

# Let's Cover It, Part 2: Making Notebooks

By Ric Harber

## Introduction

We discussed the creation of book and notebook covers in my previous article ["Let's Cover It, Part 1: Book Covers," *Leather Crafters & Saddlers Journal*, Vol 33, No. 6, Nov/Dec 2023, page 25]. In this article, we'll move from covers to making notebooks.

## Materials Required

### For Patterns

- Paper
- Pencil
- Ruler

### For Notebook

- Ring mechanism, braided steel cables or scrapbooking posts
- Rivets, grommets, eyelets as needed
- Ruler
- Wing dividers
- External leather (7/8 oz. veg tan cowhide)
- Lining leather (2/3 oz. veg tan cowhide)
- Contact cement
- Bag stiffener (optional)
- Sewing or lacing supplies
- Tools for stamping/  
tooling pattern
- Supplies for adding color

## Notebook Mechanisms

Two main variables determine the measurements for the notebook: the paper to be held, and the mechanism to hold the paper.

When people think of notebooks, the image that comes immediately to mind is the classic three-ring binder. You can also find six or nine ring mechanisms that are often used in small planners. These mechanisms are typically attached to the leather using tubular rivets with a solid core male piece. While these mechanisms are familiar, it is often difficult finding differently sized rings without having to deconstruct another notebook. Such deconstruction risks damaging the mechanism (at least when I do it). I also use two other options to accommodate requests for notebooks with larger holding capac-

ities, e.g., Coast Guard Chief's Charge Books. First are braided steel cables that can be purchased in different lengths and daisy chained to form any desired length. These have the advantage of being easily opened via a barrel screw and function like a ring allowing the user to flip through the pages easily. When I use the braided steel cables, I use eyelets ( $\frac{1}{4}$ " ) or grommets ( $\frac{5}{16}$ " ) to protect where they pass through the leather. [Photo 1 next page]

The second option is the use of scrapbooking posts. These again provide infinite adjustability, but provide limited ability to flip through materials; they are best used in notebooks that are for storing/archiving documents. [Photo 2 next page]





## Key for Formulae

**RW** = Ring width for a ring mechanism

**BW** = Base width for a ring mechanism

**MH** = Ring mechanism height (bottom of base to top of ring)

**MW** = Ring mechanism width

**ML** = Ring mechanism length

**PW** = Paper width

**PH** = Paper height/length

**NH** = Notebook height

**NW** = Width of the front and back of the notebook

**SW** = Spine width

**MAH** = Maximum amount (thickness) of material to be held

**HS** = Hole size (diameter) for cable eyelets/grommets

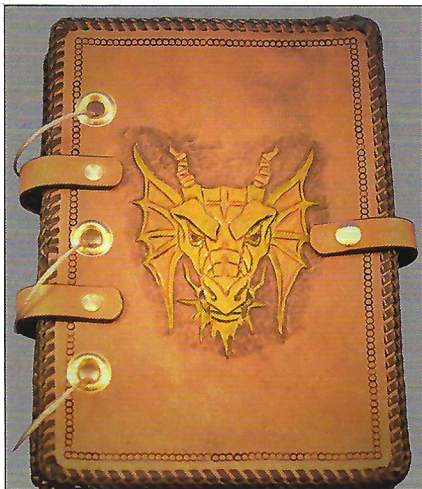


Photo 1: Cabled Notebook

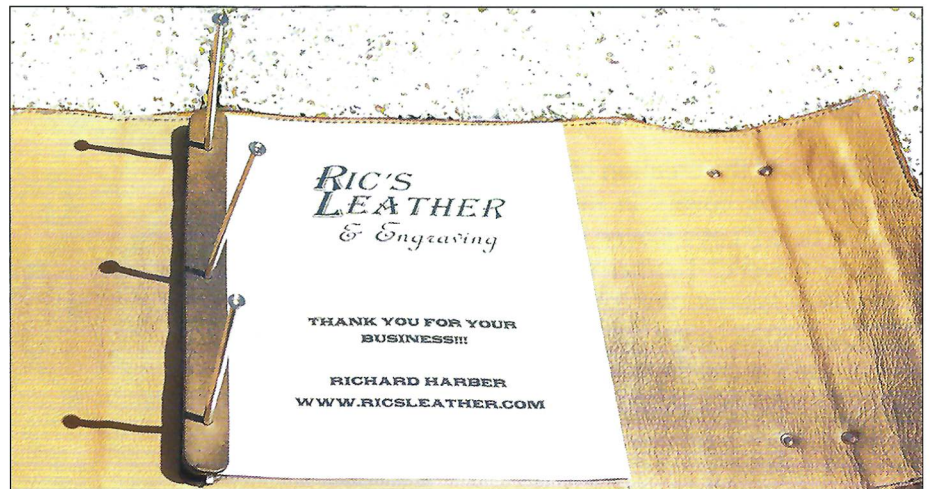


Photo 2: Scrapbook Post Notebook

## Pattern for a Ring Mechanism

Ring mechanisms are composed of two parts, the base and the rings. Typically, the rings are wider than the base, but not always. **Figure 1** shows the end view of a ring mechanism and indicates the ring width (RW), the base width (BW), and the mechanism's height (MH). There is also the additional dimension of the mechanism's length (ML). Thus, the mechanism's dimensions are MW x ML x MH, where MW = Maximum (RW, BW). [**Fig 1**]

The other determinant of the size of the notebook is the paper it will hold. Most common in the U.S. is the standard 8.5" x 11" paper, although there are many other sizes. The paper can either fit directly into the rings (e.g., lined notebook

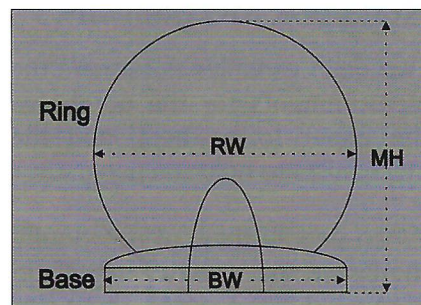


Fig 1: Ring Mechanism End View

paper) or be placed in plastic sheet protectors (pockets) with side holes that go into the rings. The approach for measuring is the same in either case. Referring to **Figure 2**, the Paper Height (PH) is the vertical length of the paper or sheet protector, while the Paper Width (PW) is measured from the leftmost edge of the holes to the rightmost edge of the paper or sheet protector. [**Fig 2**]

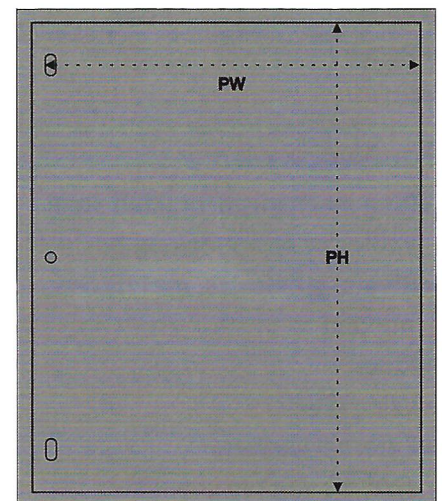


Fig 2: Paper Measurements

There are two common options for the placement of the ring mechanism. The first is to mount it on the spine of the notebook. The second is to mount it to the back cover of the notebook.



## Attaching the Ring Mechanism to the Spine

The height of the spine (and the entire notebook) is determined by the mechanism length (ML) plus  $\frac{1}{2}$ " on each end as an extension to protect the paper.

$$\text{Notebook Height} = \text{NH} = \text{ML} + 1"$$

The size of the extension can be varied. The width of the spine is composed of three elements: the mechanism width, a buffer space, and an allowance for folding the notebook around the spine. I use  $\frac{3}{16}$ " for the buffer space on each side of the mechanism. The allowance for the folding of the notebook is based on the thickness of the leather used, including any lining leather. If the combined thickness of the leather is T ounces, then the allowance for the fold is  $T/64$ " on each side of the mechanism. Thus,

$$\begin{aligned} \text{Spine width} = \text{SW} &= \text{MW} + \\ 2(\frac{3}{16} + T/64) &= \text{MW} + \frac{3}{8} + 2T/64. \end{aligned}$$

## Attaching the Ring Mechanism to the Notebook Back

Once again, the notebook height is determined by the mechanism height plus an extension on each end:

$$\text{Notebook Height} = \text{NH} = \text{ML} + 1"$$

In this case, the spine width will be the mechanism height plus a buffer zone and the allowance for the folding of the notebook, or

$$\text{Spine width} = \text{SW} = \text{MH} + \frac{3}{16} + 2T/64.$$

From the point where the notebook folds, the page width can be built up by adding: the allowance for the fold, a buffer zone, the mechanism width, the paper width, and the standard protective

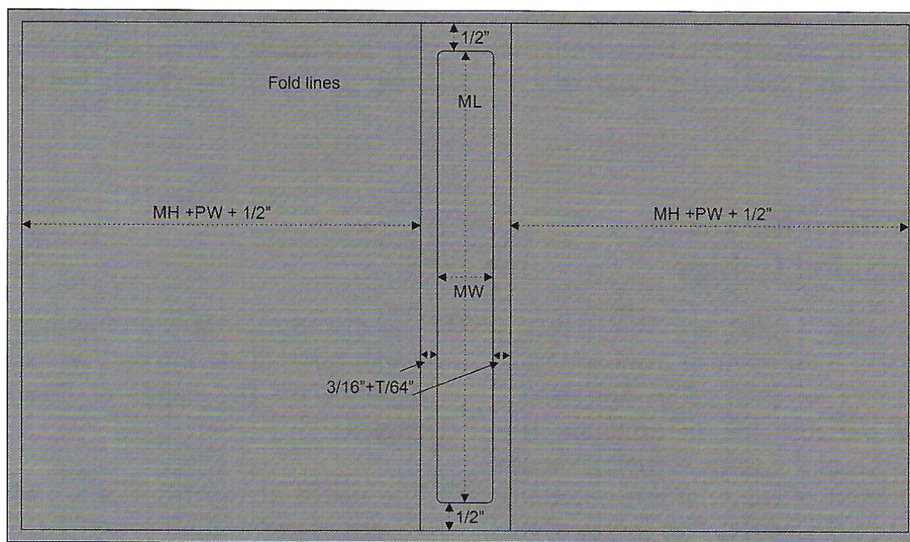


Fig 3: Ring Mechanism Mounted to Spine

The width of the front and back of the notebook is based on the mechanism height (the mechanism faces towards the center of the notebook when closed) plus the paper width plus the  $\frac{1}{2}$ " protective extension, or

$$\begin{aligned} \text{Notebook cover width} \\ = \text{NW} &= \text{MH} + \text{PW} + \frac{1}{2}". \end{aligned}$$

Figure 3 shows the layout for a single piece notebook with the ring mechanism attached to the spine.

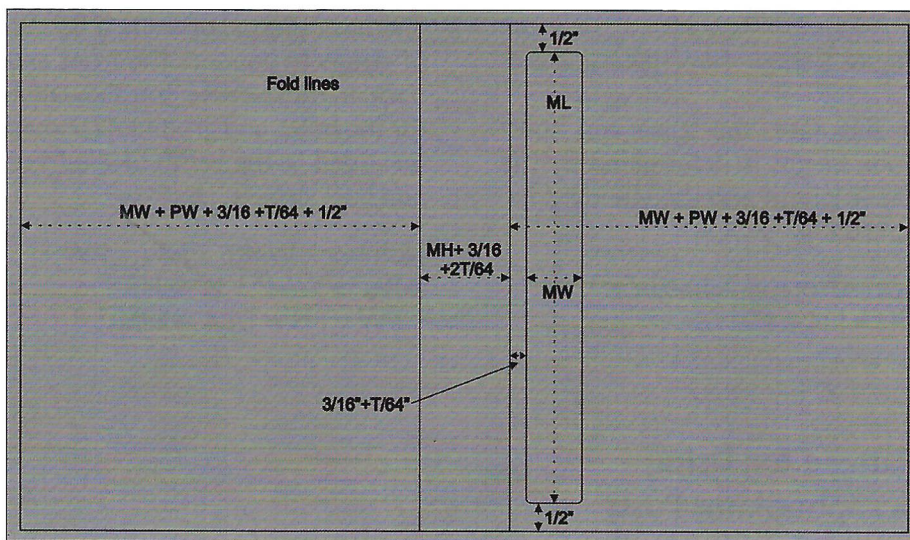


Fig 4: Ring Mechanism Mounted to Back Cover

extension. Thus, we have

$$\begin{aligned} \text{Notebook cover width} = \text{NW} &= \\ \text{MW} + \text{PW} + \frac{3}{16} + T/64 + \frac{1}{2} &= \\ = \text{MW} + \text{PW} + \frac{11}{16} + T/64. \end{aligned}$$

Figure 4 shows the layout for a single piece notebook with the ring mechanism attached to the back of the notebook.



## Variations

As was the case for book covers, you can vary the notebook structure by splitting the spine from the front and back covers and attach-

ing them together by expanding the spine and overlapping it with the two covers or by using "the welt" (Harber, "The Welted Seam,"

*Leather Crafters & Saddlers Journal*, Vol. 25, No. 5, Sept/Oct 2019, page 70).

## Pattern for Using Braided Cables

Braided cables are run through holes in the spine or front and back covers for each cable. The primary variable for determining the width of the spine is the maximum amount of material the notebook is to hold (MAH). The center of the spine will be composed of a gap of MAH surrounded by  $\frac{1}{8}$ " on each side, then the two holes for the cables, so add on the diameter of the holes (HS) to each side followed by a buffer (which will contain one edge of the grommets/eyelets for the holes, then the allowance for folding the notebook. Thus,

$$\begin{aligned}\text{Spine width} = \text{SW} &= \text{MAH} + 2(\text{HS} + \frac{1}{8}" + \frac{3}{16}") + 2\text{T}/64" \\ &= \text{MAH} + 2\text{HS} + \frac{5}{8}" + 2\text{T}/64".\end{aligned}$$

Figure 5 shows how this is laid out.

In this case, the spine and notebook height is determined by the paper length and the standard extension or

$$\begin{aligned}\text{Spine/Notebook height} &= \\ \text{NH} &= \text{PH} + 1".\end{aligned}$$

The distribution of the grommet/eyelet holes along the vertical axis depends on the paper or sheet covers.

The width of the front and back covers of the notebook are determined by: the allowance for the fold, the standard buffer, an inch for the cables, the paper width, and the standard protective extension, i.e.,

$$\begin{aligned}\text{Notebook width} = \text{NW} &= \text{PW} \\ &+ \text{T}/64" + \frac{3}{16}" + 1" + \frac{1}{2}" = \text{PW} + \\ &1\text{-}\frac{11}{16}" + \text{T}/64".\end{aligned}$$

With the braided cables, it is possible to make a notebook without a spine, either simply using the front and back pieces, or using a couple of straps to connect the front and back. In these cases, the allowance for the holes and grommets should be added to the width of the front and back covers, i.e.,

$$\begin{aligned}\text{Notebook Width} = \text{NW} &= \text{PW} + \\ &1\text{-}\frac{11}{16}" + \text{T}/64" + \frac{1}{8}" + \text{HS} \\ &= \text{PW} + \text{HS} + \text{T}/64" + 1\text{-}\frac{13}{16}".\end{aligned}$$

## Pattern for Using Scrapbooking Posts

Scrap-booking posts are composed of a  $\frac{3}{16}$ " body with screw heads on each end. The body pieces can be purchased in different lengths and combined to create the capacity to hold any amount of material. The basic layout of the notebook follows the same process already de-

scribed, with the main difference being the need for a way to secure the posts to the notebook body.

For this task, I use two 1"x11" leather straps. Both straps have  $\frac{3}{16}$ " holes corresponding to the holes in the sheet protectors. For

the bottom strap, I add  $\frac{1}{8}$ " holes to either side of the  $\frac{3}{16}$ " holes for copper rivets and burrs. This latter set of six holes goes through the back cover. The top strap holds the paper/sheet protectors down and provides a surface for the top screws of the posts to push against.

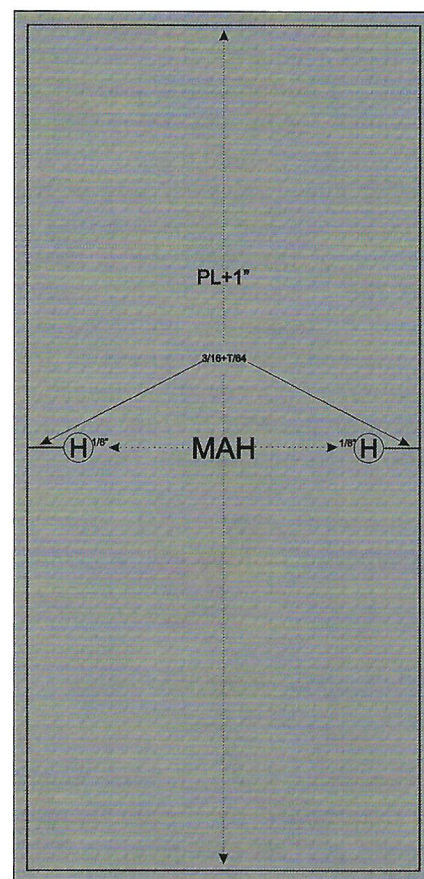


Fig 5: Spine Layout for Cables



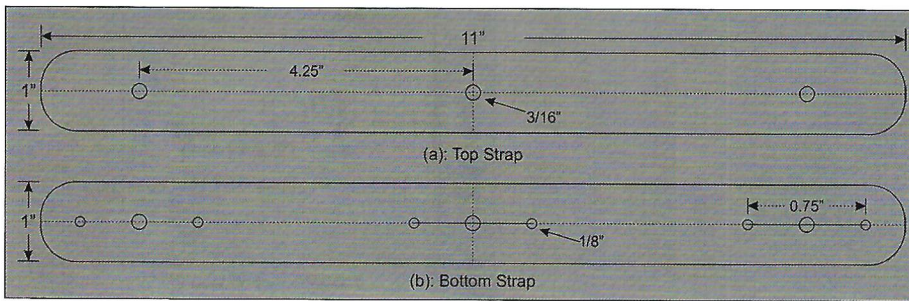


Fig 6: Straps for Scrapbooking Posts

The internal length of posts should be the material to be held plus  $\frac{1}{2}$ " for the two straps. **Figure 6** shows the layout and measurements for these straps.

In this case, the notebook and spine height is:

Notebook/Spine Height =  
 $NH = PH + 1"$

The spine width is given by:

Spine Width =  $SW = \text{length of the posts} + \frac{3}{16}" + 2T/64"$

$$= MAH + \frac{1}{2}" + \frac{3}{16}" + 2T/64"$$

$$= MAH + \frac{11}{16}" + 2T/64"$$

The notebook width starts with the paper width (PW), plus the  $\frac{1}{2}$ " protective extension, plus  $\frac{3}{4}"$  corresponding to the other half of the strap, a buffer area, and the allowance for the fold. Thus, the notebook width is

Notebook Width =  
 $NW = PW + 1\frac{1}{4}"$

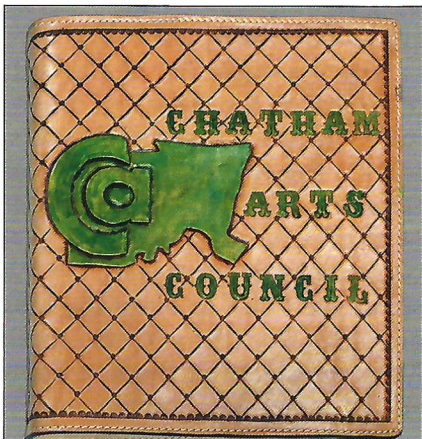


Photo 3: Single Piece Notebook Final



Photo 4: Multi-piece Notebook Final

## Building a Three-Ring Binder

The process of making the pair of three-ring binders, shown in **Photos 3, 4 and 5** (next page) is summarized below.

### Step 1: Determine Basic Structural Design and Parameters

- Ring Mechanism attached to the spine
- First notebook (**Photo 3**) is a single piece notebook
- Second notebook (**Photos 4 and**

## Maker Moments

The joy you discover in even the smallest details.



**WEAVER**  
LEATHER SUPPLY

[weaverleathersupply.com](http://weaverleathersupply.com)



Ready for your next project?



5) is a split construction using the welt to attach the spine to the front and back covers

- Use 7/8 oz. vegtan for the exterior and 2/3 oz. vegtan for the lining. (So,  $T=9/11$  oz., but we'll use  $T=10$  oz. for the formulae.)
- Standard sheet protectors to hold 8.5" x 11" sheets of paper

## Step 2: Gather Basic Measurements

- Ring Mechanism (1.5" Three Ring, Performance Brad from Ohio Travel Bag/Weaver Leather)
  - Mechanism Length  
 $= ML = 11.25"$
  - Mechanism Base Width  
 $= BW = 1"$
  - Mechanism Ring Width = RW  
 $= 1.75"$  (external dimension)
  - Mechanism Width  
 $= \text{Maximum } (BW, RW) = 1.75"$
  - Mechanism Height  
 $= MH = 1.75"$
- Paper (sheet protector) dimensions
  - Paper Length = PL = 11.25"
  - Paper Width = PW = 8.75"
- Welt will use  $\frac{1}{2}"$  holes (add an additional  $\frac{1}{2}"$  to the edges where the welt is employed)

## Step 3: Apply the Relevant Formulae

- Notebook 1 (single piece)
  - Notebook Height:  $NH = SH = ML + 1" = 11.25" + 1" = 12.25"$
  - Spine Width:  $SW = MW + \frac{3}{8}" + 2(10)/64" = 1.75" + \frac{3}{8}" + \frac{5}{16}" = 2\frac{5}{16}"$



Photo 5: Multi-piece Notebook Interior Final

- Notebook Width:  $NW = MH + PW + \frac{1}{2}" = 1.75" + 8.75" + \frac{1}{2}" = 11"$
- Total Size ( $NH \times (SW + 2NW)$ )  
 $= 12.25" \times 25\frac{7}{16}"$
- Notebook 2 (split construction)
  - Notebook Height:  $NH = SH = ML + 1" = 11.25" + 1" = 12.25"$
  - Spine Width:  $MW + \frac{3}{8}" + 2(10)/64 + 2(\text{welt allowance}) = 1.75" + \frac{3}{8}" + \frac{5}{16}" + 1" = 3\frac{7}{16}"$
  - Notebook Width:  $NW = MH + PW + \frac{1}{2}" + \text{welt allowance} = 1.75" + 8.75" + \frac{1}{2}" + \frac{1}{2}" = 11.5"$

## Step 4: Draw the Structural Pattern

The pattern for each of these notebooks can be found in the **Pattern Pull-Out**.

## Step 5: Transfer the Structural Pattern to the External Leather

## Step 6: Cut the External Leather

Using the pattern(s) transferred to the external leather in **Step 5**, cut out the pieces of the notebook body. For the single-piece note-

book, you will have one piece of leather. For the welted notebook, you will have three pieces.

## Step 7: Prepare the Welt (if applicable)

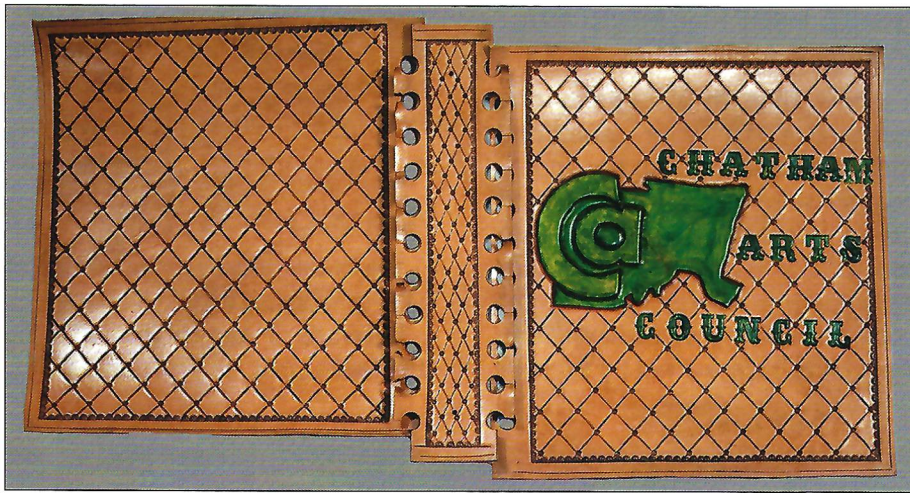
For the multi-piece version of the notebook, it is time to prepare the welt.

### Lay Out the Holes

I place the male side of the welt (the tabs) on the spine and the female side (the holes) on the covers. Mark a line  $\frac{1}{2}"$  from each edge of the spine and from the inside edges of the covers. Mark the vertical center point of these lines. On the spine, the holes to make the tabs are offset from the vertical center. Mark the center of the first holes  $\frac{1}{2}"$  on either side of the vertical center mark. Then, moving up and down the marked line, place additional marks spaced one inch apart for the center of subsequent holes.

On the inside of each cover piece, the vertical center mark is also the center of the first hole, with holes extending outward and centered on 1" intervals. These female sides should have one fewer hole than on the male side. The above marks will be the center of the  $\frac{1}{2}"$  holes to be punched.





**Photo 6:** Multi-piece Notebook Prior to Preliminary Assembly

### **Skive Edges**

While not strictly necessary, everything will lay together more neatly if you skive both long edges of the spine and the inside edges of the covers.

### **Punch Holes**

Now it is time to punch the ½" holes laid out above.

### **Cut Tabs**

Along each side of the spine, cut for the tabs by cutting from the center of each hole to the inner edge. For the two end holes, cut from the center to the top or bottom. The end result will be the male tabs. (See **Photo 6** for an example.)

### **Step 8: Tooling and Stamping**

*(The notebooks shown are being donated to the Chatham Arts Council, a 501(c)(3) non-profit in Chatham County, North Carolina. The Chatham Arts Council nurtures creative thinkers in Chatham County by investing in artists and educating kids through the arts. To learn more about the Chatham Arts Council, visit [www.chathamartscouncil.org](http://www.chathamartscouncil.org).)*

The pattern consists of the organization's logo backed with a quilt pattern based on a ½" line layout.

(See Box 1 of the first article for how to lay out and execute the quilt pattern.)

### **Step 9: Add Color**

The logo was dyed using Fiebing's green dye diluted with Fiebing's yellow dye on the logo's letters and undiluted for the silhouette of the county and the organization's name. Next, a coat of Neatsfoot oil was applied and allowed to soak in overnight, followed by a resist/sealer and dark brown antique gel. Next was a final seal coat of Fiebing's Tan Kote. The lining was simply oiled and then sealed.

### **Step 10: Preliminary Assembly (for the multi-piece notebook)**

Now to assemble the exterior for the multi-piece notebook. As seen in **Photo 6**, you have the tabs on the spine and receiving holes on the two covers. Preliminary assembly requires the insertion of the tabs into the holes. Lightly dampen all the edges involved. Next, roll up the tabs' edges so they can be pushed through the holes. Starting with one cover, work the rolled tabs through their corresponding holes, going over the outside edge of the female side. Once completed, the tabs rest underneath the

female side. Now, unroll the tabs, adjust the pieces so that the top and bottom edges are aligned, and the tabs fit snugly in their holes. Use a smooth hammer to flatten the tabs and set them into the female side of the welt. Repeat the process to attach the other cover to the spine.

### **Step 11: Cut Lining Leather**

Using the bodies that have been prepared, cut the lining leather slightly oversized, then add the color and sealing treatment of your choice. Once attached to the main bodies, the lining will be trimmed to final size.

### **Step 12: Glue in Bag Stiffener (optional)**

If you want to add a bit more body/stiffness to the front and back covers, you can add bag stiffener to them using contact cement. The size to cut the stiffener will depend on the final size of the covers. I typically use pieces that are 9"x11".

### **Step 13: Glue Lining Leather to Exterior Leather**

Glue the lining leather to the exterior pieces. I use contact cement. For the multi-piece notebook, make sure that the welt seams are fully pushed together.

### **Step 14: Dress the Edges (if lacing)**

If you plan to use lacing to cover the edges and hold the notebook together, now is the time to dress the notebook's edges. Trim the lining leather using the exterior body as a guide. While not strictly necessary, I find that the process of sanding the edges, using an edge beveler to trim both the front and back, and then slicking and bur-



nishing the edges helps the lacing process and appearance. I also add color to the edges to match the color of the lace to be used in case there are any gaps in the edge lacing.

### Step 15: Sew or Lace the Notebook

### Step 16: Dress the Edges (if sewn)

If you sewed the lining to the exterior, it's now time to dress the edges. Trim the lining leather using the exterior body as a guide. Next, sand the edges, followed by using an appropriately-sized edge beveler to round the edges by removing edge corners. Next, slick and burnish the edges to yield a smooth surface. Finally, add color and burnish with beeswax/paraffin to give the edge a nice shine.

### Step 17: Install Ring Mechanism and/or Other Hardware

It's now time to install the ring mechanism to your notebook shell. Locate and punch the appropriately sized holes through both the exterior and lining, and then use tubular rivets and solid core ends for the tubular rivets. (I got both parts of my rivets from Ohio Travel Bag, now owned by Weaver

Leather.) When setting the rivets, don't "Hulk out" when striking the rivets or you might damage the ring mechanism.

### Step 18: Celebrate!

Time to celebrate the completion of your custom notebook! Sit back with a beverage of your choice and enjoy the feeling of a job well done! ↑



**A Life-Line to your SUCCESS!**

THE QUALITY IS REMARKABLE

**NueLine Shoe, Bag & Leather Goods Machine Co.**

TEL: 1-207-783-1763 FAX: 1-207-782-4279  
EMAIL: maurice@pamcomachinery.com

**Mark Staton, LLC**

Visit our new website [markstatonllc.com](http://markstatonllc.com) for online purchases

- Highest Quality
- Fair Prices
- Best in Service

**800-224-2867**  
**337-988-9964**

[markstatonllc.com](http://markstatonllc.com)  
[mark@markstatonllc.com](mailto:mark@markstatonllc.com)