Microfilm Means

REVOLUTION IN THE LIBRARY

EXCEPT to a professional librarian, who is trained to take a detached view, the avalanche of books of all kinds pouring from the world's printing presses bears in its crushing mass a threat of extinction. The conscientious reader, even if he is capable of reading and absorbing five or six books an evening, and a round two dozen every weekend, hasn't a hope of keeping his head above snow level.

But libraries exist to collect and distribute books; some libraries try to collect all the books there are. The librarian would say that it is not his job to examine the moral problem, whether the books are worthy of preservation, but he *is* concerned with the problem of storage. The acreage covered by his shelves, like the population of China, increases rapidly and soon begins to press on the available living space. What is he to do?

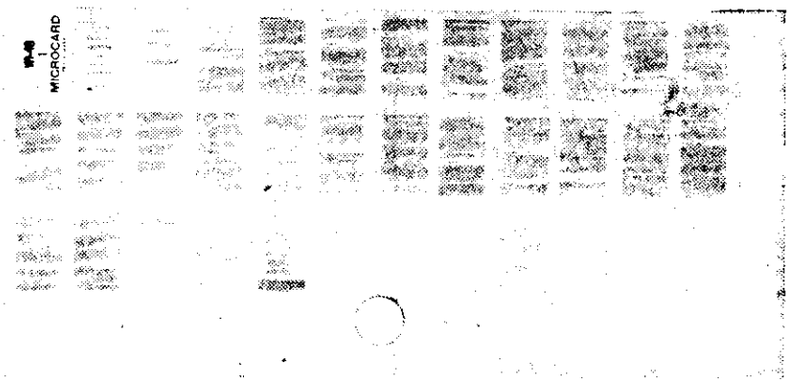
Libraries exist, too, to help students. In a small and isolated country like New Zealand, the student is cut off simply by distance from many books that may be absolutely necessary to his work. What is *he* to do? One of the answers is microfilm. This, in the words of a sober librarian, is a method of copying documents. It is also a revolution. Other methods of copying documents quickly have been developed and are still in use. One was the photostat process. This involved photographing the page to be copied directly on to sensitive paper, which was then fixed and dried like an ordinary photographic negative. This method costs several shillings a page and was never used extensively in New Zealand libraries. A second way was to make a reflex copy by direct contact, like a photographic print (in contrast with the photostat which reverses black and white). Despite the fact that it entails two processes instead of one, the reflex copy method is cheaper than photostat, but both these methods, although they are of great assistance in spreading the contents of rare books and documents to remote places, do not help much in the reduction of storage space.

First Used in 1870

MICROFILM does. The first practical demonstration of its ability to reduce much to little was given most spectacularly in 1870, but librarians and other interested parties have been slow in catching up. They should have taken note of the experiment of Monsieur Dagron during the Franco-Prussian War, when Paris was besieged. He ran a "pigeongraph" service from Tours, tying small rolls of film to the legs of pigeons, and in this way was able to fly in 200,000 words a day of despatches and orders. The films were projected on to a screen and read by the commander of the garrison and his staff.

Yet in 1885, Thomas Sutton's *Dictionary of Photography* considered that microphotography (now defined as "any photographic image requiring optical aid to make it visible") was a process "which must strike any reasonable person as somewhat trifling and childish, when he considers how many valuable applications of photography remain yet to be worked out."

So it wasn't till 1932 that any more was heard of the process. This time news came from Germany where the firm of Leitz in Jena had been doing research. The Americans took it up with enthusiasm, and by 1938 microfilm was established. Efficient cameras and readers were on the market both in Europe and America, and the method was being used by the larger libraries, banks, business houses and newspapers.



THE MICROCARD: "So far the ultimate development in saving storage space"

"The Listener" in a Nutshell

AND what about New Zealand, that small, isolated country where students couldn't find the source material they needed for their theses? *The Listener* talked to A. G. Bagnall, secretary of the Book Resources Committee of the New Zealand Library Association, and an officer of the National Library Service. Yes, he said, a start had been made. In the process used here, the document to be copied is photographed on to 35 millimetre film, and even with relatively crude technique a whole issue of *The Listener* can be put on to a strip of film 30 inches in length.

The contents of a microfilm strip are best read by using a piece of apparatus working on the same principle as a movie projector. The film runs across the top and the image can be viewed comfortably on a small screen in front or at the bottom. Magnification is of the order of 12 to 20 times, which in most cases makes the screen image larger than the original.

The most satisfactory type of apparatus ("reader" to you, reader) is fairly expensive—£100 or so. All New Zealand University libraries have readers of one sort or another, and there are additional readers in the General Assembly and Alexander Turnbull Libraries, the Department of Scientific and Industrial Research and the National Library Service headquarters in Wellington. The Turnbull Library, said Mr. Bagnall, was going in for microfilm extensively.

Early Records Microfilmed

C. W. STRATHEARN, of the Turnbull Library, talked about the work being done there. Originally they concentrated on manuscript copies, but have now turned their attention to unpublished works such as theses, works otherwise unobtainable, and rare books. Recently they received from the British Museum between two and three thousand feet of 35-millimetre film, containing in quantity roughly 50 volumes.

In New Zealand, four years ago the Aerodromes Branch of the Public Works

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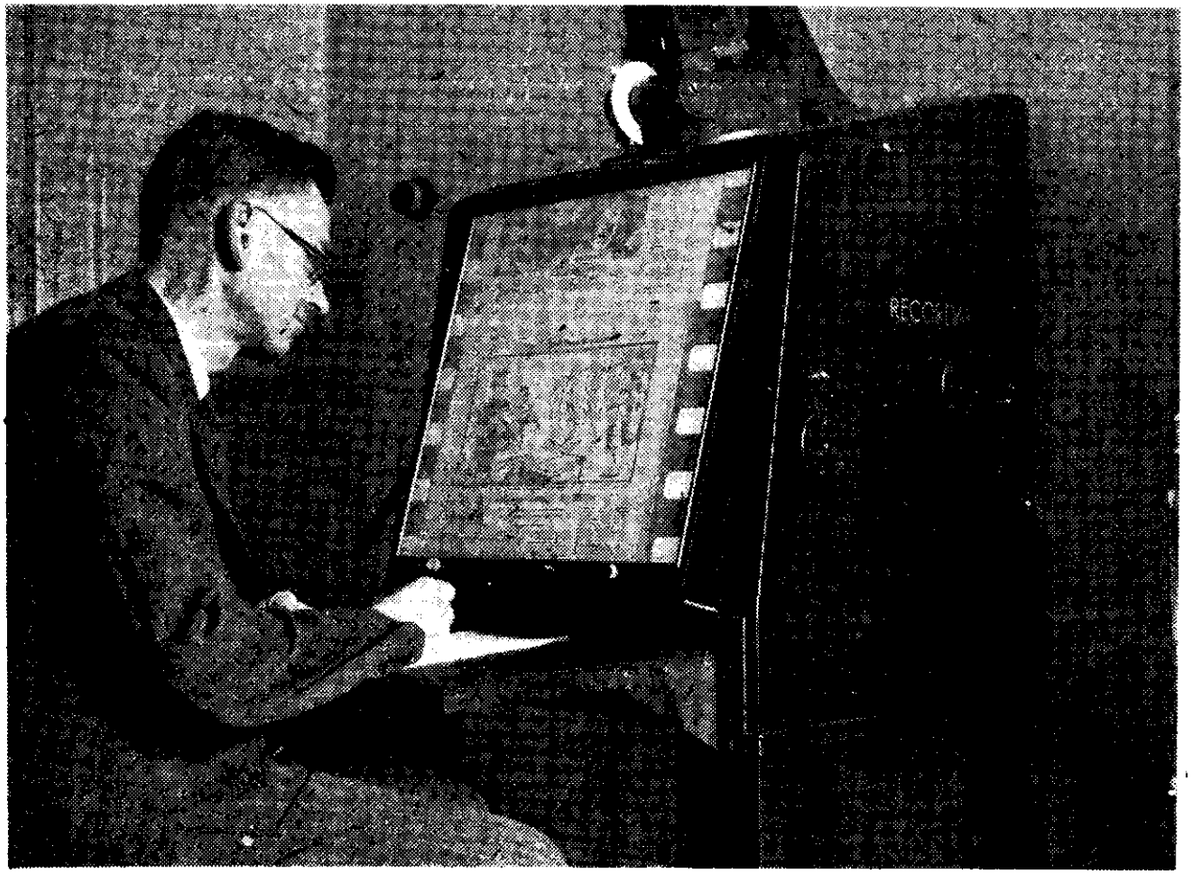

USING a microfilm "reader." The film runs across the top of the apparatus and the screen image is in most cases larger than the original