

including journals, serial publications, books, pamphlets and technical and scientific documentation received from foreign sources. Still another major source is the large group of scientists and engineers working in NRC's laboratories and in other government laboratories and departments, research centers and universities. Industrial companies and associations also cooperate. They do not reveal trade secrets but frequently provide information that has not yet reached smaller companies.

Time taken to answer a query may vary from a few minutes to as long as six months according to the nature of the enquiry and the means of transmission. However, most enquiries, which are sufficiently involved to require reference to Ottawa, are handled within three weeks. This time lapse is generally acceptable to industry.

The increasing demand for information and assistance for improving the efficiency of industrial production led to the organization of the Industrial Engineering Section in 1962. Most small industrialists have never received training in the elements of plant layout, material handling, production planning and similar functions which are vital to success in an increasingly competitive world.

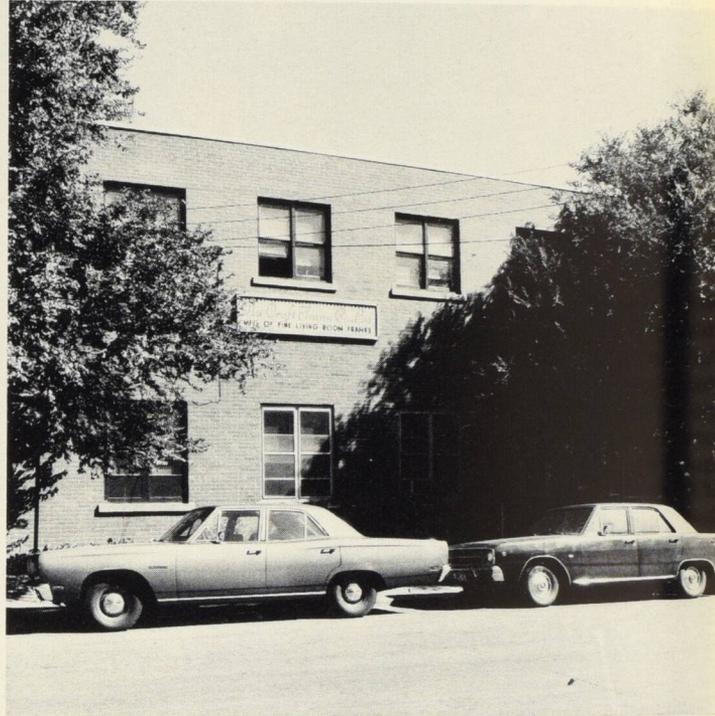
Consultants in this field in Canada are confined to a few large firms and individual consultants. The latter must charge fees of \$150 to \$300 per day and most cannot effectively do business with large numbers of small companies on small-scale contracts. However, if TIS feels that a firm should be referred to a consultant, the firm is encouraged to do so.

The Industrial Engineering Section provides a compromise solution by assisting small companies to apply industrial engineering techniques on a do-it-yourself basis over a period of time. The type of assistance most frequently requested concerns production engineering, production planning and control, plant layout, work study and methods improvement, cost accounting and personnel. In this type of service where technical information and assistance are combined, the direct contact between the engineers and industry plays a major part.

"The Industrial Engineering Section meets a very real need and has demonstrated its value," says Mr. Kirouac. "Last year the clients serviced indicated that their combined identifiable dollar saving amounted to over ten times the cost of operating the whole Section. Besides increasing productivity, the service favors better management, innovation and growth."

In its effort to help clients to help themselves, TIS realized that most small industrialists needing information rely mainly on material and equipment suppliers, word-of-mouth and perhaps two or three trade or technical journals covering a particular industry. Their exposure to new ideas, technological advances and research results which might have direct application to their business is limited.

A further step in the provision of technical information was taken with the introduction in 1964 of the Technological Development Section. It is intended to keep companies informed of new research and technological development of potential value to them. The service involves the selection of suitable items from the technical literature, retitling and sorting, using a key word indexing system to facilitate retrieval by computer.



*Nu-Craft Frame Co. Ltd., Montreal, manufacturers of fine living room frames. Wood carving is done in the building at top, upholstery in the one at the bottom*  
 • Immeubles de la compagnie Nu-Craft Frame, à Montréal, spécialisée dans le mobilier. Dans le bâtiment du haut, on sculpte les meubles et on les capitonne dans celui du bas.

