

357

THE
PRINCETON REVIEW.

JANUARY, 1866.

No. I.

ART. I.—*Sustentation Fund.*

AT the recent meeting of the Synod of New Jersey, the Rev. Samuel J. Baird, D. D., as chairman of a committee appointed a year ago, presented an elaborate report on the subject of "unemployed ministers." One reason assigned for the fact that so many ministers, well qualified for the sacred office, were destitute of regular employment, was the insufficiency of support. Many of them had been forced to leave their fields of labour because they could not sustain themselves and families upon the salaries which they received. As the truth of this statement could not be denied, it naturally gave rise to the inquiry, What could be done to meet the difficulty, and to secure to every faithful minister devoted to his work an adequate support? The importance of this question and its bearing on the interests of individuals and of the church, secured for it the earnest consideration of every member of the Synod. In the course of the discussion which arose on this subject, reference was made to the attempt originated in 1847 to secure the adoption of the plan of a general sustentation fund analogous to that which had been so successfully carried out in the Free Church of Scotland. In that year, James Lenox, Esq., of New York, caused to be printed a pamphlet on Church Economics by the late illustrious Dr. Chalmers, a copy of which was sent to every

ART. II.—*Annual Report of the School Committee of the City of Boston, 1864.* 412 pp: 8vo.

IF the style and character of an Annual Report are any index to the character of the thing reported, there is in this volume a strong presumption certainly in favour of the excellence of the Boston schools. No city in this country, no state, so far as we are aware, sends forth more complete reports, whether we regard the fulness and exactness of the information contained, the clearness and method of the arrangement, or the typographical beauty of their appearance. The report for 1864, for a copy of which we are indebted to John D. Philbrick, Esq., Superintendent of the Boston public schools, is a large octavo volume, of more than four hundred pages, printed with inviting type, on fair paper, handsomely bound, and seems to contain an answer to almost every question which a stranger might wish to ask concerning the progress and the present condition of the schools. It is indeed a model report, and we have reason to believe that it is only a fair exponent of the institutions which it represents.

It is not our intention, however, at this time, to speak of the schools of Boston, but to take the occasion to express some views in regard to the general subject of education by means of common schools. The argument for popular education is familiar and trite, and yet it needs to be occasionally re-stated and enforced. There is no community in which there is not a considerable number of persons grossly and dangerously ignorant, and there are many communities in which the majority of the people are in this condition. There is no community in which the importance of general education is over-estimated; there are unfortunately many communities in which education is held to be the least important of public interests. A brief discussion of the subject, therefore, can never be entirely out of place.

Before proceeding to the direct argument, let us notice some of the most common objections.

It is a not uncommon opinion, that the business of education should be left, like other kinds of business, to the laws of trade. It is said, if a carpenter is wanted in any community, or a blacksmith, or a tailor, or a lawyer, or a doctor, carpenters, blacksmiths, tailors, lawyers and doctors will make their appearance. If a store is wanted, a store will spring up. Why not a school house? Those who use this argument forget the essential difference between the two classes of wants to be supplied. All men equally feel the distress, if naked, or hungry, or sick, or suffering from any material want. The poor man, no less than the rich, feels the pinchings of hunger, and will exert himself to remedy the evil. The sick man, even more than the well, appreciates the value of medicine and the necessity of a physician. Not so in the matter of knowledge. A man must himself be educated, to understand the value of education. There are exceptions, of course. Yet it is substantially true, that the want of education is not one of those felt and pinching necessities that compel men's attention, and that consequently may be left to shift for themselves. A man who has himself enjoyed the blessing of a good education, expects to provide schools for his children, as much as he expects to provide for them food and clothing. The wants of their minds are to him pressing realities, as much as are the wants of their bodies. Not so with the ignorant and debased neighbours, who live within stone's throw of his dwelling. They, from their own experience, know nothing better, and are quite content, both for themselves and their children, to live on in the debased condition in which we see them. If these wretched creatures are ever moved to seek a higher style of living and being, the movement must originate outside of themselves. It is a case in which the man of higher advantages must think and act for those below him. It is a case in which people have a pressing need without knowing it, and in which consequently the laws of supply and demand do not meet the emergency.

Another common opinion on this subject is that private enterprise is adequate to meet the want. Private enterprise in education is not indeed to be discarded. Where the community as a whole, in its organized capacity, will do nothing, let individuals do what they can. In such cases, let those who

appreciate the advantages of education, concert measures for the establishment of schools and the employment of teachers, and for inducing parents who are indifferent to send their children. By these private efforts, the community may be gradually awakened to the importance of the subject, and so be induced to take it up on their own account. But private benevolence is not sufficient for so great a work. Private benevolence besides is apt to be fitful. It is at best subject to interruption by death and by reverses of fortune, while the cause is one which especially demands steadiness and continuity. The means for educating a community or a city should no more be subject to interruption, than the means of lighting it, or of supplying it with water.

The argument for depending upon private enterprise for devising and providing the means for popular education, would apply equally well to matters of police, and to the protection of property. The strong armed and the sagacious can take care of themselves. The stout hearted and the good, by due concert and combination, could keep criminals in some check, even in a country where there were no courts of justice, or prisons, or detective police. But this is not the ordinary or the best mode of accomplishing the end, nor could it in any case be thoroughly efficient. The restraint and punishment of crime belong to society as a whole, in its sovereign capacity. To the same society belongs the duty of seeing that its members do not fall into degrading ignorance and vice. God, in ordaining human society, had something higher in view than merely providing for the punishment of crime. Our Heavenly Father would have his children raised to the full enjoyment of their privileges as social and rational beings, and he seems to have established society for this very end, among others, that there may be an agency and a machinery adequate and fitted to drag even the unwilling out of the mire into which they have fallen. Without such an interposition on the part of society as a whole, the work will not be done. The mass of the people will remain in ignorance in every community, in which the community as such does not provide the means of education and general enlightenment.

It is often urged against common schools, that they tend to

impair parental obligation. Let us look this objection fairly in the face. The argument is stated as follows. If the community, in its organic capacity as a civil government, provides systematically for the instruction of the young, the system, just so far as it is successful and complete, does away with the necessity for any other provision. The parent, finding this work done to his hands, feels no necessity of looking after it himself, and so gradually loses all sense of obligation on the subject. Such a result, it is contended, is in contravention of the plainest dictates of nature and the most positive teachings of religion, both nature and religion requiring it as a primary duty of every parent to give his child a suitable education.

In meeting this objection, the friends of common schools agree with the objector to the fullest extent in asserting the imperative, universal, irrevocable duty of the parent to educate his own child. The duty is not the less binding on the parent, because a like duty, covering the same point, rests also on the community. The interests involved are so momentous, that God in his wise ordination has given them a double security. It is a case in which two distinct parties are both separately required to see one and the same thing done. It is like taking two endorsers to a note. The obligation of one endorser is not impaired, because another man equally with himself is bound for payment. If a child grows up in ignorance and vice, while God will undoubtedly hold the parent responsible, he will also not hold the community guiltless. Both parties will be guilty before him, both parties will be punished. A man is bound to maintain a certain amount of cleanliness about his habitation. If he fails to do so, and if in consequence of this failure the atmosphere around him becomes tainted and malarious, he and his will suffer. Disease and death will visit his abode. But the consequences will not end here. The infection will extend. The whole community will be affected by it. The whole community, equally with the individual, are bound to see that the cause of the infection is removed. The infection will not spare the community because the individual has generated it, nor will it spare the individual because the community has failed to remove it. Each party has a duty and a peril of its own in regard to the same matter.

The fact is, individuals and the community are so bound together, that on many points their obligations lie in coincident lines. The matter of education is one of these points. God has ordained the parental relation, and has implanted the parental affections, for this very reason, among others, that the faculties of the helpless young immortal may have due training and development,—that this development may not be left to chance, like that of a worthless weed, but may have the protection and guardianship which are the necessary birthright of every rational creature brought into being by the voluntary act of another. But God has ordained society also for this same end, among others, namely, that his rational creatures may have a competent agency, bound by the laws and necessities of its own welfare to make adequate provision for the instruction and education of every human being. The one duty does not conflict with the other. The one obligation does not impair the other. Both lie in coincident lines.

But, as a question of fact, is it true, that common schools impair the sense of obligation in the minds of parents in regard to the duty of educating their children? We affirm the fact to be exactly the contrary. Those communities in which there are no common schools, and in which the people generally are in a state of deplorable ignorance, are precisely those in which the sense of parental obligation on this point is at the lowest ebb. Go to a region of country in which not one man in ten can read and write, and you will find that not one man in ten will care whether his children are taught to read and write. Those communities on the contrary which have the best and most complete system of common schools, and in which this system has prevailed longest and has taken most complete hold of the public mind, are the very ones in which individuals will be found most keenly alive to the importance of the subject, and in which a parent will be regarded as a monster, if his children are allowed to grow up uneducated.

The objection, therefore, has no foundation either in fact or in reason. There is moreover another consideration not to be overlooked. In this matter of education, it is after all but a small part which the school does for a child. The main part of the child's education always takes place at home, or at least,

out of school. We speak here of course of day schools. The teacher is at best only an aid to the parent, supplementing the influences of the home and the street. The child is taking lessons continually from the father and mother, whether they mean it or not. Every teacher knows how much more rapidly a child improves at school, whose parents are well educated, and how difficult it is to teach a child who at home lives in an atmosphere of profound ignorance. The mind of the one whose home is a region of darkness and intellectual torpor, will be dwarfed and distorted, no matter what the efforts of its teachers. The mind of the one, on the contrary, whose home is the abode of intellectual light, warmth, and sunshine, will have a corresponding growth and expansion at school. There is a continual unconscious tuition, good or bad, received from the very atmosphere of the family. Besides this, there is a great deal of direct, active duty to be performed by the parent in the education of the child. No matter how good the school, or how faithful the teacher, there always remains much to be done by the parent, even in regard to the school duties. The parent must see that lessons are prepared, that the child is properly provided with books, that the meal times and the other arrangements of the household are such as to help forward the child's studies. There are a hundred things which the father and mother can do to help or to hinder the work of the school. A child, whose parents give proper home supervision over his studies, will, other things being equal, make twice the progress of one whose parents give the matter no attention. The community, therefore, in establishing common schools, does by no means take the whole matter of education out of the hands of the parent. On the contrary, it still leaves with him the most important and necessary of the duties connected with the education of his children, while it gives him aids for the performance of the remaining duties, which no private means can ordinarily supply.

We come, however, to a much graver objection. It is urged against common schools, as organized in this country, that religious instruction is excluded from them, and that without this element they only tend to make educated villains. Education, it is said, without the restraining and sanctifying influ-

ences of religion, only puts into the hands of the multitude greater power for evil. If this objection is valid, the most enlightened and Christian communities of the world have made, and are making, an enormous mistake. Yet the objection is urged with seriousness by men whose purity of motive is above question, and whose personal character gives great weight to their opinions. The objection originated in England, where all attempts to make legislative provision for the education of the common people have been steadily resisted by a potential party in the established church. The arguments put forth in the English religious journals have been reproduced in the journals here, and have in many instances awakened the apprehensions of serious minded persons. It is worth while, therefore, to give the subject some distinct consideration.

In the first place, the facts are not exactly as stated by those making the objection. Though little direct religious instruction may be given in the common school, there is usually a large amount of religious influence. A great majority of the teachers of our common schools are professing Christians. Very many of them are among our most active Sabbath-school teachers. Now a truly godly man or woman, at the head of a school, though never speaking a word directly on the subject of religion, yet by the power of a silent, consistent example, exerts a continual Christian influence. In the next place, as a matter of fact, direct religious teaching is not entirely excluded from our public schools. We think, it by no means holds that prominent position in the course of study which it should hold. But it is not entirely excluded. The Bible, with very rare exceptions, is read daily in all our common schools. It is appealed to as ultimate authority in questions of history and morals. It is quoted for illustration in questions of taste. It is in many schools a text-book for direct study. In the third place, nine out of ten of the children of the week-day school attend the Sabbath-school. The Sabbath-school supplements the instructions of the week-day school. The case, therefore, is not that of an education purely intellectual. Moral and religious instruction accompanies the instruction in worldly knowledge. The Sabbath-school, the church, and the family, by their combined and ceaseless activities, infuse into

our course of elementary education a much larger religious ingredient than a stranger might suppose, who should confine his examination to a mere inspection of our common schools, or to the reading of the annual reports of our educational boards.

But apart from all these considerations, taking the question in its naked form, is it true that mere intellectual education has the tendency alleged? We do not believe it. The constitution of the human mind gives no warrant for such an inference. Recorded, indisputable facts, overwhelmingly disprove it. So far is it from being true that the mere diffusion of knowledge has a tendency to make men knaves and infidels, we believe the very opposite to be true. Knowledge is the natural ally of religion. To hold otherwise, is to disparage and dishonour religion—to imply, if not to say, that ignorance is the mother of devotion.

There is an inborn antagonism between the intellectual and the sensual nature of man. If you give to the intellect no development, you leave the senses as the ruling power. We see this strikingly illustrated in the idiotic, who are for the most part disgustingly sensual. Among a population grossly ignorant and uneducated, sensualism prevails in its most appalling forms. The man is a sensualist, simply because he knows no higher pleasures. He is degraded, because he has no motives to be otherwise. He is barely above a brute. The amount of crime, of the coarsest and most debasing character, among the uneducated peasantry of England, is almost incredible. Here is a description of an English peasant of the present day, given by a competent and unimpeached witness, himself an Englishman. We quote from a work on "The Social Condition and Education of the People of England," by Joseph Kay, Esq., of Trinity College, Cambridge, who was commissioned by the Senate of the University to travel for the purpose of examining into the social condition of the poorer classes. Says Mr. Kay, "You cannot address an English peasant, without being struck with the intellectual darkness which surrounds him. There is neither speculation in his eye nor intelligence in his countenance. His whole expression is more that of an animal than of a man. He is wanting too in the erect and independent bearing of a man. As a class, our peasants have no amuse-

ments beyond the indulgence of sense. In nine cases out of ten recreation is associated in their minds with nothing higher than sensuality. About one half of our poor can neither read nor write, have never been in any school, and know little, or positively nothing, of the doctrines of the Christian religion, of moral duties, or of any higher pleasures than beer drinking and spirit drinking, and the grossest sensual indulgence. They live precisely like brutes, to gratify, so far as their means allow, the appetites of their uncultivated bodies, and then die, to go they have never thought, cared, or wondered whither. Brought up in the darkness of barbarism, they have no idea that it is possible for them to attain to any higher condition; they are not even sentient enough to desire, with any strength of feeling, to change their situation; they are not intelligent enough to be perseveringly discontented; they are not sensible to what we call the voice of conscience; they do not understand the necessity of avoiding crime, beyond the mere fear of the police and the jail; they have unclear, indefinite, and undefinable ideas of all around them; they eat, drink, breed, work, and die; and while they pass through their brute-like existence here, the richer and more intelligent classes are obliged to guard them with police and standing armies, and to cover the land with prisons, cages, and all kinds of receptacles for the perpetrators of crime."

Surely it must be some hallucination of mind, which leads men to suppose that the diffusion of knowledge among such a population, even though it be only scientific and intellectual knowledge, can have any natural or general tendency adverse to religion and morals. Apart, however, from speculation, and as a pure question of fact, the recorded statistics of crime point unmistakably the other way. Criminal records the world over prove, beyond reasonable doubt, that the overwhelming majority of crimes are committed by persons deplorably ignorant. Intellectual education, therefore, we contend, even when deprived of its natural ally and adjunct, religious training, has no natural tendency to produce knaves and villains. On the contrary, it is a most efficient corrective and restraint of the evil and debasing tendencies of human nature. If the intellect is not so high a region in man's constitution as the moral

powers, which we readily grant, it is at least above the mere sensual part, in which vice and crime have their main-spring and aliment. The question fortunately is one susceptible of a direct appeal to facts. Who are the men and women that people our jails and prisons? Are they persons of education, or are they in the main persons deplorably ignorant? What is the record of criminal statistics on this point?

We will quote a few of these statistics, from a great mass of similar evidence lying before us.

Out of 252,544 persons committed for crime in England and Wales, during a series of years, 229,300, or more than 90 per cent., are reported as uneducated, either entirely unable to read and write, or able to do so only very imperfectly; 22,159 could read and write, but not fluently; and only 1085 (*less than one half of one per cent. of the whole*) were what we call educated persons.

In nine consecutive years, beginning with the year 1837, only 28 educated females were brought to the bar of criminal justice in England and Wales, out of 7,673,633 females then living in that part of the United Kingdom; and in the year 1841, out of the same population, not one educated female was committed for trial.

In a special commission, held in 1842, to try those who had been guilty of rioting and disturbance in the manufacturing districts, out of 567 thus tried, 154 could neither read nor write, 155 could read only, 184 could read and write imperfectly, 73 could read and write well, and only one had received superior instruction.

In 1840, in 20 counties of England and Wales, with a population of 8,724,338, there were convicted of crime only 59 educated persons, or one for every 147,870 inhabitants. In 32 other counties, with a population of 7,182,491, the records furnished *not one convict* who had received more than the merest elements of instruction.

In 1841, in 15 English counties, with a population of 9,569,064, there were convicted only 74 instructed persons, or one to every 129,311 inhabitants, while the 25 remaining counties and the whole of Wales, with a population of

6,342,661, did not furnish one single conviction of a person who had received more than the mere elements of education.

In 1845, out of a total of 59,123 persons taken into custody, 15,263 could neither read nor write, and 39,659 could barely read, and could write very imperfectly.

In the four best taught counties of England, the number of schools being one for every 700 hundred inhabitants, the number of criminal convictions was one a year for every 1108 inhabitants. In the four worst taught counties, the number of schools being one for every 1501 inhabitants, the number of convictions was one a year for every 550 inhabitants. That is, in one set of counties, the people were about twice as well educated as in the other, and one half as much addicted to crime. In other words, in proportion as the people were educated, were they free from crime.

Thrift and good morals usually keep pace with the spread of intelligence among the people. This has been the result in all those countries of Europe where good common schools are maintained, as in Ireland, Norway, Sweden, Denmark, Holland, Belgium, and most of the German States. Pauperism, with its attendant evils and crimes, is almost unknown in those countries, while in England, where the common people are worse educated than those of any Protestant nation in the world, pauperism has become an evil which her wisest statesmen have given up as unmanageable. In 1848, in addition to hundreds of persons assisted by charitable individuals, no less than 1,876,541 paupers (*one out of every eight of the population!*) were relieved by the boards of guardians of the poor, at an expense from the public purse of nearly thirty millions of dollars.

In our own country, the same pains have not been taken to collect statistics on this subject, because comparatively little controversy about it has existed here to call forth inquiry. We as a people have generally taken it for granted that popular education lessens crime and pauperism. Still, facts enough have been recorded to show the same results here as elsewhere. When an educated villain is convicted, like Monroc Edwards or Professor Webster, the fact becomes so notorious by means of

the press, that it is unconsciously multiplied in our imagination, and we think the instances more numerous than they really are. We never think of the scores of obscure villains that are convicted every week all the year round. A quotation or two from the facts which have been recorded, will be sufficient to satisfy us on this point.

In the Ohio penitentiary, out of 276 inmates, nearly all were reported as ignorant, and 175 as grossly so.

In the Auburn prison, New York, out of 244 inmates, only 39 could read and write.

In the Sing Sing prison, no official record has been made on this point. But the Rev. Mr. Luckey, for more than twenty years chaplain of the prison, is obliged by the prison regulations to superintend and read all the letters between the prisoners and their friends, and so he becomes personally acquainted with their condition in regard to education. He reported a few months since to the writer of these pages, that while there are always some among the convicts who have been educated, yet the great mass of them are stolidly ignorant. There are usually between one and two hundred learning to read, and this does not include the half of those who are unable to read, as the attendance upon the class is voluntary, the accommodations are meagre, and most of the prisoners are indifferent to their own improvement. Not five in a hundred can write otherwise than in the most clumsy and awkward manner, and with the grossest blunders in orthography, and not more than two in a hundred can write a sentence grammatically. Out of the 700 then in prison, only three were liberally educated, and two of these were foreigners.

Throughout the state of New York, in 1841, the ratio of uneducated criminals to the whole number of uneducated persons was twenty-eight times as great as the ratio of educated criminals to the whole number of the educated inhabitants.

In view of the facts which have been given, and which might be multiplied to almost any extent, it is not easy to avoid the conclusion that mere intellectual education has some power to restrain man from the commission of crime. Assuredly, ignorance and sin are natural adjuncts and allies.

Schools undoubtedly cost something. The community that undertakes to educate the masses, or the individual that undertakes to educate his children, must expect to have a serious bill to pay. It is a pernicious folly to inculcate the contrary. The advocate of popular education, who tries to persuade people into the experiment, under the assurance that the expense will be trifling, misleads his readers, and puts back the cause which he would fain put forward. But there is a most significant *per contra* in the account, and on this there is no danger of dwelling too much. Nothing is so costly as crime, and no preventive of crime is more efficient than education. Schoolhouses are cheaper than jails, teachers and books are a better security than handcuffs and policemen. There are educated villains, it is true. But they are rare, and they attract the greater attention by the very fact of their rarity. But go into a prison, or a criminal court, or a police court, and see who they are that mainly occupy the proceedings of our expensive machinery of criminal justice. Nine-tenths of those miserable creatures are in a state of most deplorable ignorance. Degraded, sensual, with no knowledge of anything better than the indulgence of the lowest passions, without mental resources, or any avenue to intellectual enjoyment, they often resort to crime from sheer want of something better to do. When Dr. Johnson was asked, "Who is the most miserable man?" his reply was, "The man who cannot read on a rainy day." There is profound meaning in the answer. The man who has been educated, who not only can read, but has acquired a taste for reading, and for reading of a proper kind, is rarely driven into low and debasing crime. He has resources within himself, which are a counterpoise to the incitements of his animal nature. His awakened intellect and conscience also make him understand more clearly the danger and guilt of a life of crime. Many of the deeds which swell the records of our criminal courts spring from poverty, as every criminal lawyer well knows, and there is no remedy against extreme poverty so sure as education. The old adage says that knowledge is power. It is also wealth. A man with even an ordinary, common school education, can turn himself in a hundred ways, where a

mere ignorant boor would be utterly helpless. The faculties are developed, ingenuity is quickened, the man's resources are enlarged. An educated man may be tempted to crime, but he is not driven into it, as hundreds are daily, by mere poverty, or by an intolerable hunger of the mind for enjoyment of some kind.

Schools, then, especially schools in which moral and religious truth is inculcated, are the most powerful means of lessening crime, and of lessening the costly and frightful apparatus of criminal administration. As schoolhouses and churches increase in the land, jails and prisons diminish. As knowledge is diffused, property becomes secure, and rises in value. A community, therefore, is bound to see that its members are properly educated, if for no other reason, in mere self-defence. The many must be educated, in order that the many may be protected. A great city is just as sacredly bound to provide for its teeming population the light of knowledge, as it is to provide material light for its streets. The one kind of illumination, equally with the other, is an essential part of its police. No matter what the cost, the dark holes and alleys must be flooded with the light of truth, before which the owls and bats and vampires of society will be scattered to the winds. A great city without schools would be a hell,—a seething caldron of vice, impurity, and crime. No man of sound mind would choose such a place for the residence of himself and family, who had the means of living in any other place. If we could suppose two cities entirely equal in other respects, but in one of them a superior and costly system of free schools, while the other spent not a dollar upon schools, but depended solely upon the rigors of the law and the strong arm of avenging justice for restraining the ignorant and corrupt masses, can there be any doubt which city would be the safest and most desirable place of residence?

Whatever view of this subject may be taken in other countries, we in this country are shut up to the necessity of popular education. We at least have no choice. Universal suffrage necessitates universal education. If we do not educate our people, educate universally, educate wisely and liberally, we

can hardly expect to maintain permanently our popular institutions. The man's vote, who cannot read the names on the ballot which he throws into the box, counts just as much in deciding public affairs as yours, who are versed in statesmanship and political economy. He is a partner in the political firm. You can neither withdraw from the firm yourself, nor can you throw him out. In the absence of general education, this tremendous power of suffrage is something frightful to contemplate. "The greatest despotism on earth," says De Tocqueville, "is an excited, untaught public sentiment; and we should hate not only despots, but despotism. When I feel the hand of power lie heavy on my brow, I care not to know who oppresses me; the yoke is not the easier, because it is held out to me by a million of men."

The danger from this source is intensified by the immense immigration from abroad which is going on, and which bids fair very greatly to increase. The great majority of those who seek our shores, come here ignorant. With little knowledge of any kind, and with no knowledge whatever of the nature of republican institutions, these men, almost at once, are made sharers of the popular sovereignty, with all its tremendous powers of peace and war, order and anarchy, life and death. Not to have a system of public education, by which these ignorant and dangerous masses shall be enlightened, and shall be assimilated to the rest, and to the better part, of the population, is simply suicidal. Our national life hangs upon our common schools.

Besides this grave political consideration, affecting the interests of the entire body politic, and the question of the success and stability of our national institutions, there is another consideration coming home closely and individually to each man's personal interests. Where the law of trial-by jury prevails, every citizen, whether educated or ignorant, takes part in the administration of justice. Twelve men, taken indiscriminately from the mass of the people, or if with any discrimination, taken more frequently from the lower walks of life than from the higher, are placed in a jury box to decide upon almost every possible question of human interests. The jury decides your fortune, your reputation. The jury says

whether you live or die. Go into a court of justice. Are they light matters which those twelve men are to determine? Look at the anxious faces of those whose estates, whose good name, whose worldly all, hangs upon the intelligence of those twelve men, or of any one of them. What assurance have you, save that which comes from popular education, that these men will understand and do their duty? Who would like to trust his legal rights or his personal safety to the verdict of a jury of Neapolitan lazzaroni?

In a few short years, the idle boys who are now prowling about the streets and alleys of our towns, the wharf-rats of our cities, will be a part of our jurymen. Is it of no consequence to me, whether their minds shall be early trained and disciplined, so that they will be capable of following a train of argument, or of comprehending a statement of facts? How is it possible to administer justice with any degree of fairness and efficiency, where the majority of those who are to constitute the jurymen and the witnesses are stolidly ignorant? By common law, every man has a right to be tried by his peers. Let law then provide that those shall, in some substantial sense, be my peers, on whose voice my all in life may depend.

But let us recur once more to the economical part of the argument. When a community is taxed for the support of common schools, the question naturally rises among the taxpayers, is the system worth the cost? Does the community, by the diffusion of knowledge and education, gain enough to counterbalance the large expense which such education involves? Even if this question could not be answered in the affirmative, it would not follow that common schools should be dispensed with. Common schools are needed as the best and cheapest protection against the crimes incident to an ignorant and degraded population. Common schools are right and proper, because without them the majority of those created in the image of God will never attain to that noble manhood which is their rightful inheritance. But the argument will receive additional force, if it can be shown that general education increases the wealth of the community.

That education does have this effect is evident, we think, from two independent lines of argument. First, an intelligent,

educated man is capable individually of achieving greater material results than one who is ignorant. Secondly, the general diffusion of intelligence through a community leads to labour-saving inventions, and thus increases its producing power.

In regard to the first line of argument, some curious and instructive facts were collected a few years since by the late Horace Mann. His inquiries were directed to the efficiency of operatives in factories, a class of men who would seem to require as little general intelligence as any kind of labourers. It was found that, as a general rule, those operatives who could sign their names to their weekly receipts for money, were able to do one-third more work, and to do it better, than those who made their mark. Nor is this at all to be wondered at. There is no kind of work, done by the aid of human muscle, that is purely mechanical. Mind is partner in all that the body does. Mind directs and controls muscle, and even in emergency gives it additional energy and power. No matter how simple the process in which an operative may be engaged, some cultivation of his mental powers is needed. Without it he misdirects his own movements, and mistakes continually the orders of his superintending workman. A boy who has been to a good common school, and has had his mental activities quickened, and whose mind has been stimulated and roused by worthy motives, not only will be more industrious for it when he becomes a man, but his industry will be more effective. He will accomplish more, even as a day labourer, than the mere ignorant boor. When we come to any kind of skilled labour, the difference between the educated and the ignorant is still more apparent. An intelligent mechanic is worth twice as much as one ignorant and stupid.

Many years ago a very instructive fact on this point came under our own personal observation. A gentleman of our acquaintance had frequent need of the aid of a carpenter. The work to be done was not regular carpentry, but various odd jobs, alterations and adaptations to suit special wants, and no little time and materials were wasted in the perpetual misconceptions and mistakes of the successive workmen employed. At length a workman was sent who was a German, from the

kingdom of Prussia. After listening attentively to the orders given, and doing what he could to understand what his employer wanted, Michael would whip out his pencil, and in two or three minutes, with a few rapid lines, would present a sketch of the article, so clear that any one could recognize it at a glance. It could be seen at once, also, whether the intention of his employer had been rightly conceived, and whether it was practicable. The consequence was, that so long as Michael was employed, there was no more waste of materials and time, to say nothing of the vexation of continual failures. Michael was not really more skilful as a carpenter than the many others who had preceded him. But his knowledge of drawing, gained in a common school in his native country, made his services worth from fifty cents to a dollar a day more than those of any other workman in the shop, and he actually received two dollars a day, when others in the same shop were receiving only a dollar and a quarter. He was always in demand, and he always received extra wages, and his work even at that rate was considered cheap.

What was true of Michael in carpentry, would be true of any other department of mechanical industry. In cabinet making, in shoe making, in tailoring, in masonry, in upholstery, in the various contrivances of tin and sheet iron with which our houses are made comfortable, in gas fitting and plumbing, in the thousand-and-one necessities of the farm, the garden, and the kitchen, a workman who is ready and expert with his pencil, who has learned to put his own ideas, or those of another, rapidly on paper, is worth fifty per cent. more than his fellows who have not this skill.

The example of this man was brought vividly to mind at a later day, in one of our large cities, when an important educational question was under discussion. Rembrandt Peale had two dreams, each worthy of his genius. One was to paint a Washington which should go down to posterity; the other was so to simplify the elements of the art of drawing, that young boys and girls might learn it as universally as they learn to read and write. He spent long years in maturing a little work for this purpose, no bigger than a primer or a spelling book, and a determined effort was made on the part of some of the

friends of popular education to introduce the study into the primary public schools of Philadelphia. It was introduced into some of the higher schools. But its benefits were limited to a comparatively small number. The hope and the aim of the friends of Mr. Peale's project were to make the study an elementary one—to make a certain amount of proficiency in drawing a test of promotion from the primary school to the schools above it. This would have placed "Graphics" along side of the copy-book and the spelling-book. After struggling for several years with popular prejudice, the friends of the scheme were obliged to abandon it as hopeless. The idea was too much in advance of the times. Could the plan have succeeded, and could the entire youthful population of that great city, which is preëminently a mechanical and manufacturing centre, have grown up with a familiar practised skill in the use of the pencil, in ordinary off-hand drawing, such as our friend Michael had, there can be no question that it would have added untold millions to the general wealth. If every boy and girl in that great metropolitan city were now obliged to spend as much time in learning to draw as is spent in learning to spell, and at the same age that they learn to spell, we do soberly believe that the addition to the wealth of the city, by the increased mechanical skill that would be developed, would be worth more than the entire cost of her public schools, although they do cost well nigh a million of dollars annually.

What is true of drawing, is true of every branch and accomplishment necessary to a complete education. A man is educated when all his capacities bodily and mental are developed, and a community is educated when all its members are. Now if we could imagine two communities, of exactly equal numbers, and in physical circumstances exactly equal as to climate, soil, access to markets, and so forth, and if one of these communities should tax itself to the extent of even one-fourth of its income in promoting popular education, while the other spent not a dollar in this way, there can be little doubt as to which community would make the most rapid advances in wealth and in every other desirable social good.

We happen to have on this subject one most striking and significant record. In 1670, the English Commissioners for

Foreign Plantations addressed to the Governors of the several colonies a series of questions concerning the condition of the settlements under their charge. One of these questions related to the means of popular education. The answers of two of the Governors are preserved. One of them, the Governor of Connecticut, ruled a territory to which nature had not been specially propitious. Its climate was bleak, its coast rock-bound, its soil blest with only ordinary fertility. The other territory, Virginia, had an extraordinary amount of natural advantages. It had fine harbors, numerous navigable streams, a climate more temperate by several degrees than its rival, the soil in its lowlands and valleys unsurpassed in any of the Plantations for its capacity to produce wheat, corn, and tobacco, its mountains filled with untold treasures of lime, iron, and coal, (and, it now seems, with petroleum also), and withal that wonderful variety of natural resources, which seems best suited to stimulate and reward the productive industry of its inhabitants.

The Governor of the less favoured colony replied to the Royal Commissioners, as follows: "*One-fourth* of the annual revenue of the Colony is laid out in maintaining free schools for the education of our children." The policy thus early impressed upon the colony has been maintained with steadfast and almost proverbial consistency to this day, that region being known the world over as the land of schoolmasters. The Governor of the other colony replied, "I thank God, there are no free schools, nor printing, and I hope we shall not have these hundred years." To this policy she also has only too faithfully adhered. Now what is the result?

By referring to the tables accompanying the Census of 1860, we find the following significant facts.

1. The average cash value of land was not quite \$12 an acre in one commonwealth (Virginia), and a little over \$36 an acre in the other.

2. One commonwealth sustained only five inhabitants to every hundred acres of her soil, the other sustained eighteen inhabitants to every hundred acres.

3. The value of all property, real and personal, averaged by

the population, was in one commonwealth \$496 to every inhabitant, in the other \$965 to every inhabitant.

4. The value of all property, real and personal, averaged by the acre, was in one commonwealth less than \$26 to the acre, in the other more than \$177 to the acre.

To which facts we may add, what is true, though not in the Census, it was the invention of Eli Whitney, a travelling school-master from Connecticut, that has trebled the value of land in nearly every Southern State.

We have been endeavouring to show that popular education, though it is expensive, tends to national wealth. Our argument is that an educated population is capable of producing greater material results than a population uneducated can produce. The example of Eli Whitney, just referred to, suggests the other line of argument, which we will now notice briefly in conclusion. This second argument is, that the general diffusion of intelligence in a community tends to quicken invention, and leads to the discovery of those scientific principles and of those ingenious labour-saving machines, by which the productive power of the community is so greatly multiplied. The cotton-gin, the steam-engine, the sewing-machine, and the reaping-machine would never have been invented in a nation of boors. It is not asserted that every boy who goes to school will become an inventor. But it is as certain as the laws of mind and matter can make it, that inventions abound in a nation in proportion to its progress in science and the general spread of intelligence among the masses. Multiply common schools and you multiply inventions. How much these latter increase man's producing power, and so add to the aggregate of human wealth, it is needless to say. The invention of Watt alone has quadrupled the productive power of the whole human race. The aggregate steam power of one single country, Great Britain, equals the muscular capacity for labour of four hundred millions of men—more than twice the number of adult males capable of labour on our planet. Its aggregate power throughout the earth is equal to the male capacity for manual work of four or five worlds like ours. The commerce, the navigation, the maritime warfare, the agriculture, the mechanic

arts of the human race, have been revolutionized by this single invention not yet a century old.

The application of scientific truths to the common industries of life is becoming every day more and more a necessity. The village carpenter, no less than the builder of the Niagara Suspension Bridge, makes hourly reference to scientific laws. The carpenter who misapplies his formulæ for the strength of materials, builds a house which falls down. The properties of the various mechanical powers are involved in every machine. Every machine, indeed, it has been well said, is a solidified mechanical theorem. The surveyor in determining the limits of one's farm, the architect in planning a house, the builder in planning his estimates, and the several master workmen who do the carpentry, masonry, and finishing, are all dependent upon geometric truths. Bleaching, dyeing, calico-printing, gas-making, soap-making, sugar-refining, the reduction of metals from their ores, with innumerable other productive industries, are dependent upon chemistry. Agriculture, the basis of all the other arts, is in the same condition. Chemical knowledge, indeed, is doing for the productive powers of the soil what the application of steam has done for the increase of mechanical power. The farmer who wishes to double his crops, finds the means of doing so, not in multiplying his acres, but in applying a knowledge of the laws of chemistry to the cultivation of the soil already possessed. Even physiology is adding to the wealth of the farming interest. The truth that the production of animal heat implies waste of substance, and that therefore preventing the loss of heat prevents the need for extra food—which is a purely theoretical conclusion—now guides the fattening of cattle. By keeping cattle warm, fodder is saved. Experiments of physiologists have proved, not only that change of diet is beneficial, but that digestion is facilitated by a mixture of ingredients in each meal. Both these truths are now influencing cattle feeding. In the keen race of competition, the farmer who has a competent knowledge of the laws of animal and vegetable physiology and of agricultural chemistry, will surely distance the one who gropes along by guess and by tradition. A general diffusion of scientific knowledge saves the community from innumerable wasteful and foolish mistakes.

In England, not many years ago, the partners in a large mining company were ruined from not knowing that a certain fossil belonged to the old red sandstone, below which coal is never found. In another enterprise, £20,000 was lost in the prosecution of a scheme for collecting the alcohol that distils from bread in baking, all of which might have been saved, had the parties known that less than one hundredth part by weight of the flour is changed in fermentation.

But it is not necessary to multiply illustrations. Suffice it to say, in conclusion, we hold it to be a most manifest truth, that the general education of a community increases largely its material wealth, both by the direct effect which knowledge has upon individuals in making them individually more productive, and by the increased control which the diffusion of knowledge gives to mankind over the powers of nature. A nation or a state is wisely economical which spends largely and even lavishly upon popular education.

ART. III.—*The Patristic Doctrine on the Eucharist.*

THE theology and piety of the early fathers are the common inheritance of all Christian churches. They laboured before the separation of the East from the West, and before the rise of the Papacy proper. What they taught and believed is of equal interest, although not of equal authority, for Protestants and Greek and Roman Catholics. With the Protestant, indeed, the first and last question in all matters of Christian faith and practice is: What says the word of God? In the Greek and Roman Church, this question is coördinate in principle, and subordinate in fact to the question, What says the church, which is the only safe and legitimate interpreter of the Bible? But no sound Protestant is on that account indifferent to the testimony of the church and the teaching of the fathers, provided only it be duly subordinated to that of the Scriptures. We cannot forget that the Bible itself has come down to us