How I Built My Book

FOR LESS THAT YOU THINK

By Mr. David Reese Dorrycott
And no, this is not a professional DIY article!

In the Beginning;

There was light, and She was lonely...

No, wait... Wrong audience...

RESET

Okay, lets try this again. It finally arrived, the day when I came to the conclusion, after several years of re-writing some rather unique (for me) material, that I wanted to copyright, and publish, a handful of books. Say twenty to fifty copies at the most. I knew my work wasn't up to professional standards, but I also knew a Vanity Publisher was nothing more than a loan shark in another costume (my personal opinion.) After several months of searching I discovered this, that the smallest run anyone would even think of doing was two hundred (GULP). I had no Earthly (or Martian) use for that many books. So I started hunting for another route.

What I first ran in to;

As I said above, when I first decided to publish my book, *Secret Adventures of the I.S.I.C.*, I ran into a rather startling discovery. People want money to do that, lots and lots of money. A simple proofreading would have cost me $0.01875 a word, with -a- counting as a word. Considering that *I.S.I.C.* came in at 186,625 words, the total cost would have been $3,499.22. This before a single copy was ever published. Proofreading is not editing. That is another cost.

At the same time my mother was having her book, **THE WHIGHAM CHRONICLES,** a genealogy resource, published by a Small Run Press. She spent over $15,000+ for 400 books. Of course, her page count was 1085 while *I.S.I.C.* was only 344. Her cost was around seven cents a page, thus at that special rate *I.S.I.C.* would have cost around 24.08 each. Unfortunately I only wanted fifty copies, and the smallest press won't print less than 200, then there is the problem that you have to buy 400 copies to get that low of a rate. That meant I would be spending at least another $6000+. There was another matter, that mother used a thinner cover (1 ply chipboard vs 3 ply chipboard) and paper than I wanted. This made her books cheaper, but her covers are bending in high humidity conditions, *I.S.I.C.* isn't.

So, now I knew, without spending a penny yet, that it would cost me at least at least $10,000 for 200 books, or around $50 for each copy. This printed on the cheapest possible paper with the cheapest possible cover, and that this cost didn't count shipping (ground freight) or handling. I found myself looking at something like $10,500 to $12,000 in costs, depending on publishers.

All I wanted was a maximum of fifty copies.

I managed, by doing all the work, except proofreading (which I dumped on my wife) to do the job for around $35 a copy out the door (counting shipping to US destinations.) My mother used my youngest sister to proofread, and we both have about the same number of spelling errors per page in our works as the average professionally proofread books, of the same size. (I really could have used an editor though.) Plus mother had to pay extra to ship her copies to buyers. Yes, she is slowly breaking even. Unfortunately I had no editor, so other errors still slipped by even after three re-reads.

Still there was the cost of equipment. The cheapest professional book press I could find anywhere costs over $200, plus shipping, from e-bay. There were some for $50, but they are homemade as well. What is a book press? It's simply a specialized vice used to compress pages of a book for binding, then to compress the book again after a cover is glued on, so that it glues tight. If you have one, or can find one on the cheap, use it, grab it, barter for it, dig it out of the dump...

I decided to make my own. It looks like junk because it was made by a non-carpenter (myself) with a hand-saw, glue and screws. From junk. But it does the job. There were other, minor equipment needs, but in the end my biggest equipment expense was for six 3" C-clamps ($24.00) and a sheet of thin plastic ($12.00). Other than glue and a pair of doll needles, everything else was laying around the house already. I did end up going to the expense of buying green cloth for the covers, at $0.99 a yard. But that's supplies, not equipment.

Don't worry, there will be a complete supply and tool list at the end of this article.

Taking the Plunge;

I've made scrapbooks before, but scrapbooks simply don't work when you want a book to read in bed. They don't lay right for one thing, and they feel wrong for another. Not to mention what they look like on a bookshelf. No problem, I decided to see how the professionals do it. So I went down to the San Antonio Library, and later bought a book on bookbinding (Basic Bookbinding by A.W. Lewis.) Although I learned quite a bit, basically they all said that for loose, or typewriter/copy paper, 'Make it like a scrapbook.'

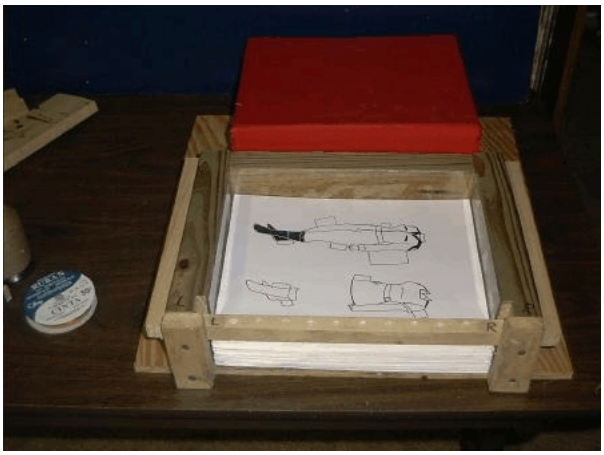
Uh.. No. I don't think so. What really is the difference between 300 pages of laser printed single sheets and a regular book? Regular books use sheets large enough to print four pages on then fold in the middle, so they can be sewn together through the fold. Gee... How... unique. Why couldn't I just sew like you do a scrapbook, only closer to the ends and, to make certain, glue the pages together? I decided to try it, and it worked.

"And here's how!"

How to start.

I'm going to use non-technical, non-correct words to label things. Why? Because I never bothered to learn the right terms.. *If you have a book press, skip this*. If you don't, here is how I made mine. Scrounging around the house I found an old pine 2x4, a chunk of leftover ½" plywood, some Carpenter Glue and several dozen 3" sheet rock screws. Grabbing my trusty (if somewhat rusty, tho freshly oiled and sharpened) hand saw, a measuring tape and speed square from the tool pile, I started in.

Unsure how large I needed the base to be, I cut the plywood eighteen by eighteen inches. This was too large I discovered later, leaving about an eight inch lip I had to trim off. For the two by fours, I cut two at ten and a quarter inches and one at eleven and a half inches. This makes a slot slightly larger than the average sheet of printer paper, but I planed on that. With these three sections of wood glued and screwed onto the plywood as close to square as I, a carpenters square and a tape measure could manage, I waited overnight for everything to dry completely.



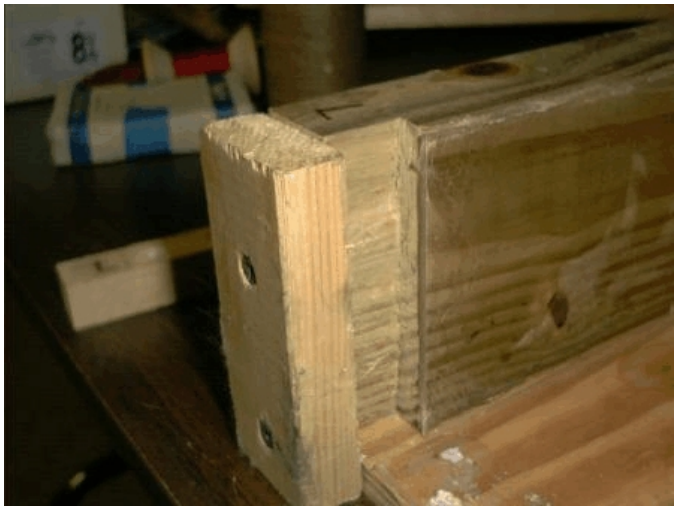
Press with paper.

So now I had a form to hold the paper. Ugly yes, but all it did was hold the paper. Now I needed to be able to dill holes through a stack of paper up to three and a half inches thick, and they had to be the same every time. A few hours of thinking through different ideas gave me a cheap answer. I bought a square stick rod of oak, about 3/4 of an inch square. This would be my 'press' and drill guide in one. That done I realized I'd made a serious mistake. If I cut the rod to fit between the 2"x4"s, it would simply slip all around. I had to use my wood chisel and hammer, spending some time cutting two channels in the end of each 2"x4".

3/4" drill space and press bar in place.

This of course was only half the problem. I now had to block the open end of my new channels. Back to the scrap pile, out with a short section of 1"x2". Screwing and gluing two short sections of 1"x2" to the ends of each 2"x4" I had my guide channels. I cut my rod to length, then marked and drilled holes in it which would become my drill guide. I also made a point of marking L&R on both the rod and 2"x4" guides.

Completed Guide Channel Modification.

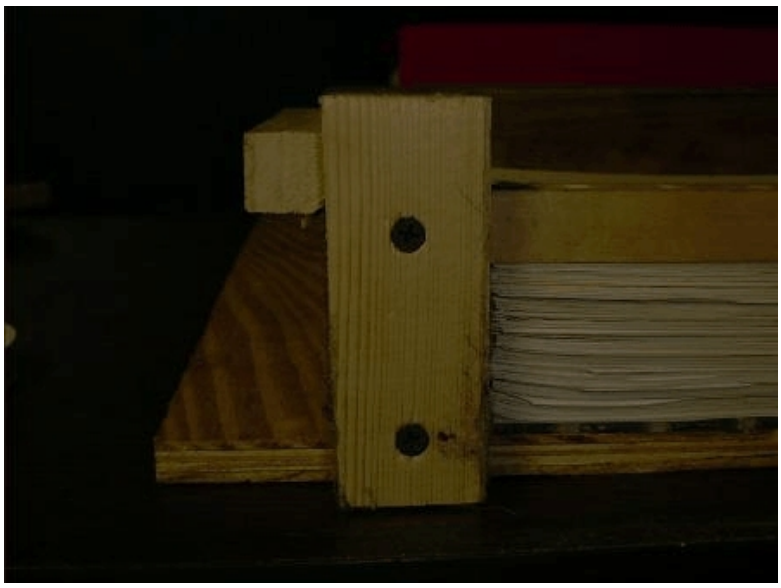


You know, if I'd really thought this out first on paper, I'd have saved myself a lot of problems.

Continuing, I laid a few pages of paper inside my new press. They fit with too much space to spare, but I knew that I would take care of most of that with the plastic. As to why I lined everything with plastic, it's simply because paper tends to be damaged by rough wood. I neither had the time not materials to sand, fill, sand, polyurethane, sand (you should get the idea by now.) Plastic sheets glued into place with a flexible glue (Goop brand in this case, it was handy) did the job a heck of a lot faster. Granted, it looks bad, but the point is, it works.

Plastic lining inside of press. Oblong discolorations are the Goop brand glue.

I still had a problem though. To press my pages tightly together while drilling, sewing and glueing I needed clamps. I for one prefer C clamps, but I had two problems. One was, the largest C clamp I owned (aside from two furniture clamps four feet long) were two inch ones. Back to the building supply for three inch clamps. My second problem was no place to mount said clamps. I solved this by gluing and screwing most of the rest of my hardwood rod horizontally to each of my shorter 2"x4" guides.



Clamp mount on side of press.

My equipment problems solved and time allowed for glue to dry (twelve hours), my press appeared ready. I needed to make a test book to insure I had it right though. So I spent a few hours gathering the furry version of my *I.S.I.C.* book together, a few extra sheets of paper and got to work. Setting the paper in my vise, so that the edge I wanted to drill was in the right place, I grabbed a 1/8" bit, my battery powered drill, and ran into my next problem. It seems that the average 1/8" drill bit is way too short to go though a two inch stack of paper.

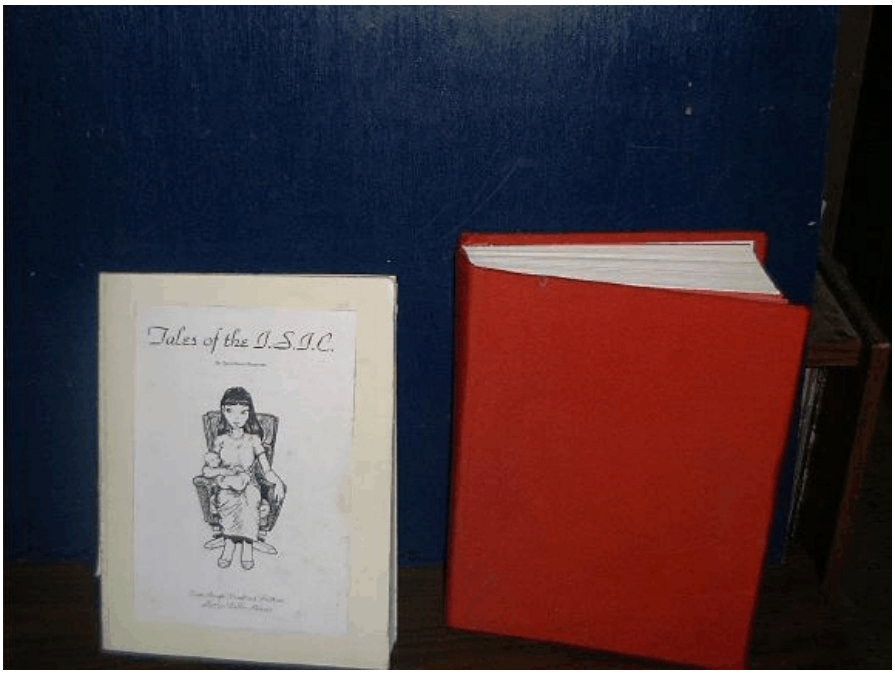
Back to the hardware store.

Home again, with a new 6" long bit I made short work of those pages. By clamping the paper as tight as I could I was, in effect, drilling through Pergo quarter-round (which is a layered paper product.) I ran into two problems. One, the bit tended to clog with heat hardened paper and two, keeping the drill straight. A drill press would be a dream, it would also cost more than we had to spare. So I learned to watch what the heck what I was doing. Most of the time.

In the end I created two test books. The first was covered with foam core board and showed me that it was a material NOT suited for books. My second book, also covered in foam core, was a test of how big a book I could create in my press as well as giving me some practice covering board with cloth. I learned from that test that watered down Elmer's glue is not suitable to glue cloth to book board. Below are the two books, both created using old (in some cases twelve year old) printouts, both copy paper and cheap fanfold.

So what did I learn? I learned that you can combine Adhesive Binding and Bench Sewing techniques to create a book. I learned that you don't have to have a $200 press to do the job, I learned where to find my supplies, what worked and what didn't. Most importantly I learned that I could do this without having to resort to a professional. As long as I did not mind having non-professional results.

Original two test books.



Some of the terms in Bookbinding are;

Adhesive Binding Type of binding in which single leaves are secured together solely with an adhesive applied to the textblock spine. Animal glue, polyvinyl acetate glues, and hot melt adhesives are mostly used. Also known as perfect binding. See also, Double-Fan Adhesive binding.

Bench Sewing Any form of sewing through the fold by hand to attach signatures to form the textblock.

Board General term used for pasteboard, millboard, strawboard, etc, all of which are used to form the foundation for book covers. They are made of various pulped or laminated fibrous materials pressed into large flat sheets, which are then cut to size and covered with cloth, leather, paper, or other material to form the book covers. Also called cover boards, or book boards.

Book Cloth Specially prepared cloth material used as a covering material for book covers. A thin woven cloth (like muslin) that has been dyed, filled, impregnated, or coated with some compound, and subjected to heat and pressure. Book cloth falls into three main categories: 1. starch-filled (where the spaces in the cloth-weave are filled with starch, sometimes called sized book cloth), 2. acrylic-, pyrozylin- or vinyl-impregnated, and 3. plastic coated. Book cloth is lighter than buckram and comes in a variety of colors.

Case The cover of a book that consists of two boards, an inlay, and covering material. In a commercial bindery, the case is usually made separately from the text block and later attached to the text block later in a step called casing-in.

Casing-In Process of applying adhesive to the outermost endpapers of a textblock and fitting the text into its case.

Double Fan Adhesive Binding A type of adhesive binding where the back margin of each leaf in an unglued textblock is exposed to 1/16" or less for an application of adhesive. The margin is exposed on both sides of each leaf by clamping the textblock on a vice-like press and then pushing against the textblock first in one direction, then the other, thereby fanning or separating the edges of the leaves.

Flat Back Also known as square back. A casebound textblock that has not been rounded or backed.

Flyleaf Leaf or leaves forming that part of the folded endsheet not pasted down to the inside of the cover board. Its function is to protect the first or last leaves of the textblock. See Pastedown.

Fore Edge Edge of a leaf or a board opposite from, and parallel to, its binding edge (i.e. opposite from its spine edge). Fore edge is also used in a more general way to refer to any part of a volume opposite from and parallel to its spine.

Leaf Single sheet of paper or half of a folded sheet of paper.

Margin Space around the edges of a page outside the printed or written matter. The four margins are commonly designated as: head or top margin; tail, lower, or bottom margin; fore edge, outer or outside margin; and back, inner, or gutter margin.

Notching Process of cutting parallel grooves into the spine perpendicular to the binding edge to strengthen adhesive bindings.

Oversewing Method of sewing thin sections (i.e., piles) of leaves, one to another in succession, to create a semi-flexible text block. For all oversewn volumes, a minimum binding margin of 5/8 inch (after milling) is desirable.

Paste down The half of an endsheet that is pasted to the inside of the cover board.

PVA (Polyvinyl acetate) An emulsion adhesive; a flexible adhesive that does not cross-link and is considered permanent. Results in a very strong bond.

Textblock Leaves of a volume after they have been bound together. (LBI Standard, Glossary, p.17)

Above definitions are from the LBI Standard, Glossary

Now to our Example Book;

So, I'm going to show you how I make a book. For raw material I am using all the art copies Mr. Terency Owens has sent me since in 1991. Some of these have letters on the back, but that's unimportant for this test. Once I am through, this book will be mailed to Terency. So how many pages do I have, around 310. At least the scan count is 317 which counts a handful of duplicates. Add three or four pages to both ends plus a title and copyright page, say a good 325 at least.

For glue I am using two types. I always use two types of glue, however I am out of my favorite, *Crafters Pick, The Ultimate*. Therefore I am using *Aleene's Original Tacky Glue* for strength instead, with *Golden Harvest GH-50 Borders over Wallpaper paste* for the rest. Yes, wallpaper paste. I will be using leather sewing thread (a beeswax covered product) though I do not recommend it. Beeswax will have a tendency to migrate into the paper over time, staining it. Since this is a demonstration book created with throwaway copies, it doesn't matter. I myself prefer nylon carpet thread, which comes in many colors. However it does not show well enough in the test photographs while the thicker beeswax coated thread does. My Board (what makes a hardcover book hard) is standard 3-ply chipboard that is left over from the *I.S.I.C.* project, as is the very cheap green cloth I used to cover said board. It doesn't come much cheaper than $0.99 a yard, I do recommend a higher quality, thicker cloth if you can afford it.

Lets Start;

Taking our selected stack of paper we place the spine edge, our working surface, outwards. This allows the press bar to do its job while we drill, then sew the paper into a textblock. See image 1. Note the thin white strip at the outside edge. This is a 60lb (cardstock) sacrifice strip. There is another on the bottom. These are placed to protect the textblock from any oils or other marks caused by drilling while the lower strip keeps the textblock from heat sealing to the plastic underneath at the drill hole sites. It really doesn't matter if the front or back of the textblock it up, whatever you are comfortable with. Only that the spine edge it facing out. For the record, I place the textblock face up.

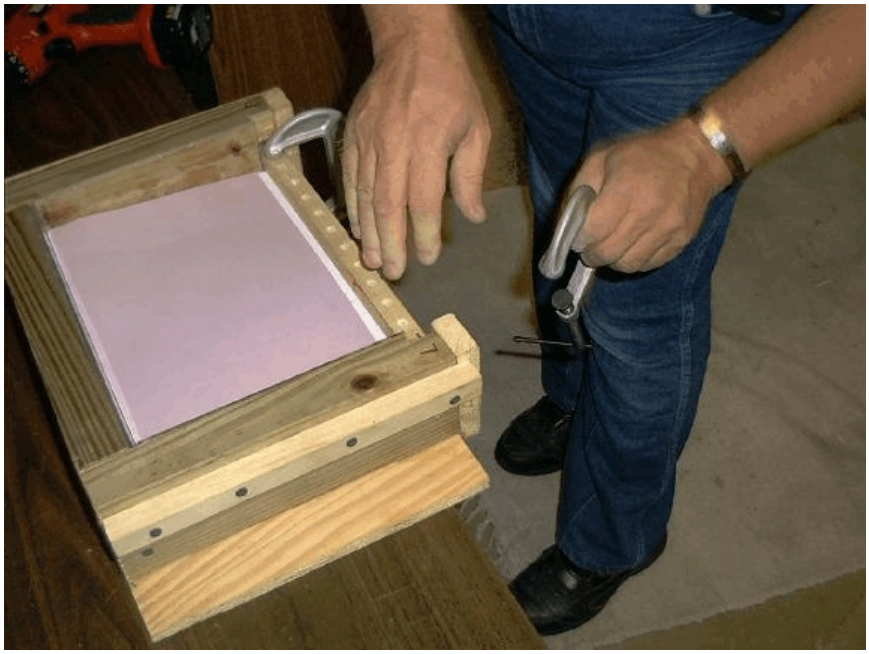
Image 1:

Textblock in place.

My next act is to place my pressure/drill guide bar in place, then clamp it down. As you may be able to see from Image 2, I am able to compress the textblock quite well with only two three inch C clamps. Remember to lightly tighten your first clamp before adding the second, then to tighten each one a little in turn until one of three things happen. You are happy with the compression, it becomes difficult to turn the clamps screw bar, or you hear a crackling sound (wood failing under compression.) I usually try to compress the textblock until it becomes difficult to turn the screw bar.

Image 2:

Attaching C Clamps to the press/guide bar.



My guide holes are an inch apart, with a total of ten of them. It is your choice as to how far apart your guide holes are and how many you have. I do recommend no less than one half inch spacing between holes and no more than one inch.

Once I tightened my clamps to where I wanted them, drilling is next. Although I have a wall electric drill I use a battery powered drill for two reasons. One, it has a chuck on it I can set to save my bit from 'spin breaking' and two, with no cord to fight I can move around as I wish. Below are several images of the drilling process. Please note that you must clean your bit after each hole. This is because the paper clogs the bit, heat sealing into its groves. Do not worry overmuch if you happen to smell burning wood as you drill. Do remember to allow you bit to cool occasionally, especially if you happen to note it beginning to bend a bit. In that case you are applying too much downward pressure.

Image 3: Drilling the first hole.

Image 4: From another angle.

Image 5: Closeup of drilling, note the duct tape depth marker.

Image 6: Drilling as seen from above.

Image 7: Remember to clean your bit after every hole, I use a pocket knife, that bit is now HOT!

Once I drilled the holes I took some time to clean up my work area and put my drill away. I was now ready for the next step. This is sewing the textblock of course. To do this I need to move the textblock out enough to work on it, yet not so far that my press bar cannot easily compress the textblock to where I want it. I found a cheap and easy answer to this problem. A one half inch thick piece of Popular left over from my title block project.

Image 8:

A drilled Textblock.

First I released my clamps in the same manner I tightened them, a little each time, moving back and forth. This helped keep from warping my press/guide bar. Once I pulled the textblock from my press, I carefully removed and discard the two sacrifice strips.

These two strips have served their purpose and are no longer needed. It isn't worth keeping them, other than for starting a fire in your fireplace. I tried reusing them once, it was a mistake. I don't have a fireplace.

Image 9:

Removing the sacrifice strips.

Setting my textblock aside I slid my spacer block into place. As I said above, this is simply left over Popular from the title block I hand cut for my *I.S.I.C.* book. This of course explains why the books outer title looks so bad, I'd never done that kind of cutting before. My point is, try to save everything you can, it will help cut your costs on a later project.

Image 10:

Spacebar in place.

This will push my textblock out one half inch, This is just enough to sew through the holes, but not so far as to seriously affect the press/guide bars function. Replacing my textblock into my book press I am ready to reslot my press/guide bar

Image 11:

Getting ready to sew.

Having replaced my press/guide bar, I'm now clamping it down in order to sew the textblock into a single mass. You may note that I've turned the bar one quarter turn. It's a habit of mine, though it does protect the bars guide holes from any accidents.

Image 12: Preparing to clamp the textblock.

Image 13: Clamps in place.

My next process is to cut a length of thread for sewing. About eight feet is right when the textblock is this thick. You'll have to experiment yourself, still it is better to error on the side of caution (too much thread) than not (too little.)

Image 14: Threading the needle. That's paint on my big tummy, not blood.

Image 15: I've dropped the needle into a hole In the textblock, to help while I ready my thread.

Image 16:

Getting the ends equal.

With my needle threaded I'm ready to 'Bench Sew' the textblock. Once this is done I will, for all intents, have a book. Selecting a hole near the middle of my textblock I put a small drop of glue next to it, then held the threads end to it until it was firmly attached. My reason for this is simple, it keeps my thread from pulling through without using a bulky knot. Thread attached, I start sewing with a basic in the top out the bottom, move over to the next hole, up the bottom out the top stitch. I make a point of pulling my thread tightly as I make each stitch.

Image 17:Gluing the threads end on.

Image 18: Beginning the sewing process.

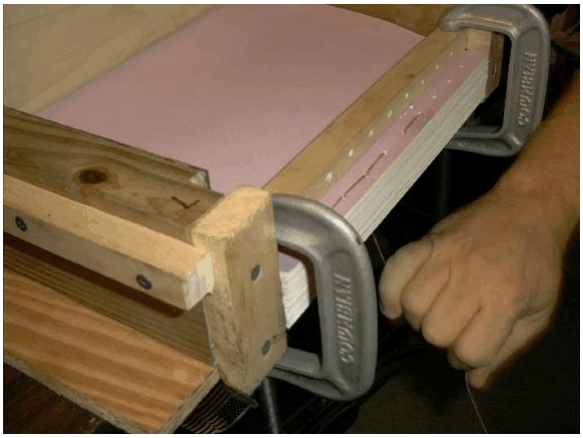


Image 19: Pulled in thread tight.

Image 20: Starting the second half.

I start my sewing in the middle, move to the left end, then sew back to the middle, on to the right end. Finally returning to the center with one overlap stitch. When I pull my thread tight I do so by holding the threads, not pulling with my needle. Once this is done I cut my thread to length, leaving about an inch extra and glue it down as well. While this glue is drying I cleaned my needle and put it away. Over time my needle has developed a slight curve, most likely due to my style.

Releasing my textblock from its prison I made one quick check to insure everything was in order and the pages opened easily. This isn't critical, if your careful you've done everything correctly so far. It does give you a nice feeling each time you do this, as you have just created a book, sans cover of course.

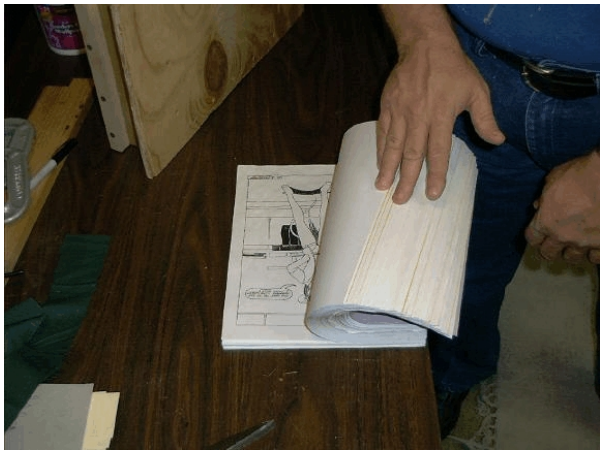


Image 21: A quick first check.

Image 22: Glancing through.

Now for the suspenders to add with this belt. Lifting my press up on end I can use it to help support the textblock while I run glue beads down the spine, then rub the glue into the bound leaf's with one finger. This is Adhesive Binding of course, or better known as 'Perfect Binding'. By the way, its not called perfect binding because it's the best style of binding (in fact, its one of the worst.) It is simply the cheapest in mass production runs.

Image 23: Applying beads of glue to the textblock's sewn spine.

Image 24: Rubbing in the glue, making as certain as possible that each leaf has glue.

I make one further step. Having measured and cut a short section of cloth, usually the same cloth I am using for the cover, I then press this cloth firmly into the still wet glue. There is just enough overlap with this cloth to cover the thread I used for sewing. This I glue down, trying to keep it as flat as possible. Note, keep pieces of old newspaper around to clean your hands often, this is a messy job.

What you use for a spine cloth, or even if you use one isn't important. Thick paper will probably do just as well. My only reason for using it is to keep the spine from, in high humidity cases, gluing itself to the book cover's spine (which should be loose.) It does tend to make the finished book look a little more professional however. I also add a cheap ribbon to use as a bookmark. This is glued to the spine, about an inch long, and is long enough to hang at least an inch out the books base when closed.

Image 25: Cutting a section of cloth to glue to the books spine.

Image 26: Measuring a second time, it is Never a bad idea to measure twice.

Image 27: Laying the spine cloth into position.

Image 28: Now pressed into the glue.

What I need to do now is set aside the textblock, allowing all that glue to set some. My book cover is next. Board, as the hard cardboard material is referred to, comes in rather large sheets I had to cut to size. Since I was doing it by hand, I made mistakes, having to match boards in pairs by size. Selecting two matching boards from my remaining stock I set them out on my table. These are three-ply chipboard. This is the thickest board commonly available. One and two ply are also available, I'm not happy with the results two ply gives and one ply is darn near useless in my humble opinion.

What I need to do is measure the books spine and add about half an inch. This is the space I need to glue my boards apart in order for them to lay flat in the book, and still open easily. This is a hit or miss situation the first time you try it, so I suggest you use masking or painters tape to hold your materials together the first time you try this. As to what do I use to attach these two boards together?

Office folders. Yes, plain ordinary everyday sometimes used office folders. It is the right thickness, strong and flexes well. So I'm cheap, sue me.

When I cut the folders I always give them an inch overlap on each side. I want this bond strong, even though the cover doesn't hold the book on, the book holds the cover on (yes it makes sense.)

Image 29: Chipboard set out for inspection.

Image 30: Yes, I said office folders.

Image 31: Glueing the boards together. Back view.

Image 32: Now the front (inside) view.

Once my cover was glued together I placed weights on it to insure a good bond. What do I use for weights? In my case, I use the two test books I'd made earlier. While this was drying I measured, cut, folded and glued the two pieces I needed to attach the cover to my textblock. This I cut from the same folder material I'd used to attach my boards together. Don't make sharp folds, it weakens the paper.

Image 33: Cut strips ready to fold.

Image 34: Folding the slips for gluing.

Image 35: Applying two glue beads to each strip.

Image 36: Attaching a strip to the textblock.

Image 37: Hi tech way of applying pressure while the strips dry.

I like to use wax paper between the strips folded sides, as well as my table and the weight boards when I glue. Though glue doesn't easily stick to my vinyl clad table, these wooden boards (and the paper itself) are prime candidates for long term attachments. It is easier to be safe than have to replace a strip that stuck to something it was not supposed to stick to.

Moving my now drying textblock aside I made room to work on my cover again. Having dried enough to handle, it is now tome to cover the board with cloth. To measure my cloth I simply lay the boards on it, then cut, leaving a margin of cloth long enough to fold over and be glued to the inside of my boards. This doesn't have to be perfect, as it will be covered by the flyleaf later.

Glueing my cloth to my cover is really easy. First laying down several sheets of newspaper, I use a paintbrush (I use a two inch wide model) I spread wallpaper past on the back of my cover. This of course becomes the book's outside. When this is done I down my cloth (good side up) over the glue, using my hands to spread the cloth gently, but firmly in order to clear the folds that pop up. Once that is done I discard the top layer of newspaper, flip my cover over so the cloth is now against my newspaper and proceed to glue each edge to the board. For this I use the same glue as I used on the spine.

Image 38: Measured and cut cloth.

Image 39: Cloth now glued down. Note the dark areas. They will vanish after the paste dries, unless you squeegeed glue through the cloth by pressing too hard.

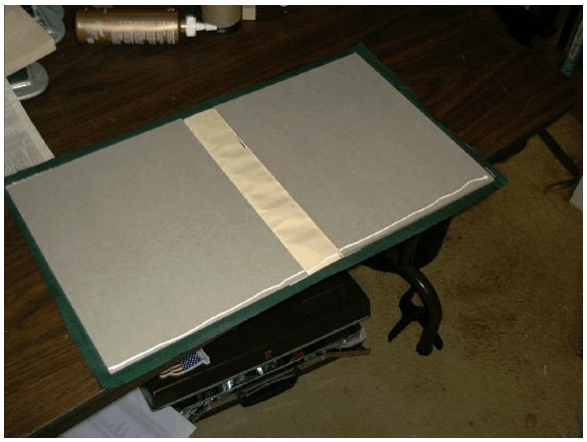


Image 40: Glue bead to hold cloth edge.

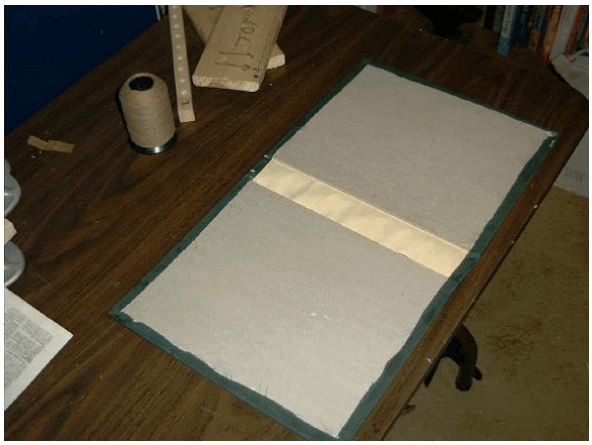


Image 41: Edges glued, ready for weights.

Image 42: Wax paper protection for wet glue.

Image 43: Weights are whatever works.

While that dries I'm going to add a bookmark to the textblock. This is simply a cute ribbon with one inch glued to the spine, and long enough to hang an inch or so out the book's base when it's closed. A very simple job, cut long, trim later.

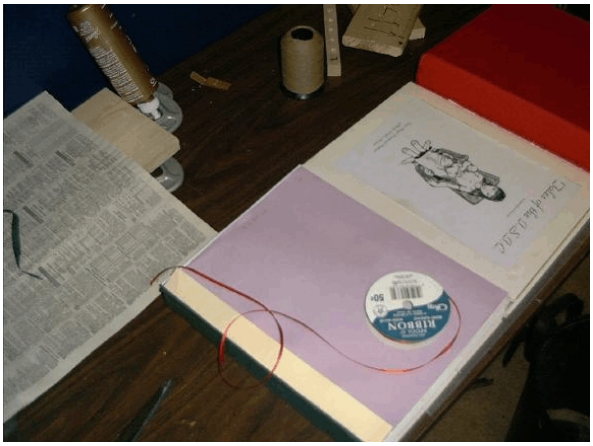


Image 44: Measuring the ribbon.

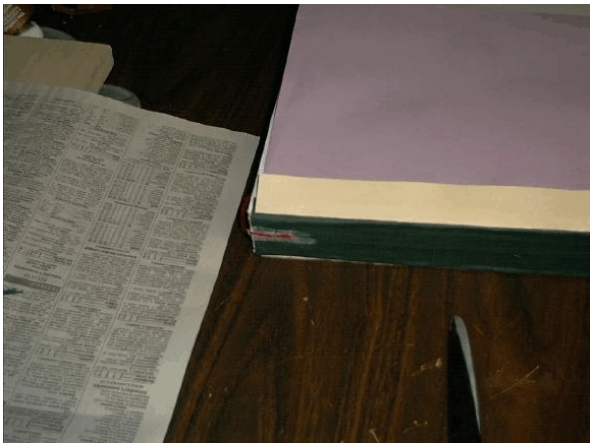
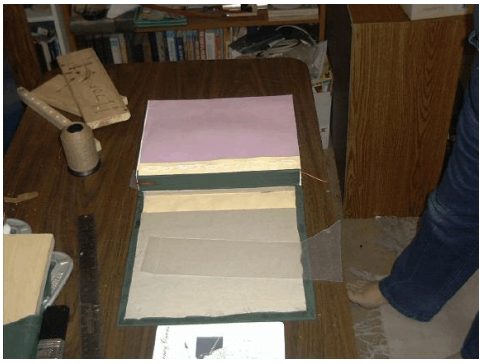


Image 45: Ribbon now glued to the spine.

With that small task done, it is time to attach our cover to our book. To do so, first cut a couple of three inch wide strips of wax paper. These again go into your folded attachment slips, to keep the board from gluing to your textblock's first or last page. Slip them into place, align your cover how you want it, and close. Add sufficient weight to insure a good bonding. Wait at least an hour before opening your book again.

Image 46: Textblock and cover, unattached.

Image 47: Attaching the first side.



Images 48-49:

Wax Paper added for safety.

Image 50: Closing the cover.

Image 51: Just a little weight.

While this is drying I took the time to create a cover graphic and spine title. A relatively easy job, I simply used one of the previously scanned pictures from this book and a touch of typing in Word Perfect. A few minutes of goofing around and I had what I wanted. Once printed out I cut each piece out to fit, rounded the corners and set them aside.

Image 52: Title page printed, ready to be cut and trimmed.

Finally, I need a flyleaf. This is paper cut twice the width of the book's pages but the same height. One side is glued to the inside cover while the other hangs free. For this I simply cut two sheets from a roll of light shipping paper. It isn't the prettiest thing, butcher paper or preprinted paper (even wallpaper) would have been a better choice. It was what I had on hand. This paper covers my cloth edges and is glued down using two glues.

On where it attaches to the office folder attachment piece, and along the cloth edges themselves I ran a bead of the glue I used on the spine. Over the exposed board I brushed a layer of wallpaper paste. Folding my brown paper in half (lengthwise please) I slid that into place fold to fold, then hand pressed the rest to the inside of my cover. Slipping a large sheet of wax paper inside the folded brown paper (so it wouldn't stick together, and to keep water vapor from the book proper) I repeated this process on the other side. After that came the labels, then quite a bit of weight (both books and the anvil.) This has to

dry overnight. If you lift the weight too soon you get what you see in image 56. Not to worry, this was done just to show you the problem (wet board bend.) I replaced the weight and by morning I had a dry, flat book which I made one last check on before I mailed it to Terency that afternoon.

Image 53: Rolling out some paper.

Image 54: Paper cut to size then pre-folded.

Image 55: A little weight while applying glue
To the pastdown (flyleaf.)

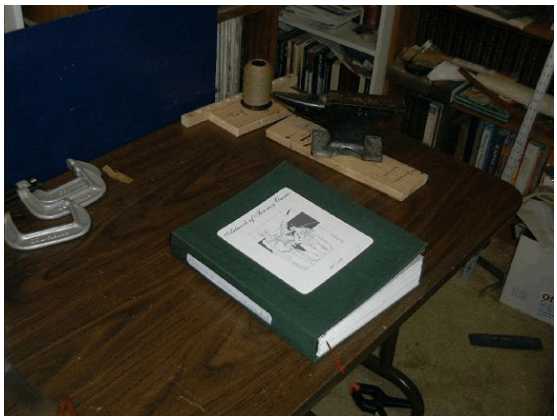


Image 56: Labels glued on, opps still damp!

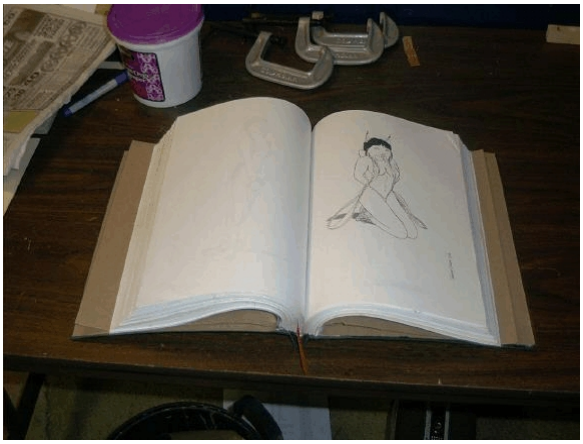


Image 57: Finished book opened to a random page.

Image 58: Some of the tools I used.

As with the flyleaf, when I glued the labels I used two glues. For my shorter spine label I simply used the same glue as I do on the spine itself. For the larger picture, a bead of glue around the edge and wallpaper paste for the larger area.

You will note some thing I did not do. Things like rolling the spine, round backing the book or adding a neat little grove so the cover opens smoothly. Well, I haven't learned how to do that yet. There are many good books available on book binding, they explain these techniques much better than I can. Check your local library, they make really interesting reads.

For Binding only;

Parts and Supplies;

Tools:

1/8th inch drill bit 6" long	Building Supply
3" C Clamp (you need at least two)	Building Supply
5" long Doll Needle (two to a package)	Cloth Store
Electric Drill	Building Supply
Ribbon	Cloth Store
Scissors	Cloth Store
Sharp blade or craft knife	Hobby Store
Wax Paper	Supermarket

Consumables:

Aleene's Original Tacky Glue or Crafters Pick, The Ultimate. (Any good clear drying water based glue)	Hobby Store
Chip Board, 1,2, or 3 ply	Artists Store
Cloth of your choice	Cloth Store
Nylon Carpet Thread	Cloth Store
Several sheets of newspaper.	Wherever
Wall Paper Paste (self priming sizing), premixed	Building Supply

For Book Press only;

Parts and Supplies

½ or 3/4 inch thick plywood about 10x18"	Building Supply
1/8th inch wood bit	Building Supply
2x4 about 35" long	Building Supply
3/4inch square oak bar (press/drill guide)	Building Supply
1x4 about eight inches long.	Building Supply
Carpenters Glue	Building Supply
Drill with Phillips screw bit	Building Supply
Flexible plastic to wood glue	Building Supply
Goop or silicon seal.	Building Supply
Plastic sheet about 18x18"	Building Supply
Saw	Building Supply
Sheet Rock Screws 3" course thread	Building Supply