

Collections Care Section: General Manual

B. Intermediate Treatment

15 minutes -120 minutes

1. Facsimiles

Time Requirements:

15-120 minutes

Purpose and Background:

Often items have missing, damaged or vandalized pages. If a suitable copy can be found, quality facsimiles can be made to act as replacements. Furthermore, facsimiles can aid in the retention of informative, and/or decorative, book covers and end-sheets of items that will be sent to the commercial bindery. (See Bind Prep I & II)

Major candidates for Facsimile treatment are: informative or decorative covers of items going to the commercial bindery; pages too torn/damaged for proper paper repair; pages without sympathetic possibility of tape removal; and brittle pages, such as many old soft-back covers, that are too fragile to withstand paper repairs.

Considerations:

What is the bibliographic value of the item...would it be best and/or appropriate to use a facsimile as opposed to treating the original, if possible?

If so:

To make sympathetic reproductions, one needs to determine a few qualities about the original that will affect the course and possibility of a quality reproduction:

- is the original a photograph (color or black and white)
- is the original a piece of decorative or visual information in color
- is the original a page of simple text
- what is the size of the original
- what is the weight/quality of the original's paper
- does this facsimile need to be printed in signature/booklet form

For example, while it is possible to scan/copy pages of text in the Grayscale or the Black and White scanner/copier settings, pages with color visuals require a further manipulation of scanning and printing settings, which may exceed the capacity of one's software, printers and copiers. A black and white copier may not produce the results appropriate for a glossy, color, photo plate.

One must also try to match the paper quality of the original as close as possible, using archival paper that matches both the color and weight of the original, or, in the example of reproducing decorative or informative book covers being sent to the commercial bindery, a light card stock can be used to indicate the original cover board.

Collections Care Section: General Manual

Considerations of Facsimile limitations and non-appropriate items:

All scanner and printer set-ups have limitations.

Size limitations: one may not be able to reproduce that 24 inch by 24 inch fold out map with a standard printer and or copier.

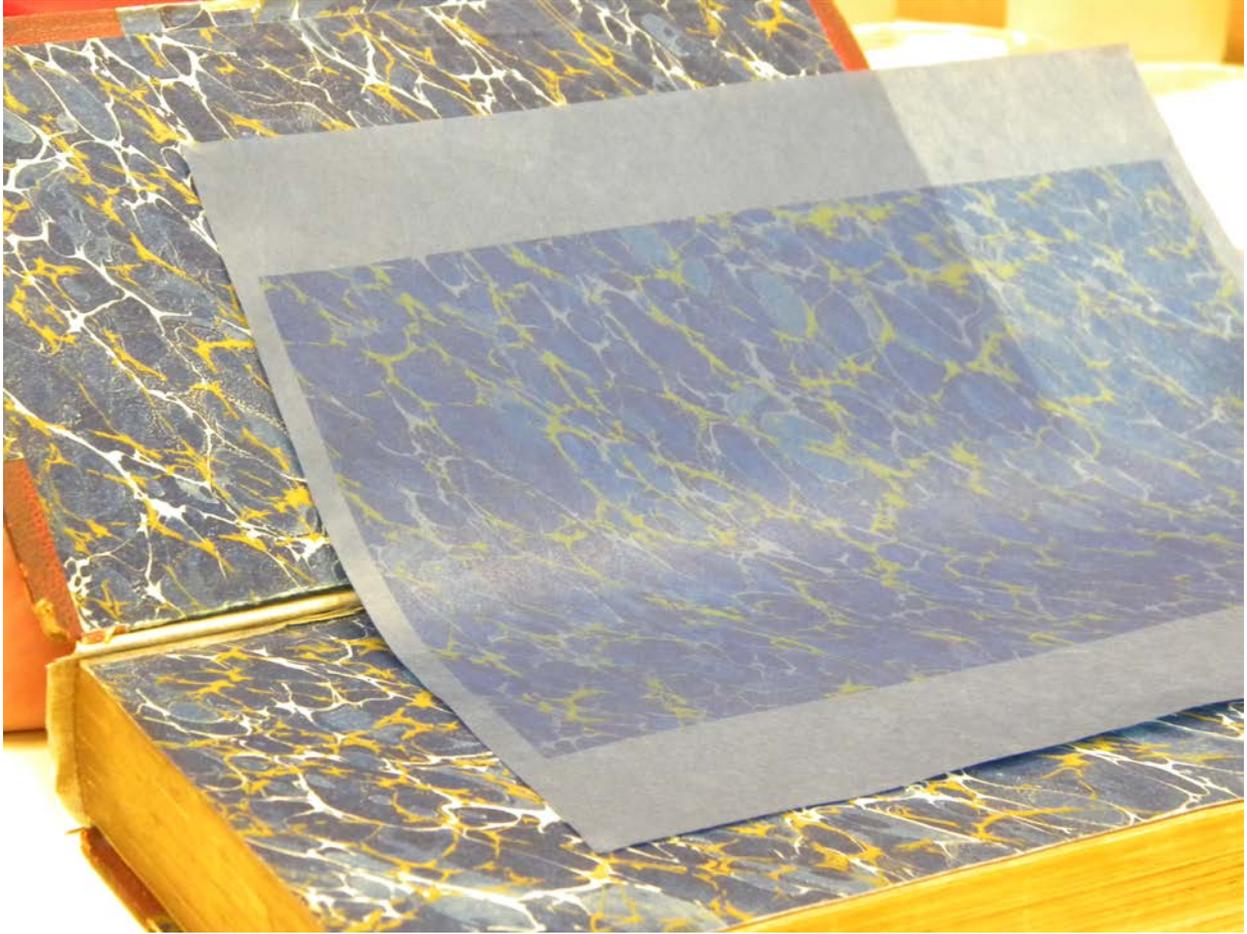
Quality limitations: High quality photographic replacement needs may best be addressed by a replacement copy due to the limitations of standard printing.

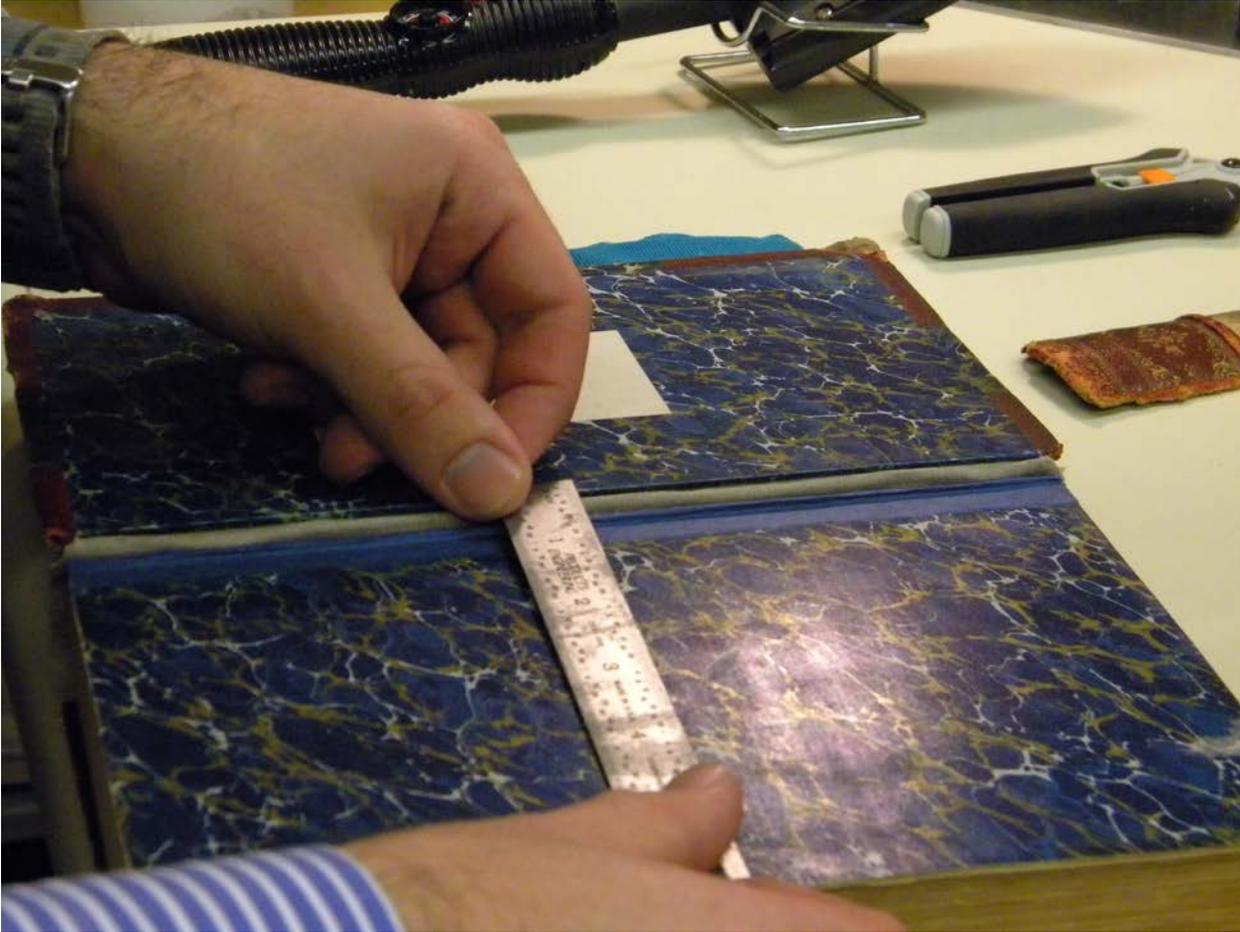
Time Cost limitations: The time it takes to make quality reproductions may be too great. For example, if an item requires more than 30 pages of replacement facsimiles it should be moved to damaged work flow to find a replacement copy, as the cost of Facsimile treatment might exceed the cost of a replacement item.

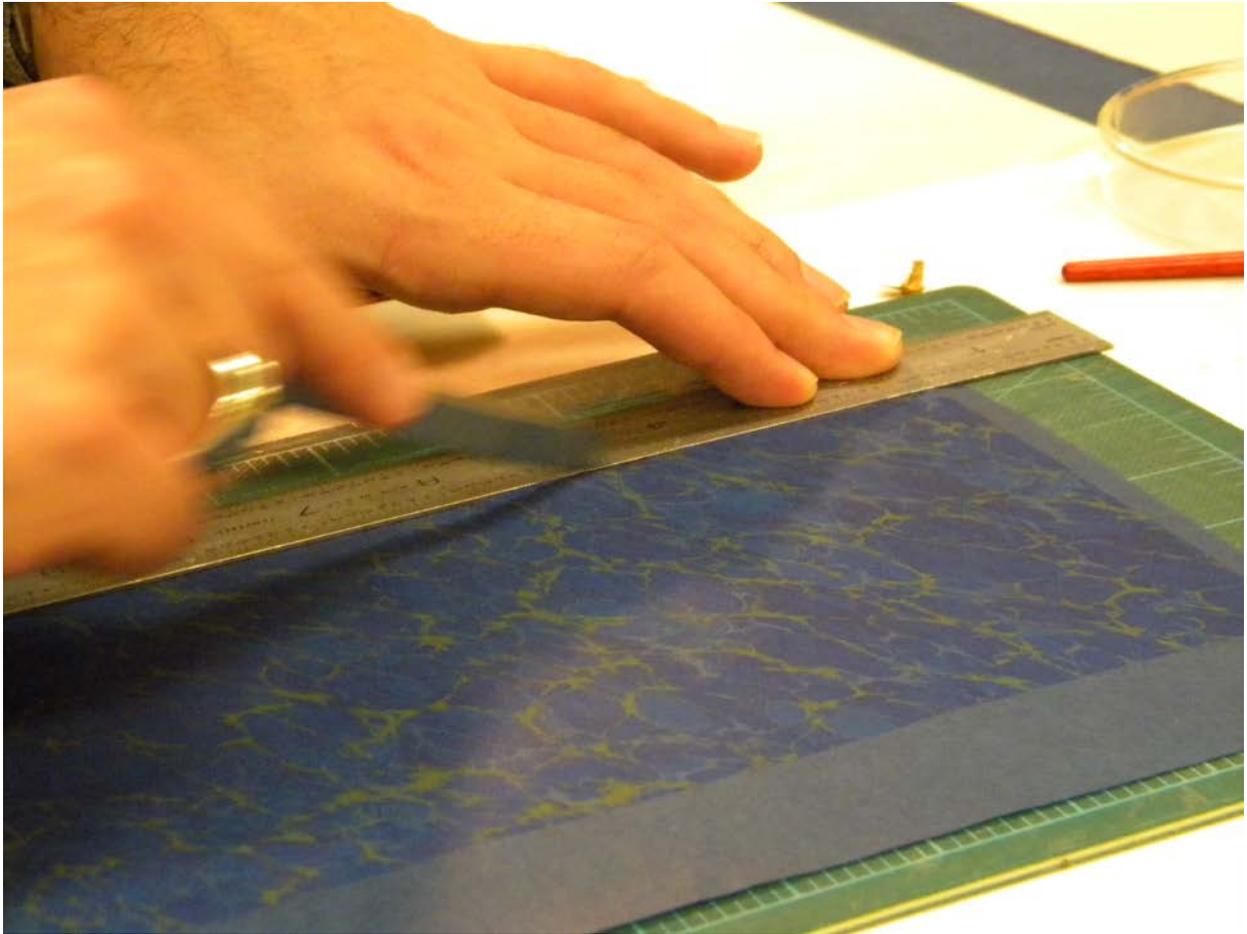
Procedures:

Use commercial graphic editing software, such as Photoshop, desktop publishing software, such as InDesign, and/or inventive copier machine capabilities to make archival reproductions to integrate into the damaged item. Once created, facsimiles can be hinged into the text, tipped-in, and sewn as gatherings into textblocks. It is important to make sure that the paper and other materials used are of archival quality.











Collections Care Section: General Manual

2. Housing Options for items less than 1/2" thick

Time Requirements:

15 to 30 minutes per item.

Purpose and Background:

A pamphlet binder and envelope with sling, and stiffener protects a thin, soft bound item on shelf and during use.

Items that are a single signature are suitable for pamphlet binder signature. Items with more than one signature or do not have a signature structure and are less than 1/2" thick are placed in envelopes with a sling. Items greater than 1/2" thick are housed in custom box enclosures.

Considerations:

- Should the item be placed in a pamphlet binder in-house or should the item be sent to the library binding vendor? Library binding is a cost-effective and excellent long-term housing for pamphlets (library binding is approximately \$6 or \$7; pamphlet binders are approximately \$5). One might choose to place an item in pamphlet binder in-house due to the pamphlet's fragile condition and its requirements for careful handling or because the treatment needs to be completed quickly for rush service.
- Which pamphlet binding method should be employed?
 - Sewn pamphlet binding: the paper is in good condition and the item is one signature and less than 1/2 inch in thickness.
 - Pamphlet bind w/ pocket: the item has other materials such a maps or inserts that will be placed in the pocket
 - Envelope w/sling: the pamphlet is extremely fragile and cannot be placed in and taken out of the pocket without damage
- Leave no more than 1/4" margin around the perimeter of the pamphlet. The pamphlet likely will need to return to the place on the shelf where it was originally stored. An extremely oversized pamphlet binder makes it very difficult to re-shelve the item in the same location.

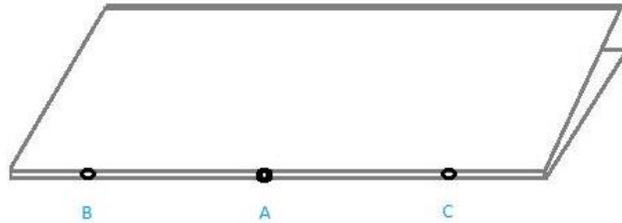
Procedures:

Pamphlet Bind (sewn)

1. Place the item to be pamphlet bound into an appropriately sized binder (both length and width should be no more than 1/4 inch larger than the item –binders may be trimmed on the board shear to get a proper fit).

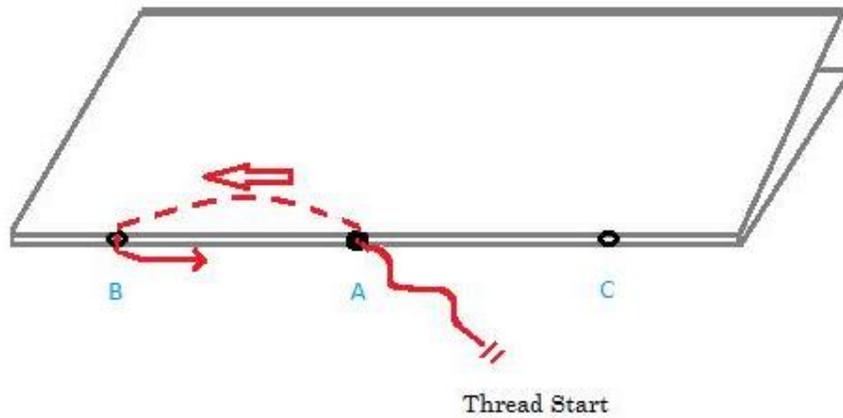
Collections Care Section: General Manual

2. With an awl, pierce the item through its center fold so that it also pierces the pamphlet binder fold cloth. Depending upon the size of the item 3-7 holes will need to be made through the item and pamphlet cloth. (Always make an odd number of holes so that a center hole exists.) Make sure the holes through the item correspond with the holes through the pamphlet binder cloth.



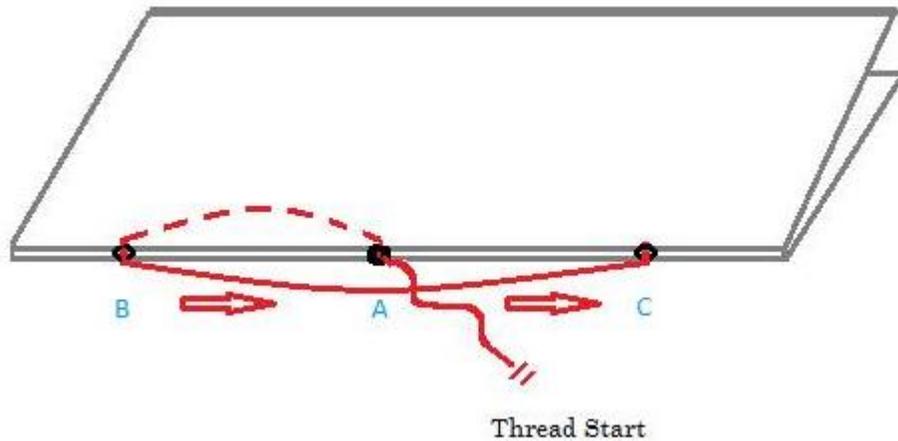
3. Sew through the awl holes:

A: Start the thread through the center hole and then through one of the remaining 2 holes.

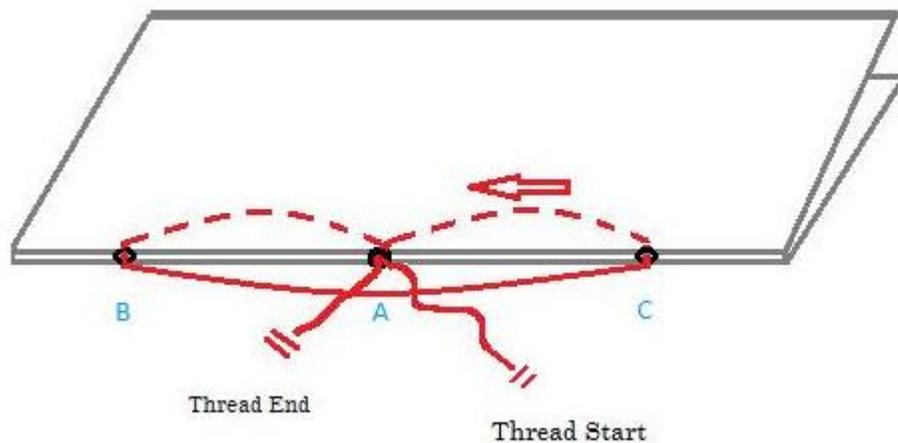


Collections Care Section: General Manual

B: Next, travel across the center hole down through the 3rd hole and then back through the center hole.



C: You should now have the both ends of the thread (loose and needle end) through the center hole in the same direction. Pull against the direction of the thread to tighten the thread so that the item becomes snug against the pamphlet binder without tearing the paper. Now make sure that the loose end of the thread is on one side of the center thread and the needle side on the other, so that when you tie these ends into a knot they will embrace and knot around this center thread (from skipping over the center whole from hole 2 to hole 3), tying all, with a simple knot, into a cohesive whole.



Collections Care Section: General Manual

One can start the thread from the outside of the pamphlet or the inside depending upon the type of pamphlet. If using a pamphlet binder with an adhesive cover flap start from outside so that the adhesive flap will cover the knot on the outside. If using a non-adhesive flap binder start from the inside so the knot is visible in the gutter and protected by the item and pamphlet.

For larger sized items use 5 or 7 holes in a similar pattern to ensure the center hole receives the final knot.

Pamphlet Bind with Pocket

1. Follow the instructions for placing items in pockets attached to the back cover.

Envelope with Sling

- Used for items less than 15mm thick
- Applies to any item normally sent to CCS for housing/treatment
- Provides protection without taking up as much space

Sling

1. Determine height and width of the object using template. Match to an appropriate sized sling. Sling can be larger than item if necessary. It should never be smaller!



Envelope

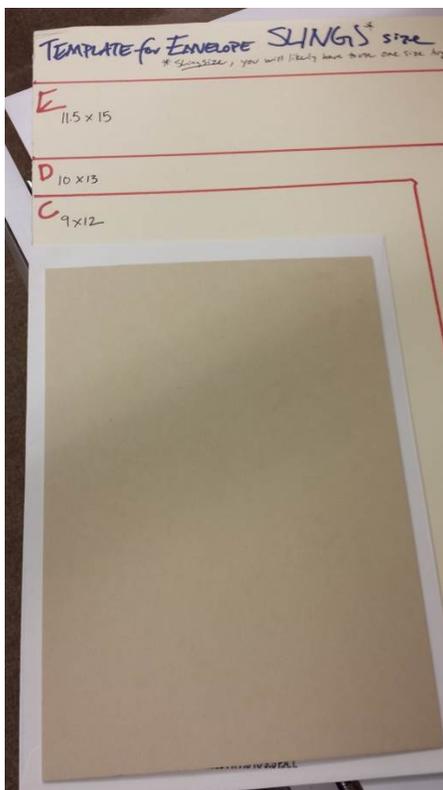
2. Choose an appropriately sized envelope. Envelope should match the sling as closely as possible while still allowing patrons to easily remove/reinsert the item. If item is more than 3-5mm thick, you may need to go up to the next envelope size.

Collections Care Section: General Manual



Stiffener

3. Only needed on non-hardback items (leaflets, softcovers, etc). Matches the envelope size, not the item size.



Assembly

1. Wrap sling around the item.

Collections Care Section: General Manual



2. If using a stiffener, slide it into the envelope first.
3. Insert item.
4. Label and barcode item as usual.

Collections Care Section: General Manual

3. Bindery Preparation II

Time Requirements:

Approximately 30 minutes.

Purpose and Background:

The Bindery Prep II workflow is distinguished from the less time consuming Bindery Prep I by additional treatment need categories. These additional need categories might occur individually in some cases, or even all together in others. They are as follows:

- Items that have detached or broken signatures and gatherings that need to be repaired before they are sent to a contracted commercial bindery. These are typically sewn volumes and must be re-sewn at the broken areas. The goal is to retain the original leaf attachment structure through the prep and library binding process.
- Items with decorative/information covers or endsheets. These are items with information or decorations that will be lost when the original covers and/or paste down endsheets are disposed of by the contracted commercial bindery. Our task is to create facsimiles of these decorative/information pieces so that they are preserved through the binding process by making quality archival copy reproductions that can be attached to the textblock. These materials may be sewn volumes, as well as adhesive bound volumes. In either case the newly created facsimiled material will be attached to the textblock by using an appropriate attachment technique for the style of binding, (either Japanese paper & wheat starch paste hinges or by tipping in the loose leaves.) Thus any materials (such as covers) that are disposed of by the bindery will be retained as part of the textblock.
- Any items that will be sent to the contracted commercial bindery that have a significant amount of Paper Repair and/or facsimile treatment needs that would increase the amount time needed to prepare the volume for commercial binding above and beyond the time allowed for Bindery Prep I treatment.

3.1 Bindery Prep II – Volumes w/ broken sewing

Considerations:

Does the volume need to be re-sewn entirely, or in part?

What sewing structure is appropriate given the size of the volume, weight of the paper, and condition?

Procedures:

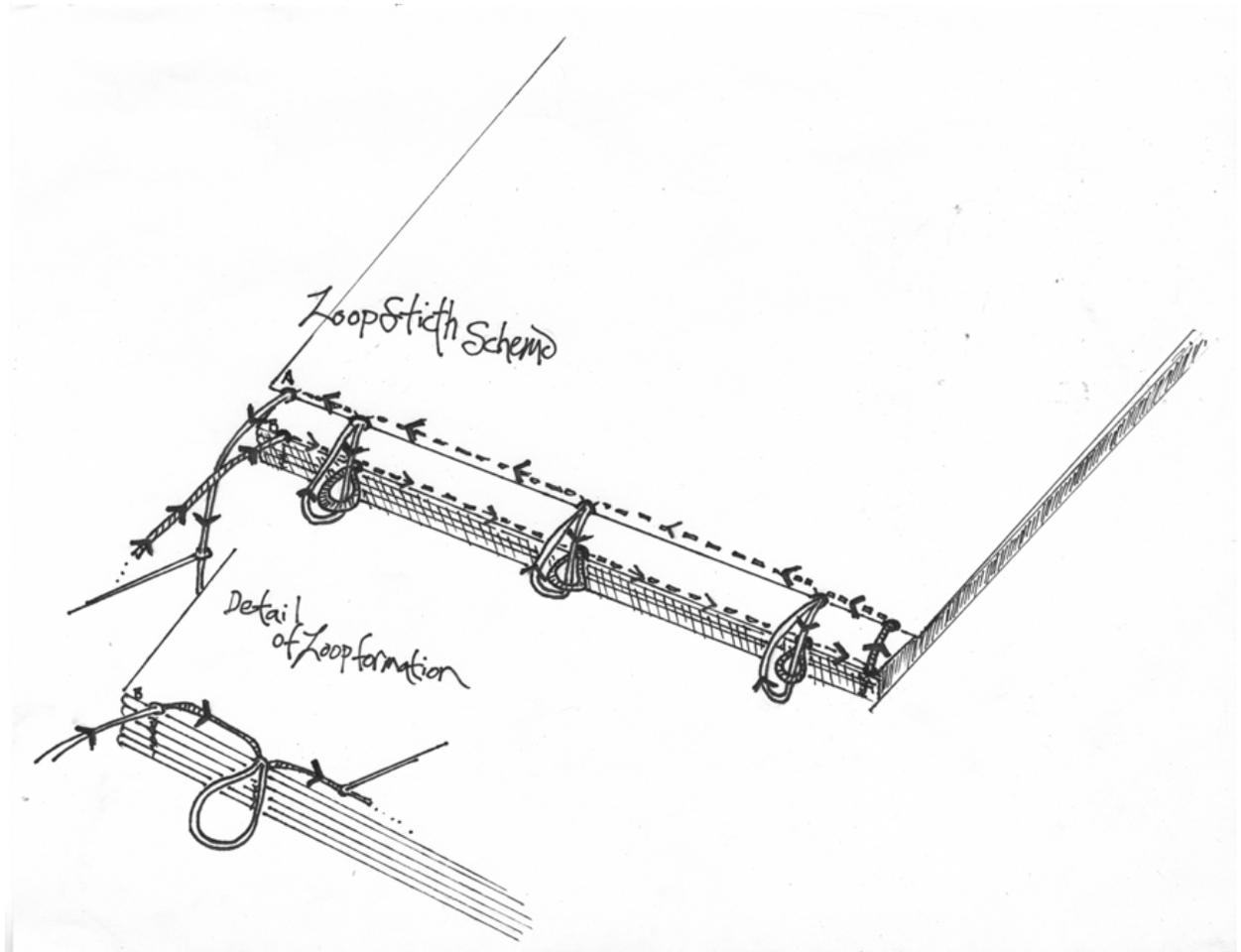
Prepare textblock:

Collections Care Section: General Manual

Remove the textblock from the case by carefully separating the endsheet's flyleaf from the textblock pages. Gently cut through any super / cambric.

Volumes that have just a section (a signature or two) detached at the front and back do not need to be re-sewn entirely.

1. Find the location of the last section where the sewing is intact. Guard to keep sewing in place, if necessary.
2. Repair any damaged folios on the sections that have detached.
3. Commence link stitch (loopstitch) sewing at that section, attaching the additional sections.



Volumes that must be re-sewn entirely would likely benefit from being sewn on supports.

1. Guard any damaged folios on the sections that have detached.
2. Commence link stitch sewing on supports.

3.2 Bindery Prep II – Volumes w/ Decorative or Informative Pieces (such as Covers and/or Endsheets)

Collections Care Section: General Manual

Considerations:

Is the facsimile to be created color, grayscale, or black / white?

Is the page to be reproduced printed on the front and back?

Procedures:

1. Prepare textblock
2. Remove the textblock from the case by carefully separating the endsheet's flyleaf from the textblock pages. Gently cut through any super / cambric
3. Make Facsimiles (see Intermediate Treatment)
4. Hinge (see Hinge-in Basic/Minor Treatment) or Tip-In (see Tip-in Basic/Minor Treatment) the newly created loose material to the textblock

3.3 Bindery Prep II – Volumes w/ significant amount of Paper Repair and/or Facsimile treatment needs

1. Prepare textblock
2. Remove the textblock from the case by carefully separating the endsheet's flyleaf from the textblock pages. Gently cut through any super / cambric.
3. Perform Paper Repair (see Paper Repair Basic/Minor Treatment) and/ or Facsimile (see Facsimile Intermediate Treatment) as required.

4. Hinge repair (Inner & Outer)

4.1 Inner Hinge Repair

Time Requirements:

30 minutes per item.

Purpose and Background:

Reinforce and/or repair the inner hinge with Japanese paper.

Considerations:

This simple, non-invasive treatment is useful when the inner hinge is minimally damaged. Examine the hinge area: if a single tear or loss in the entire area does not exceed 3 cm, an inner hinge repair is a sound option. More extensive damage, such as longer tears or case-textblock separation, signals a need for re-casing.

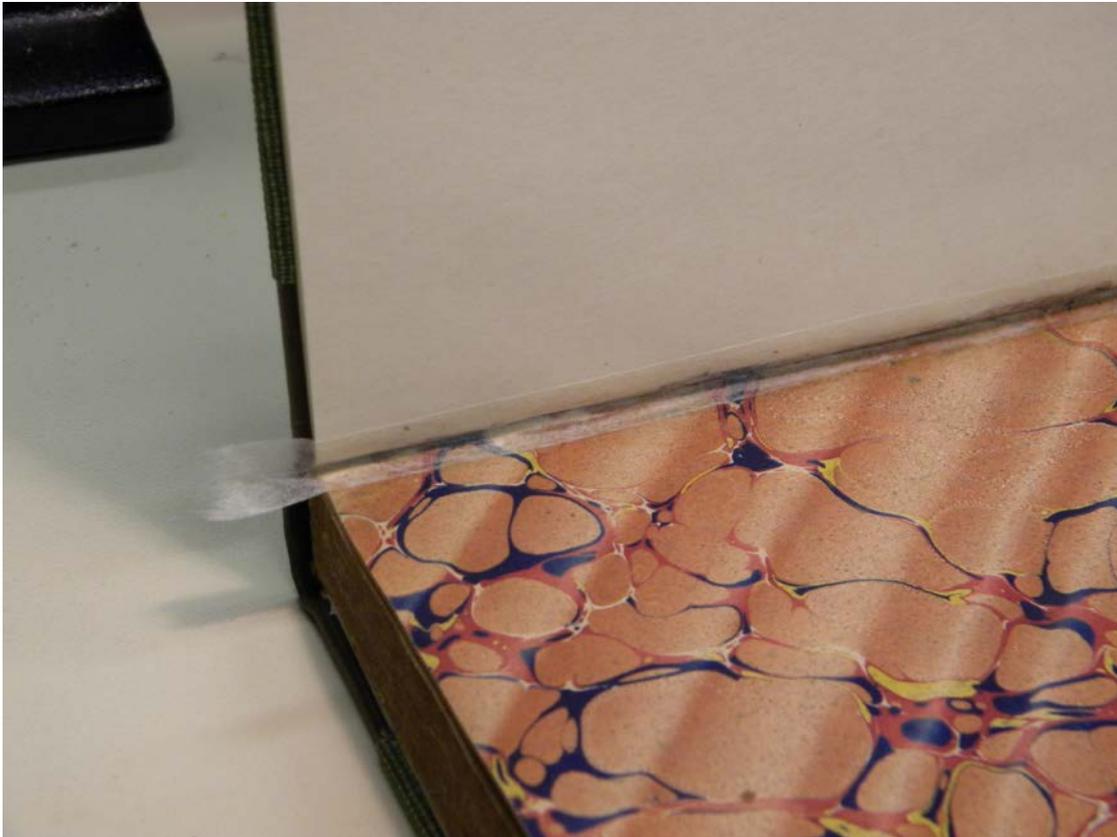
The repair can also be preventative. If the hinge appears to be weak, thin, or inflexible (open the book to test: does the hinge give easily, or is the movement strained?), Japanese tissue provides a solid reinforcement. In either case, the treatment is structurally beneficial and aesthetically pleasing.

Collections Care Section: General Manual

Recase treatments, where endsheets have been retained by lifting pastedowns are also candidates for inner hinge repair. Here, Japanese tissue is applied to offer support in the hinge area while concealing gaps between the pastedowns and endsheets.

Procedures:

1. Select a piece of Japanese tissue that matches the color of the item's endsheets as closely as possible.
2. An initial, rough trim of the material's width should measure approximately 50 mm. Cut this piece to match the height of the item's endsheets. The length of the Japanese tissue should always match the complete length of the endsheets.
3. Use a water pen and straightedge to trim the width more exactly. Separate the material along the water line by hand. Do not use a blade. It is preferable to have the tissue's fibers visible and scraggly; this will help to ensure that the material adheres properly. The resulting width should be approximately 40 mm.
4. Place the trimmed Japanese tissue on a piece of scrap paper and apply a consistent coat of wheat starch paste. Be sure to cover the surface thoroughly and smoothly.
5. Lift the material from the scrap paper with tweezers. Check for pieces of dirt or lint and remove if necessary.
6. Situate the material on the item's hinge area so that the width extends evenly on both sides of the hinge. Check to see that the tissue matches up at the head and tail.



7. Use a bone folder to gently guide the tissue into the hinge. Do this slowly and carefully to avoid tearing the damp tissue.
8. Smooth the sides of the tissue down with the bone folder, making sure that they are flush against the pastedown and textblock. Check for bubbles or spaces that are missing adhesive.
9. Insert a clean piece of wax paper into the hinge. This will keep both sides of the damp tissue separated when the book is closed to dry.
10. Close the book and place under blotter paper, Plexiglas®, and weights. Allow to dry for approximately one hour.

4.2 Outer Hinge Repair

Time Requirements:

30 minutes per item.

Purpose and Background:

This treatment is used to reinforce and/or repair small areas of surface damage to the outer hinge with Japanese paper.

Collections Care Section: General Manual

Considerations:

Before choosing this treatment, examine the item to make sure it is structurally sound: Is the spine partially or completely detached? Are the endsheets torn or loose? Does the area of damage extend past a quarter of the spine's total length? If any of these conditions are present, the item is a candidate for a New Spine or Recase-style treatment.

Procedures:



1. Select a piece of Japanese tissue that matches the color of the area to be treated as closely as possible.
2. Use a small brush and PVA (or wheat starch paste, if the paper is fragile) to tack down any loose material around the damaged area.

Smooth the material down with a bone folder or your finger. An even surface will help prevent bumps or bubbles from forming after applying the Japanese tissue.

3. Measure and trim the Japanese tissue to cover the damaged area. The tissue should overlap the area by approximately 3 mm.

Collections Care Section: General Manual

Use a water pen to draw an outline on the tissue. Pull the sized tissue out with your fingers so that the fibers remain intact. Do not use a blade. Scraggly fibers are desirable, as they help the new material adhere securely, while allowing it to blend without a stark seam.



4. Place the trimmed Japanese tissue on a piece of scrap paper or Mylar® and apply a consistent coat of wheat starch paste. Be sure to cover the surface thoroughly and smoothly. A wash of PVA cut with methyl cellulose may be appropriate in place of wheat starch paste.
5. Lift the material from the scrap paper with tweezers. Check for pieces of dirt or lint and remove if necessary.
6. Place the Japanese tissue over the damaged area. Smooth down with a bone folder and/or your fingers.



If the repair is located at the head or tail of an item's spine, turn or fold the material into the hollow of the spine, or the edge of the cover, to create a solid edge.

7. Allow to dry thoroughly.
8. Finish the treatment by applying a consistent coat of SC6000® to the Japanese tissue. A wash of methyl cellulose can also be applied in place of SC6000® to make the paper repair more robust.

Collections Care Section: General Manual

5. New spine (Reback)

Time Requirements:

60 minutes per item.

Purpose and Background:

Replace the damaged spine of a book cover when the case is otherwise in good condition and the cover to text attachment is sound.



Considerations:

Spine damage can be treated in a number of ways. Small tears and/or losses can be mended with Japanese tissue, while tiny and shallow surface cuts can be tacked down with PVA. A New Spine is most appropriate when only the spine itself is damaged and/or detached. Deeper, more extensive damage that extends to the endsheets makes the item a candidate for inner hinge repair (in addition to the New Spine treatment), or a Recase New Spine/ Recase Lined Original Case treatment.

Procedures:

1. Choose a book cloth that is an appropriate weight and color to match the original cloth. Toned linen and appropriate paper may be used as well for a best match. Rarely, paper backed linen might be used instead for aesthetic reasons, particularly if the book is quarter or half leather bound, or if it is a 19th century publisher's binding.



C-cloth



Buckram

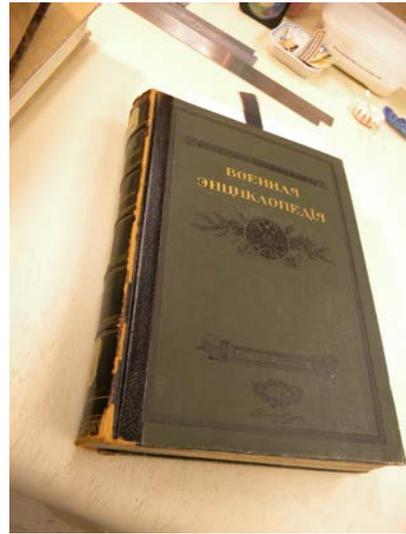


Paper-backed linen

Collections Care Section: General Manual



Half leather



Quarter leather

2. Apply PVA to a piece of cotton tying tape at least 3 cm long, and hang to dry.

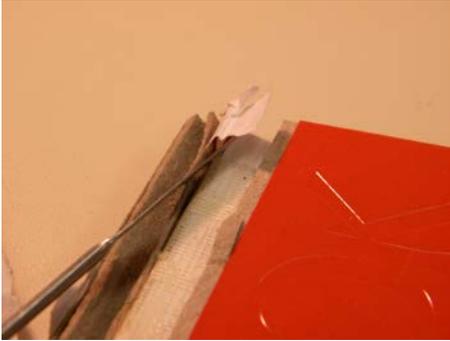


3. Make cuts to the front and back covers to remove the existing spine. Beginning on the back of the book, measure 2 mm inward on the board from the spine side of the board's edge and make a cut with a sharp blade/knife from head to tail.



Collections Care Section: General Manual

After making this cut from head to tail on the outside surface of the book, remove the spine from the case. Be careful not to cut in the hinge area. It may be helpful to use a knife or micro spatula to remove the spine from the case. Repeat this procedure on the front of the book. If extant, remove the small paper flaps extending from the edge of the board.

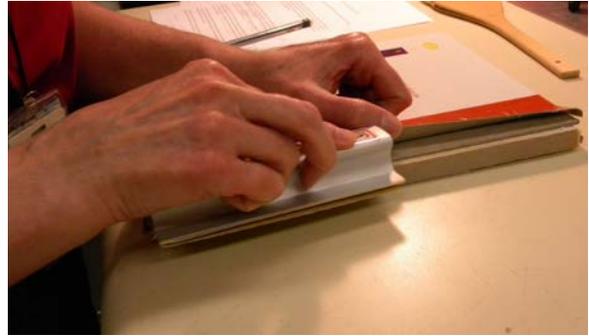


4. Make a trapezoidal relief cut (4 total) to allow lifting of the cover cloth: On the inside of the covers, along the pastedown square, about 2.5 mm from the spine hinge, make a small cut, at a diagonal to the edge of the board (See Picture for reference.) Then, cut along the straight edge of the pastedown from the diagonal cut to the spine-side board edge. Lift the cloth from the board using a knife or spatula. This will create a little flap, not to be removed. Each board will have two of these cloth flaps, one on each side, head and tail.



5. If the text block's original paper spine lining is deteriorating or missing, make a new spine lining using the 60 lb. paper or equivalent. The paper spine lining should be the width of the textblock spine and approximately 4-5mm shorter than the textblock at head and tail.
6. Lift the book cloth from the board with a micro spatula. Begin with the back board. Lift only as far as the diagonal cuts you made. Sand the board under the lifted cloth. After sanding, brush beneath the lifted cloth to remove dust.

Collections Care Section: General Manual

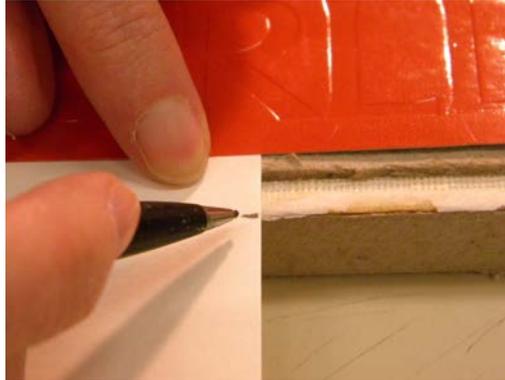


7. Make a spine stiffener using the 80 lb. Mohawk paper or equivalent. The new spine stiffener should be the height of the boards and the width of the textblock spine. An adhesive backed security strip will be added to the new spine. This makes the security strip integral and difficult if not impossible to remove.

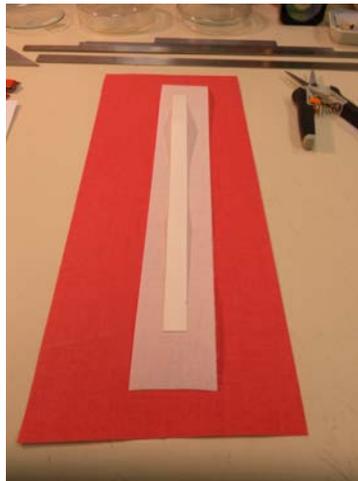


Collections Care Section: General Manual

8. Measure the distance from the edge of the shoulder to the cut you made in the covering cloth in Step #3. Using a pencil, recreate the distance on a piece of waste paper. This is your hinge width measurement for this step (Step #8.)



9. Cut your lining cloth to size:
To measure the lining cloth: Add 2mm + hinge width + spine stiffener width + hinge width + 2mm. This is the lining cloth width. The lining cloth length should be at least 55mm longer than the board height. The lining cloth will help protect the textblock spine and hinge areas.



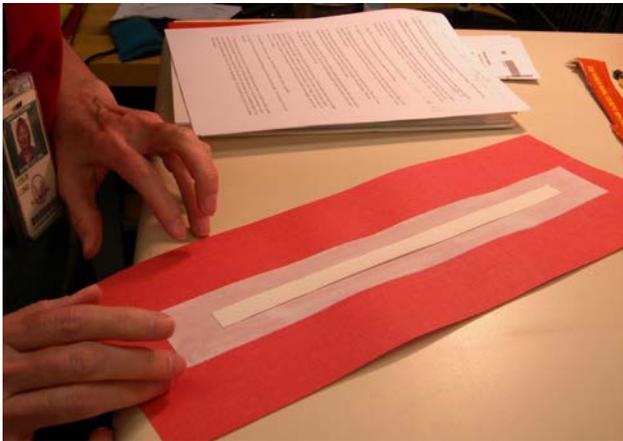
Spine stiffener, Lining cloth and New Spine cloth.

Collections Care Section: General Manual

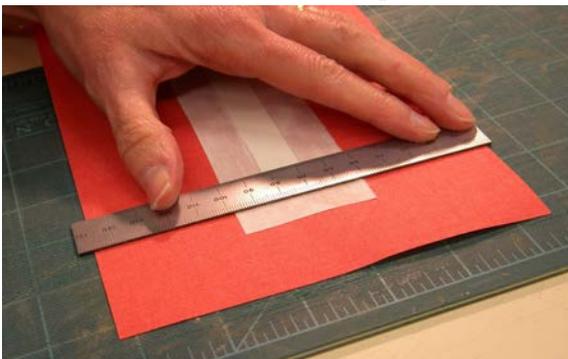
10. Apply PVA to the cloth lining with a roller or brush, and place it at the center of the book cloth.



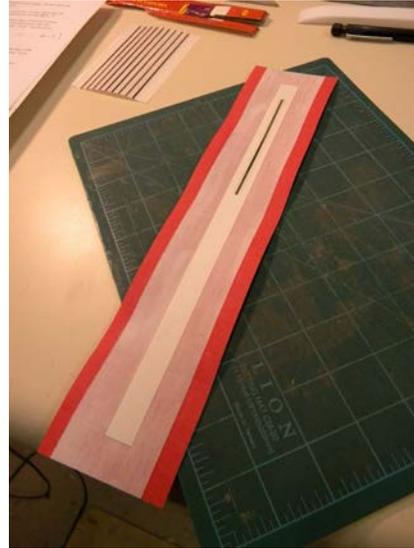
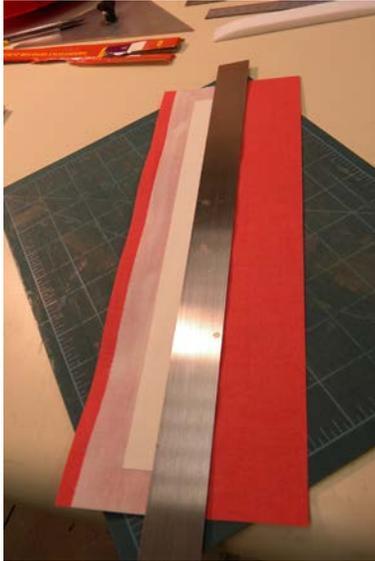
11. Apply PVA to the spine stiffener, center and place it in the middle of the cloth lining.



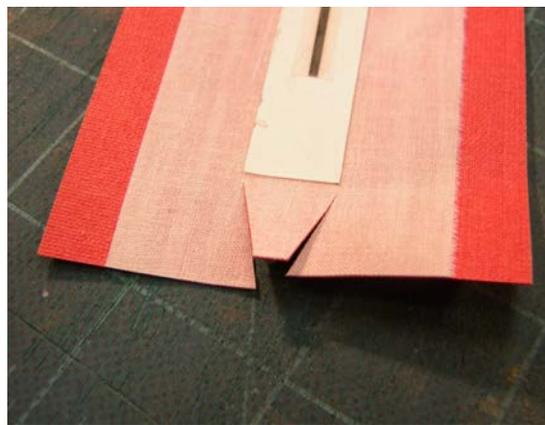
12. Trim the new spine to the correct size. Measure approximately 2.0 cm from the head and tail edges of the new spine stiffener, and remove the excess cloth. Measure approximately 2.5 cm from each side of the spine stiffener and trim the excess cloth. Add the security strip at this point in the construction of the new spine.



Collections Care Section: General Manual

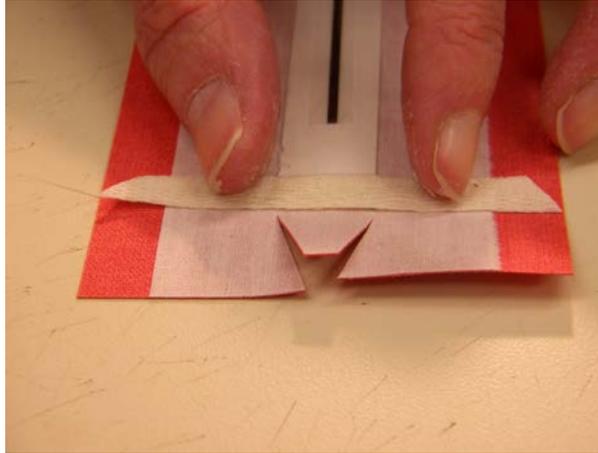


13. On the head of the new spine, measure approximately 1mm from each corner of the spine stiffener. From this point make two diagonal cuts, angling slightly inward toward each other, extending to the edge of the book cloth. The cuts should not meet. Make two similar cuts at the tail.

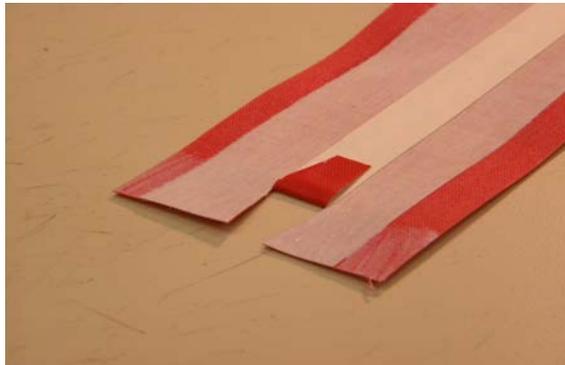


14. Decide which end of the new spine will be the head and which will be the tail. Trim the cotton typing tape to the exact width of the new spine. Angle its ends so the tips touch the edges of the new spine (See picture). Place the cotton tying tape head reinforcement at the head of the new spine with the top edge of the tying tape at the top edge of the stiffener.

Collections Care Section: General Manual



15. Apply PVA to the tail cloth that you cut into three sections. Fold the middle section onto the spine stiffener even with the edge of the stiffener. Fold the two side sections onto the inside of the new spine, angling them inward to overlap the middle section slightly, by approximately 1 mm. Repeat this procedure for the head. From the outside of the new spine, the cloth at head and tail should form a slight, smooth curve with no cuts visible.



16. Round the new spine on the edge of the bench if the textblock spine is rounded.

Slip the new spine under the lifted book cloth to make sure it fits. If the cloth is too large, cut off the excess now.
17. Apply PVA to one side of the book cloth and cloth lining. Do not apply PVA to the spine stiffener.



Collections Care Section: General Manual

18. Attach the glued side of the new spine to the section of board exposed when you lifted the cloth/leather from the back cover board. While the new spine is still moveable, make sure it is centered vertically so that excess material does not overhang at head or tail. Turn the book over and line up the un-adhered edge of the spine inlay even with the edge of the book's uncovered shoulder. The cuts should line up with the shoulders of the textblock. Use a bone folder to smooth down the edge of the new spine cloth as much as possible against the board.
19. Apply PVA to the lifted cloth, blot it with a strip of waste paper, and adhere it to the new spine cloth. Use a Teflon folder to smooth the cover cloth back into place. Set the hinge with a bone folder.



Collections Care Section: General Manual



20. Repeat steps 1 – 19 on the other side of the book.
23. Place the book between brass edged boards and place it in the press for thirty minutes.
24. Remove the book from the press. Remove any material adhered to the inside of the 4 flaps at the head and tail of book. Apply methyl cellulose, if needed, to help remove any board material from them with a micro spatula. Trim excess frayed threads leaving enough cloth to cover each board edge. Apply PVA to each flap and place it on the inside of the board. Each flap must fit into the space from which it was cut with no gaps between the edges of the cuts and the pastedown. Often, the exposed inside board edges must be whittled away with a micro spatula until the cloth fits.



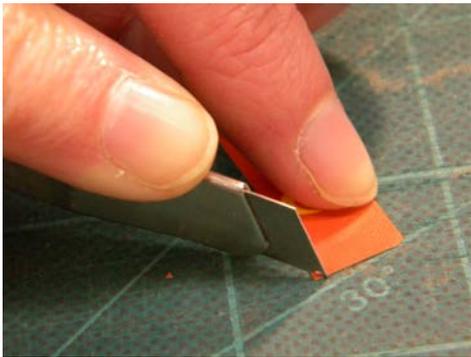
25. Trim the spine of the original case. Try to save the author/title, publisher and call number label. Clean old paper linings from the spine as much as possible mechanically, and then use methyl cellulose to remove any remaining residue if needed. If methyl cellulose is used to clean the spine, sandwich the spine between blotters lined with Remy® to dry flat under weight.

Collections Care Section: General Manual



26. Place the book in a finishing press. Trim the original spine to fit. .

Make a small diagonal cut at each corner to keep the cloth (paper or leather) spine edges from fraying. Apply PVA and place the spine on the book. Make sure the edges are stuck. Using PVA cut with methyl cellulose may be desirable to allow for time to position the spine properly.



27. If the spine from the original case is no longer legible or is too damaged to be used, make a paper label using 60 lb. Mohawk Superfine paper.