Collapsible Book Cradle
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Materials:
book board
covering material - we’ve used tyvek and buckram
pva
3BT (Board Thickness) jig the height of the cradle
book press
glue brush and roller
pencil
ruler
knife
optional: board for infills such as museum board or library board

The measurements are equivalent to the medium sized foam cradles, 9.5x14.5x4.25” But it is easy enough to customize to desired size.

Cut Materials:
Boards (grain long)
2 Covers  9.5x14.5in
6 strips for cradle stopper .5x 14.5in
2 cradle 8.75x14.5in
2 riser boards 4.25x 14.5in

Use the cut boards to measure and cut fabric. Approximately 4x the size of the two cover boards, including spine width will be needed for the entire cradle.
Assemble covers first:

Glue the long strips for stoppers together in two groups of three each.
Glue the assembled strips to the cover board.
You can use binders clips to clamp these together.

Cover the spine edge of the cover with covering material.
Cut 2 2 x 16in long strips of fabric.
Glue out and begin covering the foredge of the covers:

Trim the fabric for ease of covering.
Follow the image for gluing order.
Repeat with other board and set both aside when finished.

Covering cradle risers

For each side, cut the fabric twice as wide as both cradle pieces, and one time as high as the pieces. Use the cut boards to help measure, and be sure to leave extra for trimming down and turning the fabric in.

Fold the cut fabric in half. Glue out the riser board and place it against the fold. For larger cradles, nipping the boards in a press is very helpful.

Use the three boart thickness jig to add space between the riser board and the cradle board. Glue in place, taking care to line up the top and bottom edges of the two boards.
Trim the fabric for the turn ins.
The angle of the fabric on the riser should be rather steep. The cut on the fabric flap is only 1 - 2 board thickness less than the height of the cradle.
The front flap should be at least 1.5 inches wide. Cutting the carrots here helps fold the turn-ins with less bulk.
It is also a good idea to trim slight angles off the fabric flap so they don't stick out when it’s glued down.

Turn in the head and tail first, working corners down cleanly.
Glue out the flap and pull it over the boards. Work the fabric down from the riser edge towards the front flap edge.
Using a paint roller for this step is very helpful.

Crease the front flap down against the edge of the board well. Nip the whole thing in the press.

Assemble the cradle and the cover

Place the folded cradle on the workbench face down. Put the cover on the top of it with the stopper face down. Line up edges and put a weight on top to hold in place.

Glue just the top of the case. Do not glue the flap. This ensures that there is no adhesive in the visible part of the hinge.

Fold the flap over and laminate to cover. Putting this in a press for a while is highly recommended.
Optional:

In order to have a cleaner looking case covering, use a straight edge to trim an even amount off of the edge of the flap. Pull the excess fabric up off the board. The hinge must be dry first!

Use any kind of material to butt up against the newly cut hinge fabric and fill in the surface of the board. Once this is covered the whole surface will be even.

Preparing the Case Covering

Cut a piece of fabric that is large enough to accommodate both covers, a 1.5-2inch spine, and enough to turn in over the risers.

With a pencil, draw in the spine center as well as the top and bottom lines where the cradle will be glued. Use a pair of scissors to make 4 cuts in order to turn in fabric for the top and bottom of the spine. These cuts should be angled slightly outward, away from the spine center.
Fold the new flaps down toward the spine. Paste them down.

Cut a piece of cloth for the spine lining. This piece should be wide enough to cover the spine lines, usually 3/4' wider on each side. The height should be 1/4'' shorter than the actual spine.

Using a glue roller, put glue on the back of the case. Place the constructed cradle in the marked areas on the back of the case fabric. The corners by the spine should line up with the edges of the cut spine. The stoppers should be on the outside, away from the spine. Use a nipping press and board to make sure of good adhesion.
Trimming the turn ins

Trim the head and tail turn ins to 3/4” width.
Trim the turn in for the riser to 1 3/4” minimum.
At the corners cut as indicated. The cuts are made all the way up to the board.

Cut a piece of the covering material to 1/4” tall by 1 1/4” long.
Glue out and put around the outer edge of the riser in a U - shape.

Glue out the flap A

Smooth the flap A over the top of the riser.
Glue out the turn ins for the head and tail and turn in.

Glue out the flap for the riser and smooth down.
Take time to use the tip of the bone folder on the inside fold of the bracket.

Add pastedowns on the inside of the case. Press under weight over night.