

PRESIDENTIAL ADDRESS, 1952

By

J. C. GANGULI, M.A.E.

Friends,

It is my proud privilege to be able to address you at this meeting as your president. I am conscious of my limitation and I have no doubt that it is consideration of my age and long connection with the Association rather than my professional achievements that has prompted you to elect me as the President of the Association. I, however, feel confident that with your co-operation and advice I shall be able to discharge my duties in furthering the cause of the Association.

As one of the trench-diggers and concrete-layers in its foundation I believe it will not be out of place if I say a few words on the origin of this Association,—specially because my colleagues of those days have mostly given up active connection or have left this world. Thirtythree years ago a batch of young engineers with limited knowledge and still more limited experience felt the want of an engineering reference library and of a meeting place where they could meet and solve the day to day problems of their profession by referring to the library or by discussing with each other. The lawyers had their bar libraries, the medical men their clubs and Associations, the businessmen their chambers of commerce,—but engineers had nothing. Though limited was their knowledge and experience, that batch of young engineers had unlimited energy and enthusiasm. There was no engineering institution of any kind in India in those days and consequently they had no facility of expanding their scope and knowledge. Faced with this difficulty and helplessness they decided to found an institution of engineers in the line of the Institution of Civil Engineers of the United Kingdom. Most of them were civil engineers with a few electrical and mechanical. But they decided to have an institution embracing all engineers of the country as well as those of allied profession. They had the first meeting at 10, Rammohan Roy Road, at the premises of late Sri Chandra Kanto Ghose, where they continued to meet every week to draft the Rules and Regulations. Within a short time the Association of Engineers came to exist as a registered body and its membership income enabled it to have its rented office, meeting hall and accom-

modation for its mossy members at Mirjapur Street. Uptil then, with exception of a few, the membership swelled from the juniors, as the promoters could not get the support of their seniors. It may be that they felt that there was no need of such an Association for them, or it may be that they had been hatching a separate one with support of the then service men and business magnates that they did not join the Association. But just after a year when the talk of birth of the Institution of Engineers (India) was in progress, a deputation from this Association waited on Sir R. N. Mookherjee, who was the pivot of the movement, with a request to take the helm of the Association instead of forming a separate one. Sir R. N. regretted his inability as they had already advanced too far and as this new institution had the backing of many of the engineers in service—in railways and public works—both Europeans and Indians. He, however, advised the deputation to merge the Association into the Institution. Probably for their pride that they were the pioneers in this respect in India, or it may be for their belief that there was scope for more than one such institution in this vast sub-continent, the Council of the Association did not agree to Sri R. N's advice and decided to carry on their own. Whatever might be the reason I then felt and I still feel that there is plenty of work in the field of engineering and allied science in India where a number of engineering and scientific institutions can make useful contributions if the members remain alert to their duties and responsibilities.

For a couple of decades the members in my opinion made useful contributions to the profession both individually and collectively. But a certain amount of defeatism and inferiority complex crept in among the members since our attempt to ensure government support for a charter failed. Its activities have deteriorated and we do not find in our present day young engineers that amount of enthusiasm and determination which made it possible for their elders in the past to found this Association against odds and out of nothing in existence. Advancement of engineering science and acquisition of more knowledge, instead of craving for decoration, were the aims of the early members and this always should be. The object of my stressing on this point is not to criticise the inactivity of the young members ;—far from it, my object is to infuse in them, if I can, the spirit of service to the profession and through it to the country which requires the services of engineers now, after independence, more than ever before.

With the achievement of independence India is faced with many difficult problems. Even the three principal necessities in life, i.e. food, clothes and shelters, have become problem for us. We have plenty of land and water, but not sufficient food. Raw materials and mineral resources are in abundance, but we have not got the required building and wearing materials. We are dependent on foreign countries for everything. Our independence is meaningless when we cannot have food, clothes and accommodation, and it is a fact that we cannot have any of them to our requirements without help of engineers. It is now the cry of our ministers and industrialists that India does not possess the trained personnel she needs for her industries and other economic advancements. Shortage of efficient technical personnel is no doubt hampering the progress of the nation and is compelling the nation's leaders to entrust the big projects to foreign technicians. It is true that we engineers in India are partly responsible for this ; but greater responsibilities rest with the authorities who shaped the engineering training in this country and distributed the opportunities in the past. It is known to every one of us that our engineering schools and colleges trained us to fill up subordinate positions only, when superior positions were reserved for foreign engineers under foreign government. There was a sprinkling of Indians here and there in position of responsibility—but that was for an outward show. The bulk of Indian engineers had to remain subordinate to their foreign superiors,—in many cases superior in position only, but inferior in knowledge and experience. Practically no Indian engineer in the past had any opportunity of *designing and directing any big project* ; whereas their foreign superiors could make ample experiments at our cost and thereby could gain experience to be utilised later after retirement from service for their own country or to be sold back to us as expert advice. This lack of opportunity has made us deficient in self confidence and therefore our ministers also are hesitant to rely on us. The wilful omission of the past is being repeated by our present government by employing foreign engineers to direct their projects. I have no objection in entrusting the design of the projects in the hands of foreign experts until we can gain sufficient knowledge and experience to undertake this type of work at least collectively. But unless the direction and execution of the projects are entirely left in the hand of Indians our future engineers will be in the same position as ours. Our governments are blind to the fact that if we do not try to be self-sufficient from now we shall be exploited by foreign experts for all time to come. They are not taking into consi-

deration that if our engineers are given the opportunity of planning and directing our projects, their knowledge and experience will be imparted to their successors and thus it will make a permanent asset to the country. In all progressive countries big projects are always prepared and executed by the engineers of the country. I do not understand why this should be different in India. If individual experience and ability are not dependable. Surely a project can be entrusted to a body of engineers like this Association or the Institution of Engineers. Here comes the importance of a collective body of engineers and I feel that our members should form different panels and offer their services voluntarily to governments, public bodies and industrialists and thus should make their existence felt by them.

I feel that members of the Association and the Institution of engineers in this country have great responsibility in shaping the future progress of the country in all spheres. We must ask governments to try these engineering bodies for their projects before rushing to foreign countries. At least they should give these bodies opportunity to submit comparative designs. We must not be satisfied by planning and executing dwelling houses and roads. We must have share in bigger projects. We can form a body of consultants with our experienced members from different categories and where necessary with outsiders and then offer our free services to governments and industrialists. It is not a day dream,—but a possibility. We can thus make our existence felt by governments and others. I shall give you an example. A few years ago we offered our services to the Railway Board for designing the Ganga Bridge in Bihar free of cost. We requested the Board for data and wrote to the Secretary that we wanted only fair comparison of our design with that of the government consultants in order to determine whether that kind of work could be undertaken by Indian engineers collectively without the help of foreign consultants in future. As usual we did not get any response even after reminders. Then we had to point out that it was not possible to gain experience without mistake and wrote with a sting at the end that it could not matter much if due to an experiment by our engineers the Ganga Bridge had failed and a few hundred of lives had been lost and a few crores of rupees had been wasted, when due to experiments by our political leaders,—by the partition of Bengal and the Punjab,—thousands of men lost their lives and several crores were wasted. This brought the data and we submitted the design of the main spans with sections and weights

which was considered creditable. But we were advised not to proceed with the details as the project had to be kept in abeyance due to difference of opinion about the site. I feel that in the absence of Indian consultants for big projects our members can form different panels of consultants and keep in touch with all the government projects of power and irrigation, railway and road bridges, docks and harbours etc. and submit our designs and schemes. It does not matter if we produce unworkable schemes at the beginning, although I am sure that we can produce good workable ones if we put our heads to this business seriously. We can thus **acquire better recognition of governments than their charter.**

Another less difficult work, but a more important one, I feel we can undertake. It is the **training** of some of our non-technical boys as **technical assistants.** We had this aim and worked out some details, but could not give effect to it. It is a known fact that every engineer requires a number of technical assistants to be successful in his professional career. It is also a known fact that most of us have trained similar assistants during the course of our career. Engineering schools and colleges cannot train these assistants. Neither is every one qualified to have college training. Many do not have the means. At the same time the profession requires assistants with some technical knowledge. The Association can do immense good to the country by organising this training and producing these much-needed assistants.

I have mentioned the above two workable schemes which I am sure will pull up the Association from its present moribund state. But you may think of other schemes and send your suggestions to the Council. In any case it is the duty of the younger members to give effect to all schemes with help of their elders. I earnestly invite them to take these works in hand immediately.

The other and probably the only contribution of the Association lately to its members and the engineering public is its Journal. This is the medium of contact between the council and the members. But I very much regret to say that it is in a dying condition due to chronic starvation. Members are not giving it the required food. If members try to translate their work into letters the Journal can get sufficient food for its existence. The same may be ground for general meetings as well which have become fewer and fewer than before. Please keep in mind that continued or prolonged illness is worse than death.

I have a request to the council members as well. I request them to devote more time and meet more frequently—at least informally—to discuss ways and means for upliftment of the Association. They are the trusted custodians of the Association to look after the interest of the members and members' interest is the prosperity of the Association.

Before I conclude I must extend my request to governments and industrialists of the country with whom rests its future well-being. They should not give prominence to immediate gain,—but should look to the long range benefit of the country. It is true that food is the immediate problem of the country and therefore river projects are immediate necessity. But they should not forget that projects financed by foreign capital, planned by foreign technicians and executed by foreign contractors will lose the essence of the benefit. Equally it is true that industrial productions are to be stepped up. But it should be by employing local technicians and utilising local resources. Every country looks to its own interest, and those who will come to help us from abroad will have their own interest uppermost in their mind. Instances in numbers may be cited to show how foreigners entrusted with our big projects are subordinating our interest to theirs. It may be a rude comment, but I cannot help feeling that a group of foreigners are exploiting our ignorance and helplessness. My request to our governments and industrialists are to try to stop this. Exploitation should not be allowed for the sake of and in the name of expedition.

Friends, I thank you for your patient hearing. I request you again to think yourselves as part and parcel of the Association and help the Association grow to your pride.—“Jai Hind”.