

Journal of the Minnesota Academy of Science

Volume 2 | Number 3


Article 2

1881

The State and Higher Education

N. H. Winchell

Follow this and additional works at: <https://digitalcommons.morris.umn.edu/jmas>

 Part of the [Life Sciences Commons](#), [Physical Sciences and Mathematics Commons](#), and the [Social and Behavioral Sciences Commons](#)

Recommended Citation

Winchell, N. H. (1881). The State and Higher Education. *Journal of the Minnesota Academy of Science*, Vol. 2 No.3, 45-62.

Retrieved from <https://digitalcommons.morris.umn.edu/jmas/vol2/iss3/2>

This Article is brought to you for free and open access by the Journals at University of Minnesota Morris Digital Well. It has been accepted for inclusion in Journal of the Minnesota Academy of Science by an authorized editor of University of Minnesota Morris Digital Well. For more information, please contact skulann@morris.umn.edu.

THE STATE AND HIGHER EDUCATION.

[INAUGURAL ADDRESS OF PRESIDENT WINCHELL.]

(1.) If a stranger were to enter your house and declare with deliberate words that the dwelling which you had built and had occupied for a period of years with your family, where also you expected to see your children grow up, and to spend your declining years, was not yours by right nor by title, and should set forth the claims he had to enter and possess the premises, you certainly would be startled at the announcement. In exactly that position is placed the State of Minnesota to-day, in reference to the educational structure which she has erected. I refer not here to brick and mortar, but to something more enduring, and more vital to the State. She has been served with a process to show cause why, and how, she came into possession of the educational system she now has, and why she should not be compelled to surrender it to another, or to exchange it for one that is set up as better.

You may judge of the surprise of a few of us who heard the late inaugural address of President John, of Hamline university, when informed that "higher education should not be under the control of the State;" that facilities for higher education "existed in this country and met all demands before State colleges were thought of;" and that these State colleges "are the outgrowth, not of necessity, but of an act of congress, the design of which is a conspicuous and universally acknowledged failure." In the place of these, and the right of the State to conduct them, are offered the colleges of the church, and the right of the church to conduct all education.

It sometimes becomes necessary to reinvestigate vital fundamental principles. This is an old question; one that during the last thirty or forty years has been brought frequently

before educational and scientific audiences; and although the right of the State to educate has been acknowledged in nearly all parts of the Union, and the State institutions have been triumphant over all obstacles, it is again necessary to review and reassert the ground on which they stand.

(2.) Let us inquire then how it all came about, that the State finds itself in the conduct of systematic education.

In the dawn of modern knowledge, when the human mind was beginning to cast about for release from the burdens and bondage of the dark and middle ages, the pilgrim fathers landed on the "bleak New England shore." Co-ordinate with their love of religious freedom was their love of education; and sixteen years after the landing Harvard college was founded; though at first only a public school, at which many Indian children were taught. The right of every human mind to think, and to be responsible for its own acts, which lay at the bottom of the reformation in the sixteenth century, carried with it, in the theory as well as the practice of the pilgrim fathers, the necessity of becoming well informed; and hence the duty to extend the sphere of education to its utmost limit. From this initial point the idea that the whole people shall be educated, at least in the branches needed, by the average citizen, has been extended in one form and another, throughout all of the States of the Union. Although at first the Massachusetts colony passed a law that every township containing fifty householders should support a teacher to teach their children to read and write, and every township containing 100 householders should maintain a grammar school capable of fitting youth for the university, yet this complete course of articulated grades has not been maintained. From one reason and another, the stipulated amount of instruction offered by the State has been reduced from this high standard set by early Massachusetts, so that in most of the States, as well as in Massachusetts, the law now specifies such branches as orthography, reading, writing,

English grammar, geography, arithmetic, and the history of the United States, allowing the local committees to extend the list of branches so as to include general history, book-keeping, surveying, geometry, natural philosophy, Latin and the various sciences. This permitted extension has resulted in the creation, under constant regulation of State law, of what are known throughout the western and northern States as union schools and as high schools. Thus the people, who in America constitute the State, have assumed to educate themselves, at least through the grades of the primary and secondary schools. In many of the States the early zeal for education has been retained, and even extended, resulting not only in offering the means of learning, but in requiring the child to avail himself of it, as a vital necessity for the perpetuation of an enlightened commonwealth, specifying the extent to which every parent must see that his child attends the public schools, or others acceptable. It may be said, however, that primary and secondary education by the State is not opposed by the church. It happens not to be generally by the Protestant church, but the Roman church is strongly opposed to it, and seems to be determined to substitute for it some more strictly religious instruction.

On the other hand, if we consider the origin of higher education by the State, we must seek for its beginning on the other side of the Atlantic. While the idea of the primary and secondary education of the whole people through the agency of the State was earliest developed in America, and has only in late years been adopted by European governments, the founding and maintenance of institutions for higher education by the State was agitated and accomplished first in Europe.

The liberation of the human intellect from the thralldom of the mediæval church gave rise to multitudinous speculation, and to many attempts in various directions to ameliorate the hard condition of the masses of the people. These philo-

sophical speculations, which are too often indulged in even in our days, fell under the ban of the church at once. It was a long time before the true idea of science, the study of the actual, was fully recognized. But when it finally did appear, it was the legitimate outgrowth of that freedom of thought and stimulated observation which came with the Reformation. One of the first natural fruits, therefore, of the revival was the development of science, and the information of the people concerning common and actual affairs. There arose immediately a demand for schools that could teach technical and industrial science. There were no primary or secondary schools; and the universities, established for perpetuating and instructing the priesthood, were much averse to admitting any innovations upon their established methods of scholastic drill. The idea of education, except as a means of indoctrination, was received with no favor. In the midst of this fog of prejudice, which enveloped and darkened all Europe, a few bolder men agitated the needfulness of those branches of learning that bear upon the industries of the whole people. Edward Somerset, second marquis of Worcester, was of these one of the first, and the most notable. Some of the earliest ideas of many modern inventions, including that of the steam engine, were conceived and published by him in the middle of the seventeenth century. He urged that young men should receive instruction relating to the various national industries. But he is said to have died in poverty, persecuted and maligned. "With Strafford and Laud on one side, and Hampden and Cromwell on the other, there was but poor hearing for the industrial ideas of the marquis of Worcester." And "for two centuries afterward Oxford and Cambridge ground out the old scholastic product in the old scholastic way;" and after them were fashioned the higher institutions of learning in America.

In 1828 the university of London was opened. It was the result of an agitation by the best scholars and thinkers of

England including Macaulay, in favor of an institution adapted to the needs of the people. By this time the sciences had made considerable progress in utilizing their discoveries for the comfort and civilization of the people, but the universities of Oxford and Cambridge had not changed their curricula. This new university, although at first based on popular subscriptions and donations, was reorganized and enlarged eleven years afterward, and adopted by Parliament, with a stated appropriation of money for its support. In England this was the first governmental recognition of the "new education." It was the result of a pressure of public sentiment, heard loudest in the House of Commons, that the government could not safely withstand, although in England the State was combined with the established church to prolong the domination of the old scholastic methods. This new institution has constantly encountered the sneers of the church and state men, and to this day its graduates are hardly admitted to equal rank and favor by the older universities.

In Ireland, a little later, a somewhat similar demand, long resisted by Protestant Trinity and Roman Catholic Maynooth, was made for the recognition of the needs of the industrial classes. This demand was urged by the Dissenters also. It was answered on a more extensive and systematic scale. The void was filled by the establishment of the Queen's university and colleges, in the year 1856. The characteristic features of this system are:

First—The recognition of Christian principles, but the disallowance of any sectarian tests.

Second—A full scholastic training, as in the older universities, based on the ancient languages and pure mathematics.

Third—A regular and very full course in natural science.

Fourth—A thorough drill in the modern languages, particularly the English.

Here then we see in England and Ireland, in the face of the opposition of both Protestant and Roman churches, a

great uprising of the better informed communities of the nineteenth century, which results in the creation of a complete scheme of higher institutions of learning by the order and agency of the State itself, wholly separated from church control.

Still later was established the government Department of Science and Art, organized to embrace (1) the royal school of mines, (2) the royal college of chemistry, (3) the museum of science and art of Edinburg, and (4) the South Kensington museum of art, with 525 elementary schools of science.

On the continent, as in England, the first universities were the creatures and agents of the church, though often bearing royal charters. In France, by the revolution, they were all swept away, and a new system of educational machinery, from the primary to the higher, was put into operation under the imperial government. While in all of the schools religious instruction is given in accordance with the prevailing worship of the commune, yet none of the schools are under the direction of the church. Under this system it was very easy, in 1865, to inaugurate, by a new law, a course of study in the secondary schools, intended to convey the elements of science and its applications, or to "found," as the law states, "the sub-officers of industry."

In Germany the universities have been among the foremost in developing modern science and in disseminating that knowledge which has been in request by the intellectual and scientific awakening of the eighteenth and nineteenth centuries. The church here is allowed to give religious instruction in the schools, and the Jews, Catholics and Lutherans are placed on the same footing. Every step of the pupil, from the primary grade to the university, is under the inspection of the State, and all the regulations and appointments are made by the State. Under this system the universities have rapidly accepted the progressive ideas of modern industrial and technical education, and the Crown has instituted in

the secondary grade the "real schools", in order to fit the university applicant with the necessary introduction to science, to enable him to advance to the higher stages in the scientific instruction of the university.

Holland has had a law for State education since 1806, covering the whole scale, from the primary school to the university. But the schools are wholly undenominational. "Religious instruction is left to the different religious communions," while the schools are required to inculcate all Christian and social virtues.

In Switzerland the system of State education, while "based on the principles of Christianity and democracy" is compulsory from the seventh to the fifteenth year, and in some of the Cantons was purposely so organized as to strengthen the democratic as against the clerical party. Here the doctrines of the reformation, as expounded by William Farel and subsequently confirmed and established by Calvin, have taken firm hold of the whole polity of the nation. Calvin awakened a taste for the exact sciences at Geneva, and the university became a place of resort for education by the Protestant youth of Great Britain, France and Germany. At the present time one of the four faculties of the university of Geneva is that of science. More lately the "Polytechnicon" have been established at Zurich, covering those manufacturing industries which, a few years ago, had so far outstripped the English engineering and mechanics as to incite an English commission to investigate the cause of the inferiority of home manufactures.

Thus we find that none of the old universities, except when under the control of the government, and sometimes not even then, have been willing to modify their curricula in compliance with the demands and spirit of the age. If they have done it, as more lately at Oxford university, it is only after the force of public sentiment has been able to batter down the walls of prejudice and conceit with which they have been surrounded. During this whole conflict throughout Europe

the church, in its various forms, but particularly the Roman church, instead of being the champion and refuge of free thought and free knowledge, has been the most powerful obstacle to its progress, and has persistently opposed every movement to introduce the means for disseminating useful knowledge among the people. The heat of the conflict is passed. The tide has set in the right direction. The old universities perceive the triumph of modern science. European governments are unanimously striving for the establishment of modern schools of science on the broadest foundations, and equipping them with the fullest appliances.

Now let us turn to America, and inquire how this history has been mirrored on our institutions of higher learning.

In the first place the church colleges that arose in this country prior to 1824, or even later, were modeled after the medieval universities of Oxford and Cambridge, so far as they expanded into the dimensions of a university. For the most part they were simply colleges of classical lore, with but one course of study, aiming specifically, at first, to educate young men for the clerical profession. As they were born of the English universities, so they inherited their medieval narrowness and bigotry. As the early church had grappled with Copernicus and Galileo, and had been worsted, so the later church would grapple with everything that bore a resemblance to or intimation of any new-fangled notions of nature. Although the world had made wonderful strides in human knowledge, the colleges shut their eyes and ears to the change. The age demanded education in the great industries that characterize modern society, but could get only that of the age of Elizabeth. As modern science and civilization began to buzz about their doors, they drew themselves within their shells, affrighted, like snails. Having none of the elements of the new light within them, they were literally enslaved to themselves and could not escape. They began to sink in public esteem. Their graduates failed conspicuously in competition

in all the affairs of life with self-made men. Finally, in view of this disparity between the demand and supply of industrial and scientific instruction in America, a far-seeing and generous business man, Stephan Van Rensselaer by name, came forward with private means, and became the first to endow, in America, a "school of theoretical and applied science." This was done in 1824, and it is located at Troy, New York. Twenty years later the first voluntary effort was made within one of the old church colleges of America to regulate the curriculum so as to conform to the new demands, and although pushed by one of the ablest educators of America, Francis Wayland, in his own institution, and with his own denomination, at Brown University, the movement ended in a conspicuous defeat of the "new education." After the successful establishment of the Troy Polytechnic Institute, the example of Van Rensselaer was followed in Connecticut by Joseph E. Sheffield in the founding of the Sheffield Scientific School, which became attached to, but by no means recognized as co-ordinate with, the old line course in Yale college. This was in 1860. In 1847, soon after the failure of Dr. Wayland at Brown University, Abbot Lawrence endowed the Lawrence Scientific school at Harvard college.

About this time the legislature of the new States of the West began to express the sentiments of the people. In Illinois conventions met in 1851 to consider such means as might be deemed expedient to further the interests of an agricultural community, and to take steps toward the establishment of an agricultural college. They met not as Presbyterians, or Methodists, or Romanists, but as an agricultural community. The next year petitions were sent to congress for the endowment of industrial universities in each State. In 1850 the agricultural college of Michigan was provided for by the State constitution, and it went into operation in 1855. The scientific course of the University of Michigan was ordered by the State legislature in 1851. In 1858

Iowa appropriated money for a model farm and an agricultural college. In Kentucky, under the guide of Regent Bowman an institution, chartered in 1858, had been established for "diffusing education among the industrial classes." In Pennsylvania an agricultural college was established in 1854, and in Maryland in 1856. In New York, as early as 1837, a project for establishing an agricultural college at Albany, was entered upon and a site was selected. This resulted in failure. It was revived in 1844, and again failed through the death of a liberal friend of the enterprise; but in 1856 the State Agricultural society of New York induced the legislature to appropriate \$40,000 for a college of agriculture. This institution was established at Ovid, and died when the war of the rebellion broke out in 1861. The People's college, at Havana, N. Y., intended entirely for the industrial classes, was at first offered the national agricultural land grant of New York State, but failing to comply with the conditions imposed by the legislature, this fund was passed to Cornell University, at Ithaca. These institutions, all established prior to the year 1862, when congress passed and the president approved the great educational land grant law, had come into existence, in compliance with the demands of modern civilization, and not at the instance of the church colleges, but often in the face of obstacles and discouragements thrown in their way by the church schools. But President John says that the "facilities of higher education existed in this country, and met all demands, before State colleges were thought of." With the single exception of Yale college and Hamline University at Red Wing, which established a so-called "Scientific Department," the former in 1846, and the latter in 1857, not one of the church colleges, so far as I have been able to learn, showed the first symptom of knowing, much less recognizing, the difference in educational need between the age of Bacon and that of Lincoln.

The soil, therefore, was all ready for the seed. The bill

introduced by Mr. Morrill of Vermont was vetoed by conservative Buchanan. Passed again at the instance of Mr. Wade, with only seven opposing votes, it was signed by President Lincoln on the 2d day of July, 1862. It has been said that times of war witness the birth of great ideas and the initiation of great enterprises. It is true that in the United States, with the establishment, through rivers of blood, of the national idea, was also established the idea of higher education by the State as one of the justifiable means, in a Republic, of self-defense and self-perpetuation.

3. This is all passed now, nearly two decades ago. If we proceed to inquire what has been its effect, we shall be able to answer another of President John's surprising statements. Is the design of the law establishing these industrial colleges by congress, "a conspicuous and universally acknowledged failure?"

One of the first effects of this land grant by congress was an awakening in the church colleges, then existing, to the value of the public domain as an educational agency. This was so rapid, and so great, that some of them succeeded in capturing the whole fund almost before the people knew it had been given to them. In others, along with a compliance with the terms of the act, the State demanded a representation on the controlling board; but in most cases the church colleges were passed by, and new institutions were founded by the various States, though still in many cases combined with some other State or private fund.

In the second place, this law, which has so positively been pronounced a failure, brought into existence, up to 1876, about forty schools of agriculture and mechanic arts, often styled national schools of science. These have come into existence since 1862—except in three States where similar institutions had already been endowed by State funds. In some cases also the fund was applied by the State legislatures to rejuvenate weakly scientific institutions, or to further endow

those that were flourishing. In the meantime, since 1862, the various churches of the United States had founded, up to 1876, 106 denominational schools. Some of these are based on broad foundations, and, like Hamline University, offer the student the most complete scientific as well as classical and literary culture. While the national schools of science are mainly confined to their own sphere—the primary intent of the law creating them—the new church schools cover all fields of knowledge. It cannot certainly be unjust to them to compare their patronage by the youth of the country, with that received by the State schools. This, perhaps, will throw some light on the question of their asserted failure.

The 106 denominational colleges, established between 1862 and 1876, both inclusive, as reported by the Commissioner of Education, are found to be giving instruction to 13,757 students, including all departments, preparatory and undergraduate, in all branches of knowledge, from theology to chemistry and engineering, giving them an average of 130 students for each institution. Of these students, 9,066 are reported as in the preparatory (or secondary) grade of study, an average of 85 for each institution; and 4,691 are reported in undergraduate studies—an average of 44 for each institution.

Taking the same authority for the statistics of the forty State schools of agriculture and mechanic arts, and including only those students that are strictly in those departments, wherever a pre-existing college received the congressional grant, we find 4,891 students; which gives an average of 122 for each institution. Of these 631 are reported in preparatory (or secondary) courses, and 4,260 in the undergraduate courses of study. This gives the State schools an average of 16 in the preparatory classes and 106 in the higher classes. Thus it can be seen that, as institutions of higher learning, the attendance on the new church colleges is but 41 per cent of that on the State colleges. Hence, if the law of congress which called into existence these State colleges be a failure,

how much greater the failure of that sectarian spirit which called these 106 denominational colleges into existence.

Another remarkable effect of this movement toward popularizing higher education in America was the renovation and elevation of the church colleges, then existing, and the establishment of numerous others with much broader and a more liberal scope of instruction. This of itself has resulted in immense benefit to education, as well as to the church, in America. This effect is as important as the creation of the State schools themselves. The church has always been the principal agent of higher education, at least in the United States, and the recognition, by these institutions, of the great underlying truths of nature, and of the ministration of her laws to the daily comfort of man, is an epoch in the history of the nineteenth century, which, in its effects on the race, will exceed all other achievements of the "new education." It will contribute not only to the spread of science, but also to the spread of Christianity, particularly among those intelligent classes of the people who have been hostile to it, or indifferent, because of the attitude of the Christian church toward the truths of modern science. If the church once recognizes the fact that every enlightened nation is in arms against its supine adherence to medieval education, and condescends to place itself in harmony with the truths of creation as well as revelation, one of the greatest obstacles to the evangelization of the world will be removed. It is easy to see that the material aspects of modern civilization are rapidly penetrating unchristian and uncivilized nations, outstripping the church in evangelizing them. How much better it would be if the two agencies could go harmoniously together into the same field, co-operating to accomplish the same end.

(4). What has been said, so far, relates to the past. A few matters of fact have been stated. They pertain to the title, by which the State received, and holds, the educational structure which she has occupied. But President John not

only disputes the title, but also the right of the State to occupy this field. We admit that force does not always coincide with right, and that, although nine points in the law are established when a peaceful possession is proven, the tenth point may have the right on its side. Let us inquire, then, if there be a consistent reasonableness in the State's attempting and continuing to do this work. We shall not attempt here the justification of the State in establishing and maintaining primary and secondary schools. It is not demanded. In passing, however, we will accept President John's definition of the duty of the State to educate. He fixes it at the "limit of necessity to preserve its own existence." So let it be. We shall recur to it again. But, specifically, as relates to higher education, the leading objections that have been urged are the following: (1) The personality of the State. President Elliot has fully presented this objection. It is foreign to the free spirit of American republicanism to witness the controlling influence and authority of the State in social and educational affairs. It smacks of the divine right of kings, and is a reminder of the despotism of Europe, two centuries ago. Now all this may be an objection in monarchical governments, but it seems rather strange that any prominent educator in republican America should forget that here the people are the State. There is no kingly personality interfering with the domestic and social institutions of the community. The authority that controls is the aggregate will of the community. The chief right of the State's power is to conserve this aggregate will. Such an expression of the will of the people is voluntaryism in the discharge of its highest organic function, and is not "paternal government." (2) Again it is objected to State education, that it tends to uniformity, and not to variety, reducing all pupils to the same pattern, and smothering the aspirations of genius which spurns conventionalities and revels in the gratification of its own idiosyncrasies. This objection is more valid in the lower

schools than in the higher. In the higher schools it is very questionable if the institutions of the church would be as lenient with idiosyncrasies in pupils, as those of the State. Judging from the past it would be folly for a student with an idiosyncrasy of genius to flee to a church college for its indulgence. We cannot see how this objection applies more fully to State colleges than to church colleges. In fact it is one of the necessary sacrifices which an individual has to make, when he becomes one of an organized community. He receives the benefits of combined effort in all directions, and he has to surrender the personal freedom to act in certain directions in which his action would transgress the aggregate good of the community. The schools are for the average pupil—both State schools and church schools—and he with an idiosyncrasy will look in vain for a place to disport himself.

(3). It is urged again that it is not economical. Because, forsooth, a sectarian zeal demands denominational colleges, and "cannot conscientiously accept this service of the State," and will maintain colleges of its own, therefore the State cannot rightfully duplicate these institutions and tax the denominations for their maintenance. Not to mention the brevity of the time elapsed since the sects were willing to "do the same kind of work" as the State University, it is enough to reply that this argument applies against all State organization for education. The Roman Catholic insists on maintaining his own hospitals, and objects to taxation for the public schools. The Atheist opposes the public tax because in these schools is taught the idea of a God, the Jew because the New Testament is read, or the Protestant because it is not. This argument against the public schools may be applied with equal reason against the State's management of the deaf and mute or insane. At least, certain medical fraternities might use it because they cannot "conscientiously" endorse nor accept the methods of treatment practised by the State.

(4). But the fourth objection, after all, is the chief one urged

by the opponents of State schools—they do not correctly indoctrinate the student in matters of religious dogma. It is said that “the State by self-imitation cannot teach religion.” This assertion the State accepts, and would fain leave it to the proper agent, yet the State is not therefore “prohibited by statutory limitation from throwing the least safeguard around the minds of our youth,” which is one of the surprising inferences of President John. The State in its educational operations will always be governed by the aggregate sentiment of the people. Those fundamental ideas of religion, which are accepted by all sects, the State institutions will be compelled to teach. If, peradventure, for a time they happen to lapse from this high duty, the will of the community will sooner or later be restored. They are creatures of the people. They will teach what the people can agree on shall be taught. While they must not teach sectarian dogma, they must not become centers of atheism nor of infidelity. If they did either, they would not long survive. Like the schools of Switzerland, they are based on the “principles of Christianity and democracy.” The special, political and denominational application of these broad platforms is left to party politics, and to the various sects.

We venture the assertion, however, that when the true kernel of this objection is found, it will not consist in a fear of the non-inculcation of these truths by the state, but in a jealousy of the sects, one against the other. Education by the church has been considered essentially the training of the youth in the doctrines of the catechism. Though greatly extended in scope, it is still animated by the same cardinal principle. Each sect must defend itself by teaching its own dogmas to the youth, and, though every state college were to be abolished, there would be still as great a reason for maintaining all the denominational colleges. How long it would be before they would degenerate to the condition of mere sectarian propaganda, as before the revival, no one can say,

but there would be a strong tendency in that direction. Freed from the competition of state colleges, their zeal in the teaching of science would soon lag. Not having ready access to the public means and resources of instruction, such as the state archives, maps, authorities, explorations, surveys, statistics, and to the avenues by which the state knows and readily regulates the great industries of the people, the church colleges would very soon see that there is an actual incongruity in their assuming to direct the scientific and industrial education of the people. It is the chief business of the church to look after the spiritual well-being of the people and not to fit them to carry forward the complicated machinery of modern civilization. Religion is the lubricator of this vast system, and the church is the agent by which it is applied. When the church departs from this sphere, she forsakes the true idea of the primitive church. When she leaves her spiritual kingdom and assumes to direct in the construction of steam engines, in the handling of theodolites and compasses, in the management of cotton-gins, in the measurement of the angles of crystals, and the distances to the stars, she may very reasonably be held to be out of her sphere. She has the privilege, of course, of doing all these things, and there was a time when she had good reason to do them, and was urged to do them, as the only capable agent; but that time has passed, and it can hardly be considered to be her duty to do them in the nineteenth century, when other agents equally capable have arisen, endowed with that special duty and function.

(5) One of the boasted advanced steps of the nineteenth century is the separation of the church and state. In the mere manipulation of the governmental machine this is fully realized in the United States, and in much of continental Europe. But the administration of the laws is not the state, nor, indeed, is the making of the laws, nor both of these united. True statesmanship surveys the whole body politic. It foresees and often institutes national enterprises. It watches the ex-

ternal and also the internal influences that move the masses. It takes advantage of the shifting markets for the domestic products. It notes the rise and decline of the various industries. It applies stimulants when needed and repression when necessary. In short, the state is an all-prevading, energizing, regulating, far-seeing organization of the people; the culminating expression of the modern democracy. It is this machinery, which in our day is very closely connected with the appliances of modern science, which is not free from the church, but which the church assumes still to direct. Instead, we claim that it is the right and duty of the state itself to look after its own interests, and especially its highest interests, and to take measures to qualify citizens not only to read their ballots, but to discharge all the duties of high citizenship. There is no limit to this duty short of the necessity of the state, as has already been admitted. That which constitutes a state—"high-minded men"—is its necessity, and that it is the duty of the state to provide, to the end that its multifarious industry may be under the guide of the highest statesmanship.

SOME IMPURITIES IN DRINKING WATER.

BY PROF. GEO. WEITBRECHT.
Of the St. Paul Medical College.

[ABSTRACT]

The more we know about the causes of disease the more we are convinced that many of the ills that flesh is heir to come to us through germs that are transmitted through the air we breath, the water we drink and the food we eat. You are all familiar with the westward march of cholera among men and epizooty among animals. In surgical operations the danger is not from the operation, but from germs which are in