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WHEN WRITING PLEASE MENTION NORMAL COLLEGE NEWS.

Daniel Putnam, LL. D.

At the specific purpose of this article is to show as clearly as a brief sketch will allow, the work of Mr. Pierce in organizing the school system of Michigan, only brief reference can be made to his biographical, or to his labors in other departments of service. John D. Pierce was a native of New Hampshire, born in the town of Chesterfield in 1787. His early advantages for an education consisted of eight weeks "schooling" in a district school each year till he reached the age of twenty. He then worked on a farm until he had saved one hundred dollars. With this sum and an equal amount added by his grandfather he got out to till himself for college. He entered Brown University in September, 1816, and graduated with an honorable standing in 1822.

He subsequently studied one year in Princeton Theological Seminary, was licensed to preach by a Congregational association, taught in various places, and in 1831 was commissioned by the Home Mission Society to act as a missionary in what was then the "west." Under this commission he came to Marshall, Michigan, in July of 1831. Mr. Pierce commenced his work immediately and continued it until his appointment to the State Superintendency in July of 1836.

A year after Mr. Pierce settled at Marshall Isaac E. Crary, a native of Connecticut and a graduate of Washington (now Trinity) college, became a resident of the same place. Circumstances brought these two men into intimate relationship, and a warm and lasting friendship grew up between them. Like most of the men in Michigan at that period, they were both young, well-educated, vigorous physically and mentally, and full of enthusiasm and hope in respect to the future of the then Territory of Michigan. It was a time of "great expectations" and of increasing plans. It was evident that the Territory would soon aspire to the dignity of statehood, and the population was rapidly approaching the number which would justify the demand for a constitution as a state under the provisions of the ordinance of 1787. A census taken just before the arrival of Pierce and Crary showed a population of 39,000 in what is now lower Michigan. A census taken in 1834 showed a population of 87,000.

The legislative council of the Territory immediately provided for a state constitutional convention. This convention met at Detroit in May, 1835, and formed a constitution which was accepted by the people and a state government was speedily organized under it.

These details have been necessary in order to show the origin of the ideas which Mr. Pierce subsequently embodied in the school system, and the origin of the article upon education in the constitution which prepared the way for his work. We have here an example of the truth, often repeated, that important results frequently spring from what seem to be trivial and accidental causes. Two young men, one a missionary clergyman, the other a lawyer-politician, both from old New England states, had been brought together at a new settlement in the then wilderness of Michigan, just as the movement to secure statehood was beginning. They were both intensely interested in this movement.

Mr. Pierce writes: "It was at this period in our history that the Michigan school system had its beginning and origin. Gen. Isaac E. Crary, a graduate of an eastern college, and a warm friend of education, was for a year or two an inmate of my house. The conditions and prospects of our new State were often the subject of discussion, and especially schools of various grades, from the highest to the lowest. About this time, Cousins' report on the Prussian system, made to the French minister of Public Instruction, came into my hands, and was read with much interest. It is a matter of interest to say this identical copy of Cousins' report has been put into the Normal College Library by the kindness of Mr. Charles King of Ypsilanti. Sitting one pleasant afternoon upon a log on the hill north of where the Court House at Marshall now stands, Gen. Crary and myself discussed, for a long time, the fundamental principles which were deemed important for the convention to adopt in laying the foundation of a new State. The subject of education was a theme of especial interest. It was agreed that, if possible, it should be made a distinct branch of the government, and that the constitution ought
to provide for an officer who should have this whole matter in charge, and thus keep its importance perpetually before the public mind.

Gen. Crary was elected delegate to the convention and was appointed chairman of the committee on education. The idea evolved in the discussion on the log in Marshall took form in the article on education in the constitution. As reported by the committee the article provided for a superintendent of education. At the suggestion of Judge Woodbridge the name superintendent took the place of secretary.

Mr. Crary and Mr. Pierce were both members of the convention of 1850 for the revision of the constitution, and Mr. Pierce was a member of the committee on education. He rendered valuable service on this committee in helping to give form to the article on education as finally adopted by the convention after considerable debate upon some points.

At the election in October, 1835, the first constitution was adopted by the people, members of the legislature were chosen, Stevens T. Mason was elected governor, and Mr. Crary was elected representative to congress. Mr. Pierce states that up to this time, though he and Mr. Crary had discussed and agreed upon the principal features of an educational system, he had no thought of ever occupying the position of superintendent of public instruction. He was interested in his duties as a home missionary and found a wide field for his activity.

But on his way to Washington, Mr. Crary stopped at Detroit and held a consultation with Governor Mason. At this conference he recommended his friend, Mr. Pierce for appointment to the superintendency, the superintendent, under the first constitution, being appointed by the governor. The result was that Mr. Pierce was nominated and confirmed as superintendent on July 26, 1836. The state had not yet been formally admitted into the Union, but the whole machinery of the state government was nevertheless put into operation.

A legislative act was immediately passed instructing the superintendent to prepare and report to the legislature, at its meeting in January, 1837, "a plan for the organization and support of primary schools, a plan for a university with branches, and also a plan for the disposition of the university and primary school lands."

With the work of Mr. Pierce in the capacity of land commissioner we are not here concerned. This work, although of great importance, was not educational in the sense in which we are here using the term. Unfortunately for Mr. Pierce and for the state his time and energies were largely absorbed by the imperative demands of this land office work. An interesting chapter could be written upon this department of his labors, but we have no room for it at this time. We are concerned only with his more purely educational work in the organization of the primary school system and of the university.

In the preparation of the important report which he was to make, he borrowed considerably from the report of Cousin to which reference has already been made. But a system admirable for Prussia could not be transferred bodily to a new American state. No effort was made to do this. Mr. Pierce, very naturally and very wisely, sought the counsel and assistance of the most prominent educators in the country. Directly after his appointment he went east and consulted Presidents Humphrey and Day, Governors Marcy and Everett, John A. Dix, and other men of like character. Two months were occupied in these consultations and inquiries.

The report was presented in January 1837, in accordance with the instructions of the legislature. This report was supplemented by another a year later. These two reports may properly enough be regarded as the educational constitution of the state. Everything which has appeared in the evolution of our school system was continued in germ, at least, in the discussions and recommendations of these reports. Some of his propositions and recommendations were adversely criticized at that time, and are occasionally referred to at later periods as impracticable and visionary. Undoubtedly his anticipations of the proceeds to be derived from the sale of university and primary school lands had their basis in the general spirit of hopefulness which pervaded the whole population of the state. Free scope was given to the imagination not only in educational but in all public affairs. It was an era of internal improvements. The state entered into the construction of railroads and canals and other great enterprises. Of course reaction followed which affected the department of education as well as other departments of the government. But this did not prove that the plans proposed by Mr. Pierce were wrong in theory or visionary in their nature. Later developments would test the correctness of his reasoning and the soundness of his judgment.

In his reports he discussed at some length the fundamental principles which must constitute the safe foundations of a free state, and from these principles drew certain conclusions as to the authority of the state in educational affairs, and as to the modes in which this authority should be exercised. These conclusions naturally and necessarily determine the nature and extent of the education which the state should provide, and the character of the schools which should be established and the relation of these schools to each other, and their organization into a connection system of public instruction. The state system, as he conceived it, was to embrace all grades
of schools from the lowest primary to the university and related professional departments. A system so organized and related no one of the older states had established. Most of the states provided only for elementary schools to be supported and sustained by public funds. Secondary and higher education were, in most of the states, to be provided by individual or associated enterprise through select schools, academies and denominational colleges. A considerable proportion of the people of Michigan in 1837 believed in the system which had grown in the older nations. They had little confidence in state universities as in secondary institutions supported and managed by the state. Consequently the system presented by Mr. Pierce met at an early day with vigorous opposition. While this opposition connected some modifications of his original plans, it was very fortunate that the cogency of his arguments and the persistency of his efforts prevented any serious changes.

"The first principle which he affirmed and sought to establish was that intelligence and virtue were the 'bread and permanent foundations' of a free state. He wrote: 'In an educated and virtuous community there is safety; the rights of individuals are regarded and liberty respected and secure. It may safely be assumed as a fundamental principle in our form of government that knowledge is an element so essential to existence and vigorous action that we can have no rational hope of its perpetuation unless it is generally diffused.' He emphasized especially the value and importance of elementary education "for the great mass of the people." "Universities," he said, "may be highly important and academies of great utility, but primary schools are the main dependence." Such schools, he affirmed, should be regarded as the foundation of our whole system of public instruction and the chief support of all our free institutions. National liberty, sound morals and education must stand or fall together. Common schools are democratic in their type and influence; they tend to unify society; in them the rich and the poor come together on terms of equal equality. Let free schools be established and maintained in perpetuity and there can be no such thing as a permanent aristocracy in our land; for the monopoly of wealth is impossible, where the mind is allowed freely to come in contact with mind."

Having thus stated the absolute necessity of education, intelligence and morality among the people as a whole, he goes on to inquire how schools, as a means of securing these ends, can be sustained. His conclusion was they ought emphatically to be the property and care of the state. To neglect them would be to neglect the vital energies of the body politic. Hence the government ought so far to assume the direction, as to see to it that the benefit of the school system is extended to all parts of the community." It being the duty of the government to provide schools, he argues, that it is both the right and duty of the state "to require of all persons, having the care of children, their education. And effectively to secure the accomplishment of this object, they should be required to send them to school the constitutional promotion of each year, between the ages of five and seventeen.

The right and duty of the state to provide free schools, and the consequent right of the state to require attendance upon the schools, are here clearly established. In these points Mr. Pierce was in advance of the sentiment of the time, and it was a long while before even the leading teachers of the state were ready to advocate schools entirely free and supported exclusively by public funds. The doctrine of compulsory attendance was vigorously opposed in debates in the State Teachers' Association and elsewhere. Upon this matter Mr. Pierce said in his report: "In all this there is nothing inconsistent with the principles of rational liberty. It is merely providing for the safety of the state, for its health, happiness and vigorous growth. This duty stands on precisely the same ground as the law which obliges all the citizens to be enrolled and occasionally do military duty. It is a wise precautionary measure for public security." He admitted that primary schools are responsible for the education of their children, but he says: "It is well known this duty is neglected in innumerable instances. It is hence the right of the state so far to interfere its national authority, as to give additional weight to this obligation, and make such provision as will secure the result desired."

It took more than thirty years to secure the practical adoption of the principles advocated so convincingly and so logically by Superintendent Pierce. So far was he in advance of his times. "An act to enable children to attend school" was passed by the legislature in 1871, and an act abolishing the "state mills" and making primary schools throughout the state absolutely free took effect two years earlier, in July, 1869. Many of the graded schools had been made free before this date by the voluntary action of the voters of the districts.

Mr. Pierce not only advocated free schools and compulsory education, but he insisted that the schools should be made of a high character, of a character so high as "to answer the just expectations of humanity and the demands of the state." He said: "Unless these schools are adequate to meet the wants of the whole community, private seminaries will be established by the rich, at which only their own children can be educated." He advocated the establishment of such trivate
schools to any considerable extent because, as he believed, they would "necessarily lead to a deprecation of the character of the free schools, and ultimately to their abandonment. The experience of the older states abundantly confirms this representation. Wherever the liberality and enterprise of individuals have established flourishing private institutions, they have uniformly had a pernicious influence upon the common schools."

The establishment of primary schools of a high grade necessarily involved the questions of studies to be included in the curriculum of the schools. Those who are not familiar with Mr. Pierce's reports will probably be surprised at the extent and character of the course of studies which he suggested, and also at the course suggested by Superintendent J. M. Gregory at a later period. We can here only refer to the course of Mr. Pierce.

In his report of 1839 he discussed, at considerable length, the education which the primary schools should furnish and indicated the branches which should be taught in them in addition to what is usually embraced under the three R's. Among these he places first what we now name Physiology and Hygiene. A good education, he says, necessarily implies a knowledge of ourselves. "Children should be early informed in regard to their bodily constitution. They ought to have a clear and correct knowledge imparted to them of what is necessary to its highest beauty, perfection, activity, vigor and health." He gives cogent reasons for this study. He urges further that children should have a knowledge of our rational nature, the three-fold nature, intellectual, moral and religious. "It is in the highest degree important and essential to our welfare as individuals, to have a correct knowledge of this intellectual, moral and religious nature." This would involve instruction, in an elementary way, of the powers of the mind and their modes of activity. It would also require a study of practical ethics adapted to the period of youth.

"It is," he says, "highly important to know more of the relation between matter and mind, and how each is affected by this relation. If the brain is the chief instrument of mind in all its operations, then whatever may affect the brain must necessarily affect the mind." In discussing this point he enunciates certain principles, condemns certain school practices, and advocates methods of managing children in the elementary grades of a school, which are supposed by many to be new discoveries. His sentiments, in the main, would be indorsed by modern school reformers.

He embraces the history and geography of one's own country and state in his curriculum. "To be ignorant of the country which gave us birth—sustained and protected us—is highly disgraceful."

His geography would include a study of the geological character of the state, its mineral and other resources, its industries, agriculture, commerce, manufactures.

Civil government or civics, in an elementary form, should be taught. "The institutions and laws of our country should be known." No man can safely be ignorant of these things; no man can do his duty while ignorant of them."

Mr. Pierce sets forth pretty freely the advantages to be derived from a knowledge of these various branches and insists that children in the public schools have time enough to master them all, at least after an elementary fashion.

If space permitted, more extended extracts from his discussion of these topics would be given. Enough, however, has been quoted to show the breadth of his views and the high character which he would have given to what we call the common schools. After sixty years most of the studies named by him have been introduced into the schools modified, of course, to adapt them to present conditions and present demands.

In order to secure primary schools of high grade and character Mr. Pierce saw the necessity of having competent teachers, and he proceeded to discuss the question of obtaining an adequate supply of qualified teachers.

Keeping in mind the fact that at the time when he wrote no public normal school had been established in the United States, and that only a few of the most intelligent and earnest friends of common schools had begun to consider the importance of special preparation for the work of teaching, his views upon this subject are worthy of being studied and remembered by all friends of educational progress. His opinions had evidently been influenced by the report of Dr. C. E. Stowe upon the teachers' seminaries of Europe, by the report of M. Cousin, and by his acquaintance with the movements in the east under the leadership of Horace Mann, Henry Barnard, and others from whose writings he quoted. Among other things, Mr. Pierce said: "The most perfect organization of the entire system of schools, in all the varied departments of instruction, must fail of securing the desired results without a sufficient number of competent teachers. He made an excerpt from an address before the American Institute of Instruction and from a memorial of that body to the legislature of Massachusetts: "If education is science, how is it to be understood without study? And if teaching is an art, how can it be successfully practiced without suitable preparation? How then can the profession of teacher be esteemed if men enter it who know little or nothing of either? * * * * On what principle of common sense is it that a man is con-
sidered good enough for a teacher, because he has satisfactorily proved himself good for no one thing else? Why is it that the utter want of health to exercise any other profession is frequently the only reason why a man should be thrust into this, which requires more active mental labor in the discharge of its duties than any other profession whatever? Mr. Pierce proposed to provide for teachers' departments in connection with the branches of the university to supply the immediate pressing demand for more competent instructors in the primary schools. This plan will be touched upon a little more further on in speaking of the university and its branches.

In respect to teachers' wages Mr. Pierce spoke with the utmost frankness. He wrote: "It is obvious that the next reason why there has been such a deficiency in the number of qualified teachers, is to be found in an unwillingness on the part of the Inhabitants to pay such wages as to secure the services of individuals of the required talent and qualifications. Let teachers be paid as they ought to be, let them receive such compensations as will reimburse them for their services, and sufficient numbers will be found to fit themselves for the business of teaching. And to secure their employment when fitter, to teach, let the provisions of the law be such that no township shall be entitled to any portion of the income of the public fund which does not employ thoroughly educated teachers."

Besides reporting a plan for a system of common schools, Superintendent Pierce was to report a plan for a university and its branches. It is unnecessary to discuss, at any length, his plan for the university itself, since, of necessity, it was modeled very largely after existing institutions of similar character. But public sentiment, while unanimously favorable to public elementary schools, was not unanimously in favor of state universities. It is doubtful if even a majority of the people looked with favor upon institutions of higher education under the control of the state. There were various reasons for this state of public opinion, but space does not permit a reference to them in detail. The judgment, tact, and practical common sense of Mr. Pierce were exhibited, and tested in meeting the objections and arguments of the opponents of his proposed plan. The friends and supporters of denominational colleges and of academies naturally enough regarded such unapproved institutions of secondary and higher education with disfavor, and with some feelings of apprehension. They had inherited preconceived notions toward the systems of the other states from which they had emigrated.

But public sentiment, as a whole, had not yet taken a definite direction; it was in an imprecise and formative condition. Superintendent Pierce and his immediate associates, were enough to comprehend the exact situation, wished to take advantage of this fact and to give the public schools of all grades a fair chance to win popular favor. To accomplish this purpose it was necessary to turn the attention, interest, and effort of the public generally toward the public schools and away from private institutions. He wrote: "With us, as I believe, all is new, and we are at liberty to adopt such principles, and form such rules of action, as on nature reflection, the great interests of learning may seem to require. It is respectfully suggested to the legislature, whether it will be desirable to incorporate such a number of private associations for the purpose of education as will have the effect to draw off the attention and interest of any considerable portion of the public from the institutions founded by the state." He consequently opposed granting charters for private and denominational colleges. His idea was that all the energies of the state should be devoted for some time to building up a great central institution of advanced learning. To fortify his position by the opinions of leading educators in different parts of the country, he swimming up the matter he said: "It results, therefore, with great pleasure to me the statements and reasons presented, that the multiplication of institutions under the imposing names of universities and colleges in our country is to be regarded as an evil of great magnitude, as exceedingly detrimental to the interests of literature, science, and the arts. He did oppose granting any charters for private colleges, but insisted if charters were granted, that they should be guarded by requiring that funds sufficient for the support of a collegiate institution should be provided.

Feeling in the state and in the legislature generally high, the views of Mr. Pierce and his recommendations were not fully accepted, but they served a useful purpose in checking the tendency to multiply unnecessarily institutions with college powers with no means of doing collegiate work. Candor compels, I think, the conclusion that the position of Mr. Pierce was, in the main, correct under the conditions then existing. Changed conditions have justified a change of policy. The existence of well-endowed denominational colleges is an important and valuable element in our system of public instruction. Nevertheless Mr. Pierce deserves to be honored for the position which he took and for the ability and vigor with which he defended it.

On two occasions, at later periods, the influence and sound judgment of Mr. Pierce saved the university from serious illuspect, if not from abso-
lute ruin. At one time the friends of local colleges instead of a central institution were strong enough in the legislature to pass a bill through the senate to distribute the income of the university fund among the different colleges, giving to these colleges taken as collective body, the name of "The University of Michigan." This bill was defeated in the house of representatives, through the personal influence and efforts of Mr. Pierce, but by only a single vote.

In the early history of the university plans for buildings adopted by the regents were to be approved by the superintendent of public instruction, without such approval no building could be erected. The first board of regents "determined upon the erection of a building, which was, as Mr. Pierce says, of a truly magnificent design, and would in that day have involved an expenditure of half a million dollars." The superintendent refused to approve the plan. But for this refusal the board would have expended upon this building the whole sum actually realized from the sale of university lands. This would have left the university with no endowment, and would have jeopardized the existence of the institution itself. "Great excitement and even anger were the results of Mr. Pierce's refusal, but he remained steadfast in his opposition, and new plans were agreed upon."

The plan of establishing branches of the university has already been alluded to. It has been customary, in some quarters, to heap ridicule upon this feature of the first school system of the state. With the means actually in the hands of the regents the scheme was impracticable, perhaps visionary. But the purpose was worthy of all praise. There were, at that time, in the state very few secondary schools, in fact none of even medium character. There was need of preparatory schools to fit students for the university. Without such schools the university would be of little use. There was need also of local schools which could give instruction in secondary studies. The branches were designed to supply these needs. Eight or nine branches were organized in various parts of the state, but not more than seven were in operation at any one time. In 1846 they were abandoned for lack of funds to sustain them.

One purpose of these institutions should be especially borne in mind in estimating the merits of the plan for their establishment. Mr. Pierce emphasized strongly the supreme importance of securing qualified teachers. Such teachers could not be had without some means for preparing them. Normal schools had not yet been established in the country, and teachers' institutes were unknown. Until some other schools should be provided for the education of teachers, Mr. Pierce proposed that a normal department should form an essential part of every branch. This department was to be open without charge to all who wished to prepare for teaching on condition that they should give a pledge to repay the regular tuition, in case they failed to teach at least three years out of four immediately after leaving school. He wrote in his second report: "We can look to no other source for educated, well-qualified and competent teachers. Without these, the primary schools cannot accomplish what is and ought to be expected of them." It is hardly necessary to say that the expectation of securing a supply of competent teachers from the branches ended in disappointment. The problem which Mr. Pierce hoped he had found a way of solving still remains only partially solved.

Summing up briefly the work of Superintendent Pierce in connection with the inception and organization of the school system of Michigan, we may say:

1. He conceived the idea of a public school system which should embrace all grades of schools from the lowest primary to the university, organically connected and supported and controlled by the state. The primary school opened into the branch, as a secondary school; the branch opened into the university. All these schools were to be practically free. This dream of Mr. Pierce, if one insists on calling his conception a dream, has been fulfilled. Michigan has essentially such a system today.

2. He enunciated distinctly and clearly the fundamental principles upon which such a system should be built; intelligence and virtue in the whole people; education free and compulsory; the property of the state to support the schools as a necessity for the safety and protection of the state; competent teachers and schools for their preparation.

3. He made provision for the organization of the various grades of schools, an organization susceptible of modification and improvement through the teachings of experience.

4. He anticipated many of the modern improvements in courses of studies, ar.d in the organization and management of schools.

Perfection is not claimed for Mr. Pierce or for his plans. But his plans were the best, on the whole, that had been devised at the time when he lived. He deserves a place alongside of Horace Mann, Henry Barnard, and other leading educators of the first half of the nineteenth century. Michigan and the teachers of the state should unite to erect some suitable monument to his memory, and with him Mr. Crary and Governor Mason should be remembered.
Natural Resources.
Their Consumption and Conservation.
Albert Lane, Ph. D.

In these days of revolutionary theories and dogmatism of biology it has become fashionable to apply the analogies and language of biology in other fields—for the geographer to speak of mature rivers, and youthful drainage, and the social critic and historian to speak of society and nations as organisms. So without going so far as to assume that there are units of consciousness apart from living, and that there is an American or Michigan consciousness standing in somewhat the same relation to your consciousness and my consciousness as our may be supposed in the sensitiveness which may belong to each individual cell of our body, we may still accept the idea of the nation or state to that of an organism so far as it may help us to remember and collect real facts.

The youth of a people is in reality like that of a man, full of hope, extravagant feeling boundless resources and inclined recklessly to squander them in attaining the objects of desire. If it is wholly guided ace may bring mature judgment, nor careful and conservative expenditure, and desires which are not merely in prospect but in possession, which are the fruits of useful industry and the relics and mementos of a noble ancestry. Unwise guidance ace may bring the exhaustion of the resources thought to be boundless, with nothing worth while to show for them; and as the individual man may be found bankrupt in purse and pride, so the nation or community may suddenly find its supposedly inexhaustible supplies exhausted, the fabulous fertility of its fields failing, its hills once clad in twines, naked and scarred and dashed by gales until they remind one of the beggar’s clothes whose spendthrift habits have dragged him down to levels of destruction.

It is true that looking on the world as not only the house of man, but as subservient in all its phenomena to the welfare of the human race, we may consider the development of any region to mean such treatment of its natural resources as will enable the land to continue to support an increasing number of inhabitants; and ventures the suggestion that “fortune hunting is harmful to development in its true sense. A fortune acquired through production or speculation can usually be made by only a few individuals, and almost always entails the exhaustion of natural resources or the lowering of wages; a prosperity inevitable, on the other hand can often be secured to a multitude without permanent impoverishment of the land.”

The former statement we may consider a very fair definition of development of a country. The latter is one of those general statements which are hard to dispute, being both vague and qualified. But it suggests that there may be such a thing as improper development. Much talk and writing seems based on the theory that development is always and only good—is a good in itself. This we very fairly question. Legislation has too often meant the application of formidable locks, bolts and bars to the door of an empty stable.

It is fit then to consider what is the path of wisdom, what is that true development of our natural resources: which scatters and yet increases, and which in that development may better be called devastation, whose scattering is not that of the seed corn which returns many fold, but that of the whitewind and formal. How may we best conserve our resources and by secure adequate compensation for that consumption which is necessary? These are questions in which we have an interest, as scientists studying either the face of nature or the course of history as patriots desiring the welfare of our country, and as parents desiring to pass on unimpaired the patrimony that has come down to us.

In the first place, let us note that the development of national resources does not in all cases imply consumption. It is true that you cannot eat your cake and have it too, but it is also true that you can use your house, that you can see your picture, and gaze at your statue, and they become the worse for it.

Italy and Greece are vastly wealthier today than they would have been had the marble of their statues remained in the quarries of Pentelice, Paros or Carrara.

The marble still in the quarry has not the value that it has piled up in the Parthenon and every Roman who dies mute, inglorious, but who might have sung immortal verse is a loss and waste, most of course to the higher and spiritual interests of the nation, but also to the commercial interests as well. I do not know how much cashless of trade it would be to Stratford-on-Avon had Shakespeare lived and died there without leaving letters, but I do know that the American pilgrims to the footsteps of great men gone before us leave in Italy every year hundreds of thousands of dollars.
So the fact that the Republican party was born in Jackson meant many dollars to many Jackson people about a year ago. Thus a development of our natural resources, which means merely turning the material into more valuable, artistic shape, or surrounding it with inspiring associations,—such development is pure gain and no loss, so long at least as we do not bury living prophets under the tombs of their forerunners or shackle the present with reverence for the past. This accumulation of wealth may be either by the importation of art from abroad or by turning our own material into art forms. Particularly is this true of architecture and of furniture which is worthy to descend as heirlooms from father to son. The accumulation within the state of art treasures, that is to say of fine work in fitting material is therefore a means of increasing the wealth of the state. And schools and professional feeling which shall help the workman to become the artisan, to put individuality into his work and feel a pride in it, are directly helping the prosperity of the commonwealth. And money spent in the production and education of men who serve mankind and whose footsteps will be gazed upon with reverence by coming generations is money well spent. In so far then as work of artistic value is expended upon material which is retained in the state, there is a definite increase in the wealth of the state.

In the second place I would call attention to the resources of which there is a continuous and transitory supply, in contrast with those of which there is a stock, in the using of which, we are drawing on an original supply or the accumulation of generations. The farmer’s windmill in using windpower is using a resource of the former class, while the use of coal is drawing on a reserve.

Farm products so far as they are due to air, water, sunshine and hard work are a development of resources continuously supplied, but there is also a little ash or mineral matter which if not replaced by manure or fertilizer is a draft upon the capital of the commonwealth.

Most important perhaps of these resources in this state is the water power, which is indeed largely used, but of which there are thousands of horse power going to waste in our streams. Any permanent substantial dams which may help us to utilize this, as it is proposed that the power of the Huron shall be utilized, will be a permanent gain to the resources of the state. So again topographic maps which may help us to recognize this, or the work which Mr. Horton is superintending in gaining accurate knowledge of the wealth of water power, so much of which is unutilized as yet, is a direct provision for the day of exhausted coal.

Thirdly and of most interest to our theme are the resources which are wasting away in the use. As we gaze on a piece of soft coal across the cleavage we shall see dozens of alternating bright and dull bands in an inch. Each of these may represent an annual or semi-annual change of climate and a ton of coal may represent 60 tons of wood. Thus in using coal we are dissipating in a few years the accumulations of generations heaped up millions of years ago.

Now of these reserve accumulations, there is, and I cannot emphasize the fact too strongly, there is never an inexhaustible supply. People a scant half century ago used to talk of the inexhaustible supplies of pine in the Saginaw. There is now hardly a stick standing. Men prate of inexhaustible mines. The bottom of perhaps the deepest mine in the world, the Calumet & Hecla, on its conglomerate is much too visible. Of course sometimes the supplies are in a way practically inexhaustible. The salt of Michigan, if the present rate of production of two billion pounds a year is not too greatly exceeded, probably might last some two million years. Yet the consumption will increase,—we know not how much, and a much less time and amount would threaten the collapse of Detroit beneath Lake Erie.

They talked only a few decades ago of inexhaustible supplies of iron ore, and yet now a pretty well posted man says there is in sight but 30 or 40 years supply of ore,—that is now merchantable, I presume he means. I would double that and say that at the present rate of consumption of some 23,000,000 tons a year there is probably enough (for in fact I think the steel trust alone owns a million tons of ore in Michigan and Minnesota) for 30 years consumption. Still that is not a very long time, in the life of a nation.

One thing must be noted in regard to this matter of exhaustion. It is rare that a resource supposed to be inexhaustible comes so sharply and entirely to an end as the pire of the Saginaw valley (the American Lumberman says that pine is on the togoggan), or the countless herds of buffalo of the western plains, which were sharply wiped out between 1877 and 1887, so that the buffalo coats which the street car men wore when I was a sub-freshman were a luxury of the rich when I was graduated. Usually as the cost increases it tends to cut down consumption until a certain balance is attained, depending upon available substitutes, and so the price slowly rises and consumption keeps on decreasing. That is the way in which our anthracite coal fields,
and the British coal and iron ores are becoming exhausted. Moreover in many cases these may be both an accumulated stock and a continuous supply. For instance it is so in a certain extent with our forests. The magnificence growth of the pines found there was no accumulated stock. But in many countries forests, like the former would be lost, are looked to for a continuous supply. We must soon be in that case. Originally the great white pine belt extended over 700,000 square miles and there may have been 500 billion feet of it at the beginning, say in 1851. By 1901 there was but 110 billion feet, which was going at the rate of 7 billion feet a year.

So within ten years there will be no more white pine—it will be hemlock, jackpine, anything. As the annual consumption in the United States is some 25 billion cubic feet, and the entire forest area of the United States is some 500 million acres from which American lumbering practice will only get 450 board feet a year it is obvious that even though we improve to the standard of the German practice of 66 board feet per acre we must still either reforest large areas or find substitutes. It is difficult to see the national economy of wading through our timber well-nigh at a low price and then buying lumber at a high price.

Beside stored up treasures of wood and coal the loss by extermination of any animal or plant is one which may indeed be small, but may easily be irreparable. The last survivor of these flocks of wild pigeons which once darkened the sun seems to have winged his solitary way to that heaven whence no traveler returns, which the fowler's eye may vainly strain to discern. The same thing is almost true of the woodcock. Logging operations have absolutely cleared many a stream of trout, and it might easily be that grubbing, whitetail and sturgeon would become as unknown as the volearia in the wolverine state. The game or loss of all this or preventing these exterminations I am not prepared to state. I preserve in some exterminations like those of the crittenden and the wolf there is a distinct gain.

But it is not well that we should let these exterminations of our animal neighbors go on in sheer heedlessness, but take some pains to preserve and popularize those most valuable. A great body of laws on game preservation and fish culture shew that we realize something of this. Yet I relen to say that we still know far less than we should of what animals should be preserved and especially how best to do it, or what of our animal friends are being exterminated and

how best to stop it. Many a well meaning action falls in its object, because based on imperfect knowledge.

First, then, as regards these inexhaustible resources we should know what is happening. Again we should try to make the consumption as little wasteful as possible, so that we may get the full benefit of all that is used. As we shall see, wise action may almost force extravagance.

Thirdly we should put the produce to such good use that we may have something to show for the exhausted resources. In particular then we should see that so far as possible substitutions are devised and developed.

Now as to the kind of knowledge we should have. Our macht or bogumine beds which have been used as the base for cement factories have been ground in the last few thousand years, but the lake shore and sniffs are still busy abstracting lime from the land water. One thing which it would be interesting to know is how fast our marsh beds are growing and how many acres of pond and bog and cubic yards of bogumine a company would have to have so that when they are gone they could begin over again. The same might well encourage such an investigation and also see how fast it could be accumulated by the fittest plants. In the same way with our peat bogs. If peat comes to be a popular fuel and I believe it will, it will at first be mainly on accumulated peat that we shall draw, but it will also be worth while to know how fast a bog can be made to grow and whether its growth can be stimulated by changes in water level or encouraging appropriate plants. I believe the layers showing the annual rate of increase of depth are in some bogs from an inch in depth near the top to one twentieth of an inch at the bottom, or say 182 to 3,630 cubic feet per acre per year, or between 82 and 20 tons of fuel value per acre. In this case and probably also that of the marsh or bogumine it may be only the accumulated stock that can practically be counted as wealth. I would suggest it as a good reason for the commonwealth's economic policy that scientific research be encouraged on just this ground, that when our present coal and mines are exhausted we may know where most readily to find now, and when these turn out but hollow voids some inventor shall have found a storage battery that will turn Ariel from a trickery sprite to a mighty genius of work and make the windmill as much a source of power as the water wheel. Thus as our currier sources of power, lumber-waste and coal are exhausted, we may discover oil and gas, or use our water powers to develop electric heat, or grow our own fuel either as four foot wood or as peat, which.
ever shall be proven by scientific experiment to be the most economical.

A Frenchman has recently suggested setting a coal mine on fire and pumping down just enough air to make water gas and then burning this gas as it comes to the surface. If this idea proves feasible it would add untold millions to the wealth of this state in seams which it would not now pay to burn. But in any case by the time our coal is gone we should be ready with our streams already dammed and copper cables covering the land to furnish more power from water than we now use from coal.

So again little by little the unfeared farm will become less fertile, for in spite of all the care and skill of the Michigan farmer, the wheat product per acre of the lower four tiers of counties of Michigan does not bear the same ratio to that of the state that it once did.*

It is well worth while therefore to see that we are getting our money's worth in buying fertilizer to replace the fertility, as they do at the M. A. C. It should be worth while to see that we do not squander valuable potash salts in making table salt, or burning lumber waste, etc. Again as our forests depart, not only should we cherish what is left, but with the proceeds, before we are left naked. poor and desolate, we should plan to develop substitutes; tile and slate for shingle; cement, sand-brick and stone for building; stone cement and steel bridges for wooden; and paving brick and macadam for cedar block and corduroy. The Bureau of Chemistry of the Department of Agriculture at Washington is hard at work seeking for fibres which may replace the wood pulp.

So too by the time our present iron ores are becoming exhausted our scientific chemists should have found some economic method of smelting leaner ores or better yet of handling that vast bulk of iron ore, of which we now know, that is made refractory by only a few percent of titanium, and our geologists may have found for us new ranges, or extensions of the old ones under the Paleozoic mantle (lines of magnetic attraction show that the iron ranges extend down to Green Bay under a thickness of not over 1,000 feet of Paleozoic mantle). So for instance we might appropriately tax a foreign corporation like the fish trust, catching or buying Michigan fish, for the purpose of supporting our fish commission, which studies our fish, stocks our rivers and lakes, which are not producing a tithe the fish food they might.

Moreover as we had said we should see that the necessary consumption is as little wasteful as possible. Legislation which is such that "we skin through as fast as we can and then throw the land back on the state" is not wise legislation. I am well aware that there are two parties in politics and in economics as to whether the state should hold for itself these natural resources. But if it be granted that the state should put these in the hands of individuals to exploit, it is certainly short sighted to then so legislate in the hope of getting back again "unearned increments" by taxation that the individual is tempted or even forced to rush through the development, squandering a large proportion of the resources in order to get the utmost possible returns to himself. It is very easy by legislation to accomplish just this result by taxing not according to the income or return but according to some fixed valuation, especially if excessive, so that the problem for the individual is to get the utmost income in the shortest time and avoid the most taxes.

In the same way the policy of taxation which leads those with accumulated property to leave the state and transfer the money which they may have made from its resources to some other clime, and their interests to other institutions, will not correct any error which may be supposed to have been made in allowing them to accumulate that wealth in the first place.

It is often proposed to correct and control the excessive accumulation of wealth and the power of wealth by competition but it must be remembered that competition is a most potent source of waste. The different iron ores are used together to produce a maximum amount of iron from a minimum amount of iron ore, because they are all owned by the same parties, regardless of the fact that some of the ores can be produced much more cheaply than others. But if the ore belonged to different parties and there were free and unrestricted competition the most cheaply produced ore would crowd the others for a time entirely from the market and would cause a decay of the town supported by their development. I do not think that anyone would consider this desirable, and certainly from the point of view of the geologist there would be a waste of resources.

It is lucky for Michigan that the iron ore of Lake Superior is held by a comparatively few strong corporations, the U. S. Steel Co. having a billion tons of the Mesabi range and many million tons of the older range. The Mesabi ore is a mere mass of varicolored dirt. I saw five forties

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*Average Yield per acre of Wheat in Michigan.

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last summer sold to contain 700,000,000 tons of ore. All that has to be done is to run in trains of ore cars and load it on by steam shovels, after once the layer of clay till, etc., overhead is removed. The huge, yawning, red chasms thus left when wrenched in the smoke of puffing locomotives and laboring steam shovels, present a volcanic and truly infernal picture. In time some of them will be 400 feet and over deep. The ore, too, is largely of the highest grade. What could any ordinary iron mine do in competition with such, especially those of Michigan, where the miners have now all disappeared underground?

Fortunately, however, it has been found that in the draft of the blast furnace in which those ores are reduced to iron, a good part of this light powder ore is liable to be blown out if not held down by something more substantial. Moreover a certain amount of some flux must be added to add the flux of iron, and the silice of some of our Michigan harder ores poorer in iron is admirably adapted to that end. And as the same interests own properties in both states they prefer rather than to let their Michigan properties go to rack and ruin to use a moderate amount of that ore and save waiting their Mesabi ore, even if thereby it is not produced quite as cheaply at the moment. They fix the price and in the long run it will be doubtless better for the community and collection.

More iron will be made with less work, by mining the high grade and low grade ore together, than there would be the high grade ore first run and wasted and then the low grade ore developed. The same thing is true regarding coal. In an era of unrestricted competition only the choicest portions of the best seams would he put on the market provided, as is true, there is a possibility of producing more coal than can be consumed. Customs such as that of paying royalty only on the coal mined may favor wastefulness. If the royalty were per acre cost, it would pay to mine more cheaply. I have said in my reports on coal. Thus it is for the state's interest that such regulations should be per ton of coal in the ground, not per ton of coal hoisted. This is practicable and true in some coal fields. In the case of iron ore, too, much property has changed hands on the basis of the ore in the ground as shown by drilling. In the same way in Indiana it has been found necessary to pass laws restricting the waste of gas or oil because in so many cases it was cheaper for the individual to save the one and waste the other regardless of the effect upon the resources of the state or his neighbor's wells. It would seem therefore that in relying upon competition as a cure for theills of the body politic or in attempting taxation of the "unnerved increment" we should not fail to consider carefully the effect of those remedies upon the development or conservation of the natural resources of the state, which, once squandered, no financial or political legislature can restore.

I know that the questions raised are difficult ones and I know no bance for all the wastes of the body politic. I might indeed suggest that it seems to me that municipal or state ownership is too often treated as a synonym of with municipal and state operation and elaboration. The Boston subway is a good illustration of public ownership and private operation, which apparently works better than would any other plan just now. I may perhaps remind you, too, that in Mexico mining is under a system of state leases, and in Canada the same. In this commonwealth the policy has in general been for the state to divert itself of the title to its lands, with their resources, even though they sold only for a song, and were mainly useful to be culled up into lots to be given away with "free chickens," thus to make work and fees in the process of little registering and tax collecting. Even our state institutions of learning have largely divested themselves of their landed wealth. Would not in many cases a lease for fifty years or longer have been exactly as well? It is a fair question, how far it is wise for a community to let its wealth go permanently out of its own hands, and in particular into the hands of non-residents. Non-resident property owners have been a source of friction ever since the days of the noblemen who let cat his vineyard to bondsmen and went into a far country.

Harvard University years ago, instead of selling Boston real estate outright, had a policy of letting it on a 30-year lease. And of late how and then a state of property, like the Adams house, worth a couple of hundred thousand, reverts, and is a very welcome addition to their unrestricted funds. It seems to me well worth while to consider whether it would not have been, and even now be, a wise policy for the state and its land owning institutions to regard to land not best suited for homesteads, to have leased the lands for a term of years rather than deed the property outright. Certainly a lot of land would have come back to them, and kept off that McAlpinson of useless expense—the delinquency tax list. While this I would merely suggest, what I would urge is more careful and intelligent consideration of our wasting our natural resources, so that before they are gone we may develop substitute products and replacing industries, and that their proceeds may go in part into permanent improvements, stone roads replacing plank roads, stone or cement bridges, wooden bridges, stone or cement dams,
wooden dams, and in other additions to the permanent wealth of the state.

But of all the wealth that Michigan has possessed I ask anyone to find any that has been better spent for the permanent wealth of the community than that which has been spent on educational institutions. They produce intelligent citizens. They draw into the state an intelligent public which spends much money at the time. Many of them stay here to help build up the state. Their buildings and equipment will be more and more Meccas and permanent objects of interest and attraction and resort. Their scientific researches will help to develop, to save, and to replace our natural resources.

I can picture in my mind two fortunes, and they will be but composite photographs drawn from life. The one is built upon a reckless cutting out of choicest lumber, none but the best is taken, the brush left around, and fired either purposely or fraudulently to conceal the theft. In the path of the first fires is left either a tangled mass of worthless trash, overgrown with bushes and fireweed, ready fuel for a series of conflagrations that sweep through from time to time, or a sandy plain covered with sweet fern and goldenrod, used by Chicago speculators to defraud the settlers, who from time to time try to make a livelihood from it.

There are here three wastes, the half crop of timber later burned, the land left in a useless condition, and labor wasted in trying to make it useful.

The logs thus gathered are driven to the mill by a crew of loose livers whose hard earned wages are largely scattered to the dive and brothel in a few weeks. The saw mills devour them and circular saws rip a wide swath of sawdust waste at each cut; piles or slabs, saw dust, and waste of every description are transported in a continuous stream to an ever burning fire whose pillar of cloud by day and fire by night betokens not the presence of Jehovah but the demon of destruction. The timber itself is shipped east to build up the fame of Michigan pine and the money thus acquired by one who keeps on making money because he does not know what else to do, is squandered by his heirs who by themselves or by those whom they purchase as husbands, scatter it to scandalize two continents.

The forest, the accumulation of generations, and of ages of sunshine, rain and dew, is gone, there is less than nothing to show for it. This is criminal waste.

Now let us paint a brighter picture. Into the forest go a lot of sturdy pioneers, such as Ralph Connor loves to picture, bent on caring for themselves and their children. The instructions are to cut every green top, and every thing is gathered up, even old half burned logs. Whatever is not otherwise used is used for fuel in making salt, but all that can be used down to stuff that will only make lath or matches or toothpicks is saved and pains are taken to make even the narrow band saw cuts as narrow as may be. The land is left ready, if good enough, for one of those same sturdy pioneers to take hold of and make a farm that will be the stay of his old age, and the homestead of his children. That best fitted to remain forest returns once more to the state to be reforested.

The lumber goes where it is most needed, but part of it into buildings within the state, of permanent artistic value—a permanent pride and landmark, like the Capitol. The fortune thus acquired is expended perhaps in part in reforesting those parts of the tract that are better suited for forest growth than for anything else, and in their fire protection, but those lands hardly worth paying taxes on are decreed to some state institution to which after some years they will be of great value, while in the meantime they are kept off delinquent tax rolls.

Another part of this fortune is employed in permanent improvement, roads and railroads, and in buildings which are a permanent addition to the beauty of the state as well as a memorial of the man who reared them. Another part goes in starting industries and providing education which will open fields of valuable employment and keep alive the town where the fortune is made when the lumbering ceases to be the all sustaining occupation.

A part may be employed in exploring for coal, developing peat or water power, drilling for oil, mineral water or other resources to replace those that are vanishing.

The forest then is not wholly gone, and in the place of the part taken are fertile farms, with happy homes, noble buildings, intelligent people and varied industries, and the state is wealthier than ever.

The one picture is as true as the other, (Mr. Hackley's fortune illustrates many of the brighter items), though they are put together like one of Thompson Seton's stories, but I hope and think that the brighter picture is the one becoming more true. For this let us all strive, as citizens not merely of the kingdom of science and the republic of letters, but the commonwealth of Michigan.
School Discipline

III.

Prof. S. B. Laird.

We measure the march of progress in any line of activity by comparing the ideals, spirit, methods and results peculiar to its different stages of development. This method applies to the consideration of the educational system as a whole or to any of its phases in particular. It may be suggestive to trace the evolution of discipline from the point of view of punishment as manifested by nations, families and schools. The emphasis placed upon "historical development" in all departments of knowledge and research makes it comparatively easy to trace the significant changes through which our subject has passed.

Earl Barnes in "Studies in Education," has made valuable contributions to this line of thought.

The generally admitted that the human race has passed through three important epochs with reference to the consideration and treatment of punishment. Students of the Hebrew penal code recognize the principle of revenge as occupying a prominent place in the Decalogue. This desire to get even is manifested in the utterance, "An eye for an eye and a tooth for a tooth."

The naturalness of this sentiment is unquestioned, as is also the statement that no higher motive could have been generally appreciated at the time. The fact that the Israhelites during their wilderness sojourn had little chance to organize and carry out a more elaborate or complex program of justice, is sometimes given as another reason for the ethics of the Mosaic law.

This same principle also underlies the great body of feudal laws which formed so prominent a part of the early history of several nations. The spirit of society and the reformation of the criminal had little place in such a code. The measure of the civilization of any land today is gauged by the gradual or complete elimination of this doctrine.

The government of the family is ambitious to banish any trace of this spirit of revenge, but it does lend itself too often to the least expected. The lower classes of modern society likewise are agreed that no punishments peculiar to school life should ever be administered to anger or for the purpose of avenging even with the violator of law. Still, with this consciousness of opinion to guide us we are morally certain that its claims are often unheeded, and that parent and teacher at times revert to motives which are many removed from twentieth century ethics.

The second epoch has a different policy, one that swears to a higher type of thought and action. Herein punishment is treated as a deterrent, its aim is to inspire fear of wrong doing and its consequences in the minds of all, so that virtue shall become more nearly universal. To this end penalties were administered in public. The nation and its inhibiting hangings or executions, the home and school their lynchings before all assembled.

In vain did the philosophers of that age seek for the reforms of which the system gave promise. Strong characters, wedded to virtue and self-denying efforts, were not forthcoming in large numbers as expected. Fear proved a weakening influence rather than a healthy stimulant to moral action.

In harmony with this principle England instituted braging for many petty offenses, believing that such an object lesson would greatly decrease crime. The records inform us that often while the culprit still dangling at the end of the rope, contentions arose in the jail yard which sometimes led to murder. The lesson was truly heeded, but its teaching was this—life is a cheap affair after all, worth only a few paltry dollars at worst, therefore throw it away without a care or thought. Instead of exerting an influence favorable to the highest attributes of a human being, it brutalized every noble feeling and destroyed all healthy ambitions among the onlookers.

How has this same principle operated in the school room? Has the public lashing been beneficial to either the offender or the school? If the evil doer was known to be such by the whole school, has his chastisement been the signal for greater loyalty to the common interests, or did the school sympathize with the offender? Is there a tendency, bordering on the universal to take sides with the under dog in the fight? Now, while there is no common answer, at least common in the same degree, to these and similar queries, still, we are of the opinion that such exhibitions failed to secure their boasted expectations. It is a pertinent question to ask, how is the one punished affected by an audience or his schoolmates? Will it require more or less punishment under such circumstances to bring him to a proper state of mind? Will be try to show indifference to the whole matter and steal himself against the thoughts of justice which ought to be prominent in the affair? Is there not a fine opportunity to
punish nervous, innocent pupils much more than
the guilty one?
These queries may evoke different answers, but
we think experience teaches that the principle
involved is wrong, both in its essence and its ap-
lication. If corporal punishment (which is often
the laziest and most thoughtless method of cor-
rection), be determined upon as the best way, it
should be performed when the school is absent and
when the teacher is under good self-control. The
right kind of a talk after the unpleasant business
is over and the pupil has regained his equanimity
may be truly supplemental. Some people may be
helped by such treatment, others are injured. With
some natures, the teacher practically creates a
chasm between himself and the pupil which no
measure of future kindness or justice can bridge.
There are a few important factors whose recogni-
tion determines the wisdom or unwisdom of the
method. These may be briefly stated: as a
knowledge of the pupils temperament and home
treatment, perfect understanding of his actions
and intentions, whether or not his sense of justice
will be outraged thereby and whether any physical
danger is imminent. Our schools have grown
more helpful in all true ways while punishments
as above indicated have grown fewer. These facts
are truly suggestive to all thoughtful pedagogues.

The time has come in the history of civilization
when punishment, either as an outlet for revenge
or as a deterrent merely, must not be regarded
as most wise and just. The third epoch in which
we now live aims to recognize the truth, that the
cause for wrong doing should usually be sought
in disease or ignorance, and that the true aim of
punishment is to educate or cure the culprit.
Applied to the state, it looks to the protection
of society as well as to the truest refor-
mation of the unfortunate one. It recognizes
the possibility of changing the purposes of the of-
fender and of making him once more a trusted
citizen, thus giving him a new chance. This prin-
ciple, as related to state government, has resulted
thus far in the creation of what is known as the
"Indeterminate Sentence," which, when rightly
guarded, possesses in large measure reformatory
influences.

How has this principle affected the important
institutions for juvenile offenders?. It has re-
moved the iron grates from the windows of the
once called "Reform schools," now known under
the better title of "Industrial Institutions." It has
taken away the high fences and other evidences
of a criminal nature from the same schools, and
begun a careful and more scientific study of the
child. This better condition of affairs manifests
its wisdom by the recognition and practice of ap-
propriate games, of ideals peculiar to age and
sex, and of the granting of the largest liberty con-
sistent with the training of reliable, well-disposed
characters. The removal of the stigma of dis-
grace and the constant appeal to the better nature
of the child have greatly increased the proportion
of those who are truly saved for civilization. The
healthy-toned addresses also from practical and
worthy men and women have had a stimulating
affect. The key note to their talks is not that of
hopelessness, due to an insane consideration of
certain phases of criminality, but it throbs with
hope and god cheer, and points to the enlarg-
ing horizon of every soul that wistfully looks to-
toward the good, the generous, and the self-denying
side of life. The trouble has been diagnosed, the
remedy applied, and health restored in a large
degree.

How has this principle affected our public school
system?
Every serious departure from right action, every
failure to secure the best results for self and
school, every acceptance of a standard lower than
the best, every indication of a lack of healthy am-
bition anxious to realize its object, all are treated
as the results of wills either diseased through
improper environment or untought as to their
highest possibilities.

The careful and tactful study of each individual
problem should discover the intention of the act,
its basis and strength. This revealed, there be-
gins a wise siege of the foe more or less strongly
entrenched behind habit, bad training or misun-
derstanding of the nature and possibilities of the
school. Complete mastery of the situation calls
into exercise all the "graces of the spirit," a splen-
did self-control, together with a well-balanced op-
timism which believes strongly and persistently
in the outcome.

Pupils thus treated discover that the teacher is
a helpful, consistent friend; that the highest joys
of young life are secured through the mastery of
difficulties and self; and that large and promising
opportunities await the man or woman of reso-
lute will, chastened spirit, and great industry.
The steady application of this method permits the
school, as an instrument of civilization, to realize
the purposes of its existence, while it affords the
teacher an opportunity to reveal himself to pupils
in the most favorable light as a stimulating guide.
Fear, in the main a negative force, has given way
largely to the more positive virtues. While there
is still room for the exercise of inhibition, the
developing power due to organized effort in the
doing of the right has found its natural outlet. As
life may be regarded as the expression of certain
proportions, the emphasis of some things at the
A Grasshopper Tragedy.
Nathan A. Harvey

It was a beautiful structure, fine and delicate, as if made by fairies, and apparently so frail that a breath of wind might destroy it. But there it hung all the day, glistening more brightly in the morning sunshine than at any other time, for the dew drops clung to its fine threads, turning them to silver, and when the sun's rays struck them at the proper angle, making each thread appear as if touched by the fire that produces the rainbow. It was not, however, so frail as it looked, and I saw that its architect was not at all concerned about its beauty, nor what you and I should think of it. It was a net, a web, a trap, and like all traps that are serviceable, it must be concealed from the eyes of the intended victim, or it must be of such transparent appearance that its real purpose shall not be recognized.

This trap was invisible to the eyes of those for whom it was intended. The threads were so very fine that anybody, either man or grasshopper, might easily be pardoned for overlooking it, yet so strong that even a blundering caterpillar once entangled in its meshes, would find much difficulty in extricating himself from it, no matter how he might struggle and kick and bite. The only material which could be so strong and yet so light, so small as almost to be invisible, and yet able to withstand the struggles of a grasshopper, is silk, and silk it was. Silk, that marvelous product of a spider or a caterpillar, that is woven into cloth by ucu after having previously been woven into a cocoon by a caterpillar. It is silk that ladies wear when they wish to be particularly well dressed, and it is silk that gondoliers select for their necktie or cravat, the only bit of Roy color acknowledged elegance that modern fashion permits in the attire of men. Yes, it was silk, woven in this case by a spider for a trap, wicket in its purpose, beautiful in its construction and material.

Unlike the caterpillar, the spider does not permit its silk to be used for making silk goods for men and women to wear, nor do I suppose that the caterpillar itself designs its cocoon for such purpose. But men have found out how to make use of the cocoon after the caterpillar has made it, although in order to use the cocoon men must first kill the chrysalis, which, resulting from the transformation of the caterpillar, is inside.

But the spider has little use for a cocoon. Instead of placing the silk into one bunch for a cocoon, the spider spreads it out into a web, muslin together into only one place a sufficient quantity to be easily apparent to a careless eye. Men have discovered no way in which the webs may be unwound. They have been able to reel silk directly from the spinnerets, or silk glands of the spider, but since each spider must be handled by itself, it is a slow and tedious process. It is a difficult undertaking, also, to keep many spiders at one time, for unless each spider is in a cage by itself, some will eat the others until there is only one big fat spider remaining, which we may suppose, contains within himself the concentrated essence of all those which have been eaten.

In the middle of the web, our spider, whose name is Argiope, places a bunch of silk and extending from it she weaves four broad bands of silk which are plainly visible. In the center of this mass of silk with its four radiating streamers, she takes up her position. Argiope herself is brilliantly colored yellow and black. The whole combination more or less resembles the general appearance of a flower with its spreading white petals and its yellow and black center. Flower
loving flies are likely to be lured to an investigation of the trap thus cunningly baited.

However, grasshoppers are not especially attracted to flowers, so it was a blundering fellow that jumped right into the web without seeing it. To his surprise he could not get through. Something, threads before invisible, caught and held him. His struggles and kicks were of no avail; although he broke many threads, and might ultimately have escaped if he had been allowed to continue. But he was not permitted to do so. Aranea, seated in the center of the web, ran quickly to the place that was the scene of the struggle, and quickly squeezing out of her spinnerets some of the liquid silk, by means of her hind legs began to throw over the luckless grasshopper the thread as it was spun. It was not a fine, invisible thread that was this time formed. It was a broad, ribbon-like band, capable of holding an animal that could struggle harder than any grasshopper. With fiendish vindictiveness she threw this broad band of silk, first with one leg and then with another, over the struggling grasshopper. Seeing that the hind legs were the strongest and doing the greatest amount of injury to the web, she undertook first to entangle these. The first cast did not accomplish very much. Neither did the next nor the next. Soon, however, the foot was entangled. Another cast succeeded in reaching the knee. Progress was now easier. Both hind legs were hampered and confined by repeated casts of the silk made alternately with the two hind legs of the spider, so that the grasshopper's struggles were soon limited to what it could do with its front legs. Then the spider took a position in front and proceeded to entangle the front legs in the same way that she had accomplished the entangling of the hind legs. Next she quickly made a circuit around the body of the grasshopper, all the time carrying the ribbon of silk with her as she spun it out from the spinnerets. Twice, five times, ten times, eleven twelve, thirteen, fourteen times did she pass around the body of the grasshopper, which had by this time been rendered completely helpless. Now the spider seemed to feel more at ease, and proceeded more deliberately to the final disposition of her prisoner. Stationing herself near the body of the grasshopper, she began to turn it over, as a boy would turn a barrel that is suspended horizontally by a rope from either end. As one pair of legs turned the body of the grasshopper, another pair attended to the placing of the ribbon of silk, which was still being pressed out of the silk glands. Over and over went the grasshopper, and more and more silk was wound around him, until one might have supposed that he was a bobbin on which silk thread had been wound, or the core of a roll of ribbon. It certainly was a good overcoat for him, of the finest and most expensive material, but I doubt if you or I, had we been in his place, would have enjoyed it, and we have no reason to believe that the grasshopper enjoyed it more than we should have done. However, the spider seemed to enjoy the performance, so some good came from it to one of them.

That was the last that I saw of the grasshopper. I have every reason to believe that this grasshopper furnished a late supper to the spider, although I did not stay to see the process of eating nor the further preparation of the meal. I went away feeling thankful, as perhaps I had never done before that at least I was not a grasshopper.

**MY SHIPS**

I stood and watched my ships go out;  
Each one by one unmouoring free,  
What time the quiet harbor filled  
With flood tide from the sea.

The first that sailed, her name was Joy;  
She spread a smooth, white, ample sail,  
Then eastward spend with bending spar  
Before the singing gale.

The next that sailed, her name was Hope;  
No cargo in her hold she bore,  
Thinking in western lands to find  
Of merchandise a store.

The next that sailed, her name Love;  
She showed a red flag at the mast,  
A flag as red as blood she showed,  
And she sped south right fast.

The last that sailed, her name was Faith;  
Slowly she took her passage forth;  
Tacked and lay to, and then struck out  
A bold course for the north.

My gallant ships, they sailed away,  
Across the shimmering summer sea.  
I stood at watch for many a day,  
But one came back to me.

For Joy was caught by pirate Pain!  
Hope ran upon a hidden reef;  
While Love took fire and foundered fast  
In whelming seas of grief.

Faith came at last, storm beat and torn;  
She recompensed me all my loss;  
For as a cargo safe, she bore,  
A crown linked to a cross.

---ANONYMOUS.
The Educational World.

Death of Dr. Edwin C. Hewett.

The death of Dr. Edwin C. Hewett on March 31 is an event of sufficient importance to attract the attention of the entire educational United States. For thirty years he was a teacher in the oldest normal school, with the exception of Ypsilanti, in the western states, and for fourteen years its president. His little book on Pedagogy was almost a pioneer in its field, and has been very widely used. A series of arithmetics and a volume on Psychology are also known. For nearly ten years he was treasurer of the National Educational Association, and a prominent member in its councils. Since retiring from the presidency of the Illinois State Normal University in 1890, he has been a prominent editor of School and Home Education and the same number that carried the announcement of his death, brought also his contribution as editor for the month.

Dr. Hewett was essentially great as a teacher. Not a great organizer, not a great executive, not a great thinker, be was pre-eminent as a teacher. In the thirty years of his connection with the State Normal University of Illinois, no teacher left a stronger impression upon a larger number of students than did Dr. Hewett.

The Michigan Schoolmasters' Club.

The meeting of the Schoolmasters' Club manifested to a stranger the essential difference between itself and the State Teachers' Association. The Schoolmasters' Club shows itself to be dominated largely by the idea of subject matter. The State Association is as clearly characterized by the problem of education, the details of courses of study, school administration, the nature of the being to be education. The elementary schools are the pet theme of the State Association, the high schools and their possible connection with the University gives the keynote to the discussions of the Schoolmasters' Club. Pronunciation names are conspicuous on the programs of the Schoolmasters' Club; prominent topics on the programs of the State Association. It is improbable that there is and always will be a man in Michigan for both organizations, for it is not likely that the same people will be vitally interested in both organizations. The indifference of thought is widely different.

Pronunciation.

Is pronunciation a lost art, or are we mistaken in supposing that it was ever a mark of education and attention to scholarly detail? At the meeting of the Schoolmasters' Club, grave errors in pronunciation were common in the reading of copies, who, in doubt would blush to be detected in making corresponding slips in Latin or any other of the foreign languages whose study was advocated with so much zeal. Thought is worth more than pronunciation, but poor pronunciation cannot be accepted as satisfactory evidence of good thought. When one is willing to spend so much time and effort to polish the pronunciation of a foreign language, it seems as if it should be considered a commendable circumstance to pronounce the English with a fair degree of accuracy.

Three Things Needed for the Improvement of the Schools.

Mr. George P. Brown, editor of School and Home Education, formulates three demands that must be met before the schools become all that they should be. The first is the payment of salaries adequate to attract and to keep in the work men and women of commanding ability as teachers. Many such teachers enter upon the work, but a very large number of persons whose presence is highly desirable in the schools, discontinue teaching just as the time when they are becoming most effective. The second demand is that teachers shall have adequate preparation for teaching. If the average term of service were much longer than it is, the normal schools now in existence would be more nearly able to satisfy the demand. As it is, the normal schools when crowded to their fullest capacity are not nearly able to meet the demand for trained teachers. The third demand is that there shall be adequate supervision. It frequently happens that a superintendent comes to the position knowing much less of teaching in general and the details of elementary work in particular than do the teachers whose work he is supposed to supervise. He may learn a great deal after a few years. The teachers in the school may train him to be a good
superintendent, but there is considerable loss of energy in the training process.

The Adjustment of Salaries.
The salaries of elementary teachers in Michigan are ridiculously low, but even the salaries that are paid are not satisfactorily adjusted. Shall there be a flat rate for all teachers in the school, or shall there be an attempt at least, to adjust salaries according to the merit of the teachers? It saves trouble for the school board if all teachers, good, bad and indifferent, are paid the same salary. It does not, however, encourage teachers to improve, to do their best, and to spend their time and money in doing those things that make them better teachers.
The feeblest attempt to adjust the salaries to the merit of the teachers is an adjustment according to years of service. It is a fact, agreed upon by all competent observers that many, if not a majority of teachers reach a maximum of excellence in teaching in from three to five years after they begin to teach. After that time, deterioration in teaching is as likely to be observed as is improvement to continue. Many years of experience is no guarantee of excellence, especially if the teaching has been done all in one school.

Some cities attempt to make an adjustment on some other basis than length of service. The judgment of the supervisor, combined with the results of continued study as manifested by a written examination seems to promise more of equity than any other plan. This is the plan which has aroused the violent opposition of the Chicago Teachers' Federation, and which has also been opposed by Jane Adams and other philanthropists, who are unable to see why teachers should be subjected to the humiliation, as they conceive it to be, of an examination.

The Chicago Teachers' Federation.
The Chicago Teachers' Federation is a company of about eight hundred teachers in the city of Chicago, who are banded together for a selfish purpose. They have secured a charter as a labor union, and employ a walking delegate. They have opposed every movement, that in the judgment of the superintendent, has looked toward the improvement of the schools in the past five years. They have fought the passage of bills in the legislature, that were introduced at the request of the school board, which tended to make permanent the improvements in board procedure already secured. They have conspired with outspoken enemies of the public schools in order to accomplish their results. They have opposed the discharge of teachers for incompetency, virtually claiming a life tenure, or discharge only by the teachers themselves. They have acted upon the principle that the schools are for the benefit of the teachers and not for the children. If the principles of the Federation are to prevail, it will be necessary to establish a new set of ideals and a new line of argument in order to justify the existence of the public schools.

The Election of Judge Dunne.
To a person acquainted with the school conditions in Chicago, the election of Judge Dunne as mayor does not offer much promise of improvement. The mayor appoints the new members of the school board, and those acquainted with the characteristics of the new mayor, may well be apprehensive of the appointment of a board that will permit a return to the conditions prevailing before the sweeping improvement of the past five years. It is not likely that anything radical will be suddenly done. In the election the question of municipal ownership completely overshadowed all other matters so that the school question was not raised. It is quite within the bounds of probability that the Teachers' Federation will receive more consideration from the Board than they have ever received before. This would mean the discarding of the merit system of appointments and promotions, and a return to the system of pull.

Book Notes
The indexing of periodicals continues to multiply. The Library index to periodicals and current events is issued monthly, and in a quarterly cumulative which has just appeared for the first time, covering the periodicals from January to March. Less satisfactory on the whole than the Cumulative Index to periodicals, it includes some magazines not indexed in its older rival and some features of usefulness quite its own. The titles of short stories, for instance, are printed in italics, and there is an index to dates of principal events (in January and February), constituting an index to daily newspapers. Under the heading Congress, for example, are grouped the various bills, thus making reference convenient when information is required.

The publishers of the Cumulative book index and of the Cumulative index to periodicals have added a third to their list, the cumulative book review digest, devoted to the valuation of current literature, of which the first number, cumulative from January to March, 1905, has been received. Entries are made alphabetically by authors' names and include short title, price and publisher. This is followed by a descriptive note giving information as to scope and character of the work. Next follow extracts from critical reviews, and as a brief extract does not necessarily convey the whole tone of the review, the degree of favorable
or adverse criticism is indicated by the minus or plus signs. To illustrate, The History of Education in the United States, by Edwin Grant Dexter (Macmillan, $2.00), is followed by extracts from three reviews, ranked as follows: ++ Annual Am. Acad. 25:123, Jan. '05; 3.0 w. ++ Ann. Critic. 46: 266, Mr. '05: 10.0 w. ++— Edu. R. 29:202, F. '05: 2.31 w.

It will be seen that reference is made to each, both by vol. and number, which is often a great convenience, and also the length of the review indicated by the number of words it contains.

The twenty-seventh annual report of the bureau of labor and the twelfth annual report of the inspection of factories for Michigan, 1905, is practically an annual and statistical history of the industries of the state. Among the fullest and most interesting reports in this volume are those on furniture factories in Grand Rapids and on the Portland cement industry in Michigan.

The Boston Book Co. in its Bulletin of Bibliography pamphlets, sends out an No. 13, "Hulda's." This includes both specific references and also lists of other easily obtained bulletins for the more generally observed feasts and holidays, both ecclesiastical and secular. It is opportune in view of the three nearest days in its calendar—Arbor day, May day and Memorial day.

Three books of delight from whatever point viewed are The Science of Fairy Tales by Edwin Sidney Hurland, Perrault's Popular Tales, edited from the original editions, with introduction by Andrew Lang, and The Tales of Mother Goose as first collected by Perrault in 1696, newly translated by Charles Woebke, and edited by Prof. M. V. O'Shea, being a very literal translation of the Popular Tales (in the French) to which Andrew Lang writes such a happy introduction of over a hundred pages. In fact, the words with which Mr. Mr. Lang closes his Introduction biographical note seem to be quite as applicable to himself as to the old Frenchman: "Charles Perrault was a good man, a good father, a good Christian, and a good fellow. He was astonishingly clever and versatile in little things, honest, courteous and witty, and an unbounded musician. The little thing in which he excelled most was the telling of fairy tales." Mr. Lang's Blue fairy book, the first of his many colored series, is a translation of those same tales.

Perrault wrote in both prose and verse, but his verses in verse are like poor imitations of La Fontaine. Happily he wrote seven in prose, which appeared in 1696, and have a droll look to our English eyes, in their original titles. La Pello au Bois Proniant (Our Sleeping Beauty); Le Petit Chaperon Rouge (Little Red Riding Hood); La Barbe Bleue (Blue Bearded); La Mulette; Chat, ou le Chat Botte (Puss in Boots or the Master Cat); Les Fees (The Fairies); Cendrillon, ou la Petite Poucette (Cinderella); Hugol a la Houpppe (Robin of the Thistle), and le Petit Poucet (Hop o' My Thumb).

The peculiar charm of the telling of these tales lies in the fact that they are undoubtedly the stories he told his little son, who wrote them out among his daily tasks, and his father, seeking their beauty (wise man), retouched them with a stroke of the pen, here in, here out, and sent them to the printer to become, as no little dreamed, the perennial delight and inheritance of childhood.

How to Get a Good Map of Michigan

Teachers of Geography—especially if they shall get the Ann Arbor sheet of the new Topographic Map when in the Normal College—will be glad to learn that Senate Bill No. 18, now before the Legislature of Michigan, makes provision for the extension of this work over the whole state in cooperation with the national government, which bears most of the expense and guarantees the high character of the work.

A Topographic Survey.

1. Object of the Survey. Preparation of maps which show with greater accuracy not only the usual features of streams, lakes, highways, railroads, dwellings, etc., but elevations of the surface by which are made known the position of hills, valleys and plains.

2. Means for a Survey. By act of Congress the National Geographical Survey is empowered to cooperate with the various states in making topographic surveys in which the State is to bear one half the expense of the field work. When such cooperation is secured the National Survey sends its own engineers or topographers to the field with instructions to secure precise data from which the National government makes the maps wholly at its own expense.

3. Uses of the Maps. Accurate topographic maps are useful to all classes of persons. They help the farmer in locating ditches and roads because they show the land levels everywhere. They show the hilly or level condition of every farm and may be used to advertise land for a distant market. They locate the unguarded marsh points of every region and suggest how best it may be drained. They show where trolley lines may be run at easiest grade. They indicate whether a distant water supply can be conducted to a city. They tell the elevation of lakes, the descent of rivers and thus throw light upon water power. They also aid in locating sewers. They form the basis for every scientific exploration, geological,
botanical, and zoological, on which the various data collected may be spread. Finally they bring the study of Geography and Physiography home to every school and every household; for in these maps the teacher and pupil are given a guide to the study of the natural features in their own neighborhood. When such a map is made any one interested in obtaining a knowledge of the region in which he lives may secure at the cost of five cents a competent guide in the form of a map drawn on the scale of one mile to the inch.

IV. What Other States Have Done. Several of the eastern states have already completed their topographic survey, and nearby states on the south and east are now expending annually for their surveys the amounts stated: Ohio $25,000, Pennsylvania $15,000, New York $20,000, Maryland $6,000, West Virginia $15,000, Kentucky $5,500.

V. What Michigan Has Done. Except for a portion of the mining regions and a small strip from Ann Arbor eastward, Michigan has no topographic maps. Four years ago on the solicitation and with the cooperation of the State Geologist of Michigan the National Survey began the preparation of a map around Ann Arbor as an illustration of the character of the work. Two years ago the Michigan Legislature appropriated $1,000 for continuing the survey. With this money, a small sum from the State Geological Survey and a larger sum from the National Survey, the field work has been done and maps are in preparation for the district between Ann Arbor and Detroit. Aside from Washtenaw and Wayne counties they include parts of Livingston, Oakland, Macomb, Lenawee and Monroe counties. It is to be hoped that the good work thus started will be rapidly pushed ahead. Will Michigan who boasts of her advanced stand in educational work do less than her sister states to meet this urgent need?

It will be a great help to the bill if you who read will write to your own Representative and Senator that you believe in the work and want the map for your own locality. Ask them to vote for it and tell them that the State Geologist at Lansing can give them further information and show them samples of the work.

MARK S. W. JEFFERSON.

A Natural History Survey

The Michigan Academy of Science has inaugurated a campaign favoring field work amongst our elementary and secondary schools, in furtherance of which a bill is now before the senate (No. 146) asking for a small annual appropriation with which to carry on a biological survey. A committee from the Academy has drafted the following general statement relating to the purposes and plans to be followed in such a survey and petitions are now being circulated and signed.

I. Object of a Survey. The study of the plants and animals of the State, and the publication of such reports as will be of economic, scientific and educational value.

II. Lines of work to be followed. 1. For educational purposes the plants and animals of every part of the State should be studied to learn their names, their relation to climate and soil, to agriculture, and their function in the economy of nature. The knowledge so gained should be embodied in bulletins or books suitable for use in the primary and secondary schools and in colleges. Thus every child would be stimulated to nature-study because of local guide books. 2. For scientific purposes the Flora and Fauna of the State should be studied and their range and habits determined, that Michigan may bear her share in the advancement of general knowledge. 3. For economic purposes an inventory should be made of the State's resources in natural history, such as peat, marl, forests, fish, and game. The habits of plants and animals of economic importance should be studied in order that sufficient means may be taken for the destruction of the noxious, and the propagation and legislative protection of the beneficial. A proper understanding of the forest, fish and game, with their diseases, would enable the State to convert her barren lands and waters into sources of wealth. The Maine Commissioners of Fisheries and Game estimated the amount spent in that State by visiting hunters and fishermen in 1903 at $6,000,000 to $12,000,000.

III. What other states have done. In 1817 the State of Michigan began a geological and natural history survey. For lack of funds the natural history survey was discontinued in 1840. States making or having made such surveys are New York, Pennsylvania, New Jersey, Maryland, Ohio, Indiana, Illinois, Wisconsin, Minnesota and California.

Students and teachers of zoology and botany throughout the State are earnestly requested to write at once to the legislators from their own districts urging that they favor the bill. Concerted action just now may save the bill and secure for the schools the advantages of such a general survey of the State.

W. H. SHERZER.

Prizes For Economic Essays

In order to arouse an interest in the study of topics relating to commerce and industry, and to stimulate an examination of the value of college training for business men, a committee composed of
Professor J. Laurence Laughlin, University of Chicago, Chairman;
Professor J. B. Clark, Columbia University;
Professor Henry C. Adams, University of Michigan;
Horace White, Esq., New York City, and
Mon. Catron, Clark College,
have been enabled, through the generosity of
Messrs. Hart, Schaefer and Marx of Chicago, to
offer again in 1906 four prizes for the best studies
in any one of the following subjects:
1. To what extent, and by what administrative
body, should the public attempt to control
railway rates in interstate commerce?
2. A just and practicable method of taxing rail-
way property.
3. Will the present policy of the labor unions
in dealing with non-union men, and the
"closed shop," further the interests of the
workingmen?
4. Should ship subsidies be offered by the gov-
ernment of the United States?
5. An examination into the economic causes of
large fortunes in this country.
6. The influence of credit on the level of prices.
7. The cattle industry in its relation to the
ranchman, feeder, packer, railway, and con-
sumer.
8. Should the government seek to control or reg-
ulate, the use of mines of coal, iron or other
raw materials, whose supply may become
the subject of monopoly?
9. What provision can be made for workingmen
to avoid the economic insecurity said to accom-
pany the modern wage-system?

A first prize of one thousand dollars, and a sec-
ond prize of five hundred dollars, in cash, are of-
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composed exclusively of all persons who have re-
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college in 1894, or thereafter; and a first prize
rates, if the moral of the papers demand it.

The ownership of the copyright of successful
studies will vest in the donors, and it is expected
of three hundred dollars, and a second prize of
one hundred and fifty dollars, in cash, are offered
for the best studies presented by Class B, composed
of persons who, at the time the papers are sent
in, are undergraduates of any American college.
No one in Class A may compete in Class B; but
any one in Class B may compete in Class A. The
Committee reserves to itself the right to award
the two prizes of $1,000 and $500 to undergrad-
that, without precluding the use of these papers
as theses for higher degrees, they will cause them
to be issued in some permanent form.

Competitors are advised that the studies should
be thorough, expressed in good English, and not
needlessly expanded. They should be inscribed
with an assumed name, the year when the bache-
lores degree was received, and the institution
which conferred the degree, or in which he is
studying, and accompanied by a sealed envelope
giving the real name and address of the competi-
tor. The papers should be sent on or before June
1, 1906, to

J. LAURENCE LAUGHLIN, Esq.,
University of Chicago.
Box 145, Faculty Exchange. Chicago, Illinois.

New Latin Text.

The second volume of Dr. D'Ooge's "Latin Com-
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Editorial from the News of February 18.

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