

A HIGHWAY DEPARTMENT ORGANIZATION FOR A LARGE CITY.*

By Wm. H. Connell.†

The most important and most neglected branch of the municipal governments to-day, is the division of highways. This is probably due to the fact that only within the past few years has the public taken an active interest in the condition of the streets. Wide avenues, good pavements and clean streets are not only appreciated but demanded by the public to-day, which accounts for the significant fact that every live municipality is struggling to develop a highway organization that will enable it to meet the demands of the public.

The time has arrived when municipalities must develop highway organizations commensurate with the present day requirements of this all-important branch of municipal government. It is needless to say that the development of up-to-date municipal highway organizations, like the good roads movement, is in its infancy, but the two go hand in hand and have come to stay, and if any governing body wishes to be popular with the public, it will be well for it to look to its highways. The highways represent the most conspicuous show case of the municipal government—thus the importance of paying particular attention to the goods placed there. It pays and pays well for business establishments to design attractive show cases, place their best goods in the window, and maintain a clean and attractive display; and so it would pay municipalities well to design attractive highways, lay good pavements, and maintain clean and attractive streets. It must be remembered, however, that this cannot be done by wishing. But unfortunately a half-hearted policy has been the one most in evidence in many municipalities to satisfy the popular demand for attractive highways and good pavements. The solution of the problem is an up-to-date municipal highway organization, made up of the right kind of personnel working as a unit.

No matter how large or how small the municipality may be, the underlying principles constituting the foundation of the highway organization are the same. If a lawyer or business man were going to build a house, he would employ an architect, tell him how much money he had to spend, give him an idea of the size of the house wanted, and leave the rest to him. He would also select an architect with experience in the design of the type of structure he wanted. The same procedure should be followed in organizing a municipal highway division, and it is a very simple one to follow. Select an engineer whose experience has been gained in highway organization work; tell him about how much money he will have to spend; give him an idea of the mileage and area of streets and the scope of the work coming under his jurisdiction; and he will build up a successful organization—provided he follows the same principles the architect must to design a substantial house, namely, select the materials best suited to support the structure. The highway organization, like the house, to be substantial must be composed of men capable of upholding and controlling the respective divisions of the organization coming under their control. If this procedure is followed, the organization will be permanent and will stand, unless seriously interfered with, even in the absence of the engineer who built up the organization, member by member. When an organization is perfected, it

is in the same category with the completed house, simply requiring maintenance to hold its own. But if it is to be kept up-to-date, it will require changes and improvements commensurate with the demands of the time, and increased population—the house as well as the highway organization.

The outline of the underlying principles governing the procedure to be followed in forming a municipal highway organization makes it very evident that at most it is not a difficult task to start right, but right here municipalities only too often have failed. The lawyers and business men placed at the head of the public works departments have not followed the procedure they would in building a house or doing something else that would require a like amount of intelligence in the selection of the tools to work with. They have either attempted to build up the organization themselves, or have selected engineers whose principal qualifications have been that they were specialists in reinforced concrete, waterworks, sewer works, etc., or in short anything but highways. And what has been the consequence? These men spend three or four years or more groping in the dark, studying the rudiments of the requirements of a highway organization, and by the time they are just beginning to find themselves, and appreciate that highway engineering is a special branch of the engineering profession, the public has become impatient, and justly so.

This we all know has occurred only too often with well-intentioned administrations. Such control of the highway situation retards the advance of modern highway organization and engineering just as much as the old-time political administration of the highway bureau, and the reason is that the public expects something from the well-intentioned administration and doesn't get it, while in the latter instance they did not expect much and usually were not disappointed.

A proper start usually results in a good finish, but not without a hard fight, and even though the right engineer be selected to head a highway organization, his path is not strewn with roses. There is so much that is wrong and so little that is right in many of our municipal highway organizations, that the opportunity for constructive work is almost unlimited, aside from the efforts required even to keep abreast of the times with the construction work, and above water with the maintenance.

Assuming that a highway organization has reached the stage of development where its personnel is qualified to handle the work, the next and most important step toward efficiency and economy is to centralize the control of streets.

It may appear rather odd to some, but nevertheless it is a fact, that very few, if any, highway organizations control the streets coming under their jurisdiction. The control is usually divided up between the street railways, telephone, telegraph, electric light, gas, and other corporations. If when these companies tear up the streets they are permitted to make their own repairs, there results a confusion which takes away from the highway bureaus the direct control of street repairs. Such arrangements as are necessary should be made to place all repair work directly under the highway bureau. If the repair work is done by contract, the contract should be with the city. The highway bureau should have sole authority to repair or order repairs, of whatever nature, that are to be made. This would give the bureau a direct control over the contractors, and place the responsibility on the bureau for the condition of the streets and do away with the excuses we so often hear from city officials, that "The railway or telephone company is responsible for such and such repairs, and we are doing our best to push along the work." With this divided responsibility for the condition of the streets we can never expect to reach the highest point of efficiency in our highway organizations. The parkways

* From a paper read before ninth annual convention of American Road Builders' Association, held at Cincinnati December, 1912.

† Chief, Bureau of Highways and Street Cleaning, Philadelphia, Pa.