

(editor's note: This paper was transcribed from a handwritten cursive copy with various difficulties. For a perfect rendition, the reader might wish to consult the original, itself a copy, in the volume entitled *Literary Club Papers*, May 30, 1891 to February 6, 1892)

The Public Roads of Hamilton County

The past fifty years have been a period of great activity in railway building in the United States, and the result is a success worthy of a great nation. The enterprise of every City and community was directed towards securing railroad facilities, to the neglect of other improvements that are being considered indispensable to progress & prosperity.

Cincinnati is a notable example in point. The era of railroad building commenced before the County had arrived at that stage of development when the construction of good roads would naturally have been entered upon, and the latter was thereby delayed till the demand for the former was satisfied.

Another circumstance which contributed to the postponement of good road building was the revolution which the railroad produced in the business of transportation. The traffic of the great highways of the county was destroyed by it and from being thoroughfares they were reduced to neighborhood roads or feeders to railway stations or market towns. The tendency of this was to discredit the value of all roads in the estimation of the people; to raise a doubt in the public mind as to the position which they would occupy in the economy of the future and to further improvement till this problem was solved. While there was, during the period of railway construction a gradual improvement of the public highways, while the corduroy roads described by Dickens in "American Notes" have disappeared and many of the roads have been made passable for the greater part of the year, the progress has been slow. It has not kept pace with the development of the County in other respects, nor with the improvement of the highways in other countries.

It is believed that the limit of railway construction has been reached, that the wants of the County in that respect for the present and the near future has been satisfied and that the activities of the people will now be turned in other directions and particularly towards the improvement of the public highways. The press is beginning to call attention to the subject and urge on the community the importance of better roads.

The University of Pennsylvania at the request of a committee of citizens in Philadelphia during last year, offered prizes for the best essays on the subject of the improvement of the common roads. A large number were submitted and the three prize papers and five others which received honorable mention were published in a volume of over 300 pages, full of valuable information on this

subject.

The league of American Wheelman have undertaken a systematic agitation for better roads which from the number of its members and their diffusion over so many sections of the country promises good results. In certain of the Eastern States the question has been pressed to the point where the work of making good roads has been commenced and considerable progress has been made.

The object of this paper is to call attention to the condition of the public ways in Hamilton County; to point out some of the obstacles which stand in the way of their improvement, and to urge the importance of a movement for good roads throughout the county. It is unnecessary I presume to occupy time in describing the deplorable condition of the highways of this County. Every one who has had occasion to go outside the city limits will be ready to admit the worst that can be said against them. They bear about the same relation to good roads that the city streets of twenty years ago would to the granite, asphalt or brick paved streets of today. It is safe to say that there is not a single public road in the county that answers the requirements of a first-class highway either in respect to its construction or maintenance. The new roads are, if possible, worse after a few months use than the old ones. It is common experience to find them seamed with ruts and at places impassable by reason of the metal having sunk into the clay or loam on which it was placed. This condition results from defective construction and want of proper care of the roads after they are built. The Romans have demonstrated that it is possible to make highways that will resist wear and the action of the elements for centuries. The Appian Way was completed thirty years before the birth of Christ and was in perfect repair six hundred years later, and parts of it survived the use and neglect of centuries.

Thomas Coddington, civil engineer, under the title of roads and streets in the Encyclopaedia Britannica (vol.xx p. 582) thus describes the construction of the Roman roads:

“The loose earth was removed until a solid foundation was reached and it was replaced by proper materials consolidated by ramming, or other means were taken to form a solid foundation for the body of the road. This appears as a rule to be composed of four layers of. The lowest layer consists of two or three courses of flat stones, or, when they were not obtainable, of other stones, generally laid in mortar; the second layer was composed of rubble masonry, of smaller stones or a course concrete, the third of a finer concrete on which was laid a pavement of blocks of hard stone joined with the greatest nicety. The four layers are found to be often three feet or more in thickness, but the two lowest were dispensed with on rock. Where, on many roads, the surface was not paved it was made of hard concrete or pebbles or flints set in mortar.”

The cost of such a road in labor and material must have been very great, and

when we consider that these roads not only extended from Rome to the limits of that great Empire in every direction but permeated every province, they stand as the grandest industrial achievement of either ancient or modern times.

While it is impracticable to attempt to duplicate the Roman roads some useful lessons may be learned from them in the art of road making. The most apparent of which is the value of substantial construction and especially the importance of the foundation to the life and usefulness of the road.

Notwithstanding the body of the Roman Road was three feet or more in thickness it was thought necessary to have a foundation consisting of stone or other material properly consolidated by ramming. Contrasting this with our roads, where the foundation is neglected, if not wholly ignored, and the broken stone or macadam which is seldom to exceed twelve inches in thickness is placed directly on the earth or at most only a thin layer of loose stone is interposed between it and the clay or at most, we have one of the chief causes of our bad public roads, we have followed the English system as introduced by Macadam who used no foundation under the broken stone, and strenuously contended that foundations were unnecessary. While this was true where the roads were built in the foundations of old roads that had been in use for long periods. As was the case in England, it is not true when the conditions are changed as is shown by our experience.

The French people who are said to have the best public roads in Europe followed the Roman plan of constructing the highways with ample foundations. Disregard of the rules of proper location, grades and drainage is equally observable in our highways and all contribute to the unsatisfactory results.

The construction of our roads however, is not more crude and unsatisfactory than their care after completion. We pursue the plan of occasional renewals rather than that of constant repairs. This system consists in deferring repairs as long as possible, till the metal is worn thin and begins to break up. When a new coating is added to the entire surface. Under the other system the road is divided into sections which are placed in charge of a certain number of men who devote their entire time in caring for and repairing their allotted portions, every break or rut receives immediate attention, the drains are cleaned and the dust and mud are removed so that the road is at all times in good condition.

The French government through a series of careful experiments has shown that this latter mode of repair costs less than the occasional renewals, to say nothing of the advantages arising from having the roads at all times in perfect condition. The defects in our system of construction and repair of roads may be attributed in part to a want of knowledge but they arise principally from false notions of economy, and from lack of comprehensive system governing both the building and repairs. Two formidable obstacles to the improvement of the highways of the County present themselves at the threshold of complete consideration of the subject of better roads, the one being the Turnpike companies and the other the

absence of a central authority vested by law with the power to contract, maintain and control public roads. Thirteen of the principal highways of the county are owned by private corporations and operated as toll-roads. We appear to be still living in the turn-pike age, but unfortunately at that stage when only its burdens and evils survive. The turn-pike companies were created at the period when the community demanded something better than mud or corduroy roads and yet the townships through which they passed were not able to furnish better. In order to satisfy this demand resort was had to incorporated companies which in consideration of grants of the right to take toll, undertook to build and maintain better roads.

These companies were officered and managed by men of enterprise who were actuated by an ambition to improve the roads under their control and they accomplished the purpose of their creation. They made roads which were an improvement in what had theretofore existed and which satisfied the wants of that age; they do not however answer the requirements of the present. These companies are now managed by a class of men who have neither the desire nor the ability to make good roads and never expect to do so. If they keep their roads in such a state of repair as will save them from forfeiture for neglect, their conscience is satisfied. Their sole aim is to hold on till the public will be driven to purchase their roads. The age when toll roads can be maintained to the advantage of either the stockholders or the community has passed. They are incompatible with a system of first-class highways.

They have not existed in France since the Revolution and were abolished throughout Ireland in 1858 and in Scotland in 1883. In England, where such roads were managed with exceptional ability a few still continue, but these will soon expire by limitation. Outside of Hamilton County few toll roads are found in Ohio. Heretofore a serious difficulty, in the way of extinguishing the rights of the companies in the County, has been the excessive damages which juries have wont to give in condemnation cases.

It not infrequently happens that the amount awarded for a small part is as much as the entire road is worth. The result of this is that owners of these franchises are not willing to accept the reasonable value of the property, preferring to speculate on the chances of a large verdict in the hands of a jury in condemnation proceedings. The public should be educated in this matter. The rights and wrongs of the people who have for years submitted to the exactions of these corporations should be considered. These thirteen toll roads include nearly every avenue leading out of the city, and they must be acquired by the public and made free before any system for the improvement of the public highways of the County can be adopted and carried out. In an interview with one of the representatives from this County, lately published, it appears that legislation looking towards the condemnation of all toll roads in the county is contemplated

at the coming session.

The next difficulty in the way of road improvement is found in the law governing the construction and repair of the highways. Our system was derived from England, where it had existed from an early period as a part of the common law, and is thus described by Blackstone:

“Every parish is bound of common right to keep the high-roads that go through it in good and sufficient repair; All the inhabitants and occupants of lands, tenements and hereditaments within its parish are required to perform six days labor in every year on the roads, or furnish a laborer.” Surveyors of highways were chosen, whose duties were to oversee the roads and direct the labor of the parishioners on them. If we substitute Township for parish and reduce the days of labor from six to two, we have substantially the law which prevails today in Ohio on the subject.

The question suggests itself whether the survival of this venerable law among us is by reason of its merits, under the theory of the survival of the fittest, or on account of the want of progress in the community where it still prevails. The defects of the system are obvious. Among these may be mentioned the fact that forced labor on the roads is not productive in proportion to the time of the community which is consumed.

The scandalous shirking and pretense of work which are indulged in by the average inhabitant when called to work the road is a standing joke; the statute prescribes a penalty against idling while working under the direction of the Supervisor, but it is seldom if ever enforced. The amount of labor performed is small and the quality of the lowest grade. The territorial limits of the road districts are too small for good results.

Each township constitutes a separate district and the construction & maintenance of all roads therein, other than turnpikes, are placed under the control of the Township officials, consisting of the trustees and road supervisor. These officers are elected from year to year and are usually farmers without technical knowledge or experience in road making or repairs. Yet they are vested with the supreme and exclusive control of the public roads within the Township. They determine what shall be done and the manner of doing it.

They work without concert with the officers of other townships and without advice or direction from a superior authority. The limited territory under their jurisdiction and their ideas of economy preclude the employment of engineers or experienced man to plan and oversee the work. Such officials are liable to be controlled by considerations of local or personal interests and to ignore the interests of the public outside of their particular township.

It is related that a committee of the English Parliament in an investigation of the accounts of certain parish officials found that a bastard child was being supported out of the road funds of the parish. The explanation of the trustees when cited before the committee was that the child had been found on the highway and they had concluded that it was for that reason a proper charge on the road funds.

This illustrates the loose and incompetent manner in which the affairs of petty districts are managed. The energy, capacity and integrity of public officials appear to decrease in proportion to the contraction of their territorial jurisdiction. A careful and thorough inquiry into the working of the parish system in the care of the public roads in England showed it so defective and inefficient that it was abolished by act of Parliament in 1862 and the control and maintenance of the public roads were transferred to certain Highway Boards, having enlarged powers and greatly extended territorial limits. The experience of the twenty-five years with this letter system has been satisfactory and demonstrated the correctness of the theory on which it was founded, namely that it is impossible to secure good roads while their construction and care are left with the officials of small districts.

The objections urged against the parish system in England are equally applicable to our township plan, as shown by the state of the roads after a trial of it for more than eight years. There is, in addition to these above mentioned, another factor in the matter of road making in the county that remains to be noticed, which is the power exercised by the County commissioners under special acts of the Legislature. This novel legislative road machine, which by the way has become quite familiar of late, is set in motion and operated substantially as follows.

An individual or neighborhood conceives the idea of having a road built at public expense for his or its accommodation. An agent is dispatched to Columbus to procure the passage of a special act for the purpose. A bill is introduced authorizing the county commissioners to levy a tax and build the proposed road, and it is urged on the legislature that the road is of great public importance; that the community demands it, that the legislature is only asked to grant the commissioners power to build the road if they think it ought to be done. Delegation after delegation come to Columbus to represent the importance of the measure and press for its passage. It is surprising the number of men who can be found willing to do missionary work of this kind if their expenses are paid, to say nothing of those who can be had for expenses and a small per diem.

The law is finally passed and the struggle is transferred to the office of the County Commissioners. They are petitioned, urged and bullied. Delegations are brought from the interested neighborhood and political workers from the County precincts. The political career of anyone who opposes the measure is threatened.

The commissioners are not allowed to consider the public utility of the so-called improvement that has been determined by the interested parties. The result is that the tax is levied and the work ordered. The most approved and popular mode of managing these affairs of late is to procure the passage of a mandatory act of the legislature and if the commissioners hesitate about levying the tax or ordering work, to apply to the Courts for a mandamus against them. The commissioners have little more discretion in determining the character of the work than in making the levy. The promoters in most instances determine this also, and the road is surveyed and located so as to pass each man's door without regard to public convenience. The result is a road that in no sense can be called a public road except that the public money has been expended on it.

After they are completed the roads are turned over to the tender mercies of the road supervisors through whose jurisdictions they happen to pass and therefore the townships are required to keep them in order. If this system is not wholly bad it must very soon become so. The temptation to individuals to have roads built at public expense for their benefit is too great to long remain without great abuse. The extent to which this is now being worked is alarming.

At the last session of the legislature the commissioners of this County were authorized by special acts to levy and expend on so-called roads and ways one million two hundred and fifty thousand dollars. The preceding session authorized a levy, for the like purpose, of \$530,000. All these proposed expenditures it must be remembered are for side roads, as the real public thoroughfares of the County, as mentioned above, are held by the turnpike companies. When we consider that there are fourteen townships in Hamilton County (exclusive of Cincinnati) each vested with the control of the roads in its limits, other than turnpikes; that there are fourteen of these latter managed by as many district corporations, and that the County commissioners, at the dictation of interested parties backed by special acts of the legislature, are, each year contracting roads, without plan, in system or much reference to the wants of the public, some idea may be had of the Hydra-headed authority in charge of the public highways of the County, and the difficulties in the way of their improvement.

It is a pleasure to turn from this uninviting picture to the consideration of the remedies which naturally suggest themselves and to the possibilities which a different system, managed with intelligence and honesty, promise in the near future. The first, and most important step, is to put a stop to the building of roads at public expense under special acts of the legislature. No system or plan for the improvement of the roads can be successfully carried forward so long as this novel and vicious plan of roadbuilding continues, to say nothing of the enormous waste of public money. The next would be the acquisition through purchase or condemnation by the public of all the toll roads in the County. The last would be

the creation of a central authority: a board or commission, vested with control of all the public roads of the County. So that there would be one responsible controlling head to direct and supervise their location, construction and repair.

It should have power to levy a road tax on all the property of the County and special taxes on assessment and to supervise the expenditure of the funds arising from such levies; to devise and adopt a general plan for the improvement of all the highways under its charge, and to employ a competent engineer and assistants; in short it should be invested with ample powers to accomplish the object of its creation. While such a board should be clothed with very full authority every precaution and safe guard should be thrown around it to secure from it a strict accountability and faithful discharge of its duties.

The object and aim of such a board should be the construction of first-class roads, roads which in the location, grade, drainage, material and mode of building shall answer all the requirements of good modern highways and which shall bear the same relation to what we now have, that the new granite, asphalt, or brick streets bear to those which they replaced. This is the true economy of road making. Such roads will last for generations. They appear to cost more than the pretenses which are now being or heretofore have been built, but through a series of a few years they are far less costly. A gentleman who has had large experience in an official position in the care of the public roads of the County assures me that the average duration of bridge, culvert, and road masonry is only seven years whereas if properly constructed they would last for hundreds of years. This is a sample of all the work done on our roads. In the improvement of the public roads an equitable proportion of the cost should be assessed on the abutting property or the lands especially benefited and the remainder should be paid out of the general funds as is done in the improvement of the streets in Cincinnati and other cities.

Such an assessment is not only just, but, it prevents the scramble that would otherwise ensue between the different sections of the County for improved roads if the entire cost were at public expense and what is more important it lessens the chances of money being wasted on unimportant roads. A such a board, composed of honest and capable man with proper assistants could within a comparatively short time put all the principal highways of the County in first-class condition. Could make them strictly modern roads, such as would answer the requirements of the community for generations and be the pride of every citizen of the County. All this could be done without the increase of the taxes of the County. The levies would be ample to supply such a board with all the money required to carry on a thorough system of road making.

The County commissioners levied this year under special road acts \$173,000 and the townships levied over two mills on the dollar of the taxable value of the

property within their jurisdiction. All this is being expended without adequate results, much of it is being worse than wasted. I have said nothing of the advantages of a complete system of modern highways would confer on the entire county in the increase of the volume of the landed property; in the facilities it would give to the transaction of business of the community, or of the comfort and pleasure it would afford alike the poor & the rich. Good roads are necessary to the complete development of society. They are indispensable to its prosperity and civilization. Every consideration of the economy, prosperity, and civilization urge the importance of a movement for better roads.

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