## Miniature Book Binding 101

## Introduction

The creative artisans of the miniature world have developed a number of ways for you to fill your miniature bookshelves. The simplest method is to cover a block of wood with a strip of printed paper which resembles a row of book spines. Inserted into a shelf of the appropriate size, this can look quite effective, although all the books are the same height, which is not realistic. Using another simple technique, individual blocks of wood are painted white and a paper, cloth or leather cover is applied to the wood block, so it resembles a miniature book. Rows of these blocks, in differing heights and widths, can fill a bookcase quite nicely.

However, if you want to display individual books, perhaps lying on a bedside table, they need pages. Miniature items that look like real books can be made from small blocks cut from the spine of a memo pad, in the appropriate size and covered with a realistic cover. The fanning of the pages looks very real.

For books that are going to be displayed open, one or more printed pages are a necessity. The simplest way of achieving this result is to insert two printed pages into the centre of the book constructed of a portion of a memo pad or post-it note. More commonly, books are constructed with pages printed on one side only, and glued into a book block, then covered. For books with pages printed on both sides of each page, the most common approach is to print the pages into a long strip, then fold them like an accordion. This results in pages that are too thick to be truly "in scale". It is also difficult to achieve a flat edge where the folding of the pages occurs.

The books that are found in this kit are printed on both sides of a single piece of paper using highly accurate printing processes, and will be sewn together into folios or quartos, just like fullsize books. This results in highly realistic in-scale books for your dollhouse. This type of miniature book commonly sells for $\$ 20$ or more at a miniatures show.

## Supply List

The key ingredient in making realistic miniature books are the book pages themselves..


Book binding requires little in the form of specialized tools. A pair of precise scissors, a sharp craft knife, a cutting mat, some card stock, for stiffener, a
 glue stick, a needle and thread, a rubber-tipped clip, a small steel ruler, and a variety of clamps is all that is required, with one exception: a book press. You can construct your own book binding press from two small pieces of $1 / 4$ inch plywood. Cut two pieces of wood $11 / 4$ inch wide and 4 inches long. Add a 1 inch wide Binder Clip (as illustrated and available at any office supply store) and you are all set!

NOTE ABOUT GLUE: Any good craft glue used for paper is suitable for book binding, as long as it dries into a flexible bond, so the spine won't crack on opening the book, and does not penetrate the paper (resulting in wavy pages). Aleene's Tacky Glue will work although my preference is to use YES glue or Grandma Stover's glue.

## Making Miniature Hard Cover Books

It is easiest to start with one of the three smaller books. Each of the steps in making a hard cover book are illustrated. Each illustration is labeled to indicate which step it pertains to.

## Folding the Book Block

Step 1. A book is made up of a number of folios, a set of eight pages that are folded, stitched and cut to form the book block. The diagram to the right shows a "folio". There are page numbers on the bottom corner of each folio. The "front" pages have numbers starting with 1 -, and the "back" pages have numbers starting with 2-. Carefully cut out each folio, and place in a stack in page order.


Step 2. Taking one folio at a time, cut off the top corners, as shown in the diagram, ensuring that the side and top "tick" lines are cut at roughly the half way point.


Step 3. Turn the page over, so that the numbering on the page starts with 2.


Step 4. With the back side (pages starting with the number 2) facing you, fold the folio top to bottom, matching the tick lines on the top and bottom corners.


Step 5. Most books are designed in such a way as to have the number of pages divisible by 8. A few books, however, will have only four pages in the last folio, In this case, after all folding is complete, unfold the folio and cut off the top half. Refold and proceed to stitching the book. NOTE: this is not relevant to any of the books included in this set, but is for future reference if additional books are purchased.


Step 6. Cut the left hand corner (and only the left hand corner) diagonally as you did for the top corners.


Step 7. Fold in half, again lining up the tick marks. If this is the first folio, you should have the section that says "Blank (glue to cover)" facing you. The last folio should have this section as the last page. Repeat steps 4 to 7 until all folios have been folded.


## Stitching the Book Block

Step 8. To prepare for stitching the book block, you need to create a template for the stitching holes. The diagram to the right gives a model to make your own template to fit the particular book you are binding. Cut an "L" shaped piece of card that is about $11 / 2$ inches tall, with the short top stem about 1 inch long and $1 / 4$ inch
 deep.

Step 9. Hook the top of the " L " over the top of the first folio that you have folded. Mark four evenly spaced guidelines along the right side of the template, using the square on the front of the folio as a guide. The four guidelines MUST be within the square.


Step 10. Open the first folio to the middle crease. Hook the template over the top fold.


Step 11. Poke four holes in the crease with your needle, using the template as a guide. It is important that these holes be in exactly the same place in each folio.


Step 12. Thread your needle with about 12 inches of white thread. You do not need to knot this thread. Stitch through the holes of the first folio from right to left, starting and ending on the outside of the folded spine, as illustrated below. Hold the second folio next to the first, with the stitching holes lined up exactly to the first folio and repeat the stitches, going from left to right, ensuring that the stitch joining the two folios is tight (but not so tight that it tears through the paper). At the end of the second row, tie a reef knot to hold the two folios together.


Step 13. For the third and subsequent folios, line them up and stitch in sequence.


Step 14. To hold the book firm, tie a knot at the end of each row by slipping the needle under previous stitching and knotting. It is helpful to use a small rubberized clip to hold each folio to the completed stitched block as it is added to the pile. This becomes increasingly important as the number of folios increases.


Step 15. Stitch a final knot when you come to the end of the folios, trimming the thread to a short length (about $1 / 4$ inch).


Step 16. Place in book press, with about $1 / 16$ inch of the stitched spine sticking out. It is important that there be no slippage in the folios as this occurs, or the pages will not line up and the cuts will not be accurate. When you have the folios in the press, ensure that the spine is flat and the stitches (and holes) line up exactly. Liberally apply any glue that dries to a flexible finish to the spine of the book, ensuring that the thread ends are smoothed down into the glue. Let dry thoroughly


## Cutting the Book Block

Step 17. When the glue is dry, remove the finished book block from the press, and place on a cutting mat, with the page numbered 1-1 facing up. Using a steel ruler (preferably a cork backed ruler) and a sharp X-Acto knife or utility knife, cut along the guides around the phrase "Blank - glue to cover". Do not
 hurry, and do not press hard. It is more accurate to make many light cuts, than to try to cut through the entire stack at once. Aim for one page of paper per cut. Cut the top of the block first, then the bottom, lastly the side. This is what the finished book block should look like.

Preparing the Cover (you may want to spray the cover with a spray fixative, and let it dry thoroughly before starting preparation)
Step 18. Using your completed book block as a template, place on the thin card, and trace snugly around the book (the photo makes this look too large). Cut out. This will result in the finished stiffener being about $1 / 16$ inch larger in both directions than the book block. You do not need to measure, merely trace - the right size will result automatically. Repeat, to make two "stiffeners" for the cover.


Step 19. Cut out the cover, removing all signs of a white edging. The covers have guides on the edges showing where the folds occur. If not, use a stiffener to determine the placement of the fold lines, centering the folds on the front cover of the book. Also mark the edges of the spine on the top and bottom of the cover, if the guides do not appear.


Step 20. Make the top fold first, folding on the guides toward the non-printed side of the cover. Turn over so that the non-printed side is facing up. Place the stiffeners tight against the fold, leaving ample space for the spine between the stiffeners. Use the
 spine of your cut book block as a measure for the appropriate thickness of space to leave. Fold the bottom of the cover tightly over the stiffeners and turn over to check placement. Make any adjustments necessary. Glue stiffeners in place using a glue stick. Let dry for a moment.

Step 21. Open up the top and bottom folds, and fold over the ends, tight against the stiffener. Open up all of the folds, and cut out each corner to reduce bulk, as shown in the following diagram.


Step 22. Using a glue stick, glue all folds in place over the stiffeners. Let dry for a moment then fold the cover against the inner edges of the stiffeners, making a spine for the book.

Step 23. To finish the book, using a glue stick, glue the outside pages of the book block to the inner sides of the cover, making sure the book is not upside down! Do not glue the spines together. Real bound books have a space between the spines and the cover. Make sure that ONLY the inner book covers are glued to the finished cover. Set aside to dry for a day in an open position. Then press in the book press again to make sure the book is flat enough to shelve. Alternatively, if you want to display the book in an open position, do not complete this final clamping operation. Instead, select the place you want to have the book o/.pen, and lightly glue the pages to each other in a natural position (slightly rounded and pulling in from the edges of previous pages).

Enjoy your miniature books!

