The Library of Parliament Fire[1]

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THE fire which broke out in the Library of Parliament just before two o'clock, Monday morning, August 4, continued to burn for about ten hours. Because the stubborn blaze was in an almost inaccessible point in the central dome 120 feet or more above the floor it was necessary to keep the sprinklers going for about six hours in order to help extinguish it. As a result approximately 200,000 gallons of water cascaded from the domed roof, or ran down the arched ceiling, and soaked or moistened the books on the main circular floor, many of the books on the two upper galleries, and many of the books and newspaper volumes in fifteen of the rooms or vaults in the basement. Mass evacuation of the books was started at 7:30 Monday morning and was continued intensively for two weeks, after which period selective removal was carried on for another two weeks. Approximately 150,000 books were removed to three main drying areas, and countless thousands were shifted to dry shelves in the Library itself.

The three main drying areas were the Hall of Fame and other corridors of the Parliament Building, the old Dominion Bureau of Statistics Building where extensive floor space was made available, and the new Supreme Court Building where eight floors of regular stack space were allotted to us. Books taken off the shelves were packed in large wooden boxes, many of which were lowered from the upper galleries by means of chutes quickly erected for that purpose, rolled out of the building on a conveyor to the trucks, transported to the drying area, and there spread out to dry. All but the largest books were stood on their feet with the pages partly open. Fans of all description were employed to get good air circulation.

While the evacuation operation was at its height the culling of the dried books was begun. Dry, or almost dry, books were selected from the wet ones and placed side down to form piles six or eight books high, with spines turned alternately outward, and with a sheet

[1] Reprinted, by permission, from the Canadian Library Association *Bulletin*, 9:73-77 (November 1952). The article in the *Bulletin* includes striking photographs illustrating salvage of library materials.

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of wax paper placed between each book. On top of each pile an ordinary brick was placed to act as a press.

Books, such as newspaper volumes, which were too large to stand on their feet were placed open on tables, preferably lying on thin sticks of wood, and many sticks were inserted between layers of pages to allow air to circulate between them. Many of the old rare books, or books containing art work, were given special treatment which consisted of stripping off the damaged binding, immersion in a bath of soap and water with Formalin added, division of the book into signatures and pages, sponging of pages with wet sponges, or dusting with dry, clean rags, drying and pressing in large heated photo-dryers, and pressing in binder's presses to remove wrinkles.

Also, while the evacuation of books was going on, arrangements were completed to install dehumidification equipment in the Library in order to decrease the moisture in the air so that conditions there would be more suitable for the dry books left on the shelves. Four heavy-duty dehumidification machines, each with a theoretical capacity of 60 gallons per day, were in operation five days after the fire. Two smaller ones each with a capacity of two gallons per day were also installed in the wettest rooms in the basement. The large machines were kept operating continuously and will operate until the relative humidity drops consistently to the point of 67 per cent or lower at which mould and mildew no longer develop. The fact that August in Ottawa was a month of high humidity combined with the delay resulting in the necessity of obtaining dehumidification equipment from some distance away led to a situation where mould and mildew became an ever-mounting threat to our salvaging operations after the first week. Thousands of books, especially those bound in leather which absorbed moisture from the humid atmosphere, were made unsightly as a result of the rapid growth of mould and mildew.

The evacuation of the books was a wet, dirty, strenuous struggle. In many cases shelves of books (and nearly every shelf in the Library was packed tight, sometimes two or three rows deep) had swelled until the rows were almost immoveable. Sometimes it was necessary to break a book in order to loosen a row. Covers and in some cases title-pages were dispersed. Partitions between the wooden shelving were also broken away to release rows of volumes.

The evacuation and drying of the books also added to the damage. Wet, slimy books do not stand up well to handling and transportation. As they dry out on floors and shelves they become warped in shape, the covers dry and buckle before the pages are dry

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enough to permit stacking, the pages crinkle or stick together, the mould and mildew sometimes grow between the pages before the humidity is dispersed, dye from the cloth covers runs and stains the pages, titles on the spines are obliterated, paper with a high clay content, unless carefully tended, sticks together and forms a solid block, and covers, title-pages, index-pages, even parts of books are lost. The classed books were dispersed over a wide area and mixed without any possibility of segregation. Volumes from the same series were separated and sections sent to one or more of the drying areas. Hercules had no labour equal to the task facing the staff of the Library of getting these books rebound, repaired and back in order again.

Experiments on drying were carried out during the second week of the evacuation in the Low Temperature Laboratory of the National Research Council and in the Forests Products Laboratories of the Department of Resources and Development. These experiments included low temperature drying with infra-red heating, vacuum drying, oven drying, freeze drying, silica gel drying, dielectric or radio microwave drying, and kiln drying. It was reported that the fundamental difficulty with the first five methods was the slowness and relative inefficiency of attempting to dry the sodden books from the outside inwards. The kiln drying was quicker, but sufficient control could not be maintained over books of varying dampness, so that many tended to dry out of shape. Dielectric heating dries books thoroughly and rapidly when done singly, but there is a tendency for the metal stamping of titles, and the interior paper of the pages, to char where precise control is not maintained. It was obvious that numerous experiments would have to be conducted with both kiln and dielectric drying in order to obtain the best results, and under the circumstances it was considered best to continue with the methods being followed, that is, photo-dryer processing for the rare and valuable books, and air or fan drying for the general mass.

This tremendous job was done by many people. Members of the staff worked valiantly as much as 14 hours a day for two weeks without a break. Upwards of 50 librarians from the government departmental libraries, and other libraries in the city, volunteered their valuable services for periods ranging from a day to ten days, including evenings. Appeals for volunteers carried by radio stations in Ottawa and Hull and by local newspapers resulted in an enthusiastic response. Organized groups such as the Boy Scouts, the Girl Guides, several Catholic church groups, the Protestant Girls Club,

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the Y.M.C.A., civil servants in several government departments, and others also contributed their services freely and worked with a will under trying conditions. The Public Works Department supplied men for the moving, carpenters, electricians and engineers. Three local professional book-binders directed the staff and fifty trained and untrained bindery girls under their direction in the meticulous work of salvaging the wettest books.

It might be invidious to praise any person from among the hundreds who contributed so much to the vast operation of saving the Library's, and the Nation's, books. There is no doubt, however, that more is owed to one man than to any other for the advice, inspiration, energy, and momentum that kept the wheels going to a successful conclusion. This man is Mr. Alvin W. Kremer, Keeper of the Collections of the Library of Congress, whose invaluable service, freely and unstintingly contributed, were obtained for us through the good and speedy intercession of the Executive Secretary of the Canadian Library Association. Mr. Kremer's considered opinion was that we had to contend with a problem three times greater than that experienced at Lansing, after the damage done to the Michigan State Library last year. It is rather staggering to conjecture on the probable results to our books (and our sanity) had Mr. Kremer not been with us in our worst period of trial and toil.

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