

**His Excellency's Speech at the Inauguration of the first  
session of the National Institute of Sciences of India  
on 7th January, 1935**

DR. FERMOR, LADIES, AND GENTLEMEN,

An occasion such as this reminds me how multifarious are the demands made upon the services of a Governor in India. In part they call for the bestowal of blessings or the payment of compliments and as regards this portion of one's activities inclination may not always march abreast with duty. The present occasion, however, is one on which inclination and duty coincide. I remember, and, to take you into my confidence, I remember sometimes with a tinge of regret, the days when my own preparation for life was based on the contemplation of a scientific rather than an administrative career. Although it finally came about that I elected to tread administrative paths, I have never regretted the scientific training which I received during some of the most impressionable years of my life, because that training afforded me an understanding of the best methods of approach to the solution of scientific problems which I trust years of the hurly-burly of administration have not entirely extinguished, even if to my misfortune it may have become somewhat dimmed. I have not regretted it because I think that the detached outlook of the scientist may often be an asset to an administrator. Conversely I think that a knowledge of practical administration must often be helpful to a man of science and this was forcibly brought home to me when listening to the admirable and most interesting address delivered by Dr. Hutton at the inauguration ceremony\* in this Hall on Wednesday last, for Dr. Hutton is not only a distinguished scientist but is also a distinguished administrator, and his address was punctuated by repeated illustrations of the application of scientific researches to the practical problems of everyday life. The popular conception of a scientist is that of a man who pursues truth for its own sake and with no interest, or at any rate no selfish interest, in the practical application of his discoveries, and I can conceive no better way for scientists each pursuing his own special line of research to correlate their investigations and to turn them into practical channels than the formation of some central Institute by means of which their ideas can be pooled and brought into relation with each other. I can see no limit to the field of usefulness which this new Institute of Sciences can cultivate, for its purpose is to co-ordinate the work of such academic bodies as have already been created in various parts of India and as may be created in the future. Many members of this Institute are Chemists and will be aware of the remarkable progress made in synthetic

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\* The opening meeting of the 22nd Session of the Indian Science Congress on 2nd January, 1935.

chemistry during the present century. These members may wish to employ some form of synthetic action in building the structure of this academic body. Others who are Anthropologists or Psychologists will naturally apply the lessons of their sciences to the aspects of social life and human organisation presented by this new institution. Those who are Botanists or Agriculturists, understanding all the mysteries of seedtime and harvest, may be expected to be valued gardeners in, shall I say, this academic grove. If the creation of this new body has given rise to some birth pangs, the medical members will know that this is nothing strange and they may be able to prescribe a regime of life calculated to promote healthy growth and to inhibit the normal disorders of youth and adolescence. And as man is after all a member of the animal creation, it is probable that the Zoologists may find in their own science matter which may be of help to this new body. Even the Mathematicians should have some ideas on such aspects of structures and numbers as must be manifest in the life of an academic body. In short all the sciences represented in your institution are capable of contributing to the wise guidance of your body corporate. Even the Geologists who at first sight might seem to be rather out of the picture should be able to help, for their study of fossil-bearing strata may enable them to detect and to avert any premature fossiliferous tendency should this begin to manifest itself. With considerable diffidence I suggest that this consideration may have been one of the reasons why you have chosen as your first President a distinguished representative of geological science whose special knowledge of ancient petrification makes him so fully aware of the necessity for mobility and vitality.

To turn from a consideration of the component parts of this new body and of the way in which they can function to the best possible advantage of the whole, I should like to attempt a very brief summary as I see it of the sequence of events which has led up to this evening's gathering. A philosopher has rightly characterised the great intellectual transition in the west, contrasting the mediæval with the modern conception of life, as the transition from an attitude in which man interpreted nature by tradition to an attitude in which he corrected tradition by observation of nature. The first organised step in this direction in India may be said to date from the foundation of the Asiatic Society of Bengal in this very city in 1784. The second step dates from the middle of the last century. In 1857 the Calcutta University was founded, followed at short intervals by a number of other universities. In addition there were a series of great scientific surveys during the 19th century. The third step was the meeting of the Indian Science Congress for the first time in 1914. To-day as a fourth step in the progressive organisation of modern science in India we are met together to inaugurate the National Institute of Sciences in India. We have here the sequence as follows :—

*First*, a society of a varied and comprehensive character.

*Secondly*, three quarters of a century later, Universities and specialist scientific services.

*Thirdly*, half a century later, the annual meeting of individual scientists.  
*Fourthly*, after another quarter of a century, a central and all-India co-ordinating body, embracing all modern scientific research in this great country.

It seems to me that this gradual, and yet at the same time accelerated, progress is regular and natural and therefore highly satisfactory. The various steps forward indicate the gathering of sound fruit produced as the result of steady labour. There is in this evolution no putting of the cart before the horse.

That this Institute should be the result of steady and healthy growth augurs well for its future and for the quality of its work, because it will have to deal with gigantic problems. Science in the modern sense of the word has been implanted in India through the largely accidental external influences of colonization aided by free communications with other parts of the world which have themselves developed differently and at a different pace. This vast country which is inhabited by at least 350 million people is as regards the illiterate masses in much the same condition as Europe during the middle ages. To those who have the time and the inclination it may afford an interesting field of speculation to consider what will be the result of the interaction between this modernism of the few and the traditionalism of the many. In the various countries of Europe the two views have contended and striven side by side for centuries sometimes with extreme bitterness. As a result of this running fight the solution has taken different shapes among the different races and nations and in some places a satisfactory compromise has not yet been found. What the result will be in India cannot be foreseen and it is wise never to prophesy unless one is certain. There is a humorous if cynical cliché on this subject to the effect that 'He who bets on a certainty is a rogue : he who does not is a fool'. This much however, is sure that the eventual result will largely depend on the wisdom, insight and intellectual calibre of those representing the ideas and sciences which this Institute has been founded to promote. Dr. Hutton in the course of his inaugural address said that scientists should beware of valuing themselves and one another too highly and of supposing that because a man knows a great deal about one subject he is therefore the more fitted to express an opinion on others. This wise admonition has been put in another way by a witty though possibly somewhat jaundiced thinker who once said that it should never be forgotten that if a learned man is stupid, he can be so learnedly stupid as to be much more dangerous than the ordinary stupid man in the street. My good friend, Mr. van Manen, told me the other day of a striking epigram of eight words in which Confucius expressed the same idea when he said : 'learning without thinking : useless ; thinking without learning : dangerous'.

I am sure from my personal observation that at its inception at any rate this Institute will be served by members blessed with wisdom as well as learning and that, in consequence, its future is bright. I would only add, if I may, one word of caution and of exhortation. I know from my own experience

how, by reason of their training and of the nature of their work, men of science tend to become strongly individualistic in their outlook and impatient of any form of constraint or discipline. The success of this Institute will depend, I believe, very largely on the extent to which this very natural tendency can be held in check. No one, I am sure, need be apprehensive lest his work may suffer in freshness, originality or vigour from loyal adherence to the aims and objects of this Institute. On the contrary union is strength and inasmuch as the boundaries of science are constantly expanding and the interdependence of the individual sciences constantly increasing, I trust that this Institute will continue to be, as I am assured it is to-day, truly representative and that its members will all derive from it strength and inspiration and a greater capacity for service. In inaugurating this first session of the National Institute of Sciences of India I wish the Institute all possible success.