recommend specific subjects for research and, on approval by the Government Body of the Association, have them investigated without further cost to the firm. The results are available to all members; (3) they can use any patent on secret process with or without nominal payment; and (4) they can ask for a specific research to be undertaken for their benefit at cost price.

The formation of research associations for Indian industries was first recommended by the Industrial Research Planning Committee which was presided over by Sri R. K. Shanmukham Chetty. The immediate constitution of such a research association of leather manufacturers was also recommended by the Leather Research Committee.

The Council of Scientific and Industrial Research approved in principle the proposals for the Central Leather Research Institute and the Leather Manufacturers' Research Association and decided that th Institute and the Research Association should be located in the Madras Province which is most vitally interested in this industry. At the instance of Shri C. Rajagopalachari, the then President of the Council of Scientific and Industrial Research, I visited Madras and inspected various sites in the vicinity of the capital city for the situation of the Institute and in consultation with the Minister for Industries, Madras, and the Vice-Chancellor, University of Madras, selected one near the Engineering College, Guindy. The Government of Madras has made a very generous free offer of the site for the Institute. The intention is to make this Institute function as the laboratory of the Research Association.

Scope of the Institute

Hides and skins to be converted into leather have to go through the following general operations: soaking, liming, dehairing, bating, pickling, tanning and finishing. These include a number of detailed operations making the whole process highly complicated. Each operation alters the skin physically as well as chemically; and chemical, bacterial and enzymic reactions, influenced by temperature, concentration, acidity or alkalinity, age of the liquors and period of treatment, play great part in these operations.

The chemistry of leather manufacture is so complex that in order to understand it one has to possess a good knowledge of chemistry, physics, bacteriology and physiology. Nowhere is the need for research so essential as it is in these complex processes, the full understanding of which still defies the scientist in spite of rapid advancements made during the last few years. The industry elsewhere has advanced rapidly by the application of scientific methods in controlling these processes, by introducing mechanised forms of production and by standardising the physical properties of leather required by the consumer by means of approved physical tests. Revolutionary changes have been introduced in the use of materials in liming, bating, tanning, dyeing, fat liquoring and other processes. Equipment and machines have been developed for operations such as unhairing, fleshing, scudding, drying and finishing.

Research as applied to the leather industry may be classified under the headings: (*i*) basic or fundamental research; (*ii*) applied research; and (*iii*) development research including pilot plant work.

The Indian leather industry has many pressing problems, big and small, upon which its future prosperity depends. Hitherto whatever progress was noticed it came from individual firms, but henceforth the Leather Research Institute will form the focus of all scientific activity of this industry.

HIS EXCELLENCY LORD MOUNTBATTEN, VISITOR, INDIAN INSTITUTE OF SCIENCE

ON Wednesday, the 28th April 1948, His Excellency Lord Louis Mountbatten, Governor-General of India, and Visitor of the Indian Institute of Science, accompanied by his daughter, spent about an hour in the premises of the Institute going round the several laboratories with Mr. E. V. Ganapathi Iyer, the Director.

Addressing the members of Staff and students of the Institute at the end of his visit, His Excellency referred to the importance of the work of the Institute for the scientific and industrial progress of the country and assured the members that the National Government were keenly conscious of the potentialities of science as a powerful factor in the development of the country and had been extremely enlightened and liberal in financing the several expansion schemes sponsored by the Governing Council. He expressed the hope that the department of Aeronautical Engineering which was one of the new departments of the Institute and had special scope for work in collaboration with the Hindustan Aircraft Factory, would make valuable contributions to the development of the aircraft industry in India.