

# EDUCATION AND SOCIAL PROGRESS

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It has been estimated that from the time a young man appears in this world until he has been carried through the varied training of home and school and college, and is thus made ready to do something towards acting his part in the world, there has been spent on him an average of about \$5,000. This then represents the money investment which society has put into each young graduate as he takes his diploma—and whether in every case the capital has been on the whole well applied is perhaps an open question. However that may be, it is possibly at least worth while to consider some of the motives with which the venture has been made, some of the conditions with which social evolution is attended and some of the results which society may justly expect from its educational efforts.

## PROGRESS OF THE WORLD.

The progress of the world is the dominant note in these opening years

of the new century. The conquest of arid lands, the conquest of the air, the annihilation of disease, the linking of two oceans, the flashing of waves of intelligence through the air, the triumph of political democracy, and myriad other marvels, fill the public mind with absorbing interest. New thoughts, new practical devices, new forms of social organization, throng on the attention. We mark the advance which the world has made by contrast with the conditions of a past epoch. We smile at the age of the canal boat and of the stage coach, but each was itself a great gain on what had preceded. We shudder at the English penal laws of a century ago, with their hundred and more capital crimes, and at the witchcraft delusions of a century before that. We rejoice in the great growth of popular government since the days of our own revolution, welcoming even Japan, Persia, and Turkey to the family of constitutional

states. We are thrilled at the new life in China, the abandonment of its venerable scholasticism, the introduction of western educational and social ideas. Verily the world moves, and it moves fast. Science rules the world, but science is knowledge, and knowledge is indeed power.

But the thoughtful student of human life realizes that progress is by no means uniform and all-permeating. He sees that each new application of human power brings with it new forms of evil. The railroad has mightily accelerated the advance of agriculture and commerce and manufactures. But the railroad yearly slaughters and maims its thousands, and railroad finance has brought into society troubles political and ethical before undreamed. Machinery has multiplied many fold the production of human convenience and comfort. But machinery has meant sweat-shops, and child labor, and new forms of disease, and the bitter conflict of social classes. The abolition of kings and feudal lords has put government into the hands of the masses. But democracy means political machines and bosses, and bribery at the polls and in the halls of legislation. Our forefathers were jubilant at throwing off the yoke of royalty and at escaping from the tyranny and corruption of officers of the crown. They had not yet learned the capabilities of an elected legislature. The modern production of wealth is enormous beyond all historic precedent—and yet our great cities reek with squalid poverty. Progress is irregular, with many eddies and retrogressive currents. Vast achievements there have been, but one is overwhelmed at what remains to do.

#### ELEMENTS OF PROGRESS.

Should one seek to resolve progress into all its elements it would be necessary to traverse the entire field of human life. Still, on the whole, the most marked features of the progress of the age may

perhaps be held to fall into five great groups, to which for a few moments I ask your attention.

#### I. *Economic Efficiency.*

The first of these is *economic efficiency*. By the aid of machinery and of new intelligence far more can be done in the same time than in the days of our fathers. The crops on the modern farm are the product of science, and not of mere rote knowledge supplemented by brute force. The mill, the mine, the factory have all their new and effective methods by which the last atom of value is extracted from the raw material. The cyanide process has made low grade ores, once worthless, now the source of illimitable wealth. Irrigation has reclaimed the desert, steam and electricity have cheapened transportation and have made markets world-wide. Uses have been found for materials once almost or quite worthless—rubber, wood pulp, cement. Engineering needs only to be backed by capital and labor to convert the impossible into the prosaic. The Isthmus of Panama is pierced, the Hudson river is tunneled, the Andes are traversed by railroads.

Two results are everywhere apparent. From the economic efficiency of the age there flow comfort and freedom. With all the misery which we know, yet there never was a time when comfort was so widely diffused. Food, clothing, shelter, were never so abundant and so easily won. Freedom, too, is not primarily the product of law so much as of income. We speak of a certain amount of property as "an independence"—and we are quite right. With a reasonable margin between income and expense one is free to come and go, to think and dream, to enjoy, to select his life. Whoever has to exert his utmost to keep life going is not free, whatever be his supposed legal status.

But in the second place there is an increasing and pressing demand for

skilled and intelligent help. One hears sometimes the lament that the new conditions do not afford adequate room for young men. It is an error. There never were so many chances for the right kind of young men as at this moment. Everywhere it is difficult to get brains, honesty and industry. They form a capital always in demand, always in the end sure of reward, and proof against panic or fluctuation in the price of securities.

The economic efficiency of the age breeds comfort and needs workers.

### 2. *Social Justice.*

A second group of phenomena in progress we may call *social justice*. Life and property are more secure than of old. The feudal baron owned his labor; today the labor nearly owns the baron. When power tends to crush the poor, society is learning to interfere. Child labor, the toil of women, needless dangers in the workshop, white slavery, are made the subject of searching inquiry and of legislation throughout the land. Education is provided free for the children of all. Glaring wrongs wrought by any government bring down the condemnation of the world,—Russia, the Congo, Turkey, bear witness. The nations vie with one another in studying the cause and cure of crime, of incompetence and of disease. One may travel securely throughout the civilized world, may come and go freely in all lands. The criminal has now no safe refuge from justice; international extradition covers the habitable earth with law. I say "habitable" advisedly. Not long since a fugitive from justice of one of our northern states found his way to a Central American republic with which we had no extradition treaty. But after residing there awhile he returned home and surrendered himself to the sheriff. He preferred a prison in the United States to liberty in Central America. The civilized world does not tolerate flagrant crime.

That social justice is not yet com-

plete is merely to say that the golden age is not here. But progress has gone far in this direction, and daily is moving on. And the obvious products of social justice are security and opportunity—safety of health, life, and property, and a fair chance to use one's natural and acquired powers to the best possible advantage.

### 3. *Scientific Knowledge.*

A third and most striking field of progress is found in the advance of *scientific knowledge*. On this one need not dwell, as the facts are so familiar to all. Plato reasoned well, but what did he know of chemistry? We have learned in our own time that yellow fever and malaria and typhoid can be prevented by proper and practicable means. Pasteur taught surgeons that sterilization in implements and cleanliness of person saved life by keeping out the microbes which wrought destruction. In the Paris maternity hospital in 1856 there was a frightful mortality due to puerperal fever. In little more than a month there were sixty-four deaths out of three hundred and forty-seven cases. The hospital was closed, but nearly all the remaining cases in the end were lost. It took years to learn that microbes had been disseminated by surgeons and nurses, and that nearly all danger could be eliminated by proper methods of sterilization and antisepsis. In my own youth I remember well that in a small community nearly all of my age were swept off by cerebro-spinal meningitis, and that in later years diphtheria was almost invariably fatal. Now the diphtheria anti-toxin rarely fails to save a patient, and meningitis yields in the great majority of cases to the serum which science has found. When the Panama railroad was built some half-century since it was commonly said that every tie was laid on the body of a laborer. Now the health of the thousands who are working in the canal zone is as safe as if they were in their homes. Science has

surrounded human health and life with safeguards beyond the imagination of past generations, and eager investigators throughout the world are seeking to solve still other problems of disease—cancer, tuberculosis, typhus, scarlet fever, and many more.

The enormous multiplication of human power coming from applications of scientific discovery are too familiar for more than passing notice. With the spectroscope we read the structure of the stars; electricity transmits the power of the waterfall to turn machinery many miles away; the solitary farmer through the telephone wire converses with his neighbors in all the countryside and in the distant town. New discoveries, new inventions, are incessantly opening new fields for the energies of men. Science on the one hand guards from disease and death, on the other hand reinforces human intelligence with myriad natural powers, and thus unfolds endless new opportunities.

#### 4. *Appreciation of Beauty.*

Still another form of progress lies in the *appreciation of beauty*. There is an increasing perception of the fine things of life, of pictorial and plastic art, of poetry and belles letters, of music, of the social refinements which make the life of men among men to differ from that of the savage or the boor. The enjoyment which comes from beauty in its varied forms is one of the ennobling facts of human existence; one of the things which make it worth while to be in this world at all. The democracy of political power which has marked the present age does not reach its final value unless it means also a democracy of culture. I have seen workmen with their dinner pails roaming through the Art Institute of Chicago and studying paintings and statuary with keen zest. It may be that in many homes hymn tunes or "ragtime" are all the music which is known. Still, by the phonograph alone I am convinced that Beethoven

and Wagner and Mozart are becoming known and appreciated in places where an orchestra is never heard; while the printing press has made books so cheap that at least it is possible to get the best poets and essayists and historians anywhere in the land for all who will. There is an instinctive love of beauty in every human soul, which usually needs only proper opportunity for its development. The vast progress in the dissemination of art and literature has opened to the many the doors which formerly were closed to all but the few.

#### 5. *Philosophy.*

A final form of progress is that which may perhaps be called *philosophy*. It covers a study of the reasons of things—what is the final meaning of life in the world; what is our proper ethical relation to our fellow-men; our proper attitude toward Deity and the life beyond. The whole field of religion, of conscience, of ethical sociology is here included. There are some who feel that religion is fading out; that the advance of philosophic and scientific thought has displaced the blind faith in authority which religion would seem to imply. Certainly religion has shared in the progress of enlightenment with all other forms of thought. The persecution which at one time was inflicted in the name of religion by Catholic on Protestant, by Protestant on Catholic, by English churchman on dissenter, and by dissenters on one another, would no longer be possible. The animosity of sect for sect has lost the most of its rancor, and today we find religious sects cooperating for common objects. The stress has indeed passed from speculative theology to applied theology; from metaphysics to social ethics. The burning questions today are no longer of foreordination and free-will, for instance, but rather what can the churches do to make the life of men purer and saner and sweeter. We are learning to realize that the finest faith

is confidence that if we do our part by our fellow-men matters beyond our ken may well be left to a higher power. I do not believe that there is less religion today, but rather that we are learning a new and more vital conception of what religion is. There is not less faith, but there is more intelligence.

#### BEARING ON EDUCATION.

In the light of these facts with regard to the progress of the world, it becomes a matter of interest to note their bearing on education. Do they cast any light on the nature and conduct of our educational institutions?

#### EDUCATION SHOULD ADVANCE.

First of all, is it not clear that the education of the young should keep pace with the advance of human thought? The tendency of the school is to become stationary. Content and manner of instruction being once fixed as useful, there is a peculiar educational inertia which militates against all change. In the end we find the school lagging far behind the actual life of the day. There was a time when the best literature was found in the Greek and Latin languages, and when the latter was the common tongue of educated men of all nations. It was then of high import that these two languages should be learned in the schools. But in time there grew up a great literature in the modern vernaculars, and, perhaps unfortunately, native speech supplanted Latin for common interchange. These original reasons for keeping the classics in our schools thus have disappeared, but it is only very recently that schoolmasters are learning that, while Greek and Latin learning has its value, it is no longer essential. French and German surely, and perhaps Spanish and Italian, are very desirable; but yet with only a good knowledge of English one can in these days become a highly educated man. That was not possible in the days of Queen Elizabeth.

One reason perhaps for the inertia of our pedagogy is that the teacher is so absorbed in his teaching as not to keep up with the advance of his subject. The succession of classes is much the same; the series of immature minds shows little variety year after year; meanwhile no field of knowledge remains unchanged. The progressive school keeps abreast of the progress of the times in curriculum and method; the progressive teacher is always alert to the progress of his subject. What people are thinking about in the class-room and what people are thinking about outside the class-room should be the same.

#### EDUCATION SHOULD INCREASE ECONOMIC EFFICIENCY.

Again, as the fundamental fact in the progress of society is economic efficiency, so the fundamental fact in school and college should be to increase the economic efficiency of every young man and woman.

The first duty of the citizen, no doubt, is self-support. The educated man, then, should have greater economic efficiency as a direct result of the time and toil and money put into his training. He need by no means be adapted to amass great riches, but his education should enable him at least to add more to the wealth of the community than would otherwise have been possible. He should be capable not only of self-support, but as well should be able to care for a group dependent on him, and to care for them well. The man who cannot provide a suitable living for himself and his family is one of nature's misfits—the trained brain should enable its owner to correlate with the world. It is no longer the theory of the college that any knowledge which threatens to be useful has no part in culture, and that "the education of a gentleman" isolates the student from contact and sympathy with his fellows. The poet's "*odi profanum vulgus et fugio*" to be sure was long the practical shibboleth

of the collegian. Today it is rather "*nil humani a me alienum puto.*" The old college refined the individual, the new one gives him force and social contact. The old education was individualistic. The present is social. Hence it is that today society with reason expects from its educated youth positive economic efficiency as the first fruit of sacrifice so lavishly made.

We should not misunderstand. Self-support, the support of one's family, reasonable insurance against the inevitable rainy day, these are the economic duties of every man, much more of every educated man. The accumulation of a large fortune is the duty of no one. The comforts of life are in reach of all. Luxuries are enervating, and great wealth, unless held as a trust for social progress, tends to create the idle and effeminate habits which disintegrated the Roman empire and which were fatal to the aristocracy of the old regime in France. It is no disgrace to be poor; it is no crime to be rich. But poverty which comes from indolence and shiftlessness is a disgrace, and equally disgraceful are riches used merely to gratify the senses and to pamper vanity. The educated man should know how to live nobly under any fortune. It is not what one has that makes the man, but what one is.

#### ANALYSIS OF SCHOOL ATTENDANCE.

What are the well-known facts as to school attendance? Rather less than 80 per cent. of the school population (boys and girls from five to eighteen years old) are enrolled in public and private schools. Little more than two-thirds of these are in regular attendance. Of the total school enrollment about 95 per cent. are in primary schools; about 5 per cent. in secondary schools. Of the secondary school enrollment not far from 43 per cent. are in the first year, 26 per cent. in the second year, 18 per cent. in the third year, 13 per cent. in

the fourth year, and from 10 to 11 per cent. are graduated each year. Further, we know that each year great numbers of the primary enrollment drop out, and that the small secondary enrollment is in spite of a phenomenal growth in high schools within recent years.

While there may be a variety of reasons for the fact that so few get more than a portion of the elementary school training, still there can be no doubt that the main cause is economic. The great mass of children need to earn their bread as soon as possible, and their parents cannot afford to continue their schooling. Even if to some extent this situation may be modified, yet it is very unlikely that the situation will be radically changed. The vast majority of children will get little or nothing in the way of school training beyond what the primary grades afford, and will at once pass into the army of wage earners.

Should not the school keep this fact steadily in mind and seek in every reasonable way to increase the economic skill, and hence the earning power, of the boys and girls confided to it?

How may this be done? No doubt the intelligence of the child will be quickened by the usual school training, and intelligence is a vital factor in all industry. But beyond that, there are other processes, now quite well understood, which should be made general. Manual training is no longer an experiment, and the carpenters' and the joiners' tools are quite as legitimate a part of school equipment as maps, globes, and blackboards. Textiles, in the wide sense of the term, and domestic science, should be a common matter of instruction for the girls. Commercial training should be open for those who will, not so much in commercial high schools as in all high schools. The combination of shop and school, whereby the boy may begin his actual earning and yet spend a part of his time in school, should be

effected wherever possible. The technical high schools, or high schools with technical courses, should be provided in all industrial centers.

Are such departures welcomed by parents and children? A few facts will show.

"1. In Chicago there are seventeen high schools, two of which are technical high schools, and, remarkable to relate, nearly 50 per cent. of all the boys in the city high schools are in these two schools, the Crane and the Lane.

"2. In Chicago four years ago a manual training high school was opened with meager equipment in the old Hoyne Elementary School. At the opening there were only eighty pupils, while today in its successor, the Lane Technical High School, there are six-hundred hundred pupils.

"3. In the high schools throughout the United States only 10 per cent. of the pupils are graduated. In the Lane Technical High School the graduating class of last June numbered nearly 50 per cent. of those who entered four years before.

"4. Several years ago it was found that the average loss in the Chicago high schools between the first and second years was 35 per cent., and in some schools it was as high as 50 per cent., but at the Crane Manual Training School, on the West Side, the loss was only 17 per cent."

In city schools, as in Chicago, much has been done in furtherance of these reforms, and the future is full of promise. The rural schools, however, have hardly as yet grasped the situation, and are too often mere echoes of the city school as it was. The rural school should be a school primarily for a rural community. In it the elements of scientific agriculture, shop work and domestic science should be provided. The boys and girls should learn the lessons that the farmer, his work, and his home, are in fact and not merely in the rhetoric of the candidate

for office, at the foundation of the prosperity of the nation. And all boys and girls, in all the schools, whether in country, town or city, should, whatever else they are taught, learn this lesson thoroughly, that to earn an honest living by honest work is the most honorable thing a man or woman can do, and that any other way of earning a living is dishonorable.

#### EDUCATION SHOULD MEAN SELF-CONTROL.

Beyond economic efficiency, however, which society has a right to expect from every college man, is another quality which education proves itself a rank failure unless it imparts. The most strenuous mastery by far is that over one's own wayward impulses. The great lesson of education is that of self-control. The calm poise of judgment which marks the man of trained intellect, not ready to form opinion in advance of adequate evidence, not yielding to impulse, to desire, to passion, but holding all in check by a disciplined will until full intelligence and deliberate reason have had time to act—this is the mark of high education. Knowledge is power, to be sure; but back of knowledge, and its master, lies character. The state must needs rule with a firm hand because so many citizens are lawless. When educated citizens control themselves, however, law becomes as to them superfluous. The doctrine of anarchy may only so far have just ground as a state is formed of men who govern themselves, thus to that extent rendering state control needless. The day is far from our time when it is likely that there will be such a state on this earth of ours. Meanwhile the hard task of society in keeping order and enforcing justice among men is lightened by the law-abiding habit among good citizens; and among good citizens the choice fruit of state education, college men, should be found always.

## OBEDIENCE TO LAW.

Obedience to law, not from fear of its penalty, but because law in a free state should always be respected,—this is what makes a democratic republic possible. Is this the prevailing condition, the habitual social attitude in our country? A student of life in the United States, both at the present time and in retrospect, cannot fail to be impressed by the wide prevalence of disregard for inconvenient restraints imposed by law. Whether this is more marked today than in the past it is not easy to decide. The republic is more populous, richer, filled with a vastly more complex and strenuous life than ever before, and what once were minute flaws appear now as huge rifts. It may be that we have more lawlessness in the aggregate, but not more in proportion than in the days of our fathers. But American inheritance and education together seem to have imbued the national life with an instinctive restiveness under legal restrictions. We like to get at the heart of a matter at once without waiting for the observance of established forms. We applaud the public officer who cuts the Gordian knot, and are inclined to scorn the patience which waits to untie it. We instinctively sympathize with Roosevelt's Tammany friend in the New York legislature, "What's the Constitution among friends?"

The virus of lawlessness lies deep in our social life and thought. Lynching is by no means confined to one section or to one class of crimes. The gross physical violence which often accompanies strikes is complacently justified as necessary to secure the success of organized labor. Men of large wealth evade laws of nation and state in order to reap richer gain. A railroad man said in my presence not long since, "We have done many illegal things in recent years, some good, some bad, but all illegal." A prominent lawyer of a great city I have heard to say that it should not be sup-

posed that all the foolish laws passed by our preposterous legislatures ought to be heeded. Is there a city in the land in which all the laws and ordinances are enforced? Is it not true in all our states that many statutes are enacted with little expectation of their enforcement—passed merely to satisfy clamor? And is not every woman instinctively lawless at the Custom House?

The essence of the difficulties with which we are now laboring seems to me to lie in this disregard for law. It is idle to denounce any one man or set of men as arch criminals. Public life is no worse than private business, and all forms of industry are implicated in one way or another. What we need is not so much to punish our neighbors as to reform ourselves. We need, all of us, to get the law-abiding habit.

We are not by nature worse morally than other nations. It may be that what we may justly call our national attitude of depreciation of law can be traced far back to the very sources of the republic. The first settlers on the New England coast were refugees from law which they detested. Our national independence was the result of riot and rebellion. The millions of immigrants who flocked to our shores in the following decades were escaping from tyranny. Our greatest social problem, slavery, was settled by physical violence, not by calm statesmanship. The census of 1860 put the number of slaves in the south at four millions. A liberal estimate of the value involved is \$2,000,000,000. To have bought the freedom of the slaves, and then to have provided by wise methods for their prudent direction through the transition from slavery to self-supporting manhood, this would have been statesmanship. Instead of that we abolished slavery by a contest which cost more than a half million lives and not far from \$11,000,000,000, which for the time being shatter-



ed the social structure in a moiety of the states, and which then cast the helpless freedmen adrift as the prey of their own ignorance, of base politicians, and of fanatical notions of political and social equality. This was not statesmanship. Thus like a scarlet thread through the russet and gold of the fabric of our history runs this proneness to violent remedies in place of the more remote securities of legal process. We are proud of our Constitution, and urge on the people of all lands the adoption of constitutional government. The essence of such government, we say, is that it is government by law and not by caprice. All free government should be that. But is the violence of a mob, or of hired "sluggers," permitted by the supineness of inefficient government, any less an act of caprice than is the tyranny of an autocrat? If a wealthy man evades paying his legal taxes, is he not substituting individual caprice for the uniform operation of law? If the mayor of a city selects at his own fancy the laws which he chooses to enforce and those which he will neglect, is he not substituting caprice for law?

Law should be respected and obeyed by all good citizens. When that is the case legislatures will hesitate before inflicting on the community the undigested mass of statute from which we now suffer. If law once enacted unflinchingly has effect, legislative bodies must have a keener sense of responsibility; and personal responsibility is what every citizen of the republic should never for a moment fail to realize. It is only by training of our youth in such principles that we can expect the development of social justice to become the fundamental principle of our modern state.

#### EDUCATION SHOULD MEAN THE SCIENTIFIC ATTITUDE AS TO TRUTH.

So far as science is concerned the essential principle which underlies the

scientific method is applicable at all points in education, and should appear in all teaching at all ages. This is merely the supreme desire to ascertain truth, which implies that one is not content with the vague, is not content with mere authority, is willing to work and to wait until the truth is found. This attitude of mind is the result usually of much training, and should it be widely prevalent would be of enormous importance to every side of life. Is this the predominant attitude of our public men, or for that matter, of the general community, towards our great public questions? Is this the spirit in which Congress and electorate discuss the tariff, or waterways, or national fiscal reform? Is it true that our political ideas are partly inherited and partly absorbed from our neighbors; are in fact largely preconceived opinions independent of evidence and irrespective of fact? However that may be, the schools can do no more valuable service than to train always in the scientific method, and thus to instill the habit of reaching conclusions after instead of preceding investigation.

#### BEAUTY AND ETHICS IN EDUCATION.

The remaining two elements of progress, beauty and philosophy, have their place also in all education. To teach to discriminate, and hence to enjoy real beauty in place of what is garish and crude, is nearly always possible. As to the deeper questions of philosophy, there is more difficulty. Our experience has taught us the inexpedience of attempting to teach religion in the public school; religion cannot in practice be dissociated from sectarianism, and this should be left for the family and the church. But there is a vast field of ethics which can be a part of secular education, and which, in connection with the whole social relation, in school and in other forms of society, is of vast importance. This again should permeate every school in every grade, and should be associated with every sub-

ject in every class. Every teacher should at all times be a teacher of ethics, in such way that the child should always find the same appeal to the moral sense, and from the same motive, however else teachers and methods may differ.

### THE COLLEGE.

Thus far I have spoken of education in its relation to progress as an element of training in primary and secondary schools. Is the college, which in all its forms enrolls less than one per cent. of our entire body of students, of real value as an element of progress, or are those right who decried it as needless and aristocratic?

The American college is not perfect. Unlike anything European in its scope, it is in itself neither University nor preliminary school, but is a combination of the two. It has too far become divorced from vocational training, under the plausible pretext of being primarily cultural in intent. The social value of the association of young men at an impressionable age has been so greatly over-emphasized as to exalt mere pleasure as an ideal of the college life over the serious and sustained hard work which real success in this world always necessitates. Especially have college sports, in themselves desirable, been unduly exaggerated in importance, until they crowd out more important interests and seriously threaten the moral standard of our young men.

But these defects call for the reform, not for the destruction, of our colleges. In spite of them it is a fact that a very large proportion of the leadership of the land in law, in medicine, in science, in literature, in theology, and in public life, is in the hands of college trained men. Of course no plan of education can ever take the place of natural endowments, and self-made men will continue to do their share of the important work of the republic. But life is becoming increasingly complex. Science, in one form or other, enters in as a factor in

every social undertaking. Training enormously multiplies the power of brains. Moreover it is a matter of common observation that in any community education permeates downward. The vigorous college generates the vigorous secondary school. The good secondary school develops primary education. For these reasons, in all our clustered communities colleges may well be maintained. Every city of any magnitude should have its own. There is room for the small rural college. There is room for the college in connection with the great university. There is room for the technical college, for the agricultural college, for the pedagogical college. But whatever its form, it is to the college that we must look for the wise leadership of the generations to come. Let us only see that the college is responsive to the progress of the age, that it is a leader in progress rather than an obstacle to it, and we shall not fail to get full value from our higher education.

### EDUCATION AND PROGRESS SHOULD BE CORRELATIVE.

Between education and progress, in short, there must be a mutual interaction. Progress in science, in social welfare, in any form of life, should find a sensitive response in our system of education. In turn, education should be a powerful stimulus to the progress of society. For both there is no stagnation without disintegration; or, to put it in other words, failure to advance implies certain retrogression. At the close of each year it is possible to state in clear terms the specific advance which science has made. We should be able as exactly to indicate the progress of education.

### OLD AGE AND YOUTH.

In the progress of civilization and in the growth of the individual towards the sound judgment of mature years there is always present one disquieting circumstance. The advance which has been won so slowly and so painfully after all cannot be preserved

in its entirety. Age withers and progress drops from its palsied grasp, only to fall into the careless and scattering hand of untrained youth. In other words, each generation, instead of beginning where its predecessor left off, must begin all over from the start. Youth is forever the same, and has perennially to win its way through the same blunders and difficulties and under the same handicap of inexperience and lack of knowledge. Under this fundamental condition of human life there is enormous waste of achievement, and there is further waste of effort necessary over and over in perpetual succession for the ever-recurring training of youth. As a wearied veteran schoolmaster sighed, "Yes, my time goes on with the everlasting boy." The everlasting boy, whether in the streets of Pompeii or of Chicago, seems the same ignorant and mischievous little animal as he has been in every age between.

Doubtless there can be found compensations. Many human experiments seem hardly worth while; it may be quite as well to start over again. Many human souls become so hopelessly flawed and stained that the world can well spare them. On the whole no doubt it is better constantly to reconstruct life with fresh material. But it leaves the eternal problem of transforming by growth and education the crude human thing with which sentient life begins in this world into the alert and well-equipped man which he must needs be to do his part in society. It is this problem for which every civilized state today seeks each in its own way to find a solution. The home, the school and the college are in great part our solution. They are the means of transforming the raw material of youth into a citizen adapted to do his part as a useful social unit.

#### THE COST OF EDUCATION TO THE FAMILY.

When we speak of the cost to the state of one of its young men we of

course are speaking broadly. Every family shares directly or indirectly in the payment of the taxes by which public schools are supplied. But besides this, the family cares for its own young. The direct cost of their support is no small item, and this cost is increased materially by the necessities of advanced education. Many a family in this state has stinted itself, has lived carefully, has denied itself luxuries not only, but actual comforts, in order to educate one or more of its members. In the rugged hill farms of New England it was long a matter almost of religion that the son or the daughter should be sent to college, and that the rest of the family should work hard and live plainly, should "rise up early and sit up late and eat the bread of carefulness" that the means of education should not be lacking. A community animated with this noble passion for education we may be sure is one in which intelligence is of a high order, in which industry and sobriety prevail, in which vice and lawlessness are at a minimum. Such was the Massachusetts of a generation since. No wonder that its intellectual products have far exceeded those of other states. No wonder that it counts among its native or adopted sons Bancroft and Motley and Parkman, Whittier and Longfellow and Lowell, Emerson and Holmes, the Adamses, Webster and Everett and Choate, and a long line besides of men of letters, statesmen, scholars, seers and prophets. This luxuriant growth of men of intellect sprang from a soil scanty and niggardly even to tireless industry, but from a society which, while plain in its ways and slenderly endowed with material appliances, yet had its mind eagerly set on the world of thought. The homely sitting room table was a receptacle for the Bible and Shakespeare for late works of poetry and history and philosophy, for magazines not stuffed with fashion and fiction and lurid scandal, but enriched with scholarly discussions of serious

subjects. The horny hand of toil was not incompatible with this elevation of mind, and the talk around the farmer's table might easily run on the last poem of Longfellow or Tennyson, on the theories of transcendental philosophy, or on the niceties of the great debate between slavery and freedom, between the indestructible union and states rights. This was at least better than an endless stream of neighborhood gossip and the trivial tittle-tattle of an empty mind. How could such a community as that of old New England fail to send its sons to college at any cost of self-denial? How could the stream of migration from New England fail to enrich every western state? Wherever these men settled, there we find the church, the school, the college, an orderly society, public spirit, civic integrity.

If we could read the annals of the homes from which the members of this graduating class have come, I am confident that we should find revealed in them many cases of this same high-minded and heroic self-denial. I trust that these young men and women clearly realize what it has cost the home, not in money only, to provide the rich advantages of school and college. The young are proverbially thoughtless. They are apt to take all that is offered them, giving little heed as to whether it comes from the careless hand of abundance or the worn hand of toil. Some day, perhaps, the eyes are opened to the anxiety, the painful frugality, the nights sleepless with planning, which the young man has cost his parents. But "How sharper than a serpent's tooth it is to have a thankless child."

It is to be hoped that the prairies of the northwest will increasingly reproduce the spirit of New England. We are not so much in need of new laws as of a higher social standard. When the ambition of the thousands of homes scattered through our land is set rather on college for the sons and daughters than on a large balance

in the bank, when music, and art, and literature rank higher in popular estimation than bridge whist and automobiles, then we shall have less trouble with our politics and our business. Lofty social ideals are all that will really remedy disturbed public conditions. We are tinkering with laws and scolding at individuals while the deep cause of things lies untouched. It is like merely fanning a typhoid fever patient to cool his burning skin, rather than seeking to apply remedies to the heart of the disease. We are dealing with superficial social manifestations by superficial methods. We need to find the source of the trouble, and it lies, I am convinced, in a lowered tone of the public mind and the public conscience. There always have been frivolous people and those thoughtless of delicate distinctions between right and wrong. There always will be such. But if on the whole the community combines with simple living also high thinking—if that is the general and prevailing social fact—there can be few industrial or political iniquities. When a swamp is drained the mosquitoes, the slime and the malaria disappear. We need to drain some of our social swamps.

I admit that this change in society is not so easy to bring about as it is to make a law, or to print a scathing magazine article. But rhetoric and legislation are not always adequate to secure more than a passing betterment of things. When, however, it is the common mental attitude that high living is, after all, not so desirable as high thinking, we shall need fewer restrictive laws. And toward this social evolution our colleges every year are doing more and more. They are reaching now, not into hundreds of families, but into thousands. And thousands of families every year are getting the college idea; in other words, are learning to take into the family councils the constant presence of a high and worthy ideal. This fact in itself seems to me quite as signifi-

cant a result of the higher education as the training of the student himself. In a very real sense the colleges are disseminating light through the entire state. It is a liberal education to a whole family to have one of its members take a college degree. And I am not sure but that in some ways and in some cases the family gets more humanizing culture than the student himself.

#### WHAT KNOWLEDGE?

But, one says, what as to the knowledge which they should amass by their years of study? Knowledge is good. It enlightens the mind, it sweetens character, it is a weapon, it is an ornament, it is a delight. But the quality of the man who knows is more important than what he knows. One may forget his Latin, his calculus, his chemistry, and yet be forever better and stronger for all. We rejoice in the learning of the scholars who gather in our university faculties. We rejoice more in the throng of active and manly youth who pour out from the portals of Alma Mater.

Locke wrote many years ago, "A virtuous and well-behaved young man, who is well versed in the general part of the Civil Law (which concerns not the chicane of private cases, but the affairs and intercourse of civilized nations in general, grounded upon principles of reason), understands Latin well, and can write a good hand, one may turn loose into the world with great assurance that he will find employment and esteem everywhere." A virtuous and well-behaved young man, trained in the best colleges of his day, may safely be turned loose in the world in any age. He is needed at every turn. In our own time the demand for well-trained and trustworthy young men is astonishing. A prominent eastern technical school has every one of its graduating class well placed six months before graduation. As has been said, there never was a time in the history of the world when

young men of the right sort were so much needed as now. But at the same time there has never been so much need for long, patient, thorough preparation. He who knows how to wait and to work will know how to work and to win.

#### GROWTH OF INSTITUTIONS OF THE HIGHER LEARNING.

These considerations have been true throughout our entire national history, and the development of education, keeping pace to some extent with the growth of the nation in area and population and wealth has in the main followed the lines thus laid down. Within the last quarter-century, however, a remarkable change has occurred in the higher education; the number of students in institutions of higher learning throughout the entire land has increased with enormous rapidity, far beyond the ratio of the increase of population. In the year 1885 we find one student in schools of collegiate and professional training for each seven hundred inhabitants; twenty years later there was found one for every four hundred. This is a greater increase relatively than in any other nation in the world. Of course it is difficult to make comparisons, owing to the great diversity of standards. At the same time, the increase is extremely significant. It shows a wide dissemination of the idea of education. It shows on the whole the profound faith of our people that education is a valuable asset, and that either the man or the woman who receives the higher training is thereby better fitted to handle the problems of life intelligently and efficiently. The State of Michigan has a rich output annually from its University. Is it putting into it what it is worth? Does the state realize that there is here a product more valuable than iron, and wheat, and cattle? Are its taxes given with unstinted hand that the institution may always have resources adequate to the great

state whose servant it is? It is not for me to say. I can only trust that this splendid state, with its abounding wealth, its virile people, and its won-

derful future, will make that future secure by the wise generosity with which it will cherish the University of Michigan.

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