A SURVEY OF STORAGE CONDITIONS IN LIBRARIES RELATIVE TO THE PRESERVATION OF RECORDS [1]

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ABSTRACT

A survey of leading present-day libraries was undertaken in order to determine the extent to which conditions of storage may be responsible for the deterioration of records and other material stored in libraries. The inspection stressed particularly conditions within the book stacks relative to the control of temperature, humidity, and air pollution, as well as the exclusion of light, all of which are recognized as important factors.

It was found that while the effects of light and dust were well guarded against in general, no library was able to control completely the variation of temperature and relative humidity within the narrow limits considered necessary for successful preservation of records and none attempted to minimize acidic pollutions of the air.

In view of the conditions found, as a result of this survey, and of corroborating laboratory experiments, optimum conditions of air purity, temperature, and illumination considered desirable for preservation of records were formulated, and means of obtaining them suggested.

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I. EXTERNAL DETERIORATING AGENTS

The permanence of paper is affected by two distinct groups of factors—one, the "internal" agents of deterioration or those substances produced or left within the paper by the method of manufacture; the other, the "external" agents of deterioration or the factors which are introduced by the conditions of use and storage of the finished paper. In order, therefore, to obtain some indication of the extent to which these external agents are responsible for the deterioration of books stored in libraries, a survey of storage conditions in present-day libraries was undertaken.

The preliminary step in such a survey was the definition of the external agents as set forth by the literature. As early as 1881, Girard [3] pointed out that cellulose, the principal constituent of paper,

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[3] A. Girard, Ann. chim. phys., [5] **24**, p. 337; 1881.