PAPERS, CARBONS, AND RIBBONS[1]

SELECTION of physical materials used in the making of records should be a subject of particular interest to persons having custody of records and charged with their preservation. The custodian of records soon observes that many record problems are beyond his control since they originated at the time the records were created. One such problem concerns the paper, carbons, and ribbons employed in modern record making. If the custodian of records could encourage record makers to avail themselves of knowledge that would lead to the selection of proper writing materials used in creating records it would undoubtedly decrease the burden of preservation that rests squarely on his shoulders. Experience has shown that such knowledge would also promote economy. In the belief that such information will assist the custodian of records in advising the record maker I shall discuss briefly some points pertinent to the selection of paper, carbons, and ribbons for record purposes.

Before suitable writing materials can be selected for record purposes it is necessary to establish clearly the use requirements of the record. All records can be classified as either permanent or transitory and it must be decided at the outset into which of these two classes the record will fall.

The most important factor to be considered in the selection of paper for a permanent record is naturally its degree of permanence. According to the Permanence and Durability Committee of the Technical Association of the Pulp and Paper Industry, "permanence is the degree to which a paper resists chemical action which may result from impurities in the paper or agents from the surrounding air." The ability of a paper to resist natural aging depends upon the chemical purity of the paper components and the care taken in the various manufacturing operations, as well as the sources of paper fiber. Some paper technologists are of the opinion that paper made of chemically purified wood fibers exhibits equal longevity with rag fiber paper, assuming equal care in production. Manufacturers of rag paper point to research that indicates superiority of rag fibers over purified wood in resistance to degradations. Until the controversy is positively settled it is safe to recommend that 100 per cent rag paper be used for permanent record purposes. It is a simple

[1] A paper read at the sixth annual meeting of the Society of American Archivists, Richmond, Virginia, October 27, 1942.

matter to procure specifications for such paper from paper trade journals or organizations concerned with the technology of papers.

The factor next in importance to permanence is generally durability. Durability as defined by the Permanence and Durability Committee of the Technical Association of the Pulp and Paper Industry is, "the degree to which a paper retains its original qualities under continual usage." This factor is concerned with the physical strength tests such as folding endurance, bursting, and tensile strength tests. Including minimum requirements for these tests in the specifications for paper will insure procurement of paper possessing the desired durability.

Stiffness or rigidity of paper is gauged by the substance or weight of the paper and can be selected to fit the particular requirements.

In considering paper for records of transitory value, care should be exercised to select a paper that is no more than adequate for the needs of the record. There is considerable doubt that paper composed of a mixture of rag and chemically purified wood fibers exhibits greater longevity than papers composed solely of chemically purified wood fibers. With this in mind, and since permanence is not the determining factor, it would seem not only logical but economical to select paper composed of chemical wood for transitory records.

A recent survey conducted in the National Archives to investigate possible economies that might be affected in the purchase of paper for forms, correspondence, staff circulars, and other records indicated that too little consideration had been given to the use requirements of the record when the paper was selected for it. Analysis of the use requirements of the various records and the selection of the most suitable type paper resulted in an estimated saving of 25 to 30 per cent. This saving is being realized and yet the use requirements of the various records are completely satisfied.

Additional economies can be realized by adapting the size of a record to the stock sizes of paper. The stock sizes of American made paper are given in a Department of Commerce publication entitled "Paper (Basis Sheet Sizes)" and numbered R-22-40. If the stock size of the desired paper is a multiple of the size of the record, waste will be eliminated and the saving passed on to the purchaser. Such a practice is heartily endorsed by both the Department of Commerce and members of the paper industry.

A great portion of modern records being created in various or-

ganizations in the world are prepared with carbon papers and typewriters. These media of duplication are used so extensively that their manufacture has become a large and highly specialized industry. Carbon papers and typewriter ribbons that employ carbon black for ink base display a fine degree of permanence. They are not materially affected by light or water. One of the objections to records produced by carbon paper is the smudging effect that often occurs when the record is handled a great deal. The Division of Repair and Preservation of the National Archives investigated this problem and developed a remedy for it. The following treatment is suggested to prevent smudging: Mix 25 grams of corn starch with a small amount of cold water and add this to a liter of boiling water. When the solution has cooled for a few minutes this should be poured into a photographic tray and the paper to be treated saturated with this solution, drained, blotted on the reverse side and set aside to dry. When nearly dry it may be flattened and dried by the application of heat and pressure.

Since carbons and ribbons capable of transmitting permanent impressions are procurable, the record maker has only to decide what the use requirements of the record are and satisfy them.

From this brief discussion we can draw several conclusions, namely,

1. It is possible to select paper, carbons, and ribbons that will satisfy the needs of all records both permanent and transitory.

2. Economies can be realized without sacrificing any of these use requirements.

3. The record maker has the power to make these selections and by proper selection decrease some of the problems of the custodian who is charged with the preservation of records.

Whether or not it is within the scope of the custodian's responsibilities to promulgate this information to record makers is not an issue to be discussed in this paper but such a move would be most progressive and extremely worthwhile.

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