1. Defining Book Repair

Book repair is a large part of maintaining the Bob Jones University Mack Library. Any book that needs attention, whether it has brittle or torn pages, a broken spine, a torn cover, or any other damage, will be addressed in the mending room. Some items need quick fixes, but others may be in the mending room several months before returning to circulation (e.g. copying or ordering a replacement copy). We hope you will take pride in doing your very best to repair items and return books to Circulation as soon as possible.

It is also important to note the difference between repair and conservation. Mack Library, as a service to its customers, strives to maintain the usability of the books in its collection, necessitating a book mending department as a part of Technical Services. Tauber, in his book *Library Binding Manual: a handbook of useful procedures for the maintenance of library volumes*, summarizes the upkeeping of books thus:

> Books are the packages or containers for information. As such, they are consumable. Library [menders] seek to conserve the useful life of volumes that ultimately will be expended or replaced. They seek *to maintain the useful life* of the volume by [repairing] the package. Keepers of rare books seek to *preserve* not only the content but the container so as to pass them on to posterity in the best possible state.

This encapsulates our purpose—to preserve the efficacy of the knowledge retained among the works in our collection. In some cases, such as old or rare books in Special Collections, we should take special care to "preserve not only the content but the container," as Tauber aptly stated. However, this is not always possible due to time and budget constraints. For these reasons, our concern is primarily "to maintain the useful life of the volume by repairing" instead of conserving.

2. Job Description

The duties and goals of the mending worker are to—

Process new library books by applying the appropriate materials,

Repair damaged books needing new spines or covers, tightened base hinges, etc.,

Copy old and unrepairable books,

Apply Colibri covers to books with dust jackets,

Laminate extension resources or other specified items, and,

Think critically and work with the rest of Technical Services to provide the most appropriate repair quickly and effectively to every item that enters the mending room.

3. Processing

This is one of the first and most basic tasks the mending worker will learn. All items that enter the library through either acquisition or donation are processed before being entered into the library database and catalogued. After an item has been processed, place it on the appropriately labeled shelf in the Technical Services Coordinator's office.

3.1 Books

Circulating books receive the minimum amount of processing, namely the barcodes and stamps addressed in the first two sections below. These books are placed normally in the stacks and may be checked out and returned by customers. Additional book types, with their respective processes, will be addressed by the additional sections below.

3.1.1 Barcodes

Before applying barcodes, ensure there are three available of the same ID number. There are two types of barcodes: Mack Library and Music Library. All books require the appropriate barcodes at three locations—outside the back cover, inside the back cover, and on the title page, described in the following subsections.

3.1.1.1 Outside Back Cover

Try to avoid placing the barcode over important text printed on the back. Mylar will be placed over the barcode to protect and reinforce the barcode, so also try to leave a around 1 inch (~2.5 cm) between the top of the barcode and the top of the book. If space requires, cut just enough off the top and bottom of the barcode to avoid covering text. Prefer to cut the bottom first, up to the bottom of the ID number. If necessary, it is permissible to cut the text off the top, but do not cut into the barcode stripe. Under no circumstances cut into the sides of the barcode.

> **Note:** If the book has a dust cover, place the barcode at the same place on the dust cover, but do not apply Mylar—Colibri will be applied later and will serve the same purpose as the Mylar would.

After the appropriate barcode has been firmly applied to the cover, take a Mylar strip and lay over the barcode—try to center the barcode underneath. If the barcode had to be cut down, trim the Mylar strip to be proportional to the new height of the barcode. Gently rub over the Mylar with a bone folder to eliminate any air bubbles that may have been created.

3.1.1.2 Inside Back Cover

Apply the same general process as on the outside of the cover. Place the appropriate barcode vertically centered on the inside right of the cover, sideways, with the top edge facing outward from the book spine. Leave some space between the barcode and the right edge of the book. It looks nice to have about an inch (~25 mm) of space. Apply Mylar as before.

> **Note:** If the book has a dust cover, place the barcode on the flap of the dust cover. There is usually printed material on the flap, so it might be necessary again to trim the barcode. Do not apply Mylar on the dust cover.

3.1.1.3 Title Page

The proper title page may sometimes be difficult to find when the title is prominently displayed on several pages. To find the title page, find the sheet that contains the publication information on the back—the front side of this sheet is the title page. Place the appropriate barcode toward the lower left corner, keeping it out of the spine and a little way from the bottom. This is to ensure that it will be easy to find and scan. As always, be careful not to cover up any text. Never apply Mylar onto the title page barcode.

3.1.2 Stamps

Property stamps are applied to all books. There are two types of stamps: Mack Library and Music Library. If the pages are glossy (e.g. textbook pages), apply the equivalent label of the stamp using the same processes. The term *stamp* will be used to refer to both stamps and stamp labels in this section. Apply the appropriate stamp (Mack Library or Music Library) at these locations—

3.1.2.1 Title Page

Refer to section 3.1.1.3 to find the proper title page. Apply the appropriate stamp toward the lower right corner, opposite the barcode.

3.1.2.2 Last Page

Apply the appropriate stamp to the lower right corner of the last author-written page. As a general rule, do not stamp in the index/glossary unless it constitutes a sizeable portion of the text.

3.1.2.3 Throughout

Apply the appropriate stamp to the lower right corner of various pages throughout the book—generally every 100 pages or so. Avoid placing stamps over text or page numbers. There is typically plenty of space to stamp at the end of chapters. In shorter books with less than 100 pages (e.g. children's books), a single stamp at a page near the middle of the book is sufficient.

3.1.3 Reference

Reference books are separated from the regular stacks and cannot be checked out of the library. In addition to the regular barcoding and stamping processes, they also receive a *Reference* label centered at the top of the first page directly next to the inside front cover. Also apply the chromaLabel blue dot sticker to the very bottom of the spine. This helps to differentiate between true Reference and Non-Circulating. Cut a longer Mylar strip in half horizontally to make it half as tall—this will ensure the call number label,

which will be placed directly above the chromaLabel, can be placed on the spine material of the book instead of the Mylar. Then carefully place the previously cut Mylar strip over the chromaLabel and fold down over the edges of the spine. Use a bone folder to rub out air bubbles.

> **Note:** If the book is exceptionally thick (as is often the case with large Reference books) and the edges of the long Mylar strip rest on or close to the book hinge, do not use the long Mylar strip. The edges tend to fray and peel when in this position and do not last as long. Use the short Mylar strip instead when it is shorter than the width of the spine.

3.1.4 Non-Circulating

Non-circulating books are placed in the regular stacks but cannot be checked out. In addition to the regular barcoding and stamping processes, they also receive a *Reference* label as described in section 3.1.3.

> **Note:** Non-circulating books do not receive the chromaLabel blue dot sticker.

Also apply the *Library Use Only* sticker onto the spine of the book so that the top of the sticker is 4 1/8 inches (10.48 cm) from the bottom of the spine. There should be placement guides available to make this step easier. Then carefully place a long Mylar strip over the label and fold down over the edges of the spine.

> **Note:** Refer to the note in section 3.1.3 concerning Mylar application on the book spine for additional specification on this matter.

Use a bone folder to rub out air bubbles.

3.1.5 Educational Resource

Educational Resource books are textbooks from publishers other than BJU Press that are acquired by the library for the annual textbook review. They are processed to be put

in the textbook section of the library once the review has been completed. In addition to the regular barcoding and stamping processes, also apply the *Educational Resources* label onto the spine of the book so that the top of the label is 3 3/8 inches (8.5 cm) from the bottom of the spine. There should be placement guides available to make this step easier. Cut a longer Mylar strip in half horizontally to make it half as tall—this makes the Mylar strip better match the height of the label and looks more professional.

> **Note:** Refer to the note in section 3.1.3 concerning Mylar application on the book spine for additional specification on this matter.

Then carefully place the previously cut Mylar strip over the label and fold down over the edges of the spine. Use a bone folder to rub out air bubbles.

3.1.6 BJU Textbook

BJU Textbooks are published by BJU Press and are placed in the textbook section of library separately from Educational Resources. In addition to the regular barcoding and stamping processes, also apply the *BJU Textbook* label onto the spine of the book so that the bottom of the label is 3 inches (7.6 cm) from the bottom of the spine. Cut a longer Mylar strip in half horizontally to make it half as tall— this makes the Mylar strip better match the height of the label and looks more professional.

> **Note:** Refer to the note in section 3.1.3 concerning Mylar application on the book spine for additional specification on this matter.

Then carefully place the previously cut Mylar strip over the label and fold down over the edges of the spine. Use a bone folder to rub out air bubbles.

3.1.7 Reserve

Reserve books are held behind the circulation counter and are only to be checked out for a few hours at a time—these are typically requests by professors for books regularly used by their class. In addition to the regular barcoding and stamping processes, also

apply the *Reserve* label to the very bottom of the spine. Do not cut the Mylar in half horizontally as the label is too tall.

> **Note:** Refer to the note in section 3.1.3 concerning Mylar application on the book spine for additional specification on this matter.

Then carefully place the Mylar strip over the label and fold down over the edges of the spine. Use a bone folder to rub out air bubbles.

3.1.8 Seminary

Seminary books are placed in the library of the Seminary building on campus. They receive no special treatment aside from the regular barcoding and stamping processes.

3.1.9 Oversize

Oversize books are too large to fit on a regular shelf; therefore, they are placed on the top shelf of the stacks above where their call number would place them. In addition to the regular barcoding and stamping processes, also apply the *Oversize* label to the bottom left of the outside front cover, leaving room at the edges for a Mylar strip to be applied. Try to avoid covering up important text. Place a Mylar strip oriented vertically over the *Oversize* label without going over either edge of the cover.

3.1.10 Previously Processed

These are books that have already been processed at one time or another and are missing processing items (e.g. barcodes). Examine the book to find how many barcodes it needs.

> **Note:** Do not replace existing barcodes, just add the missing ones.

Write a note to the Technical Services Coordinator based on whether there are currently any barcodes on the book—

1. If there are no barcodes present, indicate that there are no barcodes on the book and provide both the note and the book to the Technical Services Coordinator.

2. If there is at least one barcode present, write a note containing the ID number and the number of barcodes needed for the book. There is no need to provide the book to the Technical Services Coordinator in this situation.

3.2 Audio-Visuals

3.3 Music Scores

4. Colibri

Colibri covers preserve dust jackets on hardback books and keep paperback foldouts intact. If a dust jacket is old, tattered, or does not improve a book's appearance, it may be best to discard the jacket (check with the Cataloguer first). If the jacket is discarded, copy any author/book information that is not present in the book itself. Cut the information to the size of the book's pages and tip it into the back of book (perhaps using Japanese paper).

4.1 Choose Colibri Cover

Choose the smallest cover large enough to fit over the given book. There are three sizes available—mini, standard, and big.

4.2 Trim Height

Place the cover on the Colibri system with the flaps facing upward. Then place the book on the cover, leaving about 1/8 inch (3 mm) between the bottom of the book and the bottom of the Colibri cover. Do not insert the book into the flaps at this point. This will vary slightly when the book cover is exceptionally thick or thin.

> **Note:** Colibri covers are also placed on books that have been requested by teachers from the Bob Jones Academy to be used in their classrooms. These are often paperback books with no dustcover. Virtually no extra space is needed in these instances.

Slide the top edge of the Colibri cover under the bar, keeping the book in place on the cover. Be sure to leave space between the top of the book and bar equal to the space left at the bottom. Press firmly on the handles until the LCD panel displays *Finished*. The bar does not cut, but melts the two layers of plastic together, at which point it is soft enough to be pulled away by the rollers.

4.3 Insert Book Into Colibri Cover

Partially insert the front cover of the book into the left flap of the Colibri cover just enough that it will stay on well while inserting the back cover. With the front cover completely open, place the open front of the book down. Carefully open the back cover of the book to insert into the right flap of the Colibri cover. Stand the book up and gently move the Colibri flaps inward toward the book spine until the book can fully close and the flaps are equidistant from the spine.

> **Note:** If the book covers are wide enough for one of the Colibri flaps to move fully onto the cover without extending past its edge, do so. If just a little bit of the Colibri cover extends past the book cover, the bar will melt the plastic, but the rollers will not be able to tear it. It is possible to manually tear off the remaining plastic, but this process is prone to creating holes.

4.4 Trim Width

Slide the Colibri flap covering the back cover of the book under the bar. You may need to leave some extra space to adjust for exceptionally thick covers, where extra plastic will be needed to span the space along the thickness of the cover. If there is not enough space left in these instances, the plastic will likely not meld together properly, rendering the Colibri cover unusable. Press firmly on the handles until the LCD panel displays *Finished*.

> **Note:** It has been found that when using the thicker Colibri covers with the green lettering, it is better to let the screen flash the *Finished* display three times before releasing pressure—this gives the thicker plastic more time to meld completely and uniformly.

Pick the book up and ensure all excess slack is moved to the uncut side of the Colibri. Then repeat the trimming process for the Colibri flap covering the front cover of the book.

4.5 Evaluate

Inspect the Colibri cover to ensure there are no holes or tears in the corners or edges. If there, discard the cover and repeat the process. After finishing the batch of books needing Colibri covers, total up how many covers were used (including discarded covers) and make a new entry in the chart entitled *Colibri Cover Tracker*. Take the books to whomever will mark them completed in the library system.

5. Pamphlet Binders

Pamphlet binders reinforce otherwise unprotected pamphlets and music scores.

5.1 Regular Pamphlets

1. Remove the pamphlet's staples.
2. Color copy the pamphlet's cover onto non-acidic book paper.

   Note: If the copied cover is not easily readable, instead use a Word document to print the title and author.
3. Select an appropriately sized pamphlet binder.
4. Trim the printed cover to fit the pamphlet binder.
5. Glue the new cover to the pamphlet binder's front cover using the book glue, **not** a glue stick. Quickly smooth out any bubbles using a bone folder.
6. Place a book plate and bricks on top of the pamphlet binder and leave until it dries completely.
7. Center the pamphlet in the inside of the pamphlet binder and staple

7. Use the heavy-duty stapler:

a. Center the booklet in the pamphlet binder

b. Staple two (small booklets) or three (large booklets) times.

8. Process as a normal book according to its type (e.g. stacks or reference).

5.2 Music Scores

6. Lamination

Items that might need to be laminated include spiral bound book covers, posters, maps, or extension resource materials.

6.1 Preparation

1. Turn on the laminator. The light will flash orange while it is warming up, which takes approximately 15 minutes. When it is ready, the light will change to a steady green.

2. If there are any tears in the paper, tape it using archival tape.

3. Select the speed at which to send the material through. Thicker paper requires a slower speed, and thinner paper allows for a faster speed. For instance, cardstock or construction paper should be sent through at the slowest speed, while normal paper may be sent through at the fastest speed. The laminate will bubble if sent through to fast, so err on the side of slower speeds.

6.2 Laminating

1. Change the Motor switch to Run. Let the laminate run by itself for a couple seconds to allow the leftover laminate from the previous lamination process to finish running through the laminator.

2. Send the item through straight and flat, leaving at least 2 inches (~5 cm) from either edge of the plastic.

3. When the material has passed the cutter on the back edge of the laminator, change Motor switch to Stop.

4. Slide the cutter at the back of the laminator across the plastic.

6.3 Trimming

Trim the laminate around the material. There will be a small space around the material that is bubbled. Do not cut into this bubble, or the laminate will easily peel back when handled. This bubble is typically around 1/16 inches (~1.5 mm); however, this margin may be larger for thicker materials.

> **Note:** The only time when it is necessary to trim up to the edge of the material, cutting through the edge bubble, is for the edge of a cover going into a spiral binding. Leave the bubble for the three exposed edges of the cover, but trim through it for edge that will be inside the spiral.

7. Sewing

This section is extracted from the section Resewing A Damaged Text Block in Artemis BonaDea's *Conservation Book Repair: A Training Manual*. The author specified on page ii that its contents "may be reprinted in whole or in part, with proper credit, to accommodate users, library board members, and personnel of libraries." Some edits or annotations to the original material have been made here to be more immediately applicable and maintain coherency with the rest of this manual. Here begins the excerpted material—

7.1 Introduction

Often the sewing thread in one or two signatures will break while the rest of the text block sewing is sound. In this case, tipping or hinging the separated signature(s) into the book is not the best option because those methods do not give enough support to so many pages. Also, tipping-in pages adds several layers of thickness to the spine of the text block. The extra thickness can put stress on the hinges and interfere with the pages opening easily.

Resewing an entire text block takes time and practice and should only be attempted when the book is judged to have lasting importance to the collection. Before resewing a text block, study the sewing structure.

> Open the text block to the center of a signature and look at the sewing threads.
>
> Books sewn by machine usually have double threads and no sewing supports (tapes or cords). This kind of sewing is called unsupported sewing because only the sewing thread and glue hold the signatures together. Most manufactured books are constructed with unsupported machine sewing.
>
> Text blocks that are sewn by hand usually have single sewing threads sewn around tapes or cords for support. Some manufactured books are also sewn on tapes or

cords. This type of sewing is called supported sewing. Supported sewing is always stronger than unsupported sewing because the tape or cord helps support the signatures.

Due to the nature of Mack Library's collection and restraints of time and cost, we have chosen to employ the unsupported sewing technique mentioned here. Supported sewing also requires additional supplies and equipment not available to the library's technical department. The **link stitch** is used to repair a text block sewn using unsupported sewing. In unsupported sewing, the signatures are linked to one another only by the sewing threads and is well enough for all our use-cases here.

7.2 Preparing the Spine and Text Block

Begin by removing the text block from the cover. Then carefully remove the spine lining and cheesecloth from the spine. Use a dull knife to remove any remaining glue that may have become caked onto the spine as well.

7.3 Sewing the Text Block

Depending on the height and weight of the text block, a volume may have more or less sewing stations than the example; a sewing station is a hole punched through the hinge of a signature. The instructions can be repeated as often as necessary, depending on the number of sewing stations of each signature. Any number of sewing stations can be used.

7.3.1 Sewing An Anchor Thread Into An Attached Signature

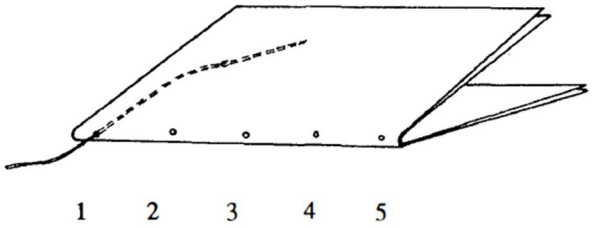
Start on the outside of the first signature's first sewing station, also called the kettle station; kettle stations are the first and last sewing stations on each signature.

Interestingly, the term "kettle" may be a corruption of a German word for "catch-up stitch" or "Kettel stitch" (the stitch that forms a little chain).

The sewing thread is pictured very short in these illustrations. In reality the thread should be as long as needed providing it is a comfortable length to sew with. See Appendix A for information on adding sewing thread when you run out.

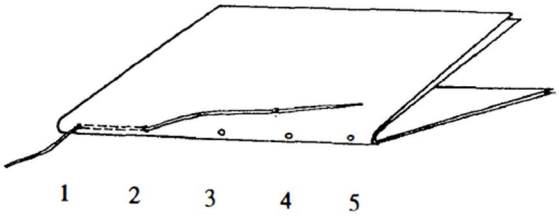
To follow these instructions, station 1 can be at either end of the signature. Follow these instructions using a straight needle.

1. Insert the needle into station number 1 and pull the thread to the inside of the signature. Leave a 2 inch (~5cm) tail of thread on the outside of the signature.

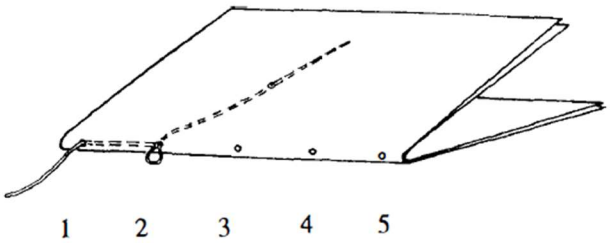


   Note: Always pull and tighten the thread in the direction of the sewing. Thread tightened in the opposite direction, against itself, can tear through the paper between the sewing stations.

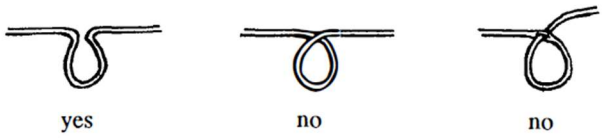
2. On the inside of the signature, insert the needle in station number 2, and pull the thread to the outside of the signature.



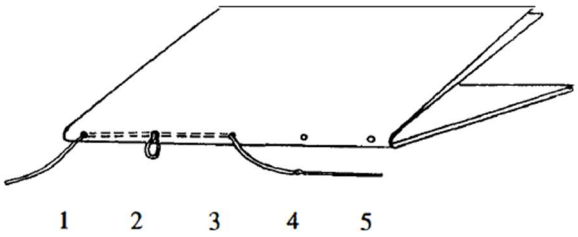
3. On the outside of the signature, insert the needle back into station number 2 and pull the thread to the inside of the signature, leaving a loop of thread on the outside of the sewing station 2.



The loop should be about 1/2 inch. The two threads should not cross over one another, and the needle should not pierce the thread where it reenters a sewing station.

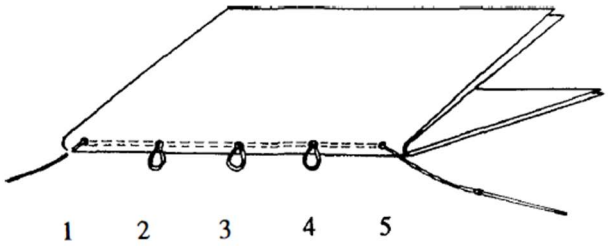


4. On the inside of the signature, insert the needle in station number 3 and pull the thread to the outside of the signature. Do not pull so tight that the loop is pulled out of sewing station 2.



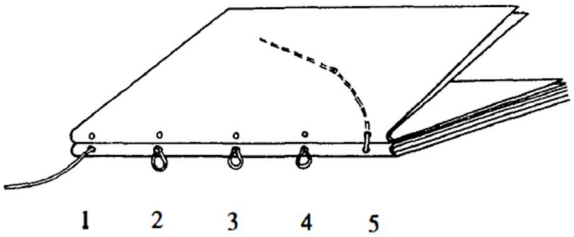
5. Continue sewing along the spine, forming loops at sewing station 3, 4, and 5. Remember to pull the thread in the direction of the sewing. Be careful not to pierce the sewing thread already in the sewing station.

6. At sewing station 5, the thread will be on the outside of the signature. The first signature is now sewn. This sewing provides the anchor for the next signature to be attached to it.

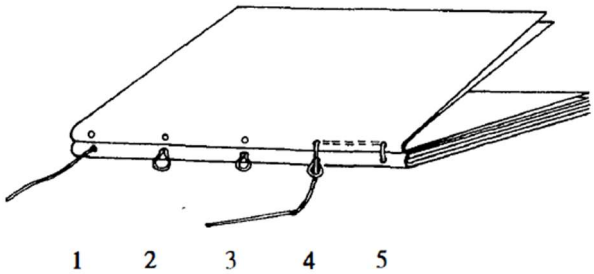


7.3.2 Sewing The First Unattached Signature With A Link Stitch

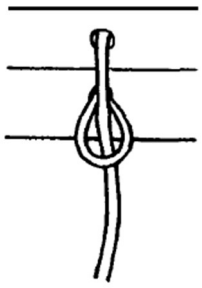
1. On the outside of the second signature, insert the needle into station number 5 (a kettle stitch station) and pull the thread to the inside of the signature. Do not pull the thread so tight that any of the loops in the first signature are lost. The two signatures are now joined together at the kettle stitch stations.



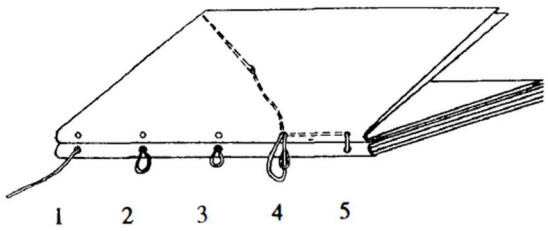
2. Working on the inside of the second signature, insert the needle in sewing station 4.



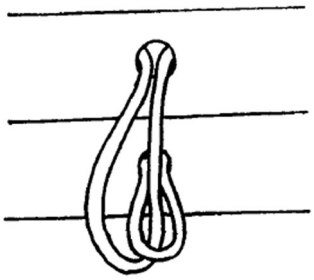
3. Take the thread through the loop at sewing station 4 of the first signature.



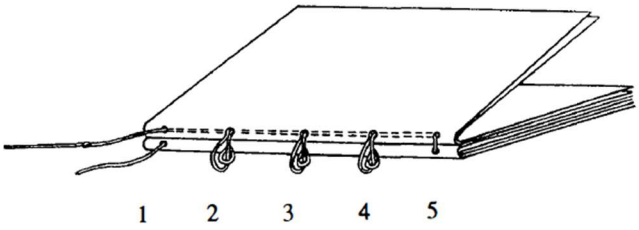
4. Bring the needle around the loop and back up into sewing station 4 on the second signature.



5. There should now be two intertwined loops.



6. Continue sewing in this manner to station 3, 2 and 1. Loop each thread through the loop on the first signature.



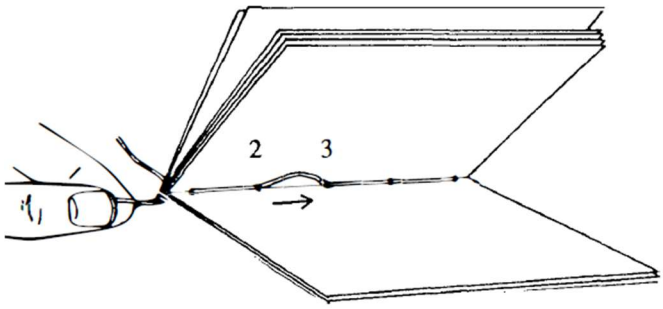
7.3.3 Tighten The Sewing Threads On The First Two Signatures

The first and second signatures are now sewn together but the sewing thread is still loose. If the needle has not pierced the sewing threads when it was re-inserted into each sewing station, it is simple to tighten the thread. You can go ahead an unthread the needle at this point.

> **Note:** Linen thread is very strong, but it will still break if pulled hard enough. Pulling too tight can also tear through the paper. When tightening sewing thread, pull on the thread firmly until it just slips through your fingers.

Position the book so the inside of the first sewn signature is facing out.

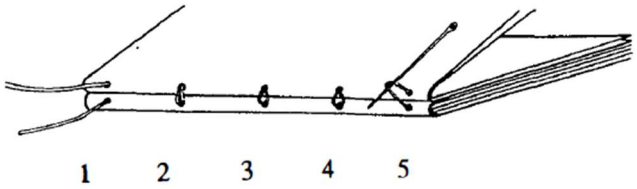
1. Hold the tail end of the sewing thread (sewing station 1) in one hand and grasp the thread between sewing stations 2 & 3. Pull the sewing thread toward sewing station 3.



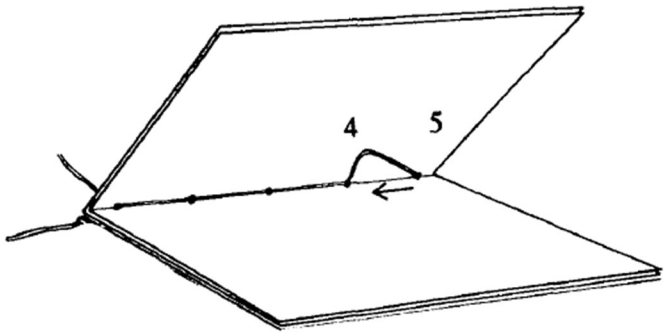
2. Keep hold of the tail end of the sewing thread in one hand and use this same technique to tighten the sewing thread one sewing station at a time, working the thread toward sewing station 5.

3. When all the excess thread is at sewing station 5, reposition the text block so the fold of the signatures is facing out.

4. Still holding the tail end of the sewing thread, use the needle to pull the sewing thread to the outside of the signature at sewing station 5.

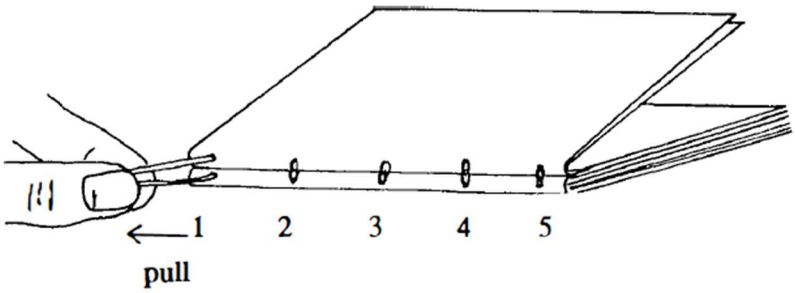


5. Using the same technique, tighten the sewing thread in the second signature one sewing station at a time. Work the excess thread from sewing station 5 toward sewing station 1.



6. When the excess thread is at sewing station 1, turn the text block so the folds of the signatures are facing out. Carefully pull the thread through sewing station 1 toward the outside of the signature.

7. Grasp both threads in one hand and pull away from the edge of the signature fold to fully tighten.

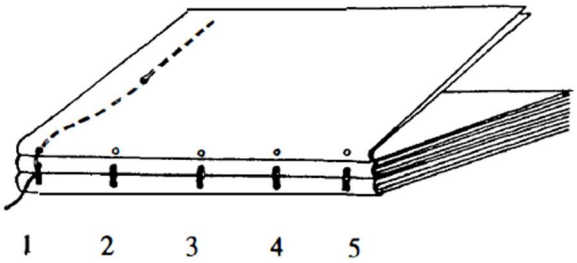


8. When the first and second signature threads are tight, tie the two ends of thread in a square knot.

7.3.4 Sewing The Second Unattached Signature

It is possible to continue sewing the link stitch with a straight needle, but it will be easier with a curved needle.

1. On the outside of the third signature, insert the needle into station number 1 (a kettle stitch station). Pull the thread tight to the inside of the signature.



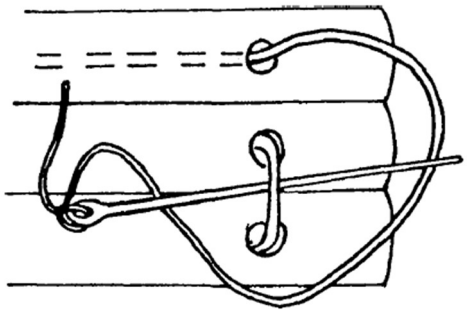
2. Working on the inside of the signature, insert the needle in station 2. Pull the thread tight to the outside of the signature. Remember to pull the thread in the direction of the sewing (toward station number 3).

3. Link the third signature to the second signature by inserting a curved needle behind the loops at station 2.

4. Pull the thread tight and reinsert the needle into sewing station 2. Be careful not to pierce the sewing thread already in sewing station 2. Continue onto sewing station 5.

5. The two signatures must be linked together at sewing station 5. Since there is no second thread to tie into a square knot, the kettle stitch is used to hold the two signatures to one another.

6. At station 5, pass the needle behind the stitch that connects the first two signatures together. Pull the thread until a small loop is formed, about 1/2 inch (~5cm) in diameter.



7. Pass the needle through the loop and pull tight.

8. If this is the last signature to be sewn—

   Repeat the kettle stitch so there is a total of two. Clip the thread leaving a l inch (~2.5cm) tail. Return to sewing station 1 on the first signature, clip that thread to a 1 inch (~2.5cm) tail.

   If there is another signature to attach—

   Put the needle into station 5 of that signature and repeat the sewing pattern.