

The Art and Science of Cloth Rebacking: Some Useful Techniques Shared

a presentation for
the Guild of Bookworkers' Standards Seminar

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Brief History of the Cloth Case

The cloth case was introduced in England in the late 1820s —1830s, and soon superseded leather binding as the chief style for cheaper work. Two important innovations contributed to its success: the introduction of cloth as a covering material and the separately manufactured cover, or 'case'.

Before the introduction of this structure, books were bound in two ways. Either they were put in very simple paper covers, known as 'boards', or bound in leather, chiefly calfskin. Paper covers were intended as temporary bindings, meant to protect the book until it was given to the binder for covering in leather. Many of these survive, however, suggesting that they were bought by the growing numbers of the reading public who did not intend, or could not afford to have them rebound. Leather bindings were 'laced on' structures; the books were sewn on cords which were taken through holes in bare boards, the whole then being covered in leather. Any tooling would then be carried out.

Cloth was used in bookbinding as early as 1770 in the form of crude canvas coverings for school books and other inexpensive volumes. By the 1820s, experiments had shown that various silks and calicos could be used, giving finer results. Impregnation with starch made the cloths stiffer and more suitable as book covers.

During these early years of cloth binding the book was still forwarded in the same way as leather bindings, the cloth being pasted onto the boards after they were laced on. It was in the 1830s that the second innovation happened. The introduction of the case meant that the covers could be made separately from the textblock and then attached to it, saving time and cost as it eliminated the lacing-on of the boards. Needless to say, it is therefore a substantially weaker structure. The construction of the cases 'off the book' paved the way for the heavy, elaborate, gold blocking on the covers that is a feature of Victorian decorated cloth bindings.

When to Reback

A cloth case consists of two parts: the textblock and the cover, or 'case'. The textblock is attached to the case by pasting the endpaper to the boards. The joint of the book is the most vulnerable part of a binding. Because case bindings are not 'laced in' (there is no mechanical attachment of the book to its boards), the joint is especially weak. Placed under stress from opening and closing, there are three points at which the binding is liable to break. These are the endpaper fold, the mull spine liner, and the cloth cover.

Full cloth rebacking is necessary when the binding is broken at these three points. Apart from resewing the book, and any paper repair, this is the most extensive kind of repair frequently

undertaken on bindings of this kind, and the following instructions apply to a binding with these breaks. Of course, the binding may not be broken at all three points, in which case the technique needs to be adapted to suit the repair at hand.

The following kinds of break are common:

- 1) Split endpaper only
- 2) Split endpaper and split mull
- 3) Split cover cloth only

Breaks 1 and 2 can be repaired, with care, by adapting these instructions. Break 3 requires different techniques, since the book cannot be opened up to facilitate repair. As with any craft work, it takes years of practice to become proficient in book restoration. This presentation shows the basic techniques involved. There are endless variations of this kind of work, requiring a broad understanding of different materials, adhesives, technical practices, and historical structures.

The Structure

Early cloth bindings were laced into boards before covering. Soon this structure gave way to a simple case, where the endpapers are simply pasted down to the pre-made cover. The first cloth bindings were sewn on recessed cords; later tapes replaced cords as sewing supports, which eliminated the need for sawing in. After sewing, endpapers were attached. The textblock was then hammered into a rounded shape at the spine and then put in a press between backing boards and hammered again to produce shoulder where the cover will hinge.

If the book had headbands, they were attached at this point. Early headbands for cloth case bindings were of plain cloth wrapped round a core of hemp cord. These were eventually replaced by striped material, which resembled the traditional hand-sewn headbands common to leather bindings. Legend has it that in the early days these were actually made from the old shirtsleeves of the binders themselves. Machine-made headbands were introduced by the 1850s. After the headbands, the spine was lined with mull (protruding by an inch or so), which being an open-weave material strengthens the spine very well, helping to keep its shape. Finally, a layer of paper was glued onto the spine.

The case comes in three parts: two boards, a spine piece, and a cloth cover. The cloth was glued out, the boards and the spine piece pitched on, the corners cut, and the cloth turned in. Any stamping on the cover was done at this stage.

Rebacking a Cloth Case Book

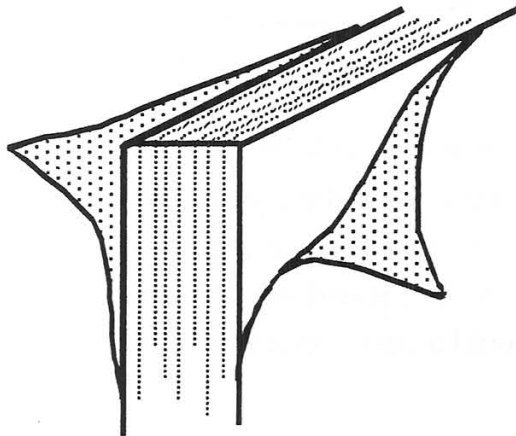
1) Before proceeding, ensure that the book is broken at the endpaper, mull, and cover cloth. If all three areas are not broken, you will need to repair only those affected parts.

Disbinding

- 2) Remove the case from the textblock, cutting through with a scalpel any parts of the cloth or paper that are still hanging on.
- 3) Trim the board edges, removing any loose cloth or paper.

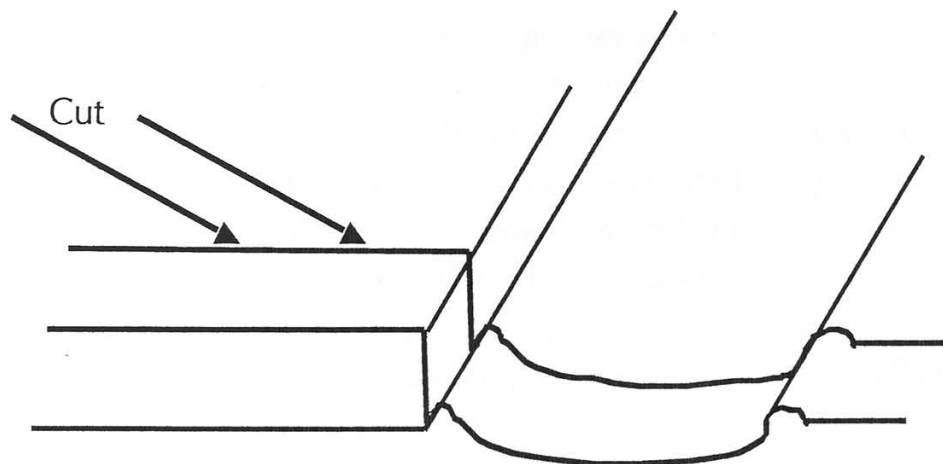
Lifting the Flaps

4) If the corners are damaged (the cloth torn or missing and/or the board softened), carefully lift the cloth away from the board with a lifting knife. Cut away any loose strands of cloth. Fan out the laminated layers of the board beyond where it is softened.

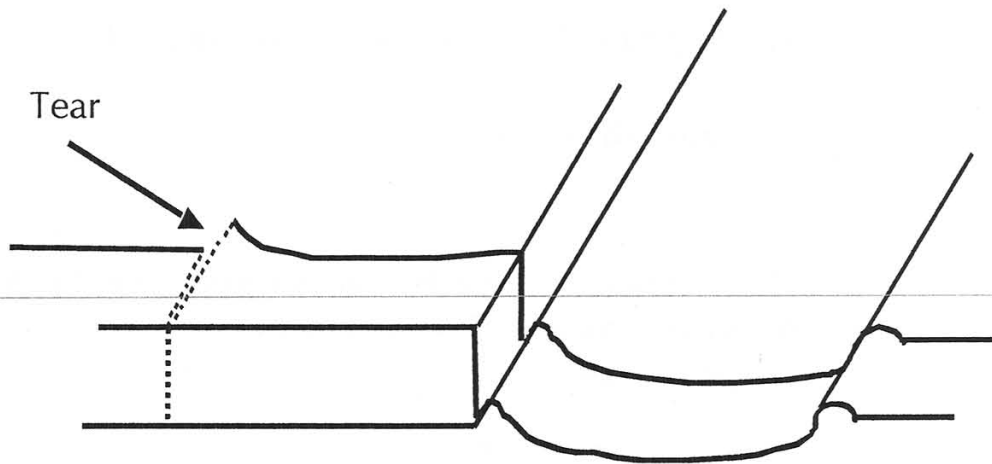


5) Lift the cloth off the boards at the spine turn-ins.

- a. On the inside of the board, cut at a 45° angle where the turn-in meets the endpaper, about 1".



b. Where the cut ends, tear the cloth away from the board, to the edge, then round to the front.



c. Starting with a curved scalpel blade, then a lifting knife, then a palette-shaped bone, lift up 1" of the cloth off the board. It is OK to lift up some of the board with the cloth.

6) Lift the endpapers. Start by lifting the head and tail, going underneath the remainder of the cloth turn-in. Then get the knife under the mull and lift the endpaper, again about 1 1/2" or however far the mull goes onto the board. The mull should be left in place, unless it is very easy to peel off.

Preparing the Textblock

7) Peel off the flyleaves from the textblock. They should just pop off. Trim the edges down with a sharp scalpel so that any bits that were above the joint are removed.

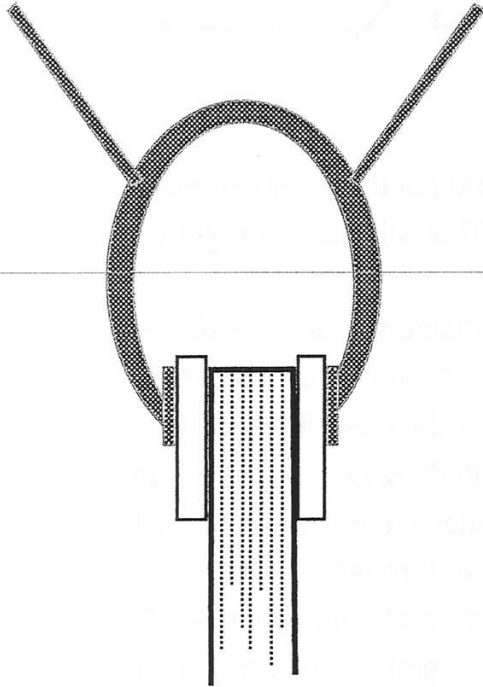
8) Put the textblock in a finishing press, protecting it with some scrap board.

9) Mechanically remove as much of the paper spine liner as you can with a dull cobbler's knife.

10) Apply thick paste or methyl cellulose to the spine. This will soften the paper and mull and reactivate the glue underneath (books bound after 1950 may have been glued up with synthetic adhesive which is not reversible with moisture. You will have to remove the spine liner mechanically with a scalpel and a heated spatula). After 10 minutes or so, scrape the old spine liners away and discard them. If the book has headbands, carefully remove them at this stage and put them aside for later. Once all the glue has been removed, clean the spine vigorously with a lightly dampened sponge.

Consolidating the Corners

11) Work paste into the fanned-out corners. Squeeze out excess paste, cover with wax paper, and press. The pressing is done with bulldog clips, packed with squares of board until the jaws are parallel.



When almost dry (after an hour or two), remove the clips and gently push the corner round a little, if it is appropriate with the general wear of the book. If the corner is too 'square' it can look too pristine.

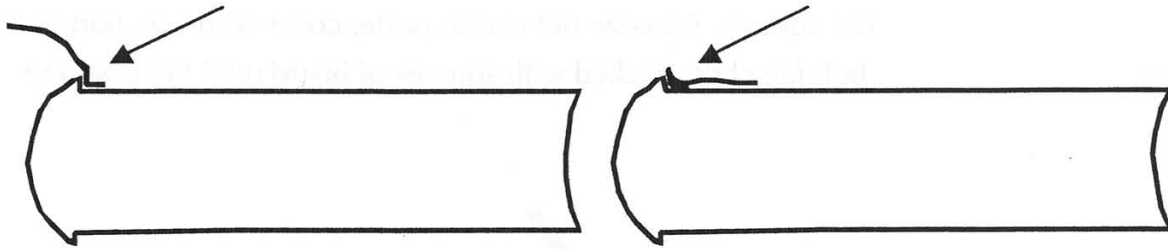
Putting the New Materials on the Textblock

12) Select suitable Japanese tissue for the endpaper repairs. I use two weights, a medium kozo for the first repair, which goes under the lifted endpaper, and a thin one, which is put on at the end and covers the join. Tear strips an inch longer than the book, and about 3" wide.

13) Mix acrylic paints to match the color of the endpaper. If it is a patterned paper, mix the background color. Take time experimenting with the colors—color matching is difficult. Mix a little paste or methyl cellulose into the paint to act as a size.

14) When dry, wet-tear the strip in half, then cut it 1-2mm shorter than the textblock (it will stretch a little when pasted).

15) Paste out 1/4" of the strips of the thicker tissue and attach them to the joints. Bone down and let dry. Fold and bone them onto the joint. Set the thinner tissue aside to be added later.



16) Paste out the edge of the old flyleaves and put them back in place. Bone down. Let dry.

17) Apply a thin layer of paste to the spine. This will soften it slightly and allow you to reform the rounded shape.

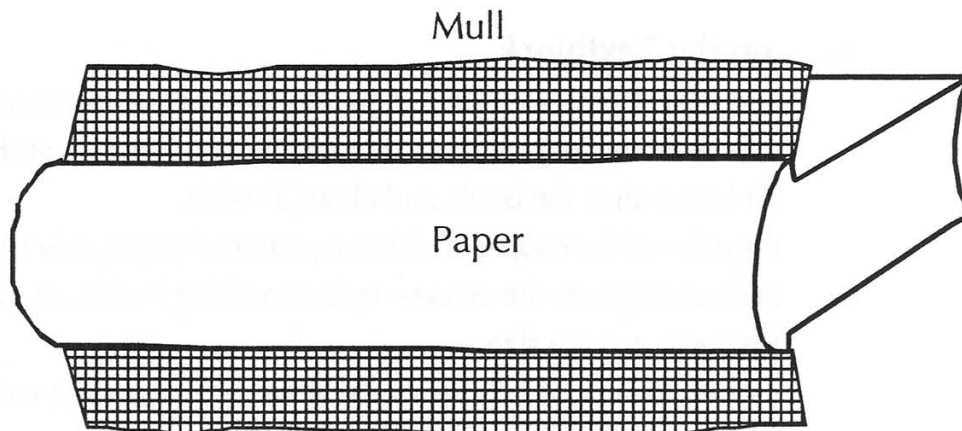
18) After the spine is pushed back into a satisfactory round, carefully put it in the press.

19) Attach a layer of thin Japanese tissue to the spine. This will act as a barrier against the new spine liners (which are put on with PVA) and ensure the reversibility of the repair.

20) Reattach headbands, if there are any, with PVA. Don't put new ones on if there weren't any.

21) Apply a thin layer of PVA to the spine. Attach a new piece of mull, a touch shy of the height of the spine and 1" wider either side. Bone down through wax paper.

22) Attach a piece of thickish paper the exact height (including headbands) and the exact width of the spine. Use a paste/PVA mix. Make sure the grain is running head to tail. Bone down well through wax paper. Let dry.



The New Cover Materials

23) Select a suitable Japanese tissue for the corner repair. A medium kozo is commonly used.

24) Put the boards on the book and into the press, and make a template for the piece of cotton that will make the new spine. It should be roughly 3" wider than the spine, and 2" longer than the book. Cut it out of the cotton, with the grain running head to tail.

25) Mix acrylics to match the color of the cloth. Notice that because of exposure to sunlight, the spine cloth may have faded to a lighter shade than the board cloth. Mix the color accordingly. Mix a little methyl cellulose into the color.

26) Dye the tissue and cloth and let dry. If the cloth on the book is glossy, put the cotton paint-down on Mylar until it is nearly dry. This will impart a sheen to the cotton compatible with the original. This is also a good time to touch up any scuffed areas of the board cloth.

27) When the cotton is dry, cut a liner for the new spine cloth. It should be a heavyish paper, providing support but not stiffness. Cut it to the height of the boards, and wider than the textblock spine by 1mm or so. Attach it with PVA to the backside of the linen. Bone it down well and let it dry.

Back to the Corners

28) By now the corners should be dry. Tear the tissue into triangles, and tear the corners off. Attach them to the corners on the cover side of the board with a paste/PVA mix. Pleat round neatly. Let dry.

Rebacking

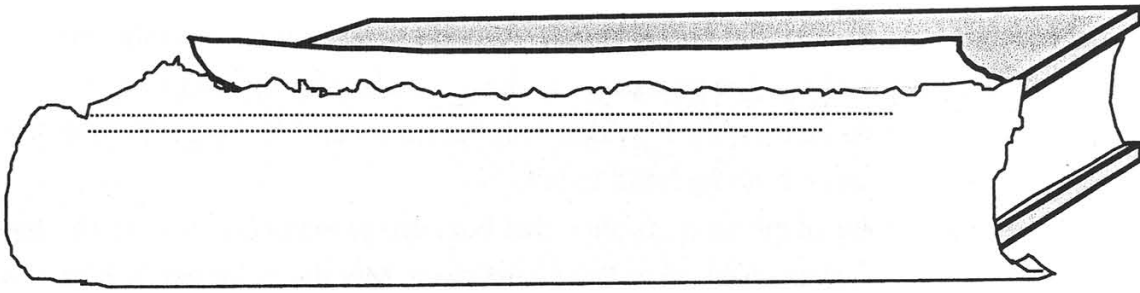
29) This is a process easier to see and do than to describe. Put the book together, so that the boards are sitting exactly where they should be—the squares and the joint should be exactly in position (you can tell when the textblock is in the right place when you cannot see any of the paste-downs showing).

30) Put the book carefully into the finishing press, sticking out just above the lifted flaps.

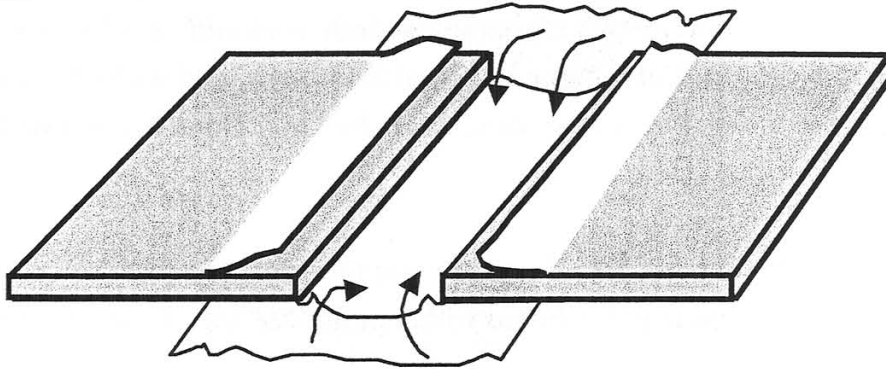
31) Work a little paste onto the bare board where it has been revealed. This will help to consolidate any furry fibers which would otherwise prevent the cotton from sticking.

32) Cut the dyed cotton to fit the spine area. Fray out the edges of the cotton so that when it is adhered to the old boards it does not create a lump underneath the cloth. Apply paste/PVA mix to the cotton, to the height of the book but away from the spine liner by the width of the joint. This gets adhesive just where it is needed at this point.

33) Put the new cloth onto the spine and work the cotton into the lifted areas. Proceed with great caution, checking constantly to ensure that the spine liner is sitting exactly in position over the original spine. When it is in the right place and the cotton is in place, work into the joint (if there is one) with a bone folder. This will cause the cotton to be dragged back off the boards until it is in the right place. Work the joint well at this point.

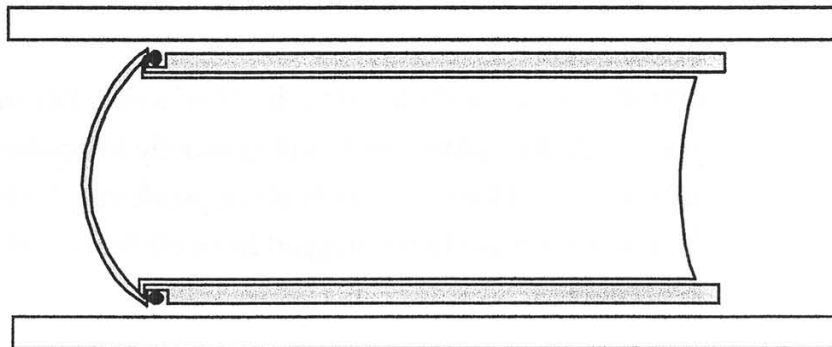


34) Remove the book from the press. Very carefully remove the cover. Lay it down and glue out the turn-ins.



Turn in at head and tail, over the spine piece and underneath the lifted flaps of the endpapers. Work the turn-in into the joint. Insert wax paper under the flaps. Let dry for a few minutes.

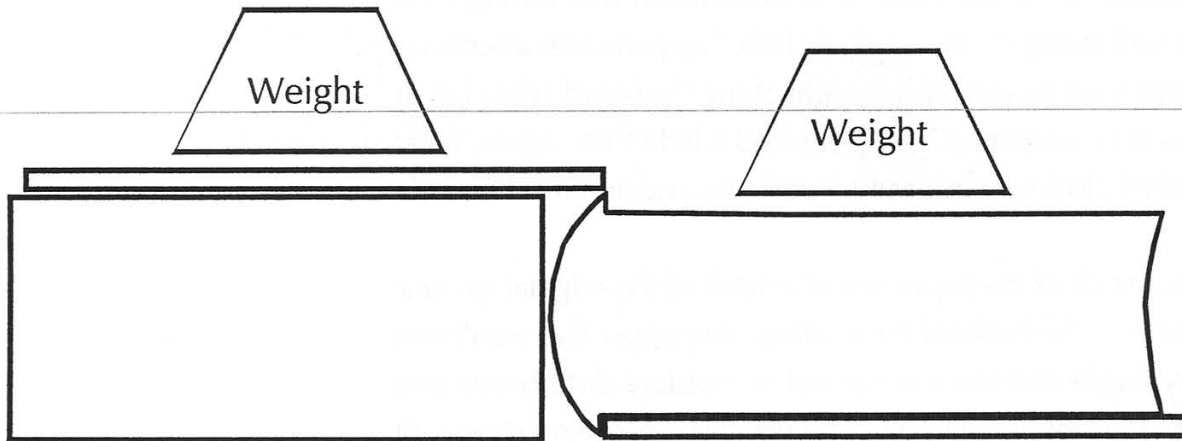
35) When there is just enough moisture left in the cotton for it still to be malleable, put the cover around the book, as exactly as before, and insert knitting needles into the joint (if necessary: some cloth cases have no discernable joint). Put rubber bands on the ends to hold them in place. Put the book between boards, packing if necessary with scrap board so that the boards press the book cover as well as the knitting needles. Let dry.



Recasing

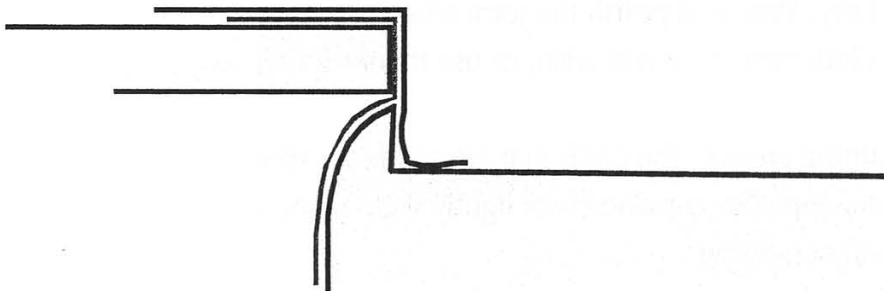
36) Remove the book from the pressing boards and remove the knitting needles.

37) Reattach the textblock to the case. Put the book into the case as before, ensuring that the squares and joint are in the right position. Lay the book down and open one cover. Support the opened cover with pressing boards so that it sits snugly up to the joint and is level. Put heavy weights on the textblock and board to keep the book snugly up against the joint.



38) Insert a strip of waste paper under the mull, and apply a thin layer of paste/PVA. Remove the waste.

39) Gently insert the mull under the lifted endpaper. Work it onto the joint, and then carefully pull round and onto the board. (Take care to pull the mull tightly on, otherwise there will be a bubble along the joint when it is dry. You must also avoid pulling it too tight, as this will lift the repair off the original endpaper) Let dry for a few minutes then close the book, and repeat on the other side.



40) Now paste out the endpaper repair strips in the same way as the mull. Close each board after a few minutes. This should be done just at the right time. If it is done too soon, the endpaper repairs will not have had time to set and will shift off the joint. If too late, it will have dried in this open position and will not want to close.

41) Repeat on the other endpaper. Insert wax paper and press well for an hour.

Closing Up

42) Apply paste/PVA to the cloth flaps. Bone down well through wax paper, taking care not to disturb any embossing on the original cloth. Pay particular attention to the little bits of cloth at the turn in. These must be put back straight along the board edge. Let dry.

43) Put down the endpapers with paste and a little PVA. Again, make sure that the lifted endpaper meets the lifted cloth turn-in neatly. Insert wax paper and leave under a weight for an hour or so, until dry.

44) Clean as much of the paper from the back of the original spine as possible. It is not necessary to soak it off as with the backs of the sections. Any paper that won't come off should be left. The spine cloth is very fragile and any mechanical or moisture disturbance could damage it.

45) Measure the new spine width. Transfer this measurement onto the original spine. Trim to size. Any frayed ends must be removed, and so must any area of the spine that comes beyond the round of the spine and into the joint.

46) Apply paste/PVA to the original spine, and lay it in position on the new spine. Bone it down carefully through wax paper, again ensuring not to flatten out any embossing in the cloth.

47) Wrap the book carefully but tightly with an Ace bandage, making sure to insert the knitting needles (if needed) to protect the joint. This holds the spine piece in place while it dries. Remove it after twenty minutes or so.

48) Put on the second endpaper repair strip. Measure the height of the joint and add 2mm or so. Tear a strip to this width, and cut the strip shy of the height of the textblock by 2mm or so. Paste it out and carefully put it on the joint. Tamp it down first with a Q-Tip, then with your fingers and lastly with a stencil brush. Let dry. Wax and polish the joint area if necessary.

49) Reattach the spine cloth turn-ins if you wish, or use them to help patch up any missing areas on the spine.

50) Touch up any remaining areas of the cloth that are scuffed, especially the points where the flaps were lifted. If appropriate, apply Renaissance wax lightly with a cloth, leave for a few minutes, and polish with another clean cotton rag.