



Colin H. Bayley examining wool specimens which have been damaged by black carpet beetles — in the early 1950s. • M. Colin H. Bayley examine des échantillons de laine endommagés par des anthrènes, au début des années cinquante.

NRC's first President. Dr. O.M. Morgan, then Section Head, made contact with a few laundering firms mostly in central and eastern Canada. The objective was to institute a cooperative program aimed at upgrading the over-all operation of the industry, especially the laundering processes then in use. In the initial stages the work consisted of an attempt to assess the efficiency of laundering processes, and the related damage to fibers and fabrics.

Dr. Morgan resigned from NRC in 1934, and Mr. Bayley

who had been working for four years in the Division with Dr. A. Cambron on gas phase reactions of petroleum fractions, was appointed Head of the Section.

Under Mr. Bayley's guidance, the work initiated by Dr. Morgan prospered and expanded. A program of more basic scientific work on detergents and detergency was initiated. A monitoring and information service was established to enable the textile industry to evaluate new laundering and dry cleaning processes and keep the industry abreast of new developments in this field.

Eventually the program involved about 75 per cent of laundriers and dry cleaners in Canada. In 1934 the Canadian Research Institute of Launderers and Cleaners was organized, and through this Institute a more formal agreement for the work and its communication was consummated. In the mid-1950's the Institute assumed much of the monitoring work that had been conducted in NRC's laboratories.

Military requirements of the Second World War led to a further substantial expansion of Mr. Bayley's work, and increased considerably its contact with the textile industry. In 1940 Miss Tweedie rejoined the Section after an absence of about a year and remained with Mr. Bayley until his retirement. The quality of the original fibers, yarns and fabrics in addition to protecting them from the ravages of mechanical abrasion, microbiological attack (mildew), ultraviolet initiated damage, insects, fire and the like became important as well as their response to cleaning processes. The applicability of such work to non-military uses of yarns as in the fishing industry, fire fighting equipment, parachutes, tents, awnings, seat belts, cordage, etc. became obvious, and following the war the Section's work expanded further.

"It is always difficult to assess quantitatively the value of support work," Dr. Puddington says. "In this particular case, one might estimate the increased useful life of garments and fibers brought about by improved cleaning procedures. Even a small percentage improvement leads to a large number of dollars when integrated over the Canadian scene.

"If the estimate includes the improved service life of all textile products, the figure is even more impressive. The dollar value of avoiding injury or loss of life owing to deteriorated seat belts or parachute shrouds is more difficult to appraise. However, perhaps a more reliable measure of the NRC contribution can be obtained from the awards and citations that have been presented to Mr. Bayley and Miss Tweedie during and at the close of their long and dedicated careers."

Science directed at technological development is not without its frustrations. Frequently scientists are discouraged owing to delays in the acceptance or application of their findings and are more attracted by the atmosphere of exclusively basic research programs in which objectives and results are judged by their scientific peers only. However, the work of the Textile Chemistry Section over four decades, comprising sequences of basic and applied programs, has received high praise from the textile industry as well as from the scientific community. Results of much of the Section's work are permanently recorded in more than 90 scientific publications and an even larger number of publications in the textile, technical and trade journals.