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How To Weave Splint Seats For Chairs

Extension Division-University of Missouri & Lincoln University

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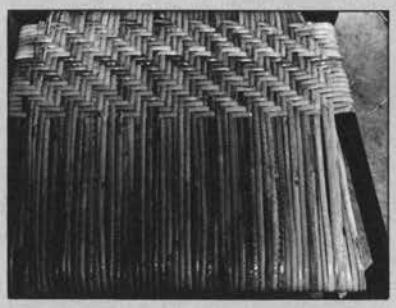

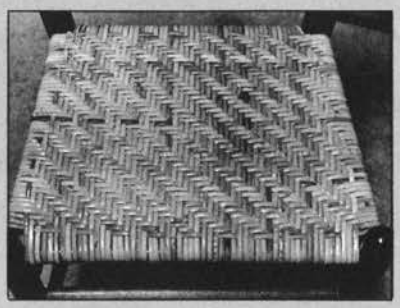

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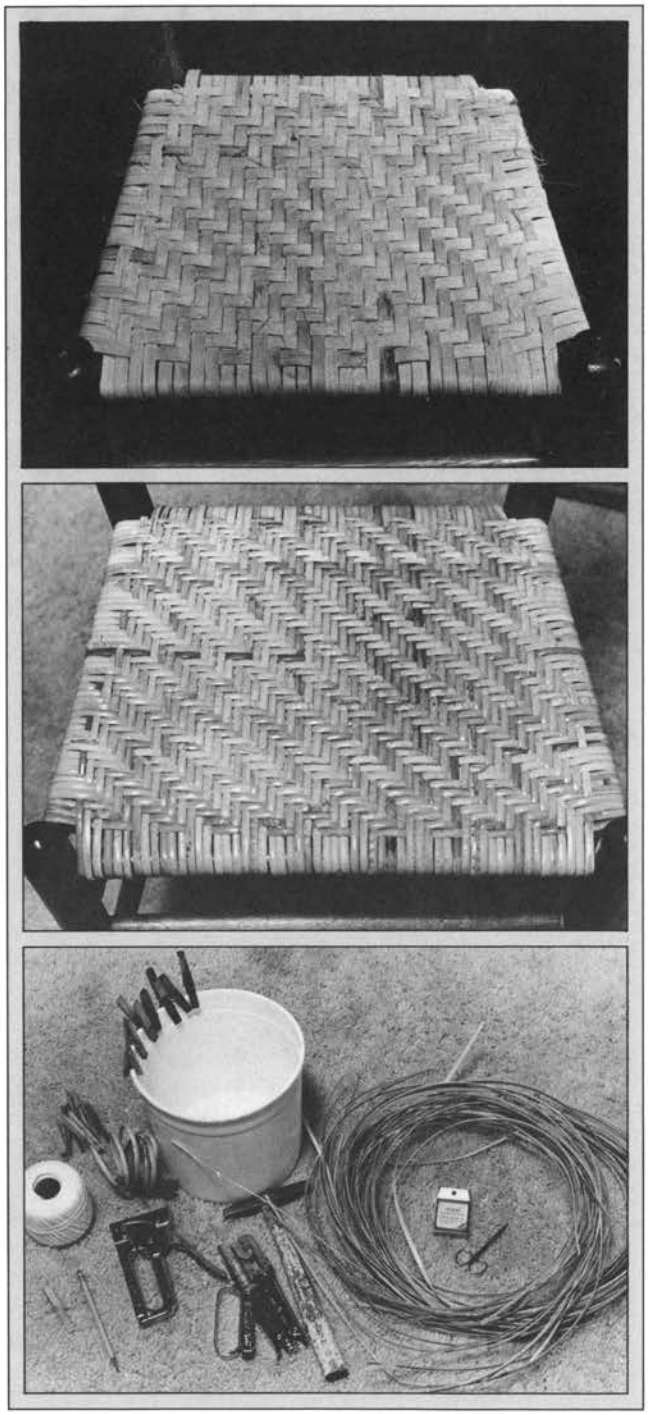
Splint chair seats are made of long thin strips of wood woven into various patterns. The chair must have seat rails, so the splint can be wound around them.

Splint is suitable for chairs of simple design such as ladder-back chairs. If side rails slant so that the front of the seat is more than 3 inches wider than the back, choose a material no wider than ⅜ inch, so the strands will stay in place easily.

Splint comes from native ash and hickory and from tropical palm trees. Native splint comes from second growth timber with a straight grain.



Hickory splints may vary slightly in width. The outer bark of palm (or rattan) stripped in different widths is called cane; the core is called reed. Costs per seat using any of these materials are about the same.

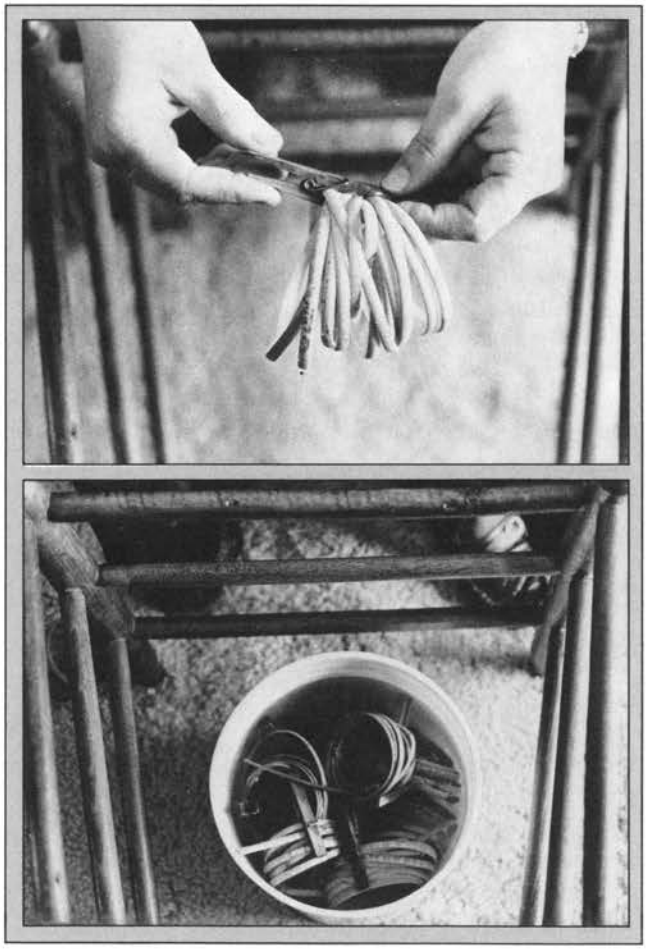
Refinish the chair before weaving the seat because cane or splint seats are usually left unfinished.

Equipment needed

1. Splint of the desired type and width
2. Scissors
3. Pan or bucket for splint
4. Steel measure and sharp pencil
5. Clamp clothespins (six or more)
6. Staple machine and staples (¼-inch size)
7. Screw driver (or flat blunt tool such as ½ clothespin)
8. String

Amount of Splint Needed. The width needed depends on the style and size of the chair and its intended use. Wider widths may look bulky but take less time to weave.

- With splint ½ inch, ⅝ inch and ¾ inch, you will need 1 hank ⅝ inch width for a 16-inch seat.
- With flat reed ¼ inch, ⅜ inch and ½ inch, you will need 1 hank of ⅜ inch width for a 16-inch seat.
- With flat oval reed 3/16 inch and ⅜ inch, you will need 1 hank for a 16-inch seat or 2 hanks for an 18-inch (or larger) seat.
- With wide binding cane 3/16 inch, you will need 1 hank of 500 feet for an 18-inch seat.



Preparing to Weave

1. Cut the old seat off the chair.
2. Clean and refinish the chair if necessary. Be sure the finish is completely dry before you start weaving.
3. *Soaking the splints.* Pull one strand at a time from the looped hank. With the smooth side out, roll the strand loosely around your hand and clamp with a clothespin.

Prepare five or six strands to begin with and soak in a bucket or pan of hot water. Soak for about 10 minutes to make splints pliable.

Some people soak the splints in a solution of glycerine or in urea crystals. The crystals increase strength, but the glycerine is preferable because it helps retain moisture and prevent splints from cracking.

Glycerine U.S.P. Standard. For splint or reed, use 1 cup glycerine to 10 cups water.

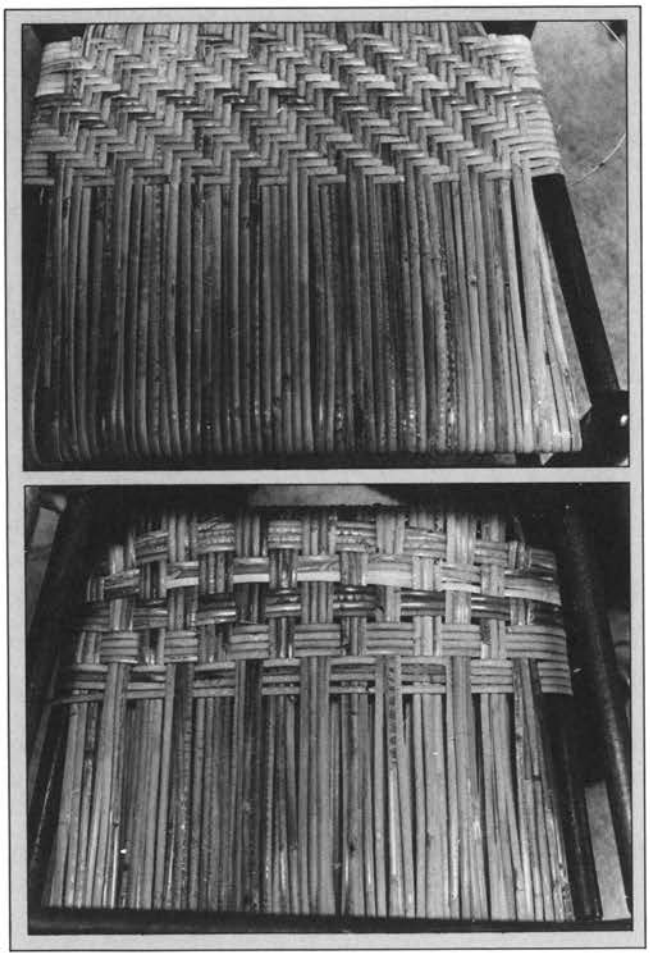
For flat oval reed, use ½ cup glycerine to 5 cups water.

For wide binding cane, use ⅓ cup glycerine to 4 cups water.

If you use urea crystals, mix 4 tablespoons in 1 quart of water.

Each time you remove a roll from the water, put another in to soak until warping is completed. When weaving, soak only one strand at a time. Do not soak weaving material longer than 15 minutes.

If work is interrupted, keep splints damp by sprinkling with water. If they dry out, moisten by wrapping in wet bath towels for about ½ hour.



Weaving Principles

There are two steps in the weaving process.

- *Warping* is the wrapping of the splint around the rails, usually from back to front or the long way of the opening.
- Weaving is usually done from side to side, or the short way of the opening.

Although the pattern does not need to match, both top and bottom of the seat should be woven and look finished. This picture shows a twill weave on the top of the chair seat.

This picture shows a basket weave on the bottom of the chair seat.

Splints woven side to side are always at right angles to those woven from back to front.

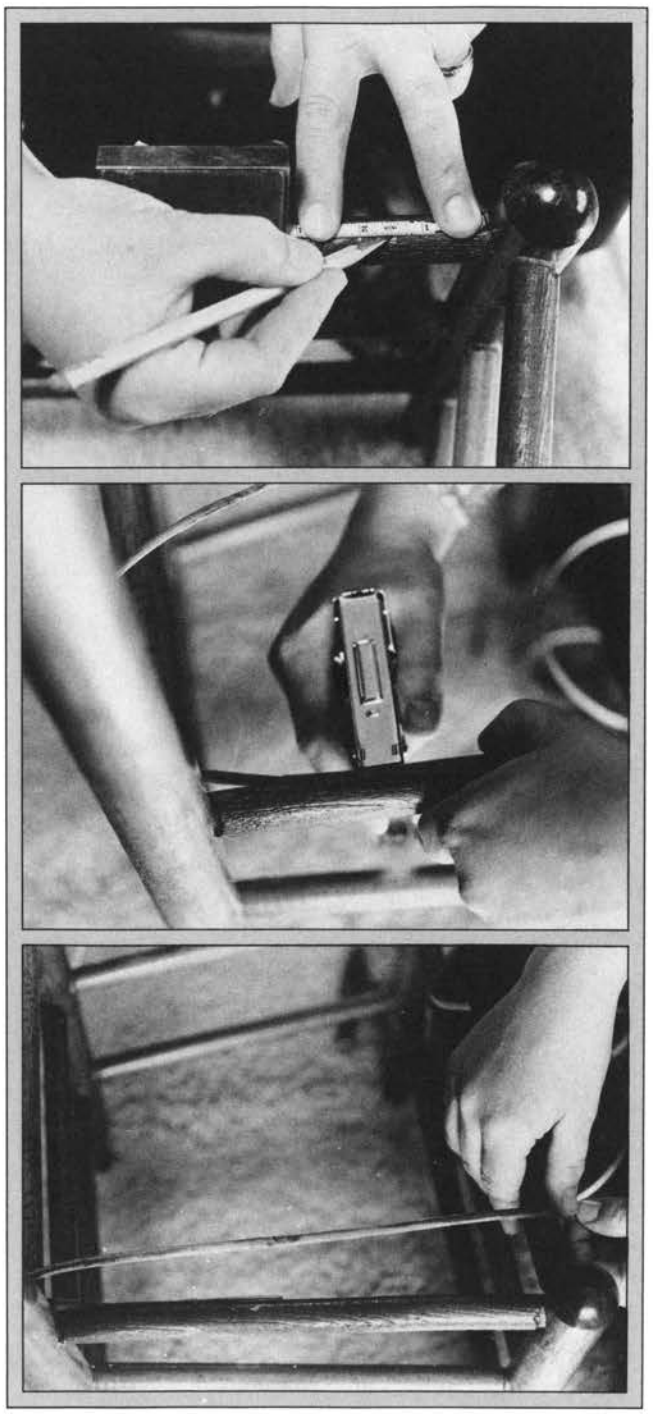
If the front of the seat is wider than the back, weave the center first and fill in the corners later.

Warping

1. Measure the back and front rungs. If the front rung is longer, subtract the back measurement from the front and divide by two.

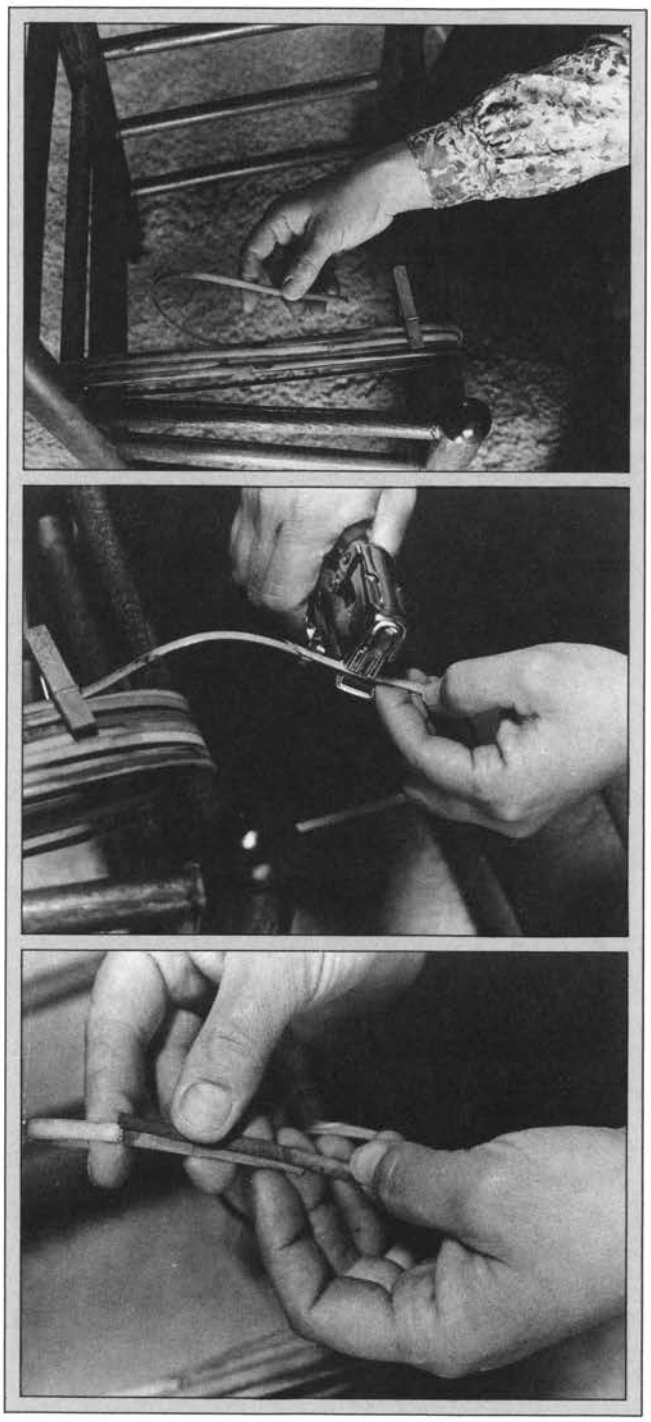
   Example: front rung 14 inches
   back rung 11 inches
   3 inches ÷ 2 = 1½ inches

Measure 1½ inches from each front post and mark. Mark center of front rung.



2. Starting from the back of the chair, pull splint end around back rung, and attach it to the inside of the left side rung with a string, staple gun or carpet tack.

(Place the smooth, finished side of cane next to the wood.) Pull the strand under, then up and over the back rail. Keep the strand close to the post in the exact position you want it to remain.



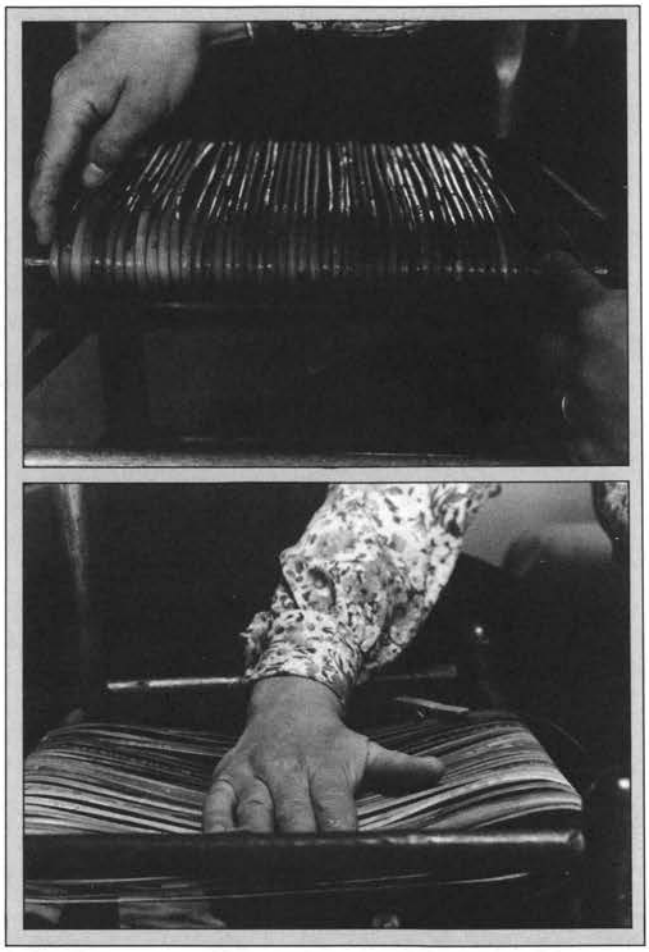
Wind cane from back to front rail with the outside edge on the pencil mark on the front rail (in the example 1½ inches from post.)

3. Continue winding cane, maintaining even tension until the strand is used up. Fasten with clothespin to hold in place while joining to the next strand.

Using a staple gun, join strands on bottom side, not less than 1 inch from back rung. Overlap strands 2-3 inches.

Cut off any weak pieces of cane. Each time you use a roll of cane, put another in to soak. Use the longest strands for warp, so there will be fewer joinings and greater strength. When you reach center mark on front rung, count the strands, so you can wind the same number on the other side of the center mark.

4. Push wet warp strands tightly together as you wind them. Re-check tension when the space between pencil marks is filled in.



Tension should be even but not too tight. Push down on the warp strands with open hand. Strands should be loose enough to be pushed about 1-1½ inches below the top of rung. Later, weaving will tighten the tension. Hold warp in place with a clothespin.

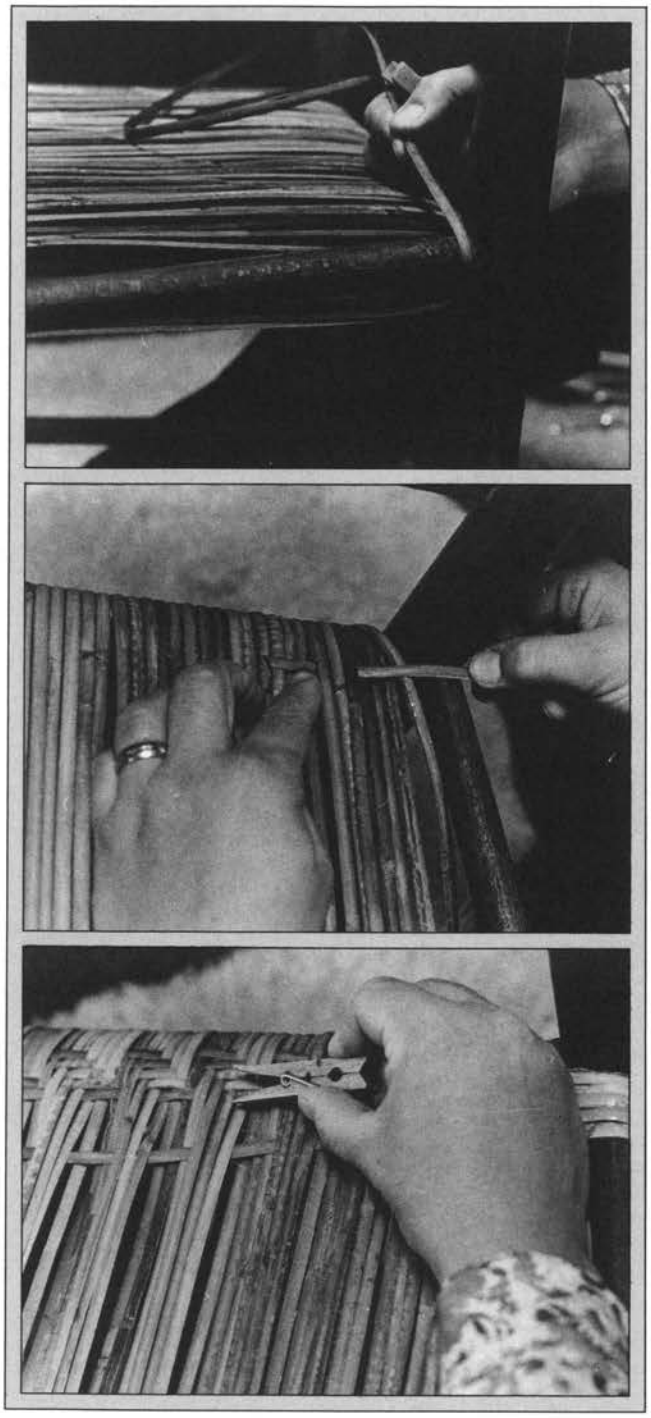
Planning The Design

Use the old seat as a pattern, or work out your own designs on graph paper or with scraps of splints.

Count the number of warp strands on the back rail to see if they are evenly divisible by the number of strands in the design you want to use. For example, 20 strands is evenly divisible by the number of strands in a mesh (or design) of two over and two under. If the number is not evenly divisible you can:

- Plan from the center. For example, if you have 23 warp strands and a mesh of three over and three under, weave over one to start the row, and weave another single strand at the end.
- Use a diagonal design, so incomplete design is not obvious at the side rails. A diagonal design is also a good choice if side rails are uneven.

With a finer mesh, strands are difficult to push together tightly. With large seats or narrow splints (⅜ inch or less), weave over and under several strands at a time.



Weaving

When weaving, always be certain that the strand of splint is long enough to weave across the top of the seat, so you can join strands on the underside.

If you use a long strand on the last warp (or verticle), it can be used to begin weaving the seat. This will also limit joinings. Bring this strand from the front under and over the back rail and under the last warp strand. Then bring the strand diagonally in front of the back post, under the side rail and turned with the right side down. Pull cane over side rail and weave across.

Then pull weaver strand over side rail and weave across bottom. Patterns on top and bottom may match, but they can also be different. A twill (or Herringbone) weave can be used on the top with a basket (or checkerboard) weave on the bottom.

Top. Begin by weaving over three and under three warp strands. On the second row, skip over the first strand to begin (over two, under three and continue to weave over three and under three to the other side. Each time a new row is started, skip over one strand.

Use a flat tool or clothespin to push in place.

Bottom. On the bottom, weave over four and under four on the first four rows. Reverse, weaving under four and over four for four rows. Continue weaving for the chair bottom by reversing over and under every four rows.

Pull weaver strands firmly each time a row is completed. Every third or fourth row, use dry clothespins to hold in place.

When strands are joined, overlap splints 2 to 3 inches and staple twice. Strands may be joined on the top of the seat to save splint. Or cover joinings with a short length of splint tucked under near-by strands. Conceal ends under warp and trim off any excess over-lap. If joining on topside, overlap 6 inches. Try to conceal the staple under the cane. The staple may be removed later if it shows.

As the weaving progresses, the string (or staple) holding the first warp strand can be removed because the weaving will hold it in place.

If the front of the seat is wider, add short lengths of warp strands to fill in the space at front corners. Tuck under weaving strands in back and under the rail in front and secure on the back with staples. Pull firm but not tight. As weaving progresses toward front, pick up added strands and weave them in.

Or over-lap warp strands at back of seat and double them for about 3 inches to provide additional strands at the front for weaving corners. Put a staple on the bottom to hold in place.

As you progress, the weaving gets tighter and a tool may be needed to help lift up the warp strands. Anything flat would do, like ½ of a clothespin, a screwdriver, etc. Slide strand on top of the tool and lift up.

Weave toward the front as far as possible and finish on the bottom by tucking the loose end of the strand under a warp strand. No staple is needed because the weaving will hold it securely.

Glossary

Cane. Outer bark of palm trees.

Reed. Core of palm trees.

Splint. Strips of ash, hickory, or palm trees.

Hank. A length of splint usually equal to about 1 pound.

Strand. One piece of splint in a hank.

Warping. Splint that is usually wrapped front to back or the long way of the opening.

Weaving. Splint that is interlaced with the warp, usually from side to side or the short way of the opening.

Rung or rail. Wooden pieces attached to chair posts around which splint is wrapped.

Post. The chair legs or vertical support.

Twill. Weaving to create a diagonal pattern.

Basket weave. Weaving over and under equal numbers of strands to create a square pattern.

Sources of Information and Materials

How to Weave Cord Chair Seats (MP530), published by the Extension Division, University of Missouri-Columbia and Lincoln University.

Rush Seats for Chairs published by the John K. Burch Company, a wholesaler of seat weaving materials in Grand Rapids, Cincinnati, Philadelphia, Dallas, San Francisco, Detroit, Chicago and Mission, Kansas.

Woven Seats published by the Cooperative Extension Service, University of Georgia, College of Agriculture, Athens, Georgia.

- John K. Burch Company, Upholstering Accessories and Supplies, Box 694, 5775 Foxridge Drive, Mission, Kansas 66201.
- H. H. Perkins Company, 228 Shelton Avenue, New Haven, Connecticut.
- American Reedcraft Corporation, 130-132 Beekman Street, New York, New York.

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