

Cincinnati Book Arts Society
Study Group
June 2016

TWO VARIATIONS OF LONG STITCH BINDING

adapted and simplified from instructions by Keith A. Smith in his book
Non-Adhesive Binding: Books Without Paste or Glue



INTRODUCTION

Long stitch binding is one of the most common and easily understandable book bindings, adaptable to a seemingly infinite number of variations. Once you master the two basic construction styles, the number of variations is limited only by your imagination. Those two basic styles differ only in the way the books are secured at the head and tail (top and bottom), not in the long stitching itself.

For both of the styles we'll be learning, the stitching is done *through the cover*. Strong, reinforced paper or leather both work well. Sewing stations must be in even numbers. For

our first variation, any number of signatures can make up your book. For the second, you need an even number of signatures.

Variation 1 is on the left, Variation 2 on the right.

WHAT YOU'LL NEED:

- 2 text blocks, one 1/2" thick when lightly compressed, and one 3/4" thick when only very slightly compressed. The number of pages will vary according to the thickness of the paper you use.

Divide each text block into 6 signatures.

For both books, fold paper 5 1/2" high by 8 1/2" wide in half. Your text block should measure 5 1/2" high X about 4 3/8" wide.

- Sturdy paper for the cover, cut exactly as high as the signatures, and as wide as the following formula: $S \times 3 + W \times 4 = \text{total width of cover paper}$

S=depth of text block's spine (at least 1/2")

W=width of text block

Example:

Your book is 5" high, 4" wide, and 1/2" deep

So, $1/2" \times 3 = 1 1/2"$

+ 4" x 4 = 16"

17 1/2"

Therefore, the cover needs to be 5" high and 17 1/2" wide

- A needle and waxed linen thread, heavy weight (3- or 4-ply) is better

FOLDING THE PAPER COVER (looks more complicated than it is)

Jot down 2 measurements:

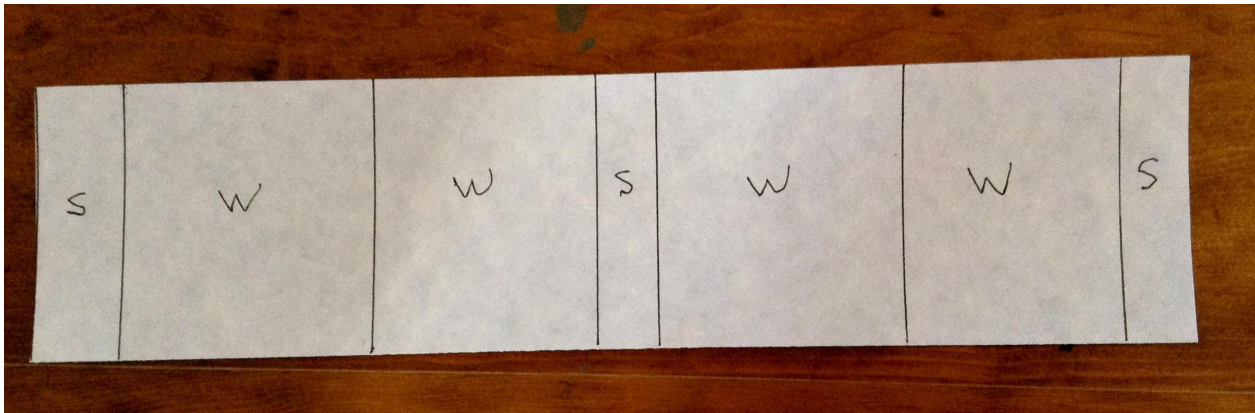
- The depth of your text block's spine, slightly compressed. This is S in the formula above.

For today's project, one should measure close to 1/2" and the other 3/4"

- The width of your text block. This is W in the formula. For today's project, it should measure about 4 3/8" (W).

Start from one short edge of the paper and continue working across. DO NOT work from each end towards the center or your measurements will be off.

You will be drawing and/or scoring 7 vertical lines on the inside of the cover. After you have drawn 2 or 3 of the lines, hold text block against the lines and adjust slightly as needed. Do this again after the next couple of folds to make sure your cover will fit snugly.



2

Line 1: S (1/2" for one book, 3/4" for the other) away from the paper's short edge. Fold the paper away from you.

Line 2: W (about 4 3/8") away from the first line. Fold towards you.

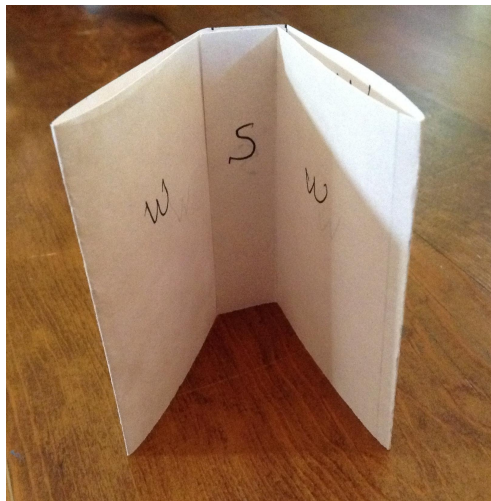
Line 3: W from the last line. Fold towards you.

Line 4: S from the last line. Fold towards you.

Line 5: W from the last line. Fold towards you.

Line 6: W from the last line. Fold towards you.

Line 7: S from the last line. Cut away remaining paper. Fold away from you



Fold cover together as shown below. The front and back will have 2 thicknesses of paper, the spine will have 3.

Lay folded cover on the table in front of you and smooth it flat with a bone folder. Apply a small piece of double-sided tape or use a glue stick to hold the overlapping spine pieces in place.

Lightly mark the top of the book on the inside of one of the covers. Put first cover aside.

Measure spine of second book. Construct second cover using same method.

3

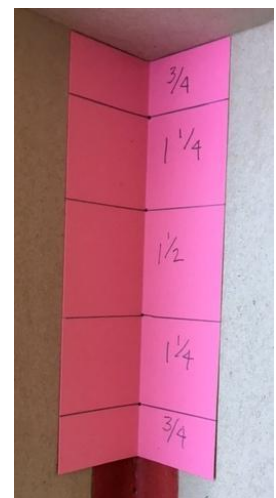
VARIATION 1- "VARIATION ON THE LONG STITCH" - (Smith, pages 113-117)

This binding has two prominent features:

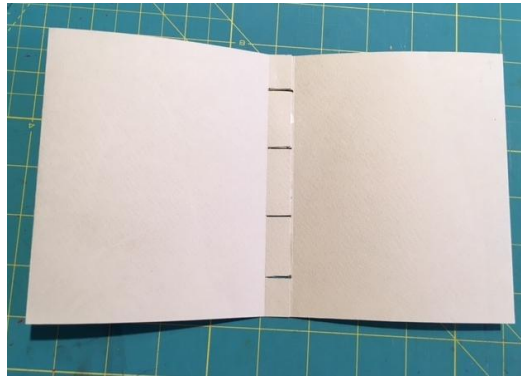
- The soft cover we'll be using is sewn to the signatures. This variation uses slits cut in the cover paper rather than punched holes. Stitches are woven over and under the slits.
- The top and bottom stitches are wrapped over the top and bottom edges of the cover and signatures to give the structure stability

Mark your template, poke holes in signatures, cut slits in cover

1. Fold template in half longways. Mark the top.
2. Mark dots $\frac{3}{4}$ " from top and bottom.
3. Working towards the center, mark $1\frac{1}{4}$ " from each of those dots. You now have 4 sewing stations. Use your awl to poke holes at the dots.
4. Mark tops of your 6 signatures. Use the template to poke holes in the signatures only. DO NOT punch the cover. Set signatures aside.



5. Put prepared cover face down on the table in front of you, top of the book facing up.
6. There is no need to make a separate template for the spine. Inside the spine itself, draw horizontal lines the same distances you marked the template:
 - 3/4" from both the top and bottom of the cover.
 - 1 1/4" towards the center from the first 2 lines.
7. With a sharp X-acto or scalpel, cut slits along those lines, being very careful to stop a fraction of an inch before the hinge folds.



8. Again using your X-acto, widen each slit a tiny amount (about the width of the thread you're using) by cutting parallel to each of those slits, towards the center of the spine. This will allow the thread to pass through the slits neatly, without creating jagged edges.

4

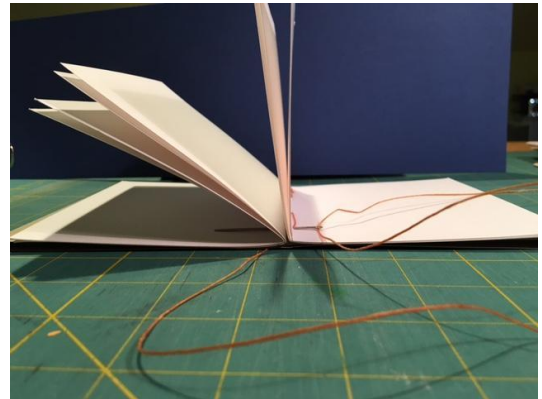
Sew

1. Cut a piece of thread about 48" long. Thread your needle.
2. Put the cover on the table with the spine facing you, top to the left.
3. Pick up one signature, put it inside the cover, tops matching, lined up along the spine fold, holes in the signatures aligned with the slits in the cover.
4. Start on the inside of the signature, on the top (1st station) which is to your left. Insert needle into the signature, pull through to the outside of the signature and out the top slit.
5. Pull the thread through. Leave about 4" of thread.
6. Wrap the thread around the top of the cover and back up to (but not out of) the hole. Tie a knot on the inside.

7. Thread is on the inside. Working towards the bottom, weave thread under and over the slots in the spine

8. When you get to the bottom, Pull the thread **STOP** snug, wrap the thread around the bottom of the cover. Put the tip of the needle back into the slit on the bottom hole of the signature. Do NOT go out the slit.

9. Put the second signature on top of the first one, tops aligned. Insert the needle into the bottom hole of the FIRST signature, out through the bottom hole of the SECOND signature.



10. Wrap the thread around the bottom of the cover. Working towards the top, weave thread under and over the slots in the spine. The inside of your signatures will look like this:

11. Continue with the same sewing pattern as above, wrapping the spine, adding the next signature and stitching into its top or bottom hole.

12. When you have finished the last signature, tie a knot and clip the thread to about 3/4". Depending on the thickness of your paper and pile of signatures, you may find that 5 signatures fit better than 6.

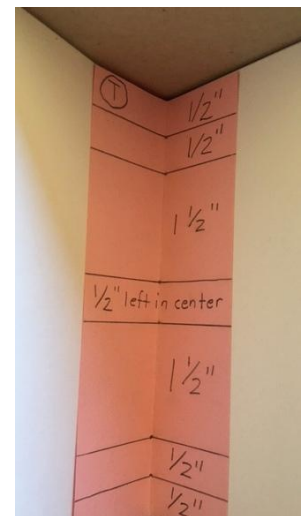


5

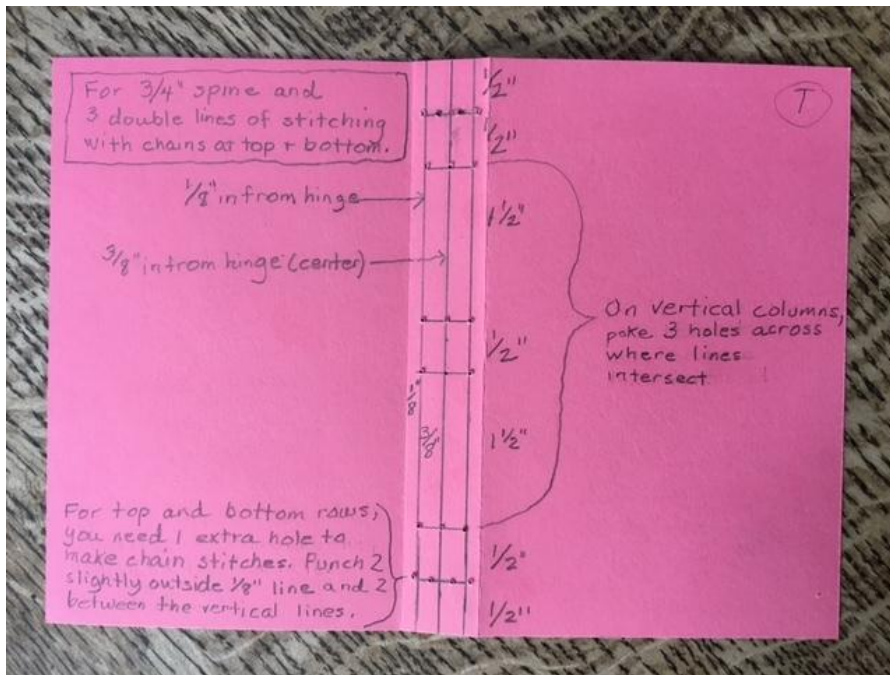
VARIATION 2 - LONG STITCH/LINK STITCH (Smith, pages 142-151)

1. Mark your signature template:
1/2" in from top and bottom
1/2" in towards center from first marks on top and bottom
1 1/2" in towards center from last marks
This should leave 1/2" in center.

2. Punch holes in signatures. **STOP** DO NOT punch cover.



- For punching spine, no need to make a template. Mark directly



inside of the cover spine.

Open folded and prepared cover, inside facing you. Mark inside of the spine as shown above:

Draw vertical lines $1/8$ " inside both hinge folds.

Draw a vertical line down the center of the spine. If your spine measures $3/4$ ", the line should be $3/8$ " in from either hinge.

Draw 6 horizontal lines, using same measurements as signature template above.

- For 4 middle rows across, lightly punch where the lines intersect. DO NOT punch top or bottom row.
- To make the chain stitches, you need one more hole along bottom and top row. Lightly punch 2 holes slightly outside the $1/8$ " lines toward hinge, and 2 more between the $1/8$ " line and the center line.
- Turn cover over, outside facing you. Carefully punch holes in cover, large enough for needle and thread to go through each hole twice. This looks neater than punching from the inside.


6

STITCHING



Put the prepared and folded cover on the table in front of you, inside facing you.

First Signature

- Pick up one signature and lay it on the table inside the cover, tops matching, lined up along the hinge fold on left side of the spine.

- Thread your needle with 48” of thread. Open up the signature and from the inside, start stitching into the 2ND HOLE FROM THE BOTTOM. Turn book around so spine faces you.
- Come out the second hole from the bottom on the signature and the matching hole on spine. Pull thread to the outside. Leave a tail of about 4 inches. Secure so it doesn't slip.
- Working up the spine, weave the thread in and out of the signature and matching holes on the cover. Pull the thread to the outside on the top hole to the left. 
- Put the tip of the needle back into the hole it's just come out of (top hole to the left). DO NOT insert the needle into the section. Close the first section.

Second Signature

- Pick up the second signature and lay it, tops matching, on top of the first section, holes aligned. Open it.
- Pick up and open a safety pin. Begin pushing the needle back into the top hole in the cover (THE SAME HOLE YOU EXITED) and into top hole through the the mountain fold in the SECOND signature. Pull until you have just a tiny loop of thread left. Insert safety pin into loop and pull thread snug. Close pin. The safety pin will keep the thread from being pulled into the hole.
- You are now inside the second signature. Working from top to bottom, weave the thread in and out of the SAME HOLES you used for the first signature. This will create a double line of stitches down the spine.
- Come out the bottom hole of the signature and the SECOND HOLE FROM THE LEFT on the bottom of the cover.
- Pull thread out. Insert the needle into the FIRST HOLE ON THE FAR LEFT of the bottom row and into the bottom of the FIRST SIGNATURE.
- Pull thread inside the first signature and tie the loose thread. Trim ends. Leave about 3/4” of thread dangling.
- Take the thread out the bottom of the first signature and THE FAR LEFT HOLE in the bottom row of the cover.
- Insert the  needle into the hole to its right, the SECOND HOLE FROM THE LEFT of the COVER  ONLY.
- DO NOT insert the needle into the section.

Third Signature

- Pick up the third signature, lay it on top of the first two, tops matching and holes aligned. Insert the needle into the mountain fold of the THIRD SIGNATURE in the bottom row. Pull thread to the inside.
- Weave the third line of stitching in and out of the middle column of holes. Exit at the top. Insert the needle into the loop held by the safety pin. Remove the pin and pull the thread through the loop.



- Move across to the next top hole. Insert the needle into the hole in the cover.
- Do not insert the needle into the section. Instead, insert the needle JUST THROUGH THE COVER. Pull thread inside cover to create a link stitch.

- With thread still inside the cover, move to the adjacent top hole. Pull thread to the outside.



- Insert the needle thread under the chain stitch, pull it through.

Fourth Signature

- Put fourth signature in place. Insert needle into mountain fold at top hole in signature. Pull stitch through to inside of signature.

- Moving from top to bottom, sew in and out the SAME HOLES you used for the last signature. Come out the middle hole on the bottom.



- Put tip of needle into bottom hole one over to make chain stitch.

Fifth & Sixth Signatures

- Put next signature in place and insert needle into bottom hole of cover and fifth signature.

- Continue stitching pattern into last column of holes.

- Weave in and out, putting last signature in place when you get to the end of the column, and making chain stitch at end, into the top stitch of last signature. Weaving in and out, stitch into same holes as last column, finishing with chain stitch. Finish inside bottom hole of sixth signature. Tie knot, leave about 3/4" and cut thread.

