the pauperization of the next generation. In the period 1820-1850 it was urged by many opponents of the free school system that free public education would pauperize both the children and their parents. John Randolph, in his speech before the Virginia Convention in 1829, emphasized this view. Nevertheless, to-day we have free schools, free text-books, free public libraries, free public museums and art galleries, and so on through a long list. Is there any logical reason why we should arbitrarily draw the line at free meals for school children? Evils are doubtless connected with such projects, but the scheme should be tried if the resultant evils are likely to be less than those now existing. The presence of marked class distinctions, of enormous differences in the economic strength and position of different individuals, makes governmental paternalism a modern necessity.

In many European cities the plan of feeding school children at noon is no longer a novelty. In the United States, in at least three cities—New York, Chicago and Milwaukee—private philanthrophy has made a beginning; but over half a century ago, Horace Greeley, in the *New York Tribune* and elsewhere, pointed out the necessity of providing for hungry school children. Many children come from homes where the mother is obliged to work, from homes where there is no playground except the street or alley, from homes which are small, unsanitary and uninviting. The school of

the future must be prepared to take care of such children, and of all others who may desire to be cared for, from early morning until late in the afternoon. A noon meal should be served,—a meal which is simple, nutritious, well cooked and daintily served. A morning lunch ought, of course, to be served to those who are actually sent to school hungry. This is not considered a charity; it is on the same plane as free text-books. The cooking department might be utilized to provide meals for the pupils.

The School as an Employment Agency

The problem of the near future is to be not so much that of the direct means of increasing production, but rather of the proper distribution of men in different occupations. One of the great wastes of modern times is forced unemployment in certain localities and industries, and the dearth of men in other places and occupations. Only improper operation or functioning of the industrial and economic machinery of society as a whole causes the presence of great floating populations of unemployed, although such populations seem necessarily to accompany modern industrial operations. The adjustment of work to workers, the decrease of industrial friction, is a crying necessity of the twentieth century. How can it be done? This is the vital problem of economics, of sociology and of education.

In recent years much has been written and said about the right of every man to a job. It has been

held by some writers that each individual has a moral, or a natural, right to an opportunity to support himself and his family in a decent and respectable manner. From the social point of view such a contention is right, and should be encouraged. If, however, society is to guarantee such a right, if it is to agree to provide occupation for all its able-bodied members, it surely must, through public education, be prepared to train the individual to perform useful work efficiently, and it must find a place for those individuals after they are so trained. Modern conditions are, in fact, forcing upon society this question of the right of the laborer to a job. Land and opportunity have fallen into the hands of certain individuals. Society is obliged for its own development and welfare to take care of those individuals toward whom opportunity has apparently turned her back. Indeed, the state may eventually find it necessary to enter the industrial field as a competitor of the individual employer or the private corporation. Under a simple economy demand was always accompanied, under normal and healthy conditions, by the opportunity to obtain satisfaction. Our present intricate system has taken this privilege or right away from the majority of men. Nearly every one must obtain work through some employer of labor. The opportunity to work depends in the last analysis upon the decision of an individual other than the worker himself. The establishment of a legal right to work would be the best possible approach to natural conditions;

but, as was intimated above, it involves the entrance of the state into the industrial field.

Without going so far as to guarantee every person a job, the school might be used as an employment agency, and thus aid in mitigating some of the evils of unemployment and in placing the right person in the right place. In the case of the able-bodied person who is willing to work, unemployment is of several kinds, for example, seasonal, due to industrial depressions, local and individual. The first is not, perhaps, properly a form of unemployment. The possibility of dovetailing seasonal industries together, and the possibility of giving trade instruction with this end in view, have already been discussed. In the case of widespread depressions and of unemployment extending over large sections of the country, the only remedy lies in the considerable increase of public work of various kinds. In the case of a local surplus of workers, employment bureaus might be established to assist workers in finding work in other localities, and thus to equalize supply and demand for labor.

At all times, however, some are out of employment, and young persons are constantly seeking entrance into the business world for the first time. To give assistance to such persons is the real function of the school employment agency. Young men who are out of work and who have learned no trade, or who are not well prepared for any occupation, could be placed in the continuation school during the period of waiting. They could be taught the trade for which there is the greatest demand,

provided they are qualified to learn such a trade. Older men might be made more skilful in their chosen trade or calling. The domestic-science department might also contribute its mite to the solution of the ever-present servant problem; but in order to accomplish much in this direction, training of the employers would probably be also required.

Work in the school shops, in school yards or in municipal plants of various kinds might be supplied to a limited number of persons which would keep them from actual want or from the necessity of applying for charity. Furthermore, while they were thus earning a bare living and waiting to be placed, much valuable training in their trade, or in some skilled or unskilled occupation could be given. In order to take up the work of finding employment in the manner just outlined, continuation schools, commercial schools, shops and domestic-science laboratories are essential. It is, however, feasible for manual-training schools, commercial high schools and night schools, as at present organized, to give assistance to many of their students.

Paying Children to go to School

Since true social reform begins with the incoming generation, with the plastic minds of the children of to-day, the key to the solution of many problems which confront modern society will be found in measures which vitally affect the training and environment of the young. For this reason the most paternalistic, radical and startling of all

the new projects in education cannot be laughed out of court. It is soberly presented for careful consideration as a proposed piece of scientific legislation. The chief benefits which may be anticipated from the establishment of some system of paying children to go to school are three in number: undesirable child labor would be prevented or greatly reduced; the mass of children would remain longer in school; and the amount of "race suicide" among the middle class would be reduced.

Paying children to go to school is in harmony with long established national, state and local policies. Bounties have been granted to producers, ships have been liberally subsidized, protective tariffs have been placed on our statute books, vast sums of money have been voted for internal improvements, money has been furnished for irrigation, for agricultural experiment stations, for schools and universities, for free text-books, for charities and corrections, and so on through a long list. These steps have been taken ostensibly for the betterment of society, for the advancement of the interests of all the citizens of the United States. It is proposed to subsidize the youth of the country in order to produce better men and women, to reduce the amount of physical and mental weakness, to raise the standard of morality and of citizenship,—in short, to increase the most important form of wealth which it is possible for a nation to possess. The state as well as the family is vitally interested; the state should share the burden. The children of this country are now provided with an

expensive school system; but if a large percentage of the children cannot or do not remain in attendance long enough to derive the real benefits of a common-school education, the economic and social waste is enormous.

One of the most serious of our industrial evils is that of child labor in mines, factories, sweat shops, and on the street. In the majority of cases where children leave school at an early age to become wage-earners, it is because of the cupidity or necessities of the parents, the desire of the child to earn money, or the character of the available school training. When school attendance becomes a direct means of earning money, a positive check is provided against the operation of the first two causes. In order to make education the great lever by means of which the level of society may be raised, it is necessary not only that the school system enlarge its functions but also that it keep the children in school an increasingly long period of years. Determined efforts have been made to stamp out the evil of child labor by means of repressive legislation; coercion has been used to force education upon all children, willing or unwilling. The measure now under consideration leads, instead of pushing, the parent and the child along the desired road. Repressive and coercive legislation in regard to child labor and education will no doubt be necessary after this scheme is put into operation, but the probability of its success is multiplied many times. The line of least social resistance is chosen. The temptation to increase the

family income through the work of the child is in a large measure removed. By means of this simple device the self-interest of the individual is made to further human progress. Coercive measures are always inefficient and difficult to enforce. When the personal interests of the individuals directly concerned are visibly aided by the proposed measures coercion is unnecessary, and the desired results are obtained with a minimum expenditure of social energy. It is the acme of scientific legislation to direct selfish forces so as to bring about social welfare, so as to make it easy to do right.

Children are necessary to race preservation, yet under present conditions children, viewed solely from the economic view, are a burden. The antithesis is presented: individual preservation on the accustomed standard of living, or race preservation; individual advantages versus social claims. The path out of the dilemma leads onward, not backward. Free schools, free text-books, public playgrounds are some of the mileposts on the road which leads to payment for school attendance. These are forms of state aid to parents, and have been ostensibly introduced in the name of the state, of society, of the public welfare. The instinct of race preservation, in contradistinction to the sexual instinct, is not strong in the individual; only to organized society does the broader aspect appeal. Industrial and social forces are to-day making for the small family. Society cannot turn backwards to the industrial conditions of a few generations ago; but it can, through legislative measures,

weaken the forces which are now causing late marriages and opposing the desire for offspring. When this is done race preservation will take care of itself.

The policy of paying children to go to school will tend to reduce the amount of child labor among the poorer classes of the community, and will, as a consequence, diminish the number of the future inefficient workers and of physical and mental weaklings. It will also act so as to raise the birth rate of the families in the so-called middle class, thus increasing a very desirable element in our population. The financial obstacles seem at present to offer almost insuperable barriers. Students of taxation are however pointing out new and important sources of revenue; and, on the other hand, the adoption of this scheme would tend to reduce the nation's bill for drink, crime, ill-health and charity. This innovation is the logical consequence of a policy which provides free tuition, free text-books, free playgrounds and free medical aid in schools.

What are all these innovations leading us toward? is a question which will rise to the lips of many readers. According to Lieber, "the duty of the state is to do for man, first, what he cannot do alone; second, what he ought not to do alone; third, what he will not do alone." Modern life makes imperative greater collective action and increases the duties and responsibilities of the state. Greater relative and absolute portions of the national income must be devoted to collective betterment and enjoyment. The school is one of the chief

instruments by means of which the duty of the state in modern industrial society is discharged. Not the destruction, but the conservation, of individual development and welfare is the aim. Every enlargement and enrichment of the curriculum, and every step toward increasing the economic, social or industrial functions of our public-school system have met with bitter opposition. Many of the projects just discussed have been or are now being branded as radical and socialistic. This is a natural and inevitable phenomenon; every new and important measure has been and will be thus branded. Every man who has striven to better the mass of common humanity and to strike at the roots of established inequalities or interests, has invariably been tagged an anarchist, a leveler, a socialist, or an unsafe person. But history calmly points out that many of the radicals and socialists of one age become the liberals and conservatives of another.

In the third decade of last century, the man who urged manhood suffrage, the abolition of imprisonment for debt, or free public schools was a radical. In 1819 a famous Cologne newspaper opposed with great earnestness a project to illuminate the streets of that city. It took a firm stand against this innovation because of theological, legal, medical, moral, economic and patriotic reasons. Street lighting was on all of these counts a menace to the welfare, happiness and advancement of the community. The individuals possessed of the hardihood to favor such a project were, in the eyes of

this writer, unsafe persons. The editor himself was of course safe and sane; he "stood pat" for the *status quo*. In 1776 such illustrious gentlemen as George Washington and John Adams were revolutionists. Twenty years ago the writer or speaker who urged governmental control or ownership of railways was looked upon with suspicion in many, if not all, sections of this country. Before 1898 no radical dreamed of extending the sway of the United States over the people of the Philippine Islands; but the latter are now a part of our colonial possessions.

Those who align themselves in opposition to the educational innovations of the present epoch often paraphrase men of an earlier generation who were opposing certain forward steps which are now accepted without question. The writer of to-day who denounces a plan to give free noon lunches to school children, or the proposal to provide for free medical inspection in the schools, usually uses the same arguments which men employed three quarters of a century ago in opposition to the free school system. On the other hand, progressive editors, educators and business men who honestly desire to better the condition of the masses and to improve the public-school system, frequently overlook entirely the great social changes which have been wrought by recent industrial evolution. Much of the opposition to the so-called "fads" in education arises because of a static or unevolutionary conception of education and of society. Educational progress is often retarded by its mistaken friends.

Let us therefore look at these educational questions calmly, and let us not be afraid of abusive terms used by reactionaries. If our educational radicalism is indeed grounded on the solid rock of industrial evolution, to-morrow these marks of radicalism may be badges of honor and wisdom; and many of the men who now aggressively oppose the alleged radical in educational theory and practice will accept the new ideals and will point with pride to the results which have followed the general adoption of these innovations.

CHAPTER XV

THE SCHOOL OF THE FUTURE

And now in conclusion we are confronted by that old, yet ever new question: What of the future? What is to be the trend of educational evolution in the United States in the immediate future? True we have problems enough unsolved which relate to the present, but the future is unceasingly being transmuted into the present. Future problems are ever becoming present problems. It is well to use the past and the present to aid us to discern in a general way the approximate direction in which we are moving. In fact, present problems cannot be properly solved without looking a little way ahead. Society must have some sort of an aim and ideal as to the future course of educational advance. If in the past educational aims, methods and ideals have been colored and conditioned by industrial evolution, similar phenomena may logically be anticipated in the future. The educator who overlooks or refuses to consider the rôle of industrial progress in shaping educational advance is living in a world of phantoms. History has taught him no lesson. He cannot be accepted as a safe guide. The man who believes in perpetualism and in fixity of educational values is outside the

great world current of modern thought. On the other hand, it must be admitted that we can peer only a little way into the future, and can only perceive the most general and sweeping portions of the educational program of even the immediate future. It is utterly impossible to discern details. The man who attempts to minutely describe the educational trend of the next score of years is discredited as well as is he who believes in static educational ideals and values.

The school of the future will be a natural product of social and industrial progress. Its curriculum will be formed and its methods chosen chiefly as a result of two distinct influences, one of which, the radical influence, arises out of the economic and social conditions of the period; and the other, the conservative influence, flows from the educational and social traditions of what was just and fitting in past years and generations. However, judging from the requirements of the present, a few generalizations may be hazarded. Modern industrial life and enterprise present kaleidoscopic changes. New methods, machines and systems require constantly varying degrees and varieties of skill from workers engaged in a multiplicity of enterprises. The individual of the immediate future, whether he be a business man, a professional man or a manual worker, must have a broad educational foundation so that he may be able to readily adapt himself to shifting industrial scenes and conditions. "The future," writes Professor Giddings, "belongs to the adaptable man"; and it will be the function of the

school of the future to produce this adaptable, resourceful, pliable man. The day of the narrow, rigid, lockstep curriculum lies forever behind us. The classic educational edifice which was revered a generation or more ago, built upon the foundation of a purely intellectual, professional, business, or trade training, is now crumbling and cracking under the unyielding pressure of modern complex civilization. The refrigerator car, the telephone, breakfast foods, the adding machine, card index system, statistical investigation, modern methods of soil renewal, systematized invention, spell leisure for all, and necessitate fluidity of educational requirements. The school of the future will provide moral, civic, physical and industrial, as well as intellectual training. It will be interested in the development of all children from infancy to mature manhood. It will supplement the work of the home, the factory, the office, the store and the farm. The school of the future will be a complex organism, exercising many varied functions. Many of the educational functions which have been discussed in preceding pages will become integral parts of the work of the school; and the internal mechanism of the school will undergo many changes.

In the school of the future much of the rigid routine and the formality, which are such conspicuous features in the majority of the schools of to-day, will be lacking. This is essential in order to compensate for the routine and regularity now connected with practically all industrial enterprise. In order to bring this to pass, two improvements

are primarily necessary: smaller classes and better trained teachers, and both of these mean increased expenditures,—a serious obstacle. Fine buildings, many well-trained teachers, manual training, domestic science, playgrounds, vacation, night and continuation schools, medical inspectors, school dining rooms, kindergartens and school nurseries cost money. Larger and larger shares of the national income must be applied to collective uses.

"There must be a freeing of the children in the schoolroom. No one who has not had to deal with pupils who have passed through the grades of the common schools has the slightest idea of the ruinous effect of the teacher's eternal dictatorship upon the character of the children. Almost everything done in the schoolroom is imposed upon the life of the pupil,—the pages he shall learn, the lessons he shall recite, the things he shall draw, the copies he shall write, the selections he shall read, the problems he shall solve, the rules of conduct he shall observe,—everything has to be accepted without question, and the obliteration of personality is the horrible and inevitable result."[1] The author, when a high-school teacher, particularly noticed this deadening effect of routine and superimposed authority upon his students in mechanical drawing. The majority of students in those classes usually wished to follow explicit directions, even in regard to minute and non-essential details. They did not wish, as a rule, to make a personal choice as to titles, position of

[1] W. S. Jackman. Quoted in Zueblin, *American Municipal Progress*, p. 156.

views, of objects to be drawn, or of style of lettering, but seemed rather to prefer to accept, without question, the teacher's dictum or preference. It seemed very difficult for many to utilize opportunities to exercise their own judgment and initiative. Manual training, when properly taught, aids greatly in increasing the student's resourcefulness and ability to depend upon himself; and a partial explanation of this fact lies in the disuse of the rigid class system. Each student in manual training may be allowed to progress according to his own ability and energy.

The school of the future ought to impress its lessons by example and influence rather than by dissertations. The effect of good environment and good example, rather than excellent mottoes and rules of conduct, should be called upon. An editor has put the matter in a nutshell: "Boys are won not by preaching, but by precept." The school building itself should be a practical example of simplicity, good sanitation, comfort and beauty. It must be clean, well-lighted, and of good architecture. Pictures should hang on the walls; plants and flowers should adorn the rooms and the yard. Let the children feel that these things belong to them, and that they must take good care of the building and its furnishings. These material things are silent, but powerful, monitors which influence each child for good. Supplement the influence of the building by that of the calm, sympathetic, neat, well-trained teacher, and a long stride forward is taken in the direction of better

education. The school ought to give the child a picture of what right living is and means. Surely, this ought to be the heritage of every child, rich or poor. The schoolhouse in the poorer sections of a city particularly needs to be given special care. In too many cases, unfortunately, the school is similar in many respects to the dingy, cheerless home of the child. After describing the ugly, dirty, depressing and repulsive environment of the anthracite coal regions, Dr. Roberts observes, and what he says may be almost literally applied to the conditions in many of our cities: "That is the environment of thousands of the youths in the anthracite regions and it inflicts upon the man incalculable wrong which influences his whole life. Amid so much that is ugly and debasing, ought not the plastic minds of these children be brought in contact with one spot that is beautiful and serene, which would exert a holy influence upon their souls and stimulate their æsthetic sense? When the environment of the public school and the interior of the schoolroom conform to artistic taste in the highest sense, then a sacred influence will work upon the awakening mind of the child which will add dignity and interest to the specific work of the teacher. Its grace and suggestiveness will also do something to repair the wrong done the child by the neglect and cupidity of those responsible for the depressing environment generally found in the mining communities." The agitation for school betterment must be aided and supported by those most directly concerned—the laboring people. They

feel these conditions directly and personally; they must keep up the struggle.

The school of the future must adapt itself to the nature of the child; the pupil should enjoy attending school. The methods of the kindergarten, the vacation school and parental school will, therefore, find a place in the grade schools. No school can be termed successful and efficient while a considerable percentage of the pupils dislike it and its lessons. Something is wrong where this is the case. Education of the proper kind is pleasurable, and will bring forth the best efforts of the pupil. If the school is a place to be avoided, the average student will not continue his education after he is released from school. Such a school is doubly inefficient. Elbert Hubbard writes: "In the future our children shall go to school—not be sent or sentenced"; and in many schools this desirable condition has already been attained. The school of the future will become the playground, gymnasium, workshop and reading and study room of the boys and girls, and of the older people as well. The daily sessions will be longer, the gap now made by our long vacation will be filled up, and the schoolhouse will be open evenings. The character of the work given will vary with the seasons and will be somewhat dissimilar in different localities and environments. To be successful in a city the recreation feature must be made more attractive than those offered by the street, with which the school is to come into active competition. The schools of a great city will, in the future, afford a good, health-

ful, inspiring environment for children and young people. They will offer places of refuge for many who otherwise must pass much of their time in undesirable environments.

A serious menace to our school system is the so-called "commercialization" of the schools. The systematization of large businesses, with the accompanying economy of operation, has led the commercial interests of the country to desire to apply "business principles" to education. The motive force is, of course, reduction of taxation. The aims and methods employed must be diametrically opposed to those which have been discussed as appropriate for the school of the future. The animus of the recent "shake-up" of the Chicago Board of Education is to be found in a desire for reduction of expense, and for simplification and standardization of educational work. The commercialization of the schools means inefficiency. "Children are not pots and pans to be shaped by patterns sent down from a central office. Teachers are not drudges to be ordered about by a master mechanic." Education is an artistic form of industry; its normal products are highly individualized. Standardization of its products leads to imperfect output. The teacher is a skilled workman or, more accurately, an artist. Methods must vary with teachers; crowded schoolrooms, systematic and numerous reports bound up in red tape, clock-like precision and central-office management convert the school into a factory. Commercialization of the schools hampers and drives out the efficient

teacher and spoils the child. Commercialization means reduced wages for the teacher, smaller equipments, less school buildings, fewer educational "fads" or improvements; in short, reduced expense per pupil. The antithesis is finance versus education; the taxpayer versus the child; special interests versus society. The demand for commercialization of the school is a phase of the old, old struggle of the taxpayer against the development of an efficient, up-to-date free school system.

Betterment of the conditions in any industry comes from within. The struggle against commercialization must be started and maintained in no small degree by the teachers. Better and broader trained teachers are needed. Teaching must be looked upon as a profession before it can attain its true position among the occupations of men and women. Unionization of the wage-earners in other industries has prevented the brutalization of the worker under the stress of commercialization, or in other words under the pressure of an insistent demand for profits. Local, state and national organization of the school teachers in accordance with trade-union policies seems to be a necessary measure to prevent the degradation of the teaching profession through low wages and overwork, and to stop the tendency to transfer public-school education from the category of artistic industry to that of a factory industry. Through organization the salary and the standard of the teaching profession could be raised, and the tenure of office made more secure. The organized strength of the members

of this profession is needed to lift the school system out of the reach of petty politicians. Strikes, of course, are out of the question; but public officials and boards of education are nominally servants of the people, and can be reached and influenced by united, perservering efforts. The experience of Chicago and Toledo teachers is indicative of what can be accomplished. In the latter city a weak organization, supported by only a small percentage of the teachers of that city, was able to exercise considerable influence. The notable achievements of the organized teachers of the city of Chicago is a matter of common knowledge. "In organization there is strength."

With the entrance of new aims and methods into the school the training of teachers for their work should, naturally, undergo modification. The teacher should firmly grasp the idea that there is no absolute or world-wide concept of educational ideals and methods. As has been suggested, these change with social and industrial progress, and should conform to local and national peculiarities and needs. The education which was best during the Middle Ages, or in the early part of the nineteenth century, is not the most desirable to-day and for the United States. Likewise the education of the city boy should be somewhat different from that of the country child. The school must aim to strengthen and supplement the home and environmental influences. "The city fathers do not appreciate the social needs, and the teachers, as a class, are lacking in a knowledge of industrial history and

social evolution. They have not realized that the home is passing away, and that unless the school takes the child he is left to the street. They have specialized in philosophy, pedagogy, and psychology. They have isolated themselves from contact with those in poverty."[1] The psychology of the child and his physical well-being should receive attention from experts; but the teacher of the future needs especially to study sociology and to come into contact with old and young of all conditions of life. Sympathetic knowledge of the child's ideals is more desirable than further analysis by teachers of the psychology of the child. Our normal schools devote too much time and energy to psychology and the gentle art of adroit questioning, and not enough to social and industrial evolution. Modern American education, as has been seen, is becoming a potent factor in the social and industrial progress and development of the United States. If our teachers are not trained so as to recognize this function of education, and to aid in increasing its importance, our school system cannot perform its full duty to the community.

The problem of raising the funds to maintain the school of the future is a serious one, although in a time of peace the nation is spending more for war than for education. Better trained teachers, longer school days and school years, smaller classes, the introduction of the laboratory and manual training, kindergartens, better buildings, night schools, gymnasiums, playgrounds and other

[1] Hunter, *Poverty*, p. 209.

modern school necessities, mean the doubling and trebling of the expense of the public-school system of the United States. We must turn to the economist and student of taxation for sources which are available to increase the revenues without injurious effects upon our industrial growth and prosperity. Such sources are found in the enormous differential, monopoly and "forced" gains which now accrue to many specially favored members of our industrial world. The justice in cutting off unusual earnings, and monopolistic and speculative gains, in order to divert them from the pockets of individuals into the public treasury, is now quite generally recognized. Increased inheritance taxes, income taxes, increased taxation of city land values and franchise taxation are some of the forms of taxation which might be utilized by our state and local authorities to increase the revenues which could be applied to the improvement and extension of the work of the public-school system. This is certainly a fair and just way of applying unusual or unearned incomes of individuals to uses which make for the common good and for the progress of the nation.

On the other hand, improvements in the social and economic features of our educational system will tend to decrease certain expenditures and to increase the productive capacity of the people. If the public school provides industrial and physical training, and opportunity for healthful and invigorating recreation for all, the result will be to gradually reduce criminality, to improve the bodily health and vigor of the people, and to increase the

industrial efficiency of the great mass of workers. Ample compensation for increased expenditure for educational purposes will be finally obtained through decrease in crime, in cost of jails and police, through increase in the total productiveness of the nation, and on account of longer average length of life and lessened amount of ill-health. One student of the question estimates that about $200,000,000 of our local, state and federal expenditures are chargeable to crime, and that the total annual income of all the habitual criminals is about $400,000,000. To this total of $600,000,000, he continues, must be added the cost of lives taken, labor lost, property maliciously destroyed, the cost of locks, bolts and safe-deposit vaults, and the mental suffering, broken homes, desolation and despair. If the introduction of a thorough system of manual training, kindergartens, vacation schools, playgrounds, parental schools, etc., would in a relatively short time reduce the above estimate by one fourth or by $150,000,000 annually, it would release a sum greater than was spent for the entire school system of this country in 1890. And if we may judge by the value of the playgrounds and vacation schools already established, a considerable reduction of juvenile crime would follow the general introduction of these innovations. A decrease in juvenile crime to-day means a corresponding reduction of adult crime to-morrow. No less important are the possible savings in longer life, better health and increased efficiency which the American people may reasonably anticipate from an improved school system

which is able to perform the social and industrial functions which, as progress has decreed, should now become integral parts of the work of education.

Recently many voices have been heard and many, many books and magazine articles have been written in regard to the question of "race suicide." This phenomenon must be considered by the economist, the sociologist and the educator. Truly, if the wealthier and "cultured" people of the nation have smaller families than the mass of the workers, if they delay or abstain from marriage, a larger percentage of the next generation must come from the ranks of the laboring population, the so-called masses, than probably came from that class in the present generation. Many deplore in emphatic terms this apparent "dying at the top," and see in it sure signs of a decline in the ability and vigor of the American people. Our view of this matter is, in a large measure, dependent upon our theory of heredity. Does or does not the child inherit the intellectual, industrial, or professional traits of his father or grandfather? If he does, if a son of a college professor is, through heredity, irrespective of environment, best prepared for the teaching profession, if the son of a machinist is born with those traits which make him specially adapted to follow his father's trade, then indeed we must look with alarm upon any tendency toward "race suicide" amongst certain classes of our population. But if we accept, as probably we must sooner or later, the theory that the child comes into the world with practically no intellectual or industrial inheritance

from his immediate ancestors, then may we view this phenomenon with more complacency. Our attention and energy will be turned toward bettering the home and school environment, and toward improving the influences which act upon the growing child. Let us cease writing and declaiming about "race suicide," and utilize our energy in an effort to improve the social, industrial and educational conditions of the masses. Here is a work worthy of the best efforts of the earnest reformer and the true statesman. If the prominent men and women who are employing so much time and energy in a vain flood of written and spoken words will turn their faces toward the great problem of a modern democracy—the education of the masses—an important and valuable work might be accomplished which would redound to their honor. It seems quite clear that luxury and "culture" lead almost invariably in a few generations to degeneracy. The history of this republic offers hundreds of conspicuous examples of this phenomenon. History teaches that the hope of a nation lies in the masses. If they are weaklings and degenerates, decay inevitably follows. Education in a democracy of the modern industrial type should lead to industry, to the "simple" and self-supporting life, to ideals which emphasize doing rather than being served, to the apotheosis of work rather than of leisure, to higher aims than that of mere wealth accumulation.[1]

[1] See "Broad Aspects of Race Suicide," by the author, in *The Arena*, December, 1906.

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