BUILT OWNED AND OCCUPIED BY THE SPOKESMAN-REVIEW.

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THE SPOKESMAN-REVIEW

DAILY, SUNDAY,

Spokane, Wash.

March 15, 1940

Miss Laura Gilpin

317 Cheyenne Road

Colorado Springs, Colorado

Dear Miss Gilpin:

I have received, from the paper mill here, a report on the samples of paper which you sent me. Enclosed is a copy of the report; also, a set of pieces of the samples, marked to correspond with the numbers on the report, so that you will know to what papers reference is being made.

This report is very interesting, as it shows that some of the samples are made of wood pulp entirely. To be sure, they are sulphite; but sulphite paper has not been proved to be enduring. The report shows samples No. 1 and No. 6 to be the best; but, because No. 1 has no rosin in the size (the size in No. 1 is glue), it is far better than No. 6. The chemist tells me that rosin causes a darkening in color as time goes by. Both No. 1 and No. 6 are 100 per cent rag. The Mullen test for strength shows No. 1 to be the best, and it is best also from the standpoint of the per cent of acid it contains. There is no starch in it.

In considering your idea of putting the photograph directly on the page of the album, I am impressed with one definite advantage in that plan -- namely, you would know that the paper of which the page was made was of such

a character that the chemicals in it would not in time affect the photographs.

I shall probably not want to have made more than 15 or perhaps 14 copies of each photograph. On the other hand, I shall have at least a dozen additional photographs to send you to be copied -- 14 prints to be made of each. Will this be satisfactory to you? Of course, I figure on paying, for every copy, the price quoted by you.

Sincerely yours,

W H Cowles

WHC:G
Encl.

Apparently the Chatham paper, which showed all right — all rag and best in other respects — was not one of those with prints of "Grandfather" Cowles which you sent. The best of these prints is on a wood pulp paper — a sulphite probably. But the people needing certain permanency, such as U.S. Government, insist on 100% rag. I hope you have some Chatham to try some prints on.

The samples enclosed are numbered exactly as were the samples cut from them for the paper mill, hence the numbers on the report correspond.

Paper Tests

Samples of: Fine Books

From: W. H. Cowles

Tested: F. Lovegren

	(1)	(2)	(3A)	(3B)	(3C)	(4)	(5)	(6)
Weight 25 x 38-500	140.5	69.2	82.9	82.3	120.1	53.2	114.4	109.8
Caliper Min	.008-7/8 .009-1/8	.005-5/8 .007-1/2	.008 .008-1/2	.005 .005-1/4	.008 .008-1/2	.004-3/8 .004-5/8	.006-3/4 .007-1/4	.007 .007-¼
Mullen	121	26-1/4	21	42	37-1/2	40-3/4	59-1/2	56.0
% Mullen	86	38	25.3	51	31-1/2	76.5	57%	51%
Sizing	Good Surface Size No Rosin	Good Surface Size No Rosin	Good Rosin Size Internal	Good Rosin Size Internal	Good Rosin Size Internal	Good Surface Size No Rosin	Fair Surface Size Rosin Size Also	Good Surface Size Rosin Size Also
pH	4.7	4.0	6.4	6.6	6.2	4.0	6.9	6.8
Starch	No	No	No	No	No	No	Yes	Yes
Fibre	100%Rag	100%Rag	100%Bl.Sul.	90%Bl.Sul. 10%Bl.Soda	100%Bl. Sul. Trace Bl.Soda	85%Rag 15%Bl. Sul.	95%Rag 5%Bl. Sul.	100%Rag Trace Bl. Sul.

NOTES: (1) Good Formation, Nice Finish, High Strength.
(2) Antique Laid Mark causes variations in thickness.
Nice Finish, Very severely treated stock.
(3A) Nice Formation. Two sides of sheet decidedly different.
(3B) Some Dirt. Beautiful individual mark.
(3C) Two-sided effect even with plate finish. Not so bad as (3A).
(4) Dirty in comparison. Otherwise good.
(5) Good Formation, Nice Finish, Beautiful Mark. Stock rather severely treated.
(6) Good Formation, Nice Finish, Nice genuine deckle edge. Stock rather severely treated.

It is assumed the chief interest in these papers is appearance and lasting qualities.

The testing of permanence is a much debated question and no tests for permanence are accepted by all branches of the trade.

It is fairly generally accepted that the best materials for permanence are rags which have not been severely treated. It is regarded also that papers should not have too much alum used in their manufacture, since alum gives acid, which is deteoriating to the stock. The United States Government requires that all their white papers do not have a p^H value or measurement of acidity of less than 4.5 . Rosin is also considered to have a darkening effect on papers with age.

With these considerations, Samples (3A) (3B) (3C) should not be considered with the others since they are made entirely of wood fibres. Samples (4) and (5) contain appreciable amounts of wood fibres. Sample (2) has been severely treated, it is difficult to say whether the sheets may have been made from inferior rags or treated severely in the paper mill. Samples (1) and (6) seem to be outstanding for quality of materials and Sample (1) the most superior as shown by the strength test. This sample has been sized with glue. Sample (6) has been sized with rosin and starch. No attempt is made to estimate the appearance or finish of the sheets as this is a matter of the choice of the user.

Myron W. Blank