

Less simple Press

Summary: You will making two frames that make a grid pattern and have large air spaces.

You can either do one frame and then make the other or double the steps described below and make two frames at the same time.

Step One: Take one long piece and one short piece and lay one on top of the other so one end of each board is square to the other.

Step Two: Generously apply glue to each board where they will be overlapping and making sure the corner is square, hammer one nail to connect the boards. The boards may slip when you are hammering but with only one nail in, you should be able to adjust the corner to make it square. Use your carpenters' square.



Step Three: Hammer a second nail in to secure the square-ness.

Step Four: Repeat Steps One through Three with another long piece and short piece.

Step Five: You should have two "L" shapes. Arrange them into a **Rectangle** (long side parallel to long side, short side parallel to short side). Apply glue to the unattached corners and hammer one nail to connect each corner. Again, check to make sure your corners are square before hammering in the second nails.

Step Six: Wipe off excess glue.

(You would think that two L's that were square would automatically make you a nice rectangle, but still CHECK)

Step Seven: Evenly space the remaining short pieces across the press. Generously apply glue at the middle of each side and nail one of the remaining short boards in place. Again, start with one nail, make sure the board is positioned in the right place, then hammer in your second nail.

Step Eight: Glue all short pieces. Now you have a **Ladder**.

Step Nine: Wipe off excess glue.

Step Ten: Flip your Ladder over so the short boards are at the bottom.

Step Eleven: Visually divide the space between the parallel long board into thirds. Apply glue, and nail the last long boards into place.

All done...with one side (unless you were doing two at once.)

Cut Corrugated Cardboard and Insert Newspaper

Cut a bunch of corrugated cardboard pieces to match the size of the frames. Enough for the quantity of plants you want to press. One for each plant, plus another to cap off.

Get newspaper and keeping it folded, place the sheets between the cardboard. I used multiple sheets to absorb the moisture from the plants.

The newspaper doesn't have to fit perfectly. Just be careful when you put your plants between the pages that parts of them are not sticking out beyond the edge of the frame. These parts won't flatten and probably will get damaged.

Simple Press



Summary: You will drill holes in two flat piece of wood and use screws and wing nuts to make a press.

What you'll need

- drill with drill bit
- paper cutter or scissors
- wood clamps (optional)
- 2 wooden boards the same size
- 4 bolts with matching wingnuts
- cardboard
- blotting paper or newspaper

Step One: Drill holes in the four corners of one of the wooden boards. Use the first board as the template to make matching holes in the second board (clamp with wood clamps for ease). To minimize wiggling/twisting, the holes should be just big enough to force your bolts through.

Step Two: Cut cardboard and blotting paper into a stack of rectangles that will just fit inside **the bolt holes** on your cutting boards.

Step Three: Put your bolts through the bottom wooden board and stack in your cut cardboard and paper. Place second wooden board on top and tighten down with the wing nuts. You're ready to go in search of plant specimens!

Slightly different Press



Same as above except glue two strips on each long edge and use straps to tighten.

These are a little more even pressure than the simple press. But less air flow than the grid press.

How to collect plants for a voucher specimen

When to collect: Dry, sunny weather is best so that plants dry easily. If not you can put them in a drier for a short time before pressing. The faster they are dried, the better they look (color, no mold). BUT, don't overheat them or they will start to degrade. Press plant samples as soon as possible after collection

What to collect:

- Herbaceous plants: part of root system, stems, leaves, flowers (if possible) and fruit/seeds (if possible)
- Woody plants: small stems, leaves, flowers (if possible) and fruits/seeds (if possible)
- If a plant is imperfect but monoecious, make sure to collect both flower sexes!

Pressing plants: Clean off from all soil. Arrange the plant specimen on the newspaper carefully, so that it looks as natural as possible without too much overlapping of the plant parts. Turn at least one leaf so that the underside is showing when pressed. Leave room for a label at the lower right-hand corner. Sandwich the specimen between pieces of newspaper which are then sandwiched in cardboard before applying pressure in the press. Use extra newspaper for thick or very moist samples. Tighten the belts or wings of the press, but be careful not to crush stem tissue. You will have to check the press a few days in a row and tighten as necessary. You can put the press under a light to speed up the drying process, but don't overheat it or it will change color.

Label: Don't forget to record information with the specimen when you press it!!! Otherwise, when you go to make your herbarium specimen, you may not remember the information! Also don't lose the fruit you collect!

You will need to make note of the following:

- Common name (and scientific name if you know it)
- Name of collector
- Habitat/Location
- Collection Date (and Number)

How to process a herbarium specimen

- Make sure to use acid-free papers and supplies when processing your sample. If not using an acid-free glue, make sure not to touch the plant sample with the glue.
- Mounting paper should be 11.5" by 16.5"
- Lay the pressed plant parts and label on the mounting paper in a way that shows flowers and natural arrangement. Do not glue until you have everything laid out
- DO NOT manipulate plant arrangement or remove leaves/flowers
- If you have fruit or large particles, make a fragment packet to hold them
- Use strips of cotton or non-acid paper to stabilize the sample
- Make sure the label is filled out (scientific name can be left out if unknown) and glued to the bottom right-hand corner of the specimen
- Number the specimens consecutively!
- Store in a dry, dark place!
- Try to get a specimen sample for each plant in each of its major physiological stages (vegetative growth, flowering, fruiting)
- Once you have several specimens, you can submit them! <http://sweetgum.nybg.org/science/ih/>

