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SPEECH OF

HIS HIGHNESS MAHARAJA

Sri Jaya Chamaraja Wadiyar Bahadur.

G.C.B., G.C.S.I.

GOVERNOR OF MYSORE

On the Occasion of the

OPENING OF THE NEW WIND TUNNEL

of the

INDIAN INSTITUTE OF SCIENCE

BANGALORE

Tuesday, 3rd February 1959

Speech of His Highness Maharaja Sri Jaya Chamaraja Wadiyar Bahadur, G.C.B., G.C.S.I., Governor of Mysore, on the Occasion of the Opening of the New Wind Tunnel of the Indian Institute of Science, Bangalore.

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DR. BHAGAVANTAM, LADIES AND GENTLEMEN,

I am sure you all realise as well as I do that I am no authority on Wind Tunnels. My presence here to-day is mainly due to the kindly insistence of the Director. I am, however, very glad of this opportunity to express my admiration for the work that is being done in this Institute and my real interest in the increase and expansion of its Departments. I am pleased to see that the expectation of Mr. J. N. Tata, the Founder, is being fulfilled in abundant measure and that the Institute is serving the cause of progress by extension of knowledge as well as its application in practice.

It is the outstanding characteristic of modern civilization to make insatiable demands both on the resources of nature and on the ingenuity of the human mind. In both cases

the appetite grows with what it feeds on, because the more knowledge we acquire of the forces of nature the more necessity there is for thinking of uses and methods.

Among the most revolutionary developments in modern times has been that of transport. A few decades in the recent past have surpassed many centuries of earlier human history in the achievement of quickness and ease in the movement of man and things. The speed of land travel, which had been more or less constant over thousands of years from the first domestication of the ox and the horse, received unprecedented acceleration in the nineteenth century with the invention of the steam locomotive. On water too the steamship superseded the vessels of oars and sails; and the process of binding the globe together by the lines of communication began and proceeded apace.

Things that appeared to be a fantastic dream when Roger Bacon imagined them seven hundred years ago have all now been added to the conquests of modern civilization. "There shall be rowing without oars, and sailing without sails, carriages which shall roll along with unimagined speed, with no cattle to drag them; instruments to fly with; a little mechanism which shall raise or lower enormous weights, and bridges over rivers, which shall rest neither on piles nor columns."

The twentieth century has brought us "instruments to fly with". The *Pushpaka Vimana* of the rishis and kings of our legends is now flying at the behest of the common man. Human history has entered upon the age of air transport and space travel, and we have already travelled a good way in it.

The speed of evolution in aircraft design has been quite in proportion to the speed of the aircraft itself. The tremendous pace of development between the first experiments of the Wrights and the missiles that now invade outer space can be easily realised if we compare it with the rate of progress in the case of other vehicles of transport. The simple machinery of push bicycle, for instance, took a quarter of a century, and had to pass through many strange and comic shapes, before assuming a fairly settled pattern.

In the progress of science and technology, improvement and refinement are hardly less important than basic discovery. This has been so in the case of the application of the principles of aerodynamics and in the construction and testing of aircraft for Civil Aviation as well as for Defence purposes. Improvements are constantly being introduced; and every little improvement that has added to economy or efficiency, to safety or to æsthetic appeal, has been the result of patient and devoted research. The use made of the device of the Wind Tunnel is a case in point. It is also an example of human ingenuity in the pursuit of knowledge. The aircraft that is destined to speed through the air is studied and tested through a stationary model subjected to a flow of air of regulated velocity, and amidst favourable conditions of laboratory observation and experiment.

The Indian Institute of Science is a pioneer in the establishment and evolution of Wind Tunnels in our country. It has now embarked on the design and construction of new ones to serve the needs of the latest developments in aircraft the largest of these employing 1,200 horse power and being capable of a wind speed of 250 miles an hour. I congratulate

the Insittute and the Department of Aeronautical Engineering on their achievements in this field of research.

I am informed by the Director that in this work the Institute has been enjoying the ready and active co-operation of Hindustan Aircraft Ltd. The co-ordination of the efforts of these two important institutions is bound to be of the greatest benefit for the service of the nation and the progress of science.

I have much pleasure in declaring open the new Wind Tunnel.

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