

On the Preservation of Bindings.

IN CONNECTION with library management there is a point which calls for special consideration, respecting which I should like, with your permission, to say a few words; and that is, the preservation of the bindings of our books. Upon many of the volumes in the library of the Bath Royal Institution, especially upon those bound in calf, I have observed a white deposit, which upon being applied to the tongue, I found to be of a sharp acid flavour. The thin basil labels, to my great annoyance, constantly became loose and dropped from the backs of the books without being touched. I found that under these loosened labels there was a larger accumulation of the same white powder. Hoping to find a remedy for this state of things, I collected some of the powder and sent it to Mr. Ekin, an analytical chemist in Bath, who kindly undertook to examine it. His report is as follows:—

“DEAR MR. RUSSELL,—I have examined at your request a dirty-looking crystalline powder taken from under the labels of books bound in calf, and one of the labels themselves—these books not having been exposed to the action of gas. Also a similar-looking powder from under the labels of books in the reading room, where gas is burnt.

“The powders consist of sulphate of ammonia with a large proportion of free sulphuric acid. The washings from the label give a very acid reaction to test-paper, and also contain sulphuric acid.

“There can be no doubt that it is the uncombined sulphuric acid that is occasioning the damage to your bindings, but inasmuch as books that to your knowledge have not been exposed to the action of gas for many years are equally affected with books that have been kept in rooms where gas is burnt, and moreover as it is only certain materials, such as calf, that are affected in this way, it does not appear that a very clear case has been made out against gas. It may be that the books were exposed to the products of the combustion of gas before they came under your supervision, although it is hardly likely in that case that the action of the acid would not have shown itself sooner. It is possible that sulphuric acid is used to dress calf and the other materials that are affected and gradually brings about decomposition. The whole subject is worthy of further investigation.—Yours truly, CHARLES EKIN, F.C.S.”

As the larger accumulation of the acid is under the label, and not on its surface, I am disposed to think with Mr. Ekin that the dressing of the leather has much to do with it.*

There is another evil which came under my notice some years since, but for which I think I have found

* I find upon reference to the article on “Tanning” in the *Encyclopædia Britannica*, that sulphuric acid was formerly largely used in many of the processes employed for dressing the skins as there described. The hides were in some cases submitted to a scouring operation and immersed for a certain time in a pit containing “water strongly impregnated with vitriolic or sulphuric acid.” This would be quite sufficient to account for the presence of the acid in the old leather bindings, and the decomposition caused by its action upon the leather.

a partial remedy. Many of the books in calf-bindings showed manifest and increasing evidence of decay: the glazed surface of the leather had disappeared and the leather itself seemed to be going to powder. In these cases there was no acid deposit or effervescence. In the first place I attributed it to the effects of the gas upon the leather, but upon further consideration I was disposed to alter my opinion. Our reading-room and library is heated by a hot-air stove, and I think there can be but little doubt that the heated air of the room dried up the gluten contained in the leather and thus destroyed its cohesiveness.

Our books are taken down once a year, in the month of August, to be dusted; and for the last four or five years I have adopted a simple plan, which has undoubtedly had the effect of checking the mischief to some extent, although it may not cure it altogether. When the books are well dusted I take about half an ounce of the best horn glue, and, having dissolved it in the usual way, I add to it about a pint of warm water and a teaspoonful of glycerine, and stir it well. Then dipping a soft sponge into the solution I wash over the backs of the books. If the leather is much perished or decayed it will readily absorb the size, and a second touch over may be necessary. The glycerine will have the effect of preventing the glue from drying too hard or stiffening the leather. In some cases wetting the leather brings out upon the surface the white powder (sulphuric acid) mentioned above; this should be wiped off with a clean sponge and the book retouched with the size. When dry the books may be rubbed over with a chamois leather. The above process, I find, helps to nourish the leather and to restore that property which the heated air has destroyed. It also freshens up and greatly improves the appearance of the volumes upon the shelves. Many of the bindings which at one time appeared ready to fall to pieces are now much stronger and sounder than they were. The operation must, however, be repeated once a year at least.—*A Paper read at Meeting of Library Association, Oxford.*

Transferring from Marble Paper to Book Edges.

MANY binders who are troubled by having their marbling size turn sour, etc., may find it to their advantage to transfer their edges from marble paper. Here is a receipt for doing this. After trimming the book, clamp it tightly between the jaws of your press, being very careful to have the upper edges of the book to which the marble is to be transferred as even as possible; then apply albumen or egg size to the edge a little thicker than is used for finishing, making sure that the entire surface is covered. Now lay on the paper with marbled surface to the edge of the book, and with a brush apply muriatic acid on the back of the marble paper, until the figures of the marbling are quite plainly discernible on the back of the paper. Then apply a damp piece of old newspaper or some soft paper and rub or pound out with your hand all wrinkles that may have formed in the edge paper. Now pull off your paper and the marble will be found on the edge of the book; let it dry for ten or fifteen minutes before opening.