

culminated in 1967 with the first computer-prepared "List of Species of Micro-organisms Maintained in Canada", produced by NRC's Prairie Regional Laboratory at Saskatoon in co-operation with the University of Saskatchewan.

Detailed suggestions for using computers to speed the processes of recording and retrieving data and for cataloguing and locating cultures were made initially by Dr. C. Quadling and Dr. S. M. Martin of NRC's Division of Biology in Ottawa at the First International Conference on Microbial Classification. This meeting was held in 1964 at Laval University, Quebec City, and was sponsored in part by NRC. Dr. Quadling and Dr. Martin suggested that the use of computers and standardizing the arrangement of information and procedures for handling it, would speed the flow and eliminate much tedious clerical work. Their proposal attracted widespread interest among microbiologists.

At the time they made their proposal, Dr. Quadling and Dr. Martin were fully acquainted with the problems involved in the manual compilation of culture catalogues. Dr. Norman Gibbons, Assistant Director of the Division of Biology, and Dr. Martin compiled a Directory and Catalogue of Canadian Culture Collections in 1951 for NRC's Associate Committee on Taxonomy and Culture Collections, and a supplement in 1952. In 1956 and 1960 the Committee published, under the auspices of the Commonwealth Collections of Micro-organisms, a Directory of Collections and List of Species Maintained in Canada. The information published in these lists and directories was gathered, checked and compiled manually by Dr. Gibbons and Dr. Martin.

The task of applying the computer techniques to the collection of data from Canadian curators, manipulating the data by means of the digital computer and compiling a list of cultures was assigned in 1966 to Dr. F. J. Simpson, Head of the Physiology and Biochemistry of Bacteria Section of NRC's Prairie Regional Laboratory at Saskatoon. As a result of this assignment, Dr. Simpson was appointed Chairman of NRC's Associate Committee on Culture Collections and Dr. Graham Jones of the Department of Dairy

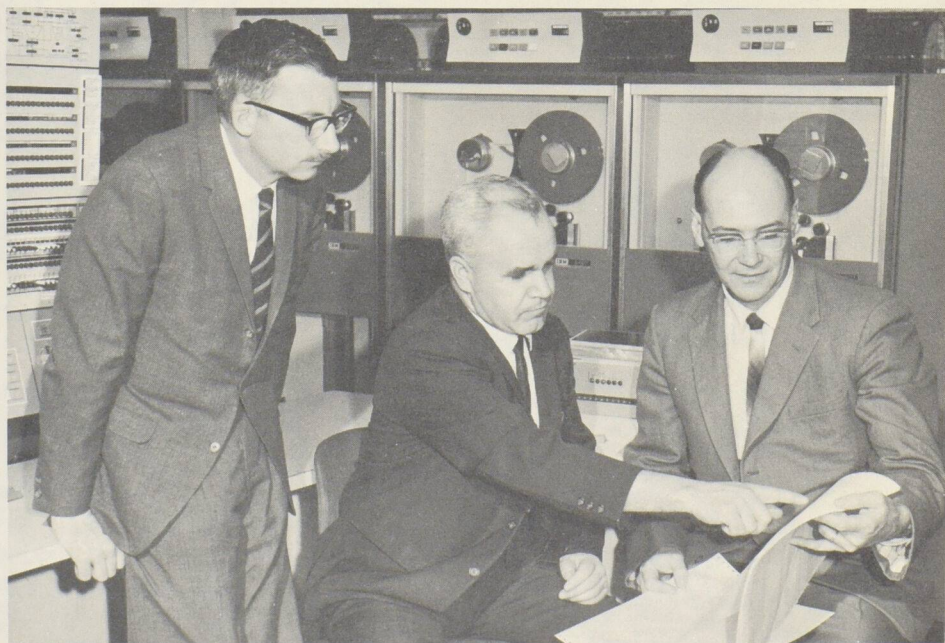
Science of the University of Saskatchewan was named Secretary.

Dr. Simpson and Dr. Jones sent special forms to 65 curators of culture collections in Canada seeking information about their holdings. Information about a total of 10,000 cultures was obtained.

"The response was excellent", Dr. Simpson says. "A few declined to give us detailed lists of their holdings, but most provided information about the cultures they were willing to distribute as a personal favor or on an exchange basis."

With this information, the latest Canadian list was compiled by computer in 1967. The actual computer programming was done by students at the University of Saskatchewan working during the summer months under direction of G. W. Peardon, Director of the University's Department of Computer Science, and Dr. Simpson. This work was supported by the Canadian Committee on Culture Collections and Taxonomy of Micro-organisms and by grants from NRC.

The system developed at Saskatoon permits a free flow recording of information and places no restrictions on



Dr. Graham Jones, G. W. Peardon (center) and Dr. F. J. Simpson examine a list of cultures compiled by computer at the University of Saskatchewan.

A l'Université de Saskatchewan, MM. Graham Jones, G. W. Peardon et F. J. Simpson examinent une liste de cultures, dressée au moyen de l'ordinateur.