

vested rights. All of these arguments were advanced against the system in Germany and all had to give way at the behest of the people.

The plea for the protection of the vested right has not the force it had a few years ago. The great unrest we find throughout the country to-day may readily be traced to the exploitation of nearly every line of activity under the so-called vested rights; the days of the perpetual franchises and special privileges are passing away, and, while every reasonable safeguard must be maintained around the rights of property and invested capital, their leveling down to the service of people who have given property its value and capital its reward is proceeding steadily.

A long process of reasoning might be necessary to convince people that our municipal officers may be trusted with such large powers as are involved in the practical application of the zoning system, for there is a too well-founded suspicion that public service does not always mean serving the public. But the administrative machinery of our cities is passing from the control of political and corporate interests to the control of enlightened public sentiment; the people have been thinking and inquiring into public affairs, and they are learning that the city, with all its vast resources and wealth, is theirs, created by their energy and labor; they are learning what a tremendous organism the modern city is, and, in the pride of their own work, are beginning to assert their right to rule it. Municipal government in the United States is undergoing an evolution that points toward material improvement and the time may not be far distant when our cities will be governed as wisely and honestly as those of Germany, where the power of the local officials is so great, and so unrestrained by constitutional or statute laws, that only capable and trustworthy men dare be placed in the public service, and where election to a public office is a real honor.

PUBLIC UTILITIES AND REGULATION

From its very nature the operation of a public utility, both from the standpoint of the public and of the utility corporation, must be a monopoly. Operation by two or more companies means additional poles, wires, tracks, or pipe mains in the streets and while competition may for a brief time mean lower rates, such lower rates mean a poorer service until finally one, or all, of the corporations are forced to the wall, or the weaker company is merged in the stronger with inconvenience to the community and loss to the investor.

These opinions were expressed by ex-Mayor MacIlreith, of Halifax, at the recent convention of municipalities.

"But to most people," he continued, "the words corporation and monopoly signify the necessity of girding on armor for immediate warfare in order to obtain even a semblance of public rights. Therefore, at the outset, it behooves the public utility corporation to show to the community within whose bounds it operates, by actions, not promises, that a good service at reasonable cost is furnished and that sufficient capital is provided from time to time, to expand or extend the service as the fair claims of the community for such expansion or extension arise. By acting thus, the natural prejudices of the public against the corporation ought to be very largely removed and fair treatment should be accorded the corporation by the community evidenced by a willingness to pay a fair and reasonable price for the service accorded.

"If these ideal relations could be established, there would be no need for regulations, but perhaps, while not possible of absolute establishment, they can be approached unto, and the necessity of recourse to the regulating body rendered unnecessary in most cases.

"The right of the state to set up bodies to regulate public utility companies is undoubted, and the duties and powers of such bodies are, of course, contained in the acts of the legislature creating such utility boards. After such a board has been created, the fear of the public of the monopoly largely vanishes. Under all utility commission acts, it is the duty of the board to see that the corporation renders good service at a fair cost, allowing the legitimate investor a fair return for the money he has invested.

"In our province the Act creating the public utilities board is chapter 1, of the Acts of 1909. At the last session of the legislature an Act (chapter 64), amending the above Act, was passed to come into force when proclaimed by the Governor-in-Council. As these Acts are available to all it becomes practically unnecessary for me to do more than mention a few main points.

"In the first place every public utility is required to furnish reasonably adequate service and facilities, and the charge made for such service shall be reasonable and just, and every unjust or unreasonable charge for such service is prohibited and declared unlawful.

"Secondly all rates must be filled with the board and there must be no discrimination. And thirdly, the board is empowered to value the property of public utilities and regulate the issue of stock.

"The method and procedure for the hearing of complaints is made as simple as possible. In order that personal or imaginary grievances may not be made the pretext for hearings the Act provides that the complaint must be made by a municipal corporation or by any five persons, firms or corporations. Our Act, like other utility Acts, is designed to safeguard the rights of the public and at the same time to only require the utility corporation to do what is fair and reasonable and in filing rates and charges to have in view a fair return to the investor.

"While as a rule the public sees only its own side it must be remembered that there are two sides to every question, and it is for the regulating body to weigh these carefully and dispassionately, and while having in view the reasonable demands of the community, they must treat the corporation with fairness."

LOCATING UNDERGROUND PIPES.

In waterworks systems there are often pipes, the exact position of which is not recorded, and when repairs or new connections are to be made with such pipes, a great deal of time and money may be saved by the use of a device which will indicate their positions, says Engineering News for August 15, 1912. Some electric devices have proved successful in this field, one of them being based on the principle of causing a slight flow of electric current in the pipe, which thus becomes a conductor. When an electric coil is brought within the field of this conductor, a current will be induced in the coil and cause a sound in a telephone receiver connected to the coil. The sound increases or decreases as the coil is carried nearer to, or farther from the underground conductor, but ceases when nearest to it; that is, directly over it. By locating a number of points directly over the pipe, its situation is accurately determined.

In using the instrument, wires from a portable battery are attached to suitable connections and the operator, carrying the instrument in his hand and the receiver at his ear, walks across the supposed line of the pipe, the exact position being indicated by the absence of sound. To locate a service pipe the battery wires would be connected to the house cock and hydrant, creating a current along the service line. This device is manufactured by the Modern Iron Works, of Quincy, Ill., and is used by a number of water companies.