

SPINE REPAIR

A common problem encountered in books is the deterioration of covering material, particularly at the spine. The material can be partially torn or completely off, while the covers are still firmly attached. The inside paper attachment between bookblock and cover is intact and not torn.

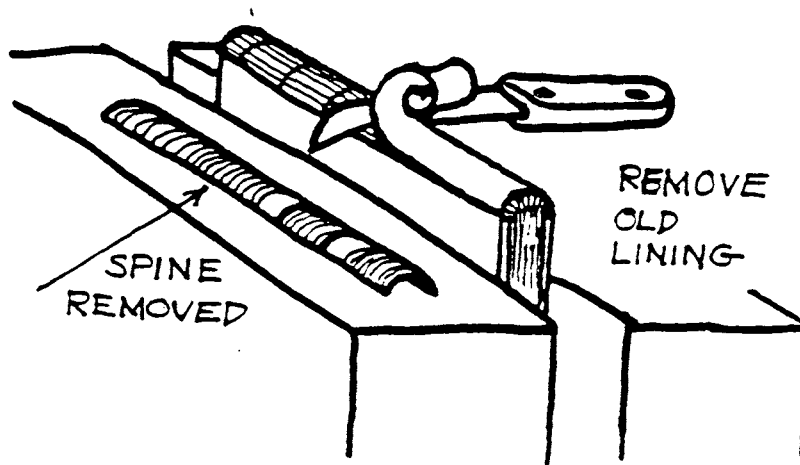
Two possible ways for replacing spine material follow

Materials and tools:

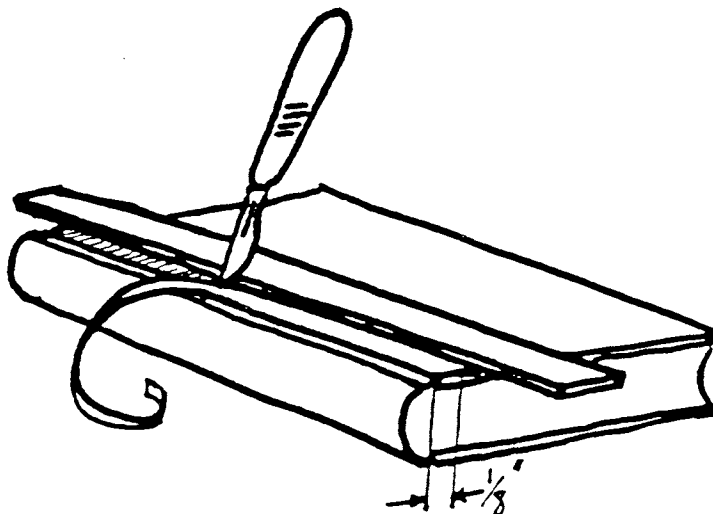
- scalpel
- steel ruler
- bone folder
- 50/50 Mixture of PVA and Methyl Cellulose, or wheat paste
- two brushes for each of the above
- kitchen knife or micro-spatula
- buckram or linen finish book cloth
- acid free bristol
- Permalife or archival bond
- waste paper

Preparing the Bookblock

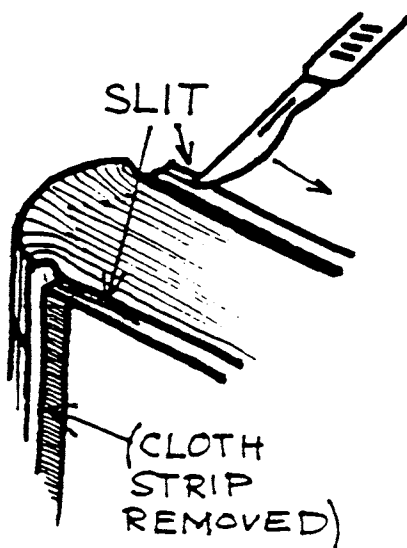
1. Remove original spine and set it aside. Remove as much as possible of the spine lining (mull, paper) by hand. If necessary, use a thick paste as a poultice to soften the old lining, but do this after the next three steps



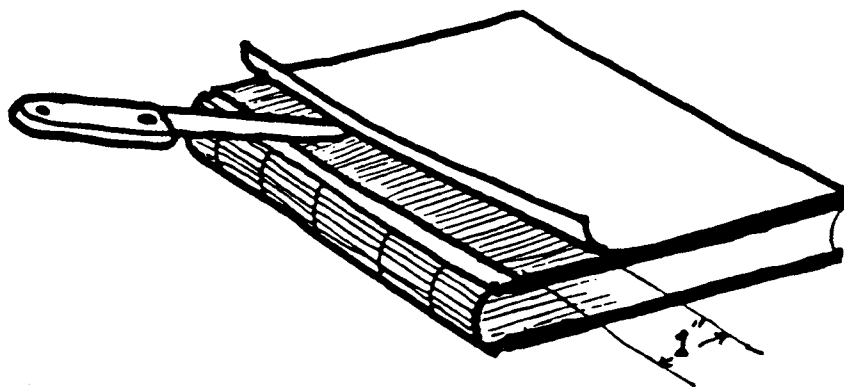
2. Place a ruler on the cover $\frac{1}{8}$ " in from the edge on the spine side and cut the cloth with a scalpel the height of the cover. Turn book over and trim other side. Be careful not to cut into the joint (groove)-cut only on the actual book board.



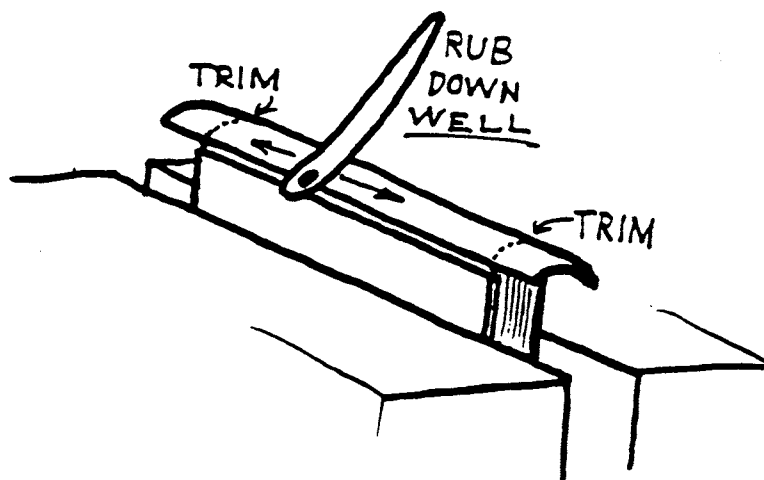
3. Using the scalpel, slit the cloth at the head and tail about 1".



4. Insert a knife (or micro-spatula) under the trimmed edge of the book cloth. Push the knife forward, lifting the cloth back about 1". Turn book over and repeat on other cover.

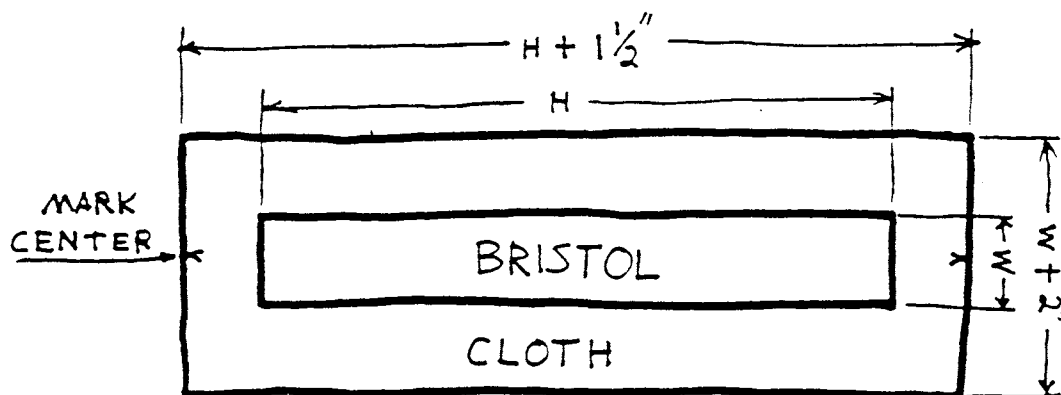


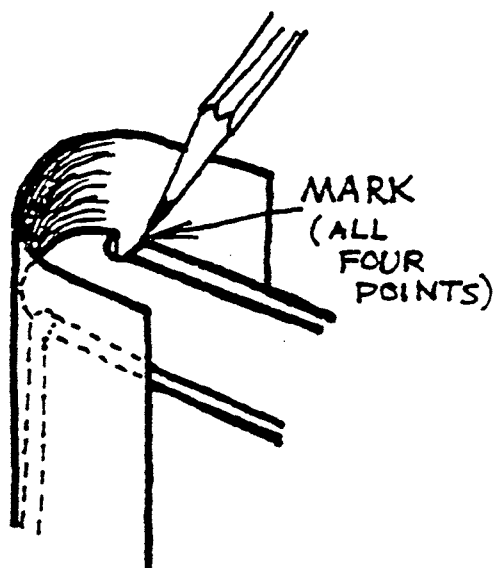
5. Cut a piece of Okawara or other light acid-free paper the width of the spine by the height of the bookblock (textblock) plus 1". (see Working Tips for measuring a curved surface). Make sure the paper strip has its grain going in the same direction as the book will open. Apply adhesive to the spine and put the paper strip down. Rub the spine well through waste paper. Trim off any excess that extends beyond the head and/or tail.



Preparing and Attaching New Cloth Spine

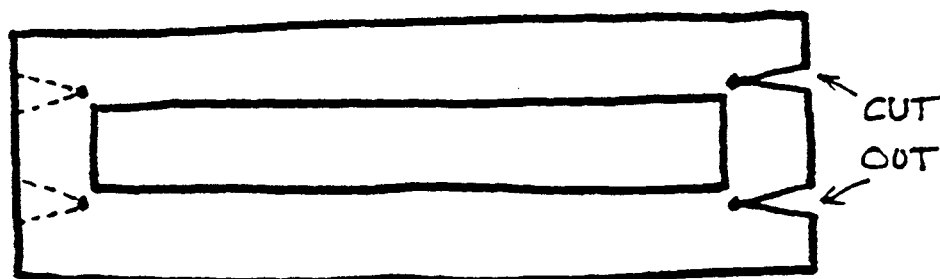
1. Select an appropriate piece of book cloth and cut it to the height of the covers plus 1 ½" by the width of the spine plus 2". It is important that the grain is from head to tail. Lightly fold over lengthwise, matching corners, and pinch ends to mark the center.
2. Cut a piece of bristol the height of the covers by the exact width of the spine. The grain must again be from head to tail.
3. Apply adhesive to the bristol strip. Center it on the inside of the cloth using pinched-in ends as a guide. Rub down thoroughly through waste paper.



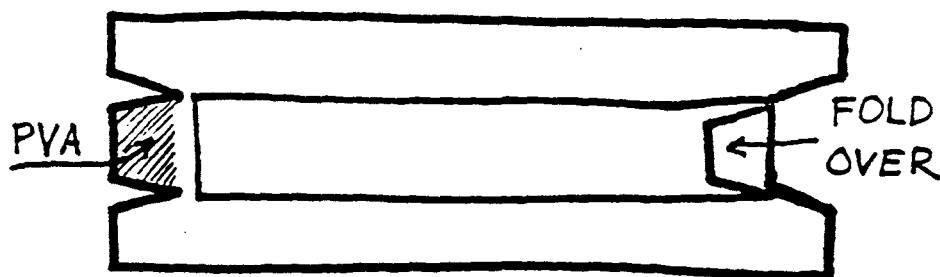


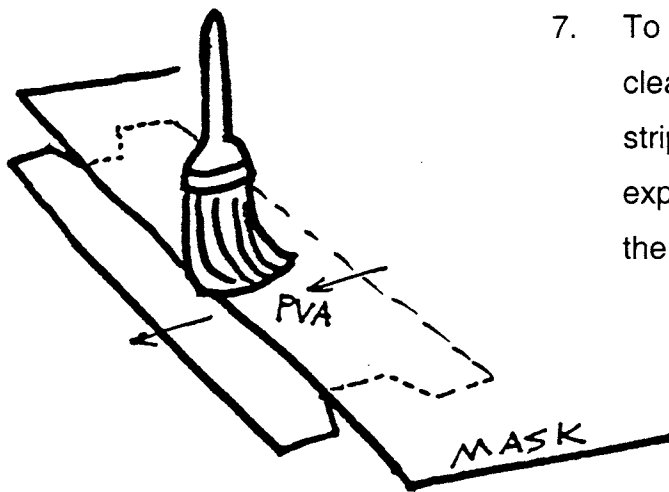
4. To prepare new cloth spine - Fold bookcloth around spine with bristol centered on spine. Mark with a pencil, on the underside of the cloth where the edges of the boards begin

5. Cut in diagonally to each of these points removing a narrow piece.



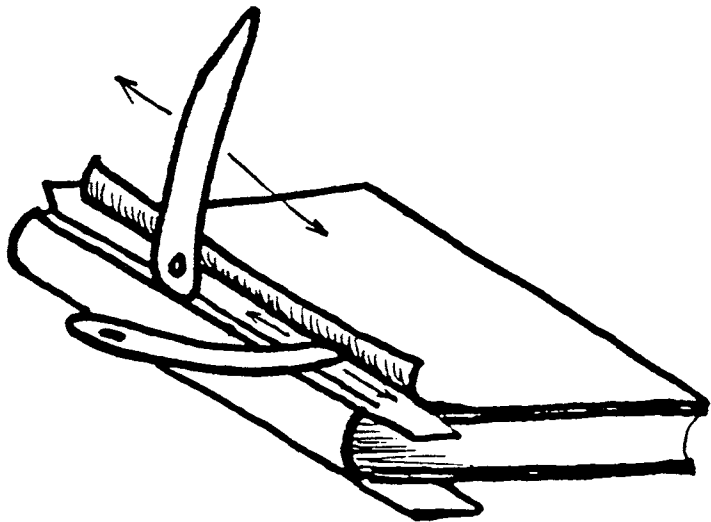
6. Apply PVA to center flaps and fold over the bristol strip.





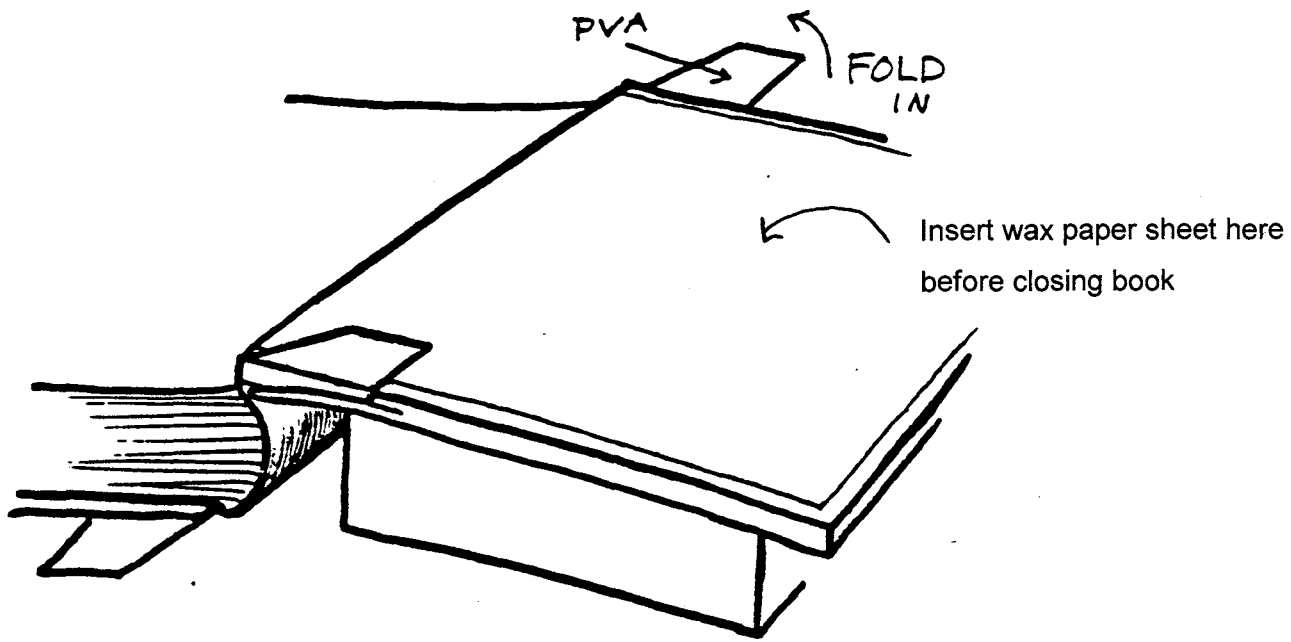
7. To attach prepared new spine, place it on clean waste paper. Mask off the bristol strip and one hinge and apply PVA to exposed hinge brushing adhesive off onto the waste paper.

8. Center bristol on spine and align it at head and tail. Place new book cloth under the lifted original cloth. With a bone folder, smooth new cloth onto the cover and mold it snugly into the joint.

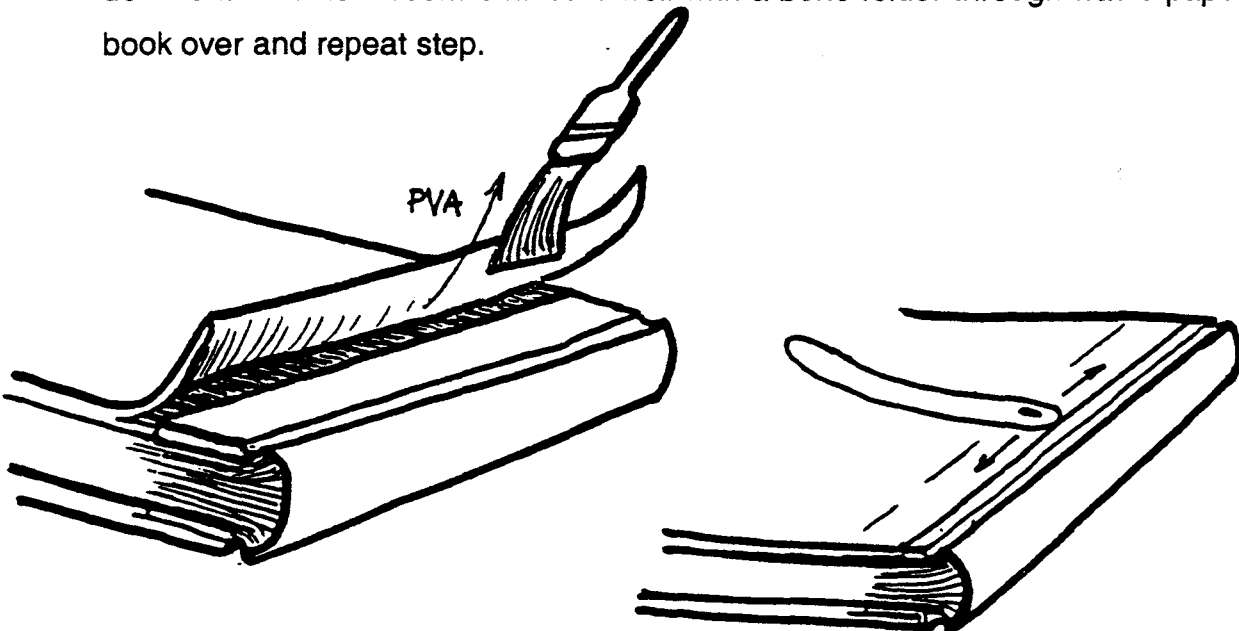


9. Turn book over and apply PVA to other cloth hinge. Inset it under lifted original cloth and finish as in above step. Check how new cloth fits around spine and onto covers before proceeding.

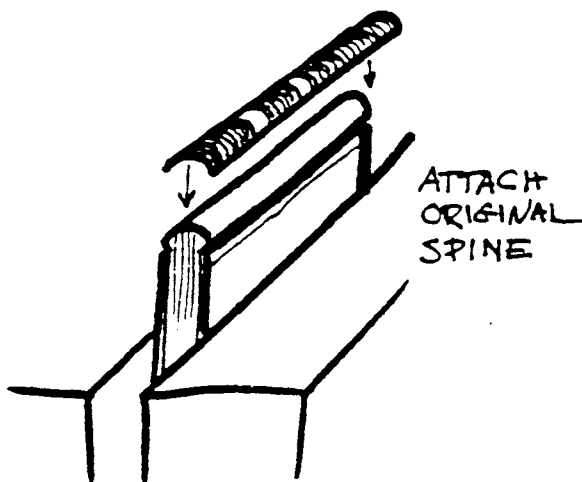
10. Open book and support cover underneath. Apply PVA to extending tabs at head and tail. Fold around edge of cover and affix to inside of cover on top of the pastedown. Insert a piece of wax paper. Close cover, turn book over and repeat step.



11. With the book closed apply PVA to the underside of the lifted original cloth and put it down onto the new bookcloth. Rub well with a bone folder through waste paper. Turn book over and repeat step.



12. Remove all loose paper from the underside of the original spine. Trim to the width and height of the new spine (but no wider than new spine). Apply PVA to underside and center on new spine. Rub well through waste paper until completely affixed.



13. Place book between two boards with a weight on top, or in a press over night or until dry.

14. To secure any loose cloth ends, touch sides of boards where new cloth is turned in with a bit of PVA and burnish with waxed paper.

