

Sir Maurice Fitzmaurice, in his presidential address, remarked that "the capacity of getting on with people and still holding one's own has a distinct money value and a very high one."

Defence

It is important for the prestige and influence of the branch that it should as far as possible support its members when it considers they are unjustly assailed. The reputation of the profession is vitally concerned in that of its members; the two are inseparable. The by-laws of the Institute provide for the disciplining of members who have broken any code of ethics, but it contains no provision for the defence of members who are unjustifiably attacked. The first implies the second, or one object of the Institute has been overlooked.

This function of an organization involves very careful consideration and a rigorous investigation, otherwise what at first may appear unwarranted, on full study may be found to be the result of indiscretion or lack of judgment on the part of the members involved. But notwithstanding this element of uncertainty, it is desirable that the member may know that when the facts are proved to the satisfaction of the branch, he can rely on its support in time of trial. These cases usually occur in municipal engineering where the personnel of the council changes and influences are brought to bear to carry out certain schemes which the engineer sometimes cannot approve. As an official he should carry out the instructions of his council, but as its technical adviser he should justify his actions; therefore, the dual duties may occasionally place him in a predicament and open to attack. The fact that there is a branch which is prepared to support him may have no weight with the council, but it will afford him some assistance in doing what he deems to be right and proper.

The Calgary Branch stood behind the city engineer who was severely criticized in connection with the construction of the Centre Street bridge, and proved to the public that his critics were unjust. Both the engineer and the branch gained respect and prestige by this action.

Research

One of the objects of the Institute is to encourage research, and especially as the Institute is to represent every branch of the engineering profession there should be some scope. Alfred Saxon stated in Manchester (1917) that "inasmuch as mechanical engineering was the key industry to all the industries, the need of scientific research to assist in the creation of new ideas and new methods and to reduce manufacturing cost and prevent waste of material, was overwhelming."

Albert H. Hooke remarked, in 1916, that when the tunnel was being driven in 1891 in connection with the Niagara Water Power Works, aluminum, carborundum, alundum, silicon, artificial graphite, calcium carbide, cyanamide, etc., were unknown to commerce.

Engineers have not been absent from the field of research, for circumstances have often compelled them to make scientific investigations with the view to carrying out various projects with increased success and profit.

The use of coal and waste gases for different purposes, the generation and use of steam, the extraordinary development of the internal combustion engines, the uses of electricity, the development of water power, the application of reinforced concrete, transportation, electric communications, steel production, etc., are the products of

creative engineering geniuses that have vibrated the world. Notwithstanding the enormous strides made in the recent past, the future holds out an invitation for greater conquests of natural forces and for their conservation for the use of mankind. The encouragement of research by the branch would help to increase its usefulness, and if it should lead to the discovery of a Bessemer, Ericson, Faraday or Edison, prestige and influence would be gained.

Benevolence

We might refer to the matter of benevolence in connection with branch activities. Misfortune comes to some when they are least prepared. The war has upset the careers of many, and although unemployment may not at present be a pressing matter, still some experience difficulty in finding it. Unemployment, sickness, accidents and other misfortunes are depressing events, especially when friends are few and funds are scarce. The prestige and influence of the branch would be exalted in such circumstances, if it were able to render assistance when needed. It is a difficult problem and a delicate one, especially in the cases of those whose temperament is such that they would spurn charity. Still, if we could render aid in a quiet and private manner, it would tend to alleviate anxiety, reduce the load and brighten the prospects of some fellow engineer in distress. The fact that we know of no such case may be due to the silence of the members and the absence of branch funds, but that they will occur is as certain as anything human can be. The raising of a fund for this purpose is relatively a small matter, as it can be done in various ways.

Conclusion

In presenting the foregoing report on "how to increase the prestige and influence of the branch," we have to state that the subject is opportune and important. The branch should be the cultivated sense of the body politic. It is the principal means by which we can assert our rights, enjoy our privileges and increase our professional standing. Neglect the functions and atrophy sets in; cultivate them and they develop in usefulness, strength and vitality.

We believe that the profession is destined to occupy a position of greater importance in the future life of the nation than it has ever done in the past, and that the era which is now unfolding its doors will call for loyal and efficient public service. Many of the troubles of the past have been prescribed for without making a scientific diagnosis of their causes, but in future the engineering profession will be invited,—nay, compelled,—to accept its duties and responsibilities in this work. The branch should constitute the strongest living organism of the Institute, otherwise our professional obligations and privileges will not be realized.

Engineers will be able to do a great amount of work as they are now represented, but when our forces are combined, the possibilities of doing greater work will be enormously enhanced. We would cherish the hope that engineers of all branches of the profession will see the force and influence of one great Canadian engineering organization. That does not mean the submerging of various categories of engineers, but the encouragement of the progress of each, under one common flag, one common aspiration and for one common achievement, namely, the promotion of the best in every branch of engineering for the advancement of our national prosperity; and this will assuredly redound to our personal and professional advantage, prestige and influence.