



Conserve O Gram

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Storage Techniques for Hanging Garments: Padded Hangers

Garments require special consideration for safe storage. They may be suspended from hangers or stored flat. Select the safest and most appropriate storage method based on garment type, condition and construction. Sturdy structured or tailored garments generally can be suspended on padded hangers if they are in good condition. Do not hang garments that are in fragile or poor condition, are simply constructed such as kimonos, are heavy or have heavy embellishments, or lack dimensional stability such as knits or clothing sewn on the bias. House these pieces flat in properly sized museum quality boxes or cabinet drawers.

When garments hang vertically, stress concentrates on the upper body sections, such as the shoulders, neck, and bodice. Create customized hangers that are properly sized and padded to conform to the shape and style of the garments to minimize distortion to the fabric, reduce tension on the seams, and provide overall support. This *Conserve O Gram* provides guidance for making custom padded hangers.* Basic sewing experience is recommended.

Selecting Hangers

- Maintain a range of hanger sizes for use with a variety of garments. Select a hanger slightly smaller than the shoulder width of the garment, as the padding will increase its dimensions. Do not use a hanger that

is too large as it may distort the garment or be difficult to insert and remove, risking damage.

A triangular-shaped hanger provides the most support options and allows for additional support to be attached to the lower bar if necessary. Select hangers with smooth, long necked hanging hooks so the garment does not rest high on the hanger and touch the hanging bar of the storage cabinet. Only use hangers made from chemically stable materials such as polypropylene or acrylic. Chrome-plated steel is an option for small lightweight garments. Do not use wooden hangers, as they off-gas volatile acids that will damage collections.

Materials

- Hangers (white polypropylene, acrylic, and/or chrome-plated), various sizes
- Polyethylene foam noodles with hollow core, white (approximately 2.5" diameter)
- Twill tape (100% unbleached cotton), 1" wide
- Sew-in fleece Pellon® (#972 Econo-fleece™)
- Muslin (100% unbleached cotton), washed
- Thread, matching and colorfast
- Tissue or lightweight paper and pencil for pattern making
- Tape measure
- Scissors
- Utility knife
- Straight pins and sewing needles

- Sewing machine and/or serger if available
- Steam iron
- Detergent such as American Association of Textile Chemists and Colorists (AATCC) HE Liquid Detergent WOB (high efficiency liquid detergent without added dyes, fragrances or optical brighteners)

Additional Support Material (optional)

- Batting (needle punched or thermal-bonded 100% polyester)
- Soft Tyvek® (spunbonded olefin) Grade 14-M
- Coroplast® board (corrugated polypropylene sheet)

Preparation and Construction

1. Measure the width of the garment from shoulder to shoulder (Figure 1). Select the appropriately sized hanger, anticipating that the padding will slightly increase the hanger width and height. The finished padded hanger should replicate a natural shoulder width and extend slightly into the sleeve past the sleeve cap seam if present.
2. Cut a length of polyethylene foam noodle to accommodate the shoulder width of the garment as determined in Step 1. Using a utility knife, slice the noodle open along its length on one side. Determine the center point and create a ½" – 1" opening on the side opposite the slit. Insert the hanger's hook through this opening and slide noodle over the top of hanger. Secure foam noodle on each side with twill tapes tied to the hanger's lower bar and tuck tape ends into the noodle slit (Figure 2). If no additional padding is needed, go to Step 4.
3. If the garment needs additional padding, cover the padded hanger with batting to the desired thickness. Hand stitch top and side edges of batting closed with needle and thread (Figure 3), leaving bottom open (Figure 4).
4. Wash muslin in hot water with detergent. Put muslin through another wash cycle without detergent. If handwashing, rinse repeatedly and thoroughly. Place in dryer on medium setting. Press out wrinkles with steam iron before cutting and sewing.
5. Make two slipcovers for the padded hanger: an inner slipcover of fleece Pellon® to provide a smooth layer of cushion and an outer slipcover of muslin or Tyvek® as the washable protective outer cover. Follow the steps below to create both slipcovers:
 - a. Create a paper pattern by tracing around the contours of the padded hanger (contour). Mark a cutting line 1 ½" out from contour (Figures 5 and 6).
 - b. Square off the bottom edge of the cutting line, making certain it is long enough to extend past the lower edge of padded hanger or any additional support. Add ½" for hem of outer slipcover (hemline) (Figure 6).
 - c. Fold fleece Pellon® in half and pin to pattern, matching fold line to folded edge. Cut Pellon® along pattern cutting line. Repeat to create two pieces. (Figures 7 and 8 for both Pellon® and muslin).
 - d. Stitch the two Pellon® pieces together using a ½" seam allowance (stitch line) and leaving a ½" unstitched gap at the top center for the hanger's hook. Turn right side-out and place this inner

- slipcover over padded hanger (Figure 9).
- e. Pin and cut two pieces of muslin as described in step 5c.
 - f. Serge and/or hem the lower edge of each piece of muslin. (If using Tyvek®, this step can be skipped.) Serge or finish other edges of muslin if desired (Figure 10).
 - g. With the hems to the outside (inside out), stitch the muslin or Tyvek® pieces together using a ½” seam allowance (stitch line) along the top and sides, leaving a ½” unstitched gap at the top center for the hanger’s hook (Figure 10 and 11).
 - h. Turn right side-out and stitch a label with the associated garment’s catalog number onto the completed padded hanger cover for easy access. Position the label in a visible location such as the center front just below hanger’s hook. See NPS *Museum Handbook*, Part II [Appendix J](#): Marking for labeling textiles.
 - i. Place outer slipcover over padded hanger (Figure 12).

Additional Support

If a garment requires additional support or to prevent it from collapsing in on itself, prepare a Coroplast® board support. Size this support board according to the dimensions of the garment and hanger. Using a utility knife, cut horizontal slits in the board near the top and bottom edges. Round the corners of the Coroplast® to eliminate sharp edges. Thread two twill tapes through the upper and lower edge slits and secure around board with stitching. Secure additional roll(s) of batting to the twill tapes with stitches (Figure 13). Attach this board to hanger with twill tapes by tying or stitching to lower bar. Create a longer

outer slipcover to cover this additional support (Figure 14).

Dresses, particularly those with heavy skirts or bustles may require supplementary support from the waistline to the hanger to reduce the strain of hanging. Consult a textile conservator for guidance.

Additional interior supports may be needed, depending on the construction of the garment. Support the interiors of sleeves and collars with shaped and sewn Tyvek® cushions stuffed with polyester batting where necessary. See COG [5/3](#): Internal Supports for Buckskin Clothing Storage.

Protect the hanging garment with a dust cover. See *Conserve O Gram* [4/15](#): Storage Techniques for Hanging Garments: Dust Covers and NPS *Museum Handbook*, Part I, [Appendix K](#): Curatorial Care of Textile Objects for further collections care guidelines.



Figure 1: Measure shoulder width

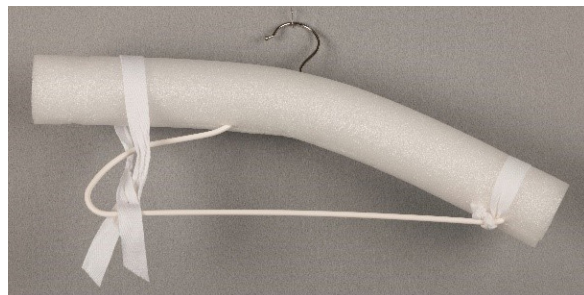


Figure 2: Secure foam noodle to hanger with twill tape. Tie knot around lower bar and tuck tape neatly into each slit.

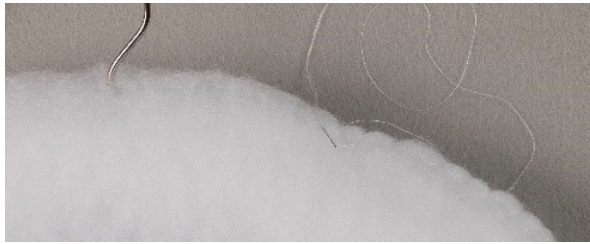


Figure 3: Hand-stitch top and sides of batting



Figure 4: Complete stitching, leaving bottom open

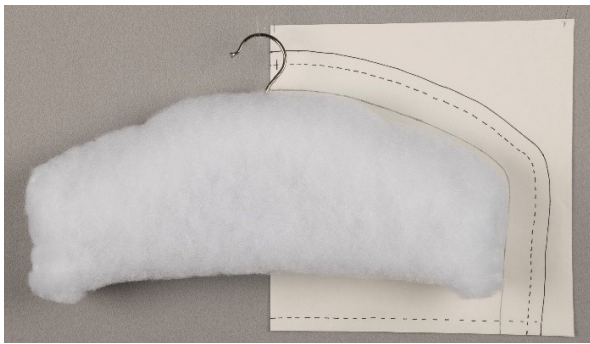


Figure 5: Create paper pattern for slipcovers following contour of padded hanger

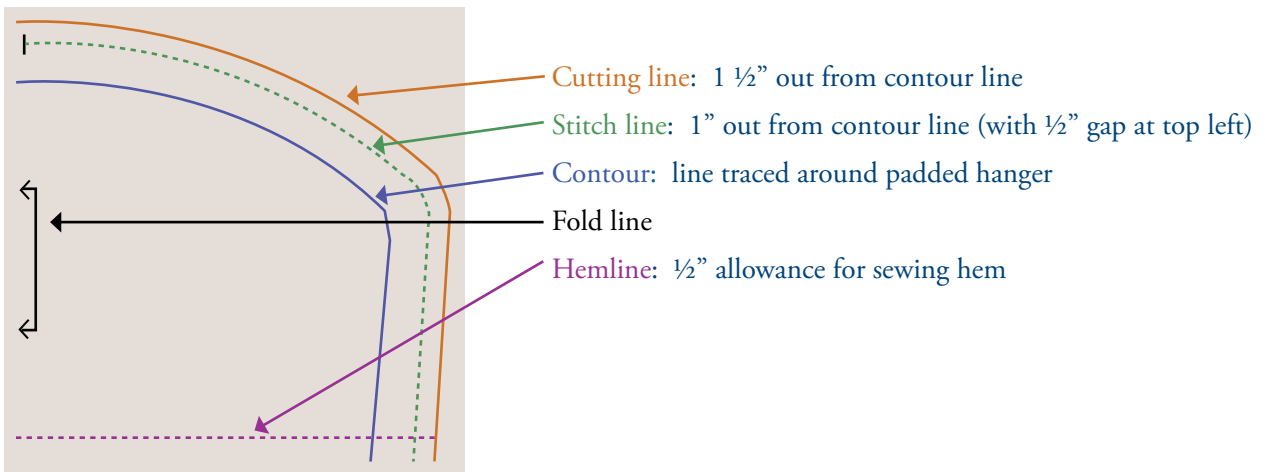


Figure 6: Paper pattern

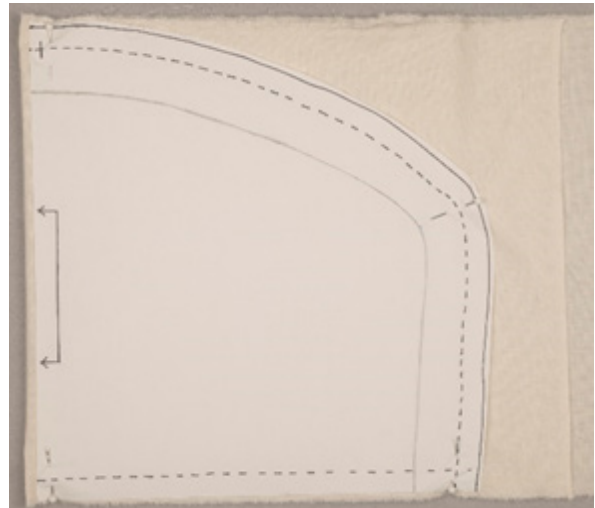


Figure 7: Pin pattern to folded muslin.

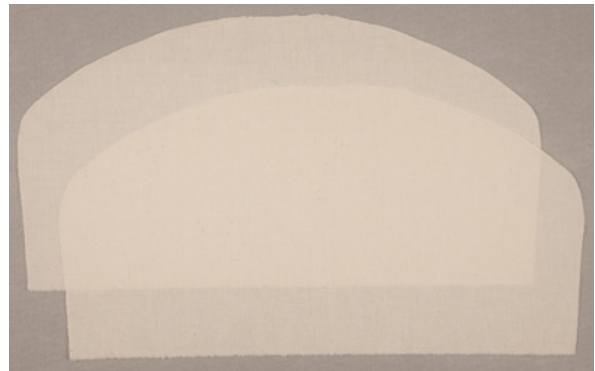


Figure 8: Cut two pieces of muslin using pattern



Figure 9: Completed Pellon® inner slipcover

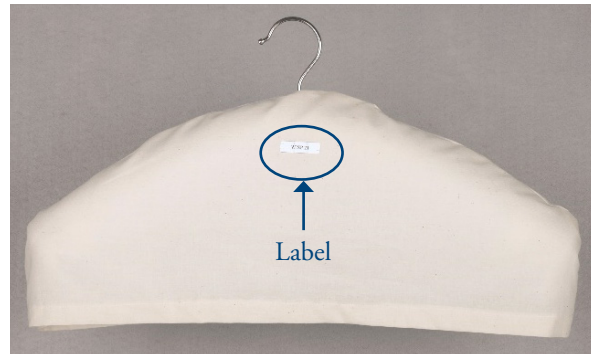


Figure 12: Muslin outer slipcover with label

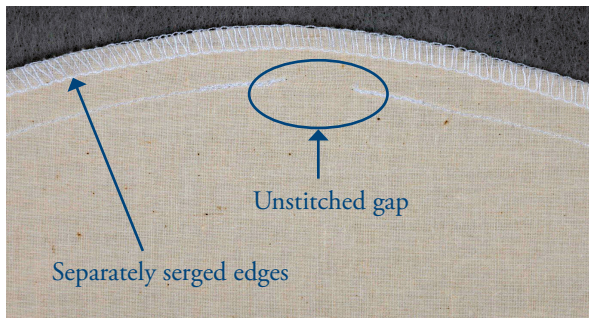


Figure 10: Stitch pieces together leaving gap for hanger's hook

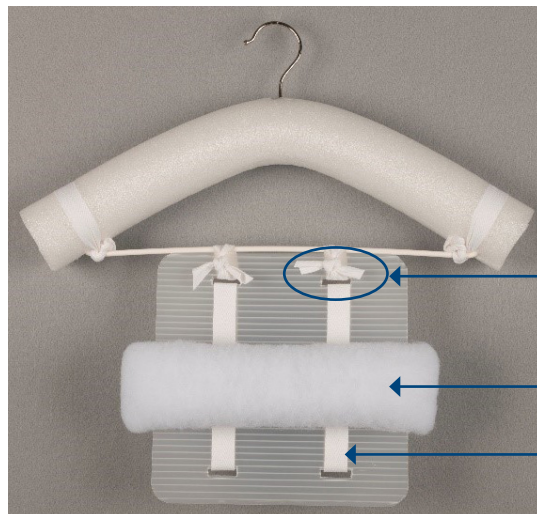


Figure 13. Additional Support

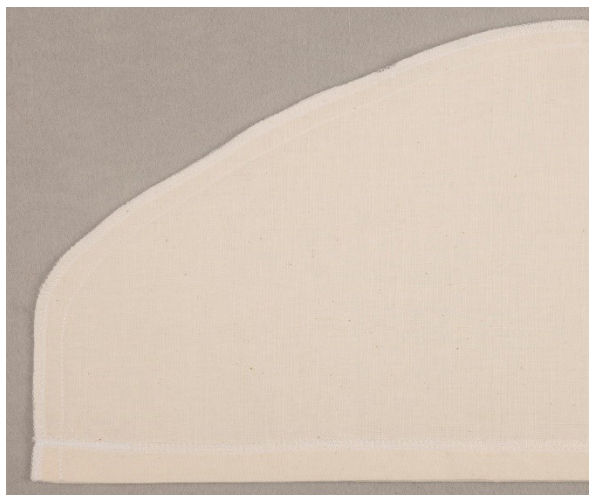


Figure 11: Stitched slipcover (inside out)



Figure 14. Longer muslin outer slipcover for additional support, with label

Selected Sources

Some materials obtainable at local fabric, variety, and hardware stores.

Bend & Hook Perfect Hanger in 4 sizes (white) (chrome-plated steel and polypropylene): www.bendandhook.com;
Palaset Olka® Hanger (polypropylene); Acrylic Hangers with Bars (petite, shirt, & coat): The Container Store www.containerstore.com

Detergent, AATCC HE Liquid Detergent WOB, Twill tapes, 100% cotton, various widths, Muslin, 100% cotton (de-sized, unbleached cotton print cloth/400U), Polyester battings (various thicknesses): Testfabrics, Inc. www.testfabrics.com

Polyethylene foam noodles: University Products www.universityproducts.com

Tyvek®, Coroplast®: University Products www.universityproducts.com or Gaylord Archival www.gaylord.com

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*This padded hanger technique was developed at The Textile Museum, Washington D.C. with Esther Methé.

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