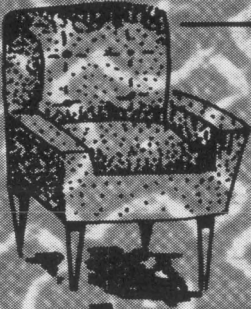


OSU
Collection



Reupholstery

in the Home



SCIENCE SERVING AGRICULTURE

1890

EXTENSION SERVICE

Circular **386**

Reupholstering at Home

Grace L. Spivey

Home Improvement Specialist

This bulletin is prepared to help you, the homemaker, reupholster furniture so that it is attractive and effective for use in your home. It takes time, energy, and appropriate materials to do a good job, therefore, you will want to consider the anticipated results: will the cost of renovating be more valuable than the amount spent toward a better shaped chair; will the cost of reupholstering be more in time and money than the amount that would be spent for replacing the article?

Working Surface

A low table large enough to hold the chair, or two sawhorses 22 inches high and plywood 22 x 48 inches placed over the sawhorses to form a working surface (see Figure 1). Boards may be placed over the two sawhorses to form surface.

Fig. 1 Working Surface



Tools Needed

1. Tack puller (a screw driver or old wood chisel can be used).
2. Webbing stretcher.
3. Hammer—upholsters or tack hammer.
4. Pliers.
5. Upholsters needle 6" (Mattress needle can be used).
6. Curved upholsters needle 4" and 2".
7. Scissors for cutting twine, burlap and webbing.
8. Scissors for cutting fabric.
9. Needle - pins - thimble.
10. Yardstick and tape measure.
11. Sewing machine with a cording foot attachment.
12. Pencil and chalk.

Materials for Chair

1. Webbing—(No webbing needed for chairs if metal or wood units are used to support the springs).

Fig. 2 Tools Needed

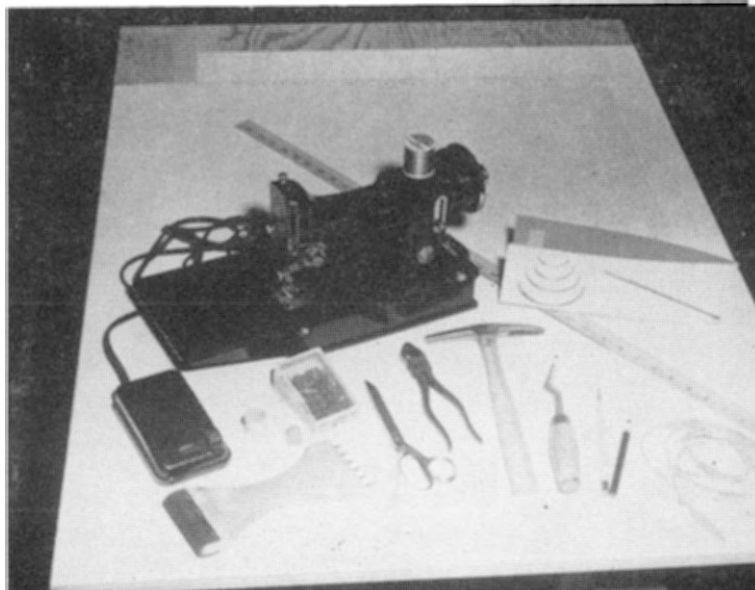




Fig. 3 Materials Needed

Check the need in the back of the chair.

2. Springs—most all springs are in good shape. If a spring needs to be replaced *measure* the height of the spring to order. Seat springs are usually 11 to 12 inches in height; back spring height 8 inches; pillow springs may be purchased in a unit already tied together.
3. Spring tying twine — usually one ball is enough.
4. Mattress twine—for sewing springs and padding (about 30 yards).
5. Burlap — burlap sacks may be used if *clean, firmly woven* and in good condition. Enough to cover the seat, inside, back, and inside arms of chair.
6. Moss (Spanish) or rubberized hair—Moss or rubberized hair is used for stuffing. If moss is used the amount to buy will depend upon the size of the chair —large chair about 10 pounds. If rubberized hair is used about 4 pounds of moss is *also* necessary to make edge rolls and fill under rubberized hair.
7. Upholsters cotton (felted) or foam rubber—approximately 10 yards, as 2 layers of cotton are used. (Foam rubber may be used instead of cotton. Measure inside area only and for only one layer to be used). See chart on “Foam Rubber for Reupholstering in the Home.”
8. Good quality muslin for covering padding seat area, inside back, inside arms, and edge rolls. Unbleached muslin is satisfactory if *firmly* woven.
9. Upholstery fabric.
10. Heavy duty thread to match fabric color—usually 1 spool is enough.
11. Upholsters tacks (not carpet tacks). Sizes to obtain:
 - #12 or # 14 for anchoring the base springs.
 - #10 or #12 for anchoring back springs.
 - #8 for tacking webbing.
 - #6 for tacking burlap and cardboard strips—sometimes muslin.
 - #3 for tacking muslin and upholstery fabric.
12. Cambric — usually black for bottom of chair.
13. Cotton welt cord—measure the amount needed. It can be purchased by the yard.
14. Gimp braid—order if used—gimp tacks for braid.
15. Decorative tacks—if needed.

FOAM RUBBER FOR REUPHOLSTERY IN THE HOME

Types of Foam Rubber	Use in Upholstering	Type of Base to Which Applied	GAUGE (or thickness)	COMPRESSION (softness or firmness)
Solid Slab (uncored stock) or Sheet Form	Use in Upholstering Dining Room Chairs or Small Occasional Chairs Arms and Backs	Over webbing or Solid surface	3/4" to 1 1/2"	Soft to medium
	Seat	Webbing Base (webbing usually tacked on top of frame)	3/4" to 2"	Medium
		Plywood Base (If plastic or leather is to be used for upholstery fabric holes should be bored in plywood to allow air to enter)	1 1/2" to 2"	Firm
Cored Utility Stock cores add to resiliency) (If moss or rubberized hair is used, cut down proportionately on the gauge of the cored stock)	Dining Room Chairs and Larger Chairs & Upholstered pieces without separate cushions			
	Arms and Backs	Over webbing or Solid Surface	1 1/2" to 2"	#2
	Seats	No sag springs Coil springs	1 1/2" to 3" 2 1/2" to 3"	#2 1/2 to 3 #2 1/2 to 3
		Webbing stretched Plywood	1" to 3" 1" to 3"	#2 1/2 to 3 #2 1/2 to 3
Molded pieces (such as shaped cushions)	As needed for thickness and shape			

Types and Uses of Foam Rubber

There are three basic types of foam rubber for furniture use. Of these, plain sheet stock and cored utility stock can be adapted to any use, and are more practical and more economical than molded units for the home re-upholstering jobs.

Plain Sheet Stock—Sheet foam may be purchased in solid sheets for cutting to any desired shape. These sheets are available in varying thicknesses from 1/8 inch to 2 inches. This stock is suitable where thin padding is desired. (Fig. 4 A.)

Cored Utility Stock—This type of stock is made with molded openings in one side and is recommend-

ed for applications which call for more depth and bouyancy. It is available in a variety of thicknesses, from 3/4 inch to 4-1/2 inches, and several densities. (Fig. 4-B.)

Fully Molded Cushions—There are full-depth units which have been molded ready to fit onto furniture and cover without further cutting or shaping. They are available in a variety of standard forms or may be made to individual specifications. Such units may be solid foam, half-cored or cored through, depending upon the use which is to be made of them and the density required. (Fig. 4-C.)

Preparation for Reupholstering

Remove Old Upholstery

1. Observe details of construction in removing old upholstery as it will give you a clue to putting on the new upholstery.
2. Removing upholstery in the reverse order from construction will give you a clearer picture of construction. Usually this will be the removal procedure: invert chair to remove dust cloth and tacks from the bottom; set chair upright to remove the outside back, front arm and lower front panels, outside arms, inside arms, inside back and seat area.

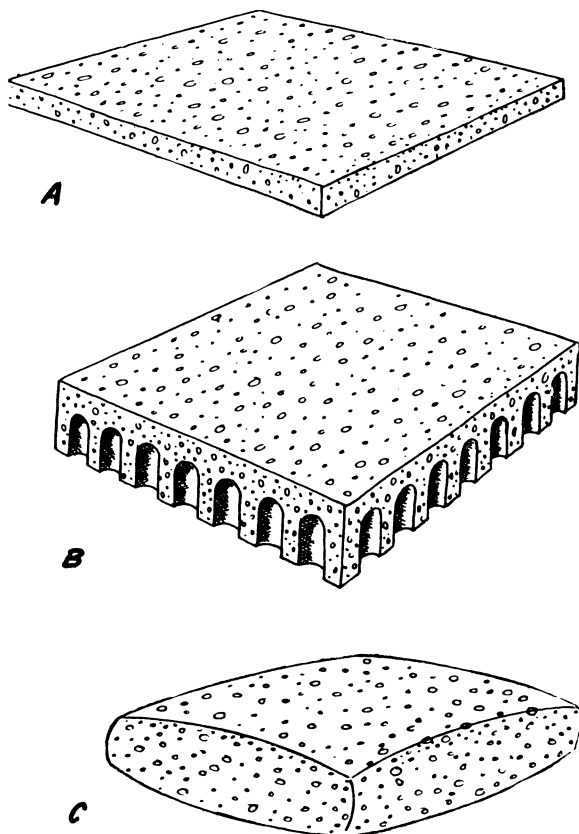


Fig. 4 Types of Foam Rubber

ACKNOWLEDGEMENT

The author wishes to give recognition to Miss Gena Thames for the information on foam rubber appearing in this publication, and taken from "Re-Upholstering Chairs With Foam Rubber," from Cornell Miscellaneous Bulletin 20.

3. Place all materials in a box and save them as you may wish to refer to those materials for guidance or you may want to re-use some stuffing or padding.
4. Remove all tacks from the frame. Be careful not to scratch or scar the finished part of the frame when removing old materials.

Repair The Frame

1. Examine the frame to be sure it is worth reupholstering. If needed, brace and repair the frame using screws instead of nails.
2. For methods of reglueing and refinishing the wood see Extension circular 265, "Refinishing Furniture and Care of Woods."

Marking The Frame

Measure the center front, center back and center side of seat of chair with a dark pencil. Also mark center top and center bottom of the back of the chair. These marks will be used several times.

Springs and Their Use

There are several types of springs used in chairs and each type requires a different method of being attached to the frame.

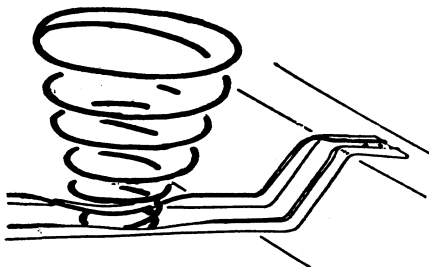


Fig. 5 Single Cone Springs

Coil Springs

1. Single cone springs are usually fastened securely to a steel bar and the bar is attached to the frame. Sometimes the bar needs to be made more secure to the frame. Stuff cotton between the coil and the bar to prevent a noise when the metals come together.
2. Double cone springs are fastened in either of two ways—

Wooden slats — To fasten springs to slats, or a solid wooden bottom, first slip a double thickness of material under each spring to prevent noise when spring comes in contact with the wood.

Cut four pieces of duck or heavy material, double over the bottom coil of spring at four regular intervals and tack to the wooden slat.

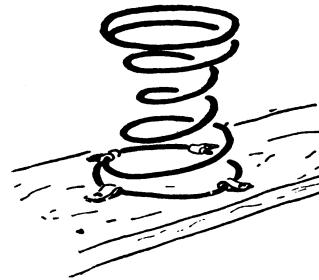


Fig. 6 Double Cone Springs

Sewing springs to webbing— Place the springs over the sections where the strips of webbing cross each other. (Note—there is a top and bottom to each spring. The end of the wire turns slightly downward at the top of the spring.)

Thread the straight upholsters needle with mattress twine (double thread) and stitch the spring to webbing, making two stitches at each of the four sides. Carry the

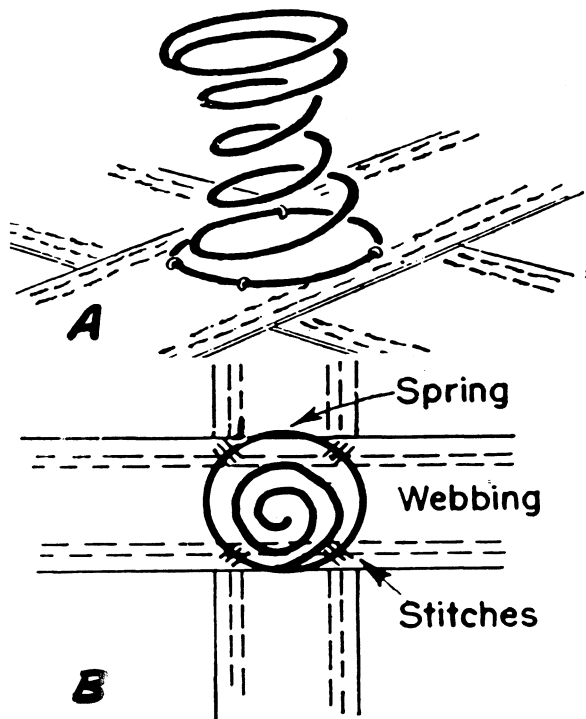


Fig. 7 Sewing Springs to Webbing

thread from side to side without breaking. the thread as shown on the bottom of the chair.

Band Springs

Band springs are zig-zag steel heavy duty wire that are placed on top of the frame base. Replace broken or bent ones. Heavy metal clips will hold the spring in place if screws are used to attach clips to the frame. (Figure 8)

Webbing

Webbing (a jute fiber) serves as a base for attaching double cone springs.

The number of strips of webbing needed will depend on the number

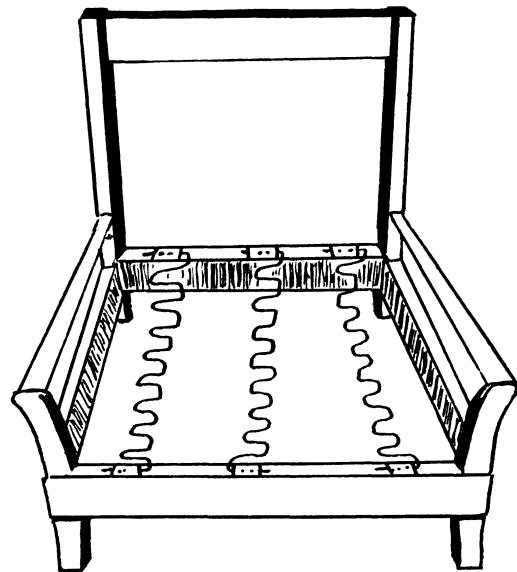


Fig. 8 Band Springs

of rows of springs. One strip is placed directly under the center of each row of springs from back to front and from side to side. The webbing is interwoven to make it firm and durable. The springs are placed in the center of the pieces that cross one another. This gives reinforcement at the points where the springs are to be attached.

Decide placement of webbing. When tacking the webbing to the frame allow the raw edge to extend

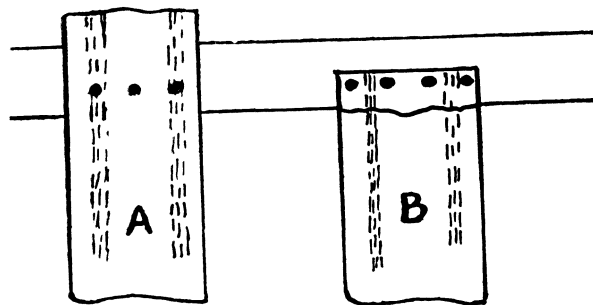


Fig. 9 Placement of Webbing

1" beyond the outer edge of the frame and use three No. 8 tacks 1/2" to 1/4" from the edge of the frame. Turn the extended webbing back over the first row to tack and put in 4 more tacks.

It is usually best to replace old webbing as it gives little support for the springs. If the webbing is in good condition, except for sagging, it may be restretched.

Webbing Stretcher

A webbing stretcher is needed to apply webbing properly. A stretcher can be bought inexpensively or made at home. To make, use a piece of wood 3/4" x 3 1/2" x 7 1/2" and drive five or six eight-

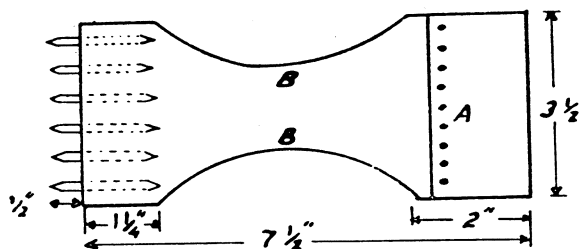


Fig. 10 Webbing Stretcher

penny nails into one end; cut the heads off and file the ends of the nails to make sharp teeth, about 1/2" to 3/4" long. Cover the other end with a piece of carpet or heavy fabric to prevent marring the side of the frame.

If the old webbing is to be restretched, an additional piece of webbing will need to be pinned or sewed at the loosened end to allow length enough to insert the stretcher. (Figure 11)

Webbing is also used on the arms and back of chair as a base for bur-lap and the stuffing.

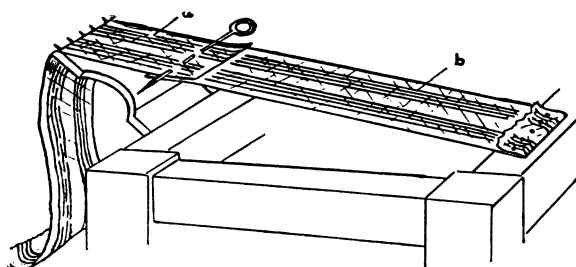
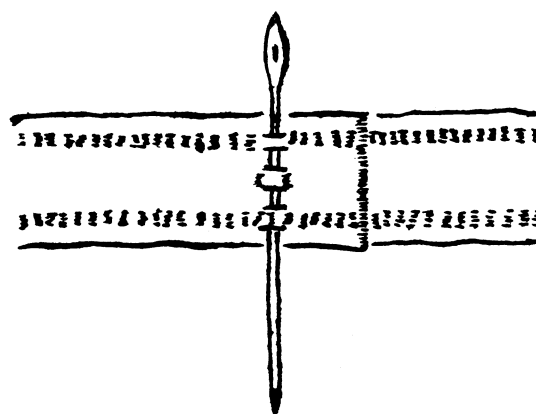


Fig. 11 Splicing Webbing

Wire Edge Frame

A heavy steel wire frame is attached to the front and side springs to give the seat a firm, more durable edge. The wire frame should be well anchored before the springs are tied. If any metal clips anchoring the wire frame are missing or broken, use mattress twine to fasten the frame edge to the springs. (Figure 12.)

1. Make a loop of double thickness of mattress twine. Pull the ends of the thread through the loop so that the coil of the spring and the wire frame are held together.
2. Draw the mattress twine firm and weave with the double thread over and under the wire frame and the spring until the spring curves away from wire frame.

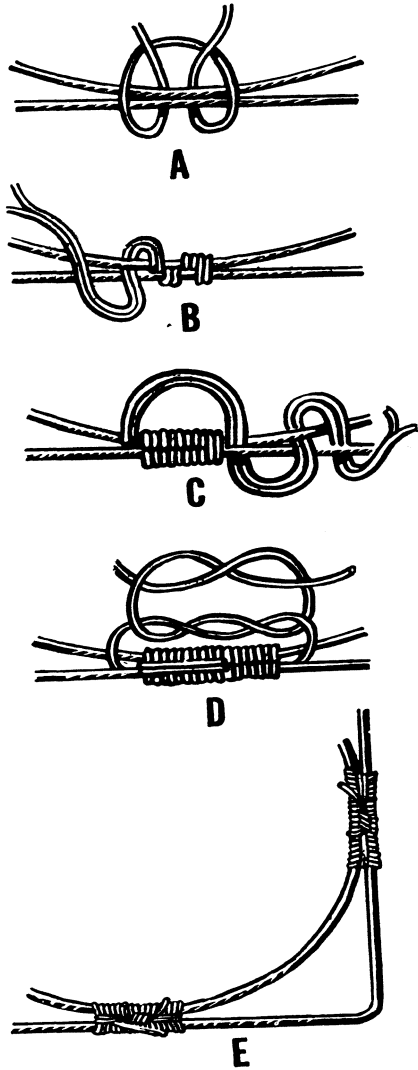


Fig. 12 Wire Edge Tied with Twine

3. When the spring begins to curve away from the wire frame bring the doubled thread between the spring and wire frame and repeat the weaving as before.
4. Separate the double cord and bring to the top. Tie ends with a square knot.
5. A finished knot at the front and side of the chair frame.

Tying Springs

Tie top of springs together with heavy spring tying twine. The length of twine to be used depends on the number of springs in a row. For two or three springs in a row, measure over the springs from front to back—then three times this length. This will give the length of cord needed. For four springs in a row, the length should be four times the distance measured over the springs. (Figure 13.)

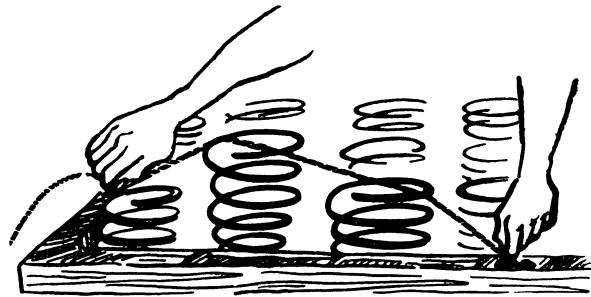


Fig. 13 Measuring Twine

Begin the tying process by finding the center of the cord. Work from the center of the middle row of springs. Run one-half of the cord toward the back and the other half toward the front.

Loop the cord over the top of the coil of each spring going over and under, except the top of the outside spring, where the loop is made over the second coil. Looping the twine allows for adjusting before the springs are secured to the frame. (Figure 14.)

Fasten the cord at the back, then the front by looping around two tacks.

Spring should be adjusted before fastening the cord. The cord is

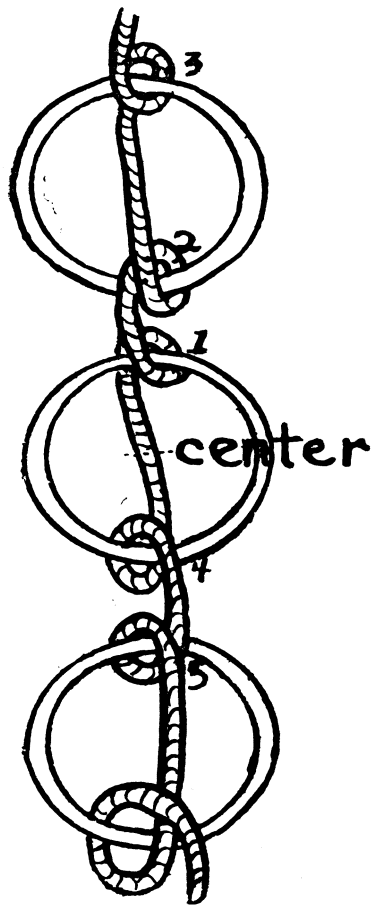


Fig. 14 Tying Springs

tightened to lower the springs and loosened to raise them.

After attaching twine to the frame carry the twine back from the tacks up and over the outer edge of the top wire of the back spring and knot. Then carry to the loop on the same spring and knot over the loop. (Figure 17.)

Carry the cord to the loop on the middle spring and knot the twine over the loop; then carry it to the lower loop of the back spring and knot.

Draw the end of the twine back to the frame edge of the chair. Pass the twine under the cord which is around the tacks. Draw the twine

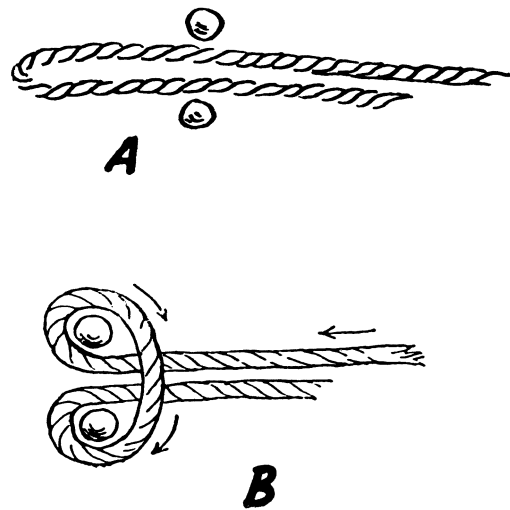


Fig. 15 Fastening the Twine

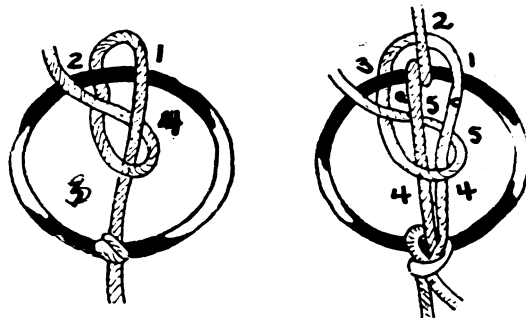


Fig. 16 Upholsters Knot

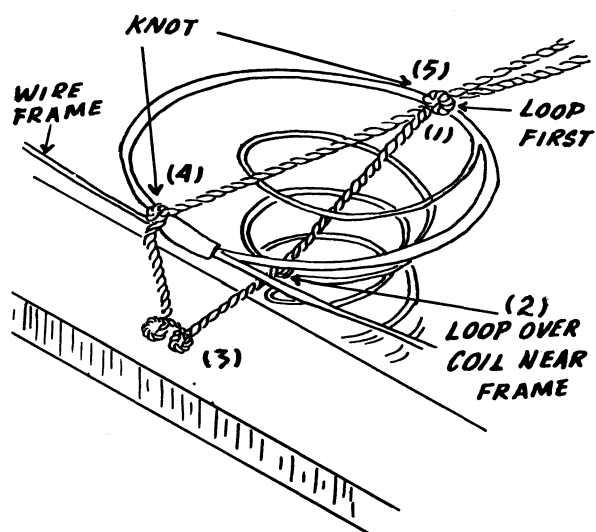


Fig. 17 Securing the Springs

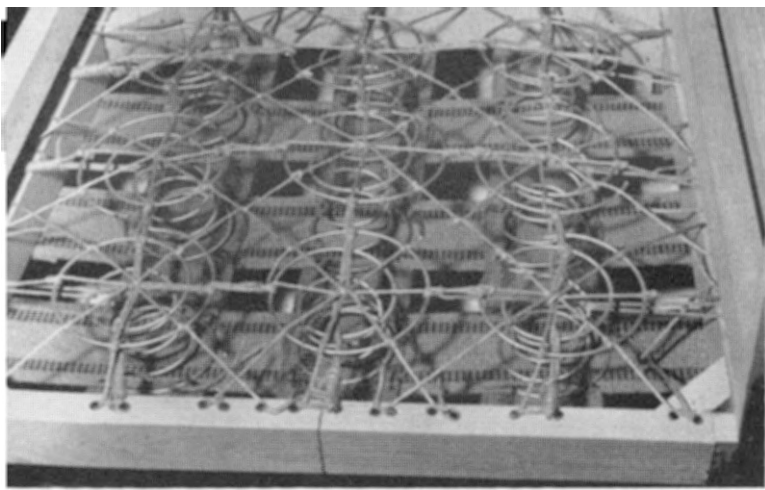


Fig. 18 Diagonal Tying

either to the right or left of the two tacks, and under the cords leading the springs. Wrap twine around one tack.

Draw tight and drive tacks down. Repeat the process for the entire chair from side to side—back to front, then diagonally. (Figure 18.) If the springs are not too heavy and stiff diagonal tying may not be necessary.

Burlap Covering

The four areas to be covered with burlap (sometimes duck is used) are: Seat (over the spring), the inside back, and the inside arms, (over webbing). Measure to the frame edges and allow one inch on each side for turn under. Tack with No. 6 tacks using this procedure:

1. Measure the frame to learn center front, center back, and center sides.
2. Measure center of fabric.
3. Place fabric center grainline on center mark on the frame and tack grainlines into position on; center front and center back and center sides. (Burlap is tacked on top side of frame).
4. Now continue tacking by work-in from the center to the corners

5. Drive the tacks only part way into the wood until you are sure each tack is where you want it, then drive them all into place with rhythmic strokes.
6. Sew the burlap to the springs with mattress twine and a curved needle using the stitch shown here and progress as pictured.

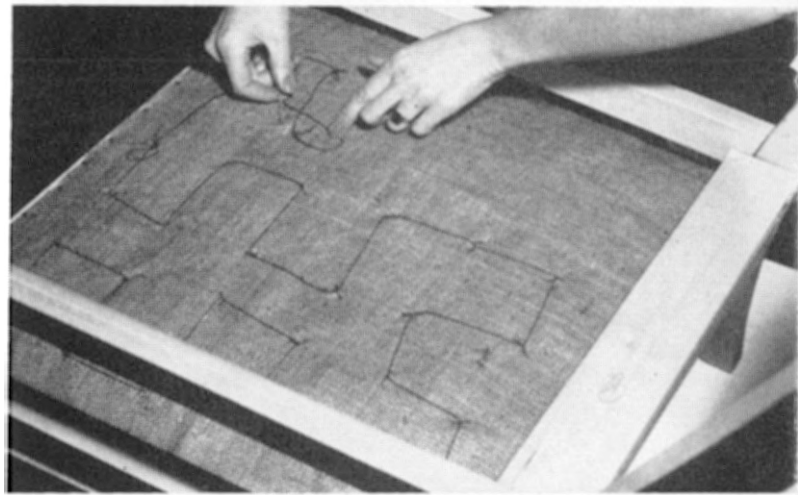


Fig. 19 Sewing the Burlap to Springs

Edge Rolls

Front Edge Roll

The front edge roll is used to prevent excessive wear of upholstery along the front, and give a comfortable angle to the seat area.

To make this roll, measure the front edge of the chair, usually between arm or leg posts, and cut a piece of burlap that wide and about 12" long.

Next place moss on the burlap across the width. Encase the moss by placing the ends of the burlap together and stitch with curved

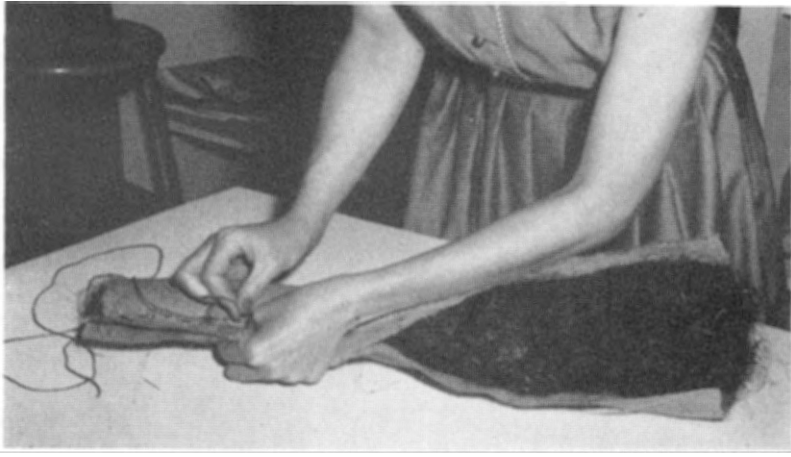


Fig. 20 Front Edge Roll

needle and mattress twine against the firm roll of moss. See picture.

Place the roll along the front edge of the chair. Be sure the roll does not extend over the edge of the frame. Use a curved needle and mattress twine to back stitch the extended fabric to the burlap covering the seat section. (Figure 21)

Front edge roll on wire frames

On top of the first piece of burlap, which has been sewed securely to the springs, add the second piece. Measure from the center of the seat and extend the burlap long enough

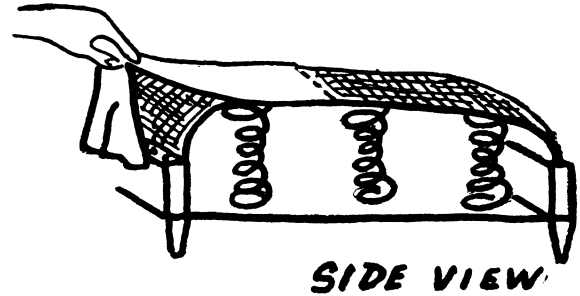


Fig. 22 Front Edge Roll on Wire Frame

to hang below the bottom of the frame at the front of the chair.

With a curved needle and mattress twine, stitch the two pieces of burlap together with a back stitch at the center of the chair seat.

Insert between the first and second pieces of burlap enough moss to make a firm well shaped padding over the wire frame edge.

When this space is firm, and well-filled, tuck the burlap under the padding. Tack it to the top edge of the front of the frame. Stitch the roll following the directions given below. (Figure 23.) Make sure to keep the roll slanting upward to give an edge that will hold the cushion in place.

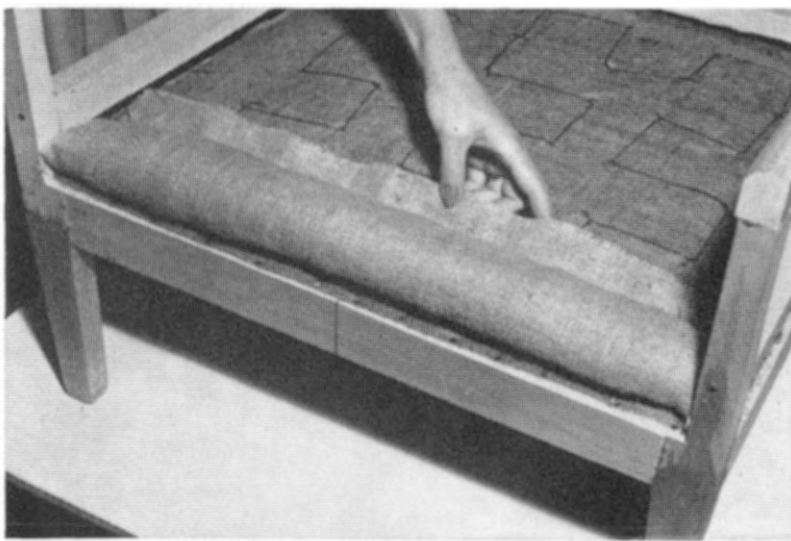


Fig. 21 Placing the Edge Roll in Position

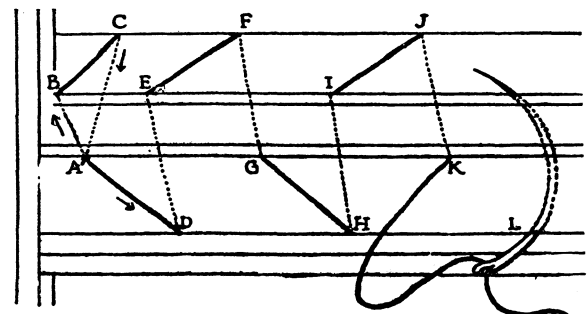


Fig. 23 Stitching the Edge Roll

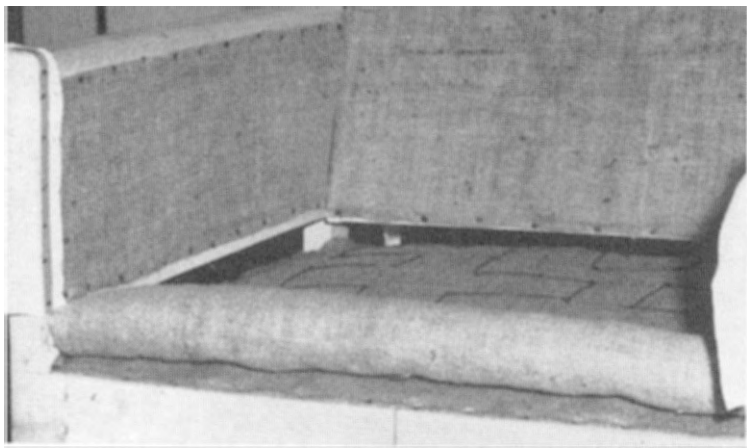


Fig. 24 Attaching Bias Strips with Cardboard

Edge Rolls on Arm and Back

Edge rolls for the front arm and back top edge are made to prevent sharp edges of the chair frame from cutting through the stuffing and upholstery material.

To make these rolls: use light weight cardboard strips to attach bias strips of muslin to the frame (Figure 24.) Keep the cardboard exactly along the outside edge of the frame. Place Spanish moss on the muslin and draw the muslin to the inside of the chair and tack close to moss.

Bias fabric will extend around the curved sections and keep an even line to the chair. Trim or

Fig. 25 Completed Edge Roll



shape all ends to prevent lumps or thick places in the padding. See completed edge rolls. (Figure 25.)

Stuffing

The stuffing gives shape to the chair. Many different materials are available for this purpose—Spanish moss, rubberized hair, curled horse hair, tow, excelsior. Of these materials, moss may be used to an advantage because of the service it gives and way it works into the places needed. Rubberized hair and Spanish moss may be used effectively together.

Fluff the stuffing by pulling apart all lumps. Distribute the stuffing evenly over the area to be covered. Enough should be used so that springs cannot be felt through the layer of stuffing. Extra amounts of stuffing may be used across the top of the back or in areas where shaping is needed. The procedure for applying stuffing can be done in this progression; seat area, inside arms, and back.

Use mattress twine and upholsters needle to stitch the stuffing in place. Make the stitches long and leave them relatively loose. (Figure 26).

Rubberized hair can be cut to the shape needed for stuffing. Often other materials are needed to build up low places under the rubberized hair to give proper shape and wear. Stitch it into place in the way mentioned above.

Padding

Cotton

Over the stuffing place two layers of upholstering cotton. **TEAR**—don't cut cotton. Shape the cotton to contour of that section of

the chair being covered. Thick edges are beveled to give smooth lines at the edge of the frame.

Foam Rubber

If foam rubber is used over the stuffing—use only one thickness and cut the shape of the area being covered. Edges may need to be beveled with scissors but will conform even more when the muslin is pulled tight and tacked.

Order of Steps in Reupholstering With Foam Rubber

1. Cover coil springs or no-sag springs with burlap to prevent their rubbing the foam rubber. Tack burlap in two places on each coil spring and about every four to six inches on no-sag springs. If webbing is to be used as the base, the webbing should be stretched on top of the frame.
2. Measure chair seat and back: Length, width, any widest part.
3. Add allowance to chair measurements. (Allowance is to prevent wrinkling of fabric and to secure a crowned or rounded effect).
4. Make paper patterns.
5. Fasten pattern to foam rubber with tape.
6. Mark around pattern with ball point pen or indelible pencil moistened in water, or a soft-lead pencil.
7. Cut out cushion with ordinary scissors dipped in water.
8. Reinforce cutout for arm posts and back posts with one inch-wide adhesive tape, (or muslin strips and rubber cement.)
9. Mount cushion on seat and then on back.
10. Cement muslin strip to edge of cushion (rubber cement).



Fig. 26 Sewing Moss into Place with Mattress Twine

11. Tack or staple muslin strip to chair frame.
12. Cover the muslin if these upholstery fabrics are used; loosely woven materials; unsupported plastics, leather or cut velvets.

Muslin Cover

Use a tape line to measure over cotton padding to obtain size for muslin. Measure at the longest and widest part of the frame and add one inch on each side. Mark grain-lines on muslin. Tack the muslin to the frame at grain line markings first, then work to corner. Use #3 tacks.

In applying the muslin over the padding it will be necessary to cut the muslin at joinings of the chair frame to give proper shape to the chair. These illustrations will meet almost every type of construction needed. Tack temporarily within about 6" of the corner post. Fold back the material according to diagram to cut.

Shaping Covers

A. When material is cut to one corner of a post and it fitted the same way on two sides of the post; pull the material as tight as it will be when the work is completed. Find the point where it meets the inner corner of the post at the level of the seat, and mark this point with pencil or pin. Fold back the corner of the material as shown. (Figure 27.)

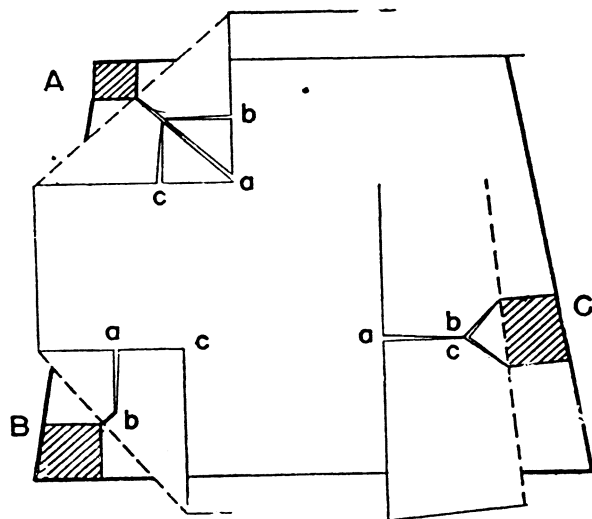


Fig. 27 Methods of Cutting Fabric at Posts

First make a diagonal slash (a) from the outside corner of the cloth to the corner of the post. Then make the two slashes (b) and (c), following the grain of the material to within from 1 to 1½ inches of the end of the first cut so as to allow enough to turn under.

B. When enough material is needed to be drawn around the front posts: follow the grain of the material cutting it at (a), until the cut meets an imaginary line from the corner of the cloth (c) to the corner of the post, then make a

diagonal cut (b) to meet the corner of the post. (Figure 27)

C. When the material is cut to fit around two corners: fold the material back close to post. Make cut (a), on the grain leading to the center of the post, to within 1½ inches of the post at seat level; then make the two diagonal cuts (b) and (c) to each corner of the post at the seat level. (Figure 27)

Seat

Find the center of the muslin at the front and back and mark it with chalk. Tack the muslin temporarily in front and back to the corresponding marks on the chair frame. Press the muslin over the padding, making sure the grain line of the muslin is kept straight. Pull the muslin to the outside as at the back and front, and tack it in the middle of the seat frame.

Work from the center tacks to within approximately 6 inches of the corner of the chair. Keep the muslin firm and straight. With the finger, press the muslin down as far as possible to the inner edge of the back corner. Mark this point with chalk. Fold the muslin back at this point and cut diagonally from the corner of the muslin to the point marked. Continue to fit and cut the material around each post. Complete the tacking when material is fitted at the corners.

Arms

Place the muslin over the arm padding. Pull it below the lower-arm frame at the center of the point and tack it temporarily. Then, stretch the muslin from the lower arm to the top of the arm, tack it temporarily to the under arm frame.

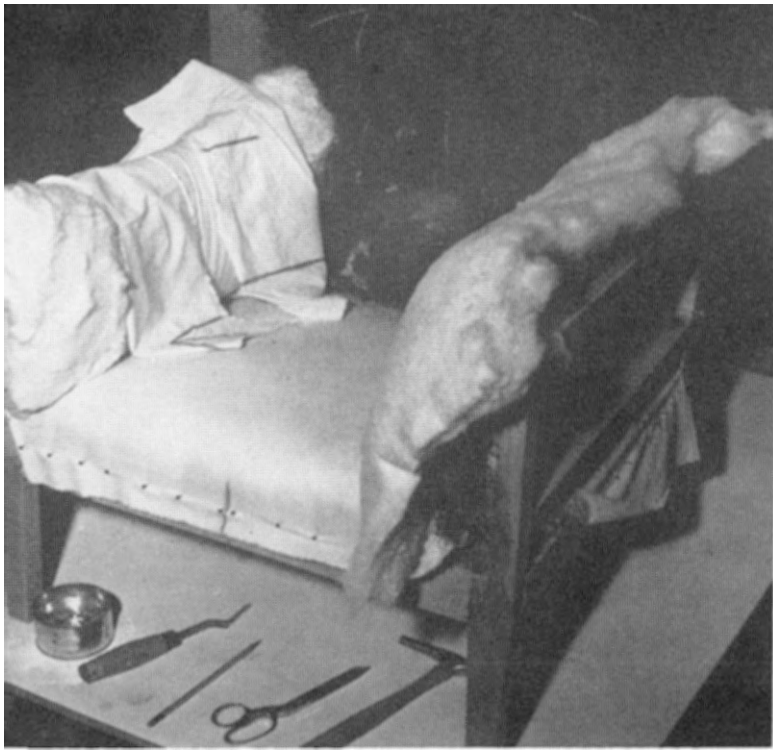


Fig. 28 Marking Cutting Lines for Shaping Around Post

Fit the bottom back corner first by pulling the muslin tightly to the inside lower corner and marking the point with chalk where the arm, the back and the seat meet at the corner of the post. Fold the material back and make a diagonal slash at this point. (Figure 28.)

Pull the bottom of the material through under the lower-arm frame and tack it temporarily beginning at the center. Stretch the muslin tightly on the inside of the arm toward the back. Fit it at the back arm frame.

To fit the muslin where the arm meets the back post, a series of slashes may be made one at a time, as it seems necessary. This will release the fabric and make it fit smoothly around the curve. (Figure 29.)

To fit the muslin around the arm at the front, hold the material with the grain straight across

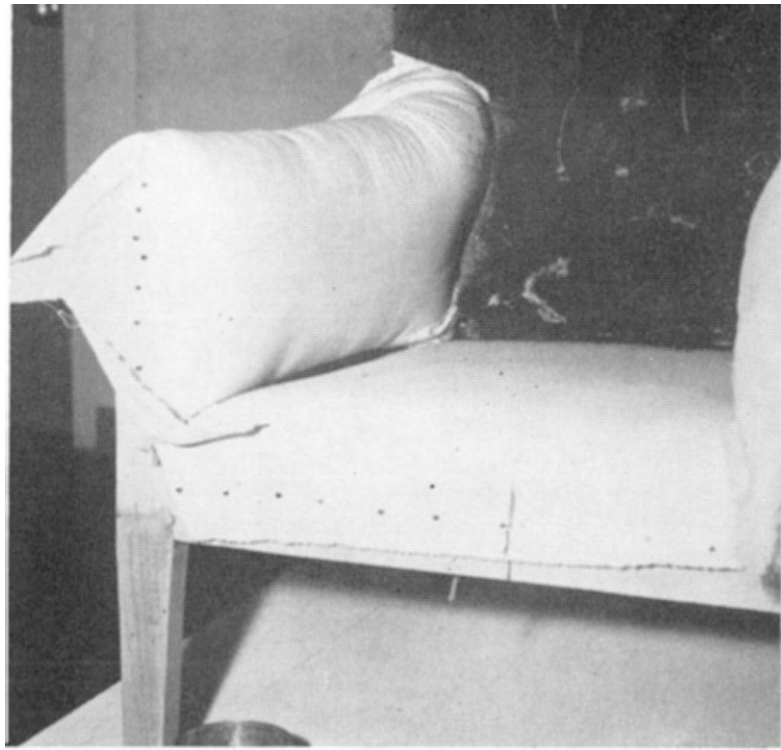


Fig. 29 Arm Must be Shaped at Back Post

the inside of the arm and tack it at the center point on the front of the arm. Tack the material from the center to the bottom, pulling it downward and cornerwise while fitting and tacking it. Tack it from the center upwards (Figure 30) while fitting around the frame.

Fig. 30 Muslin Completely Tacked on Arms

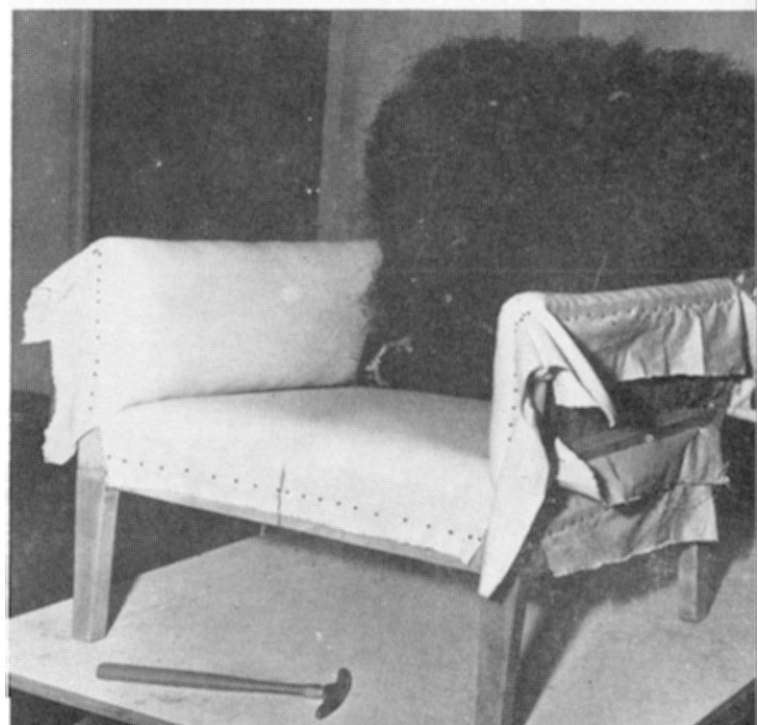




Fig. 31 Chair Trimmed of Excess Fabric

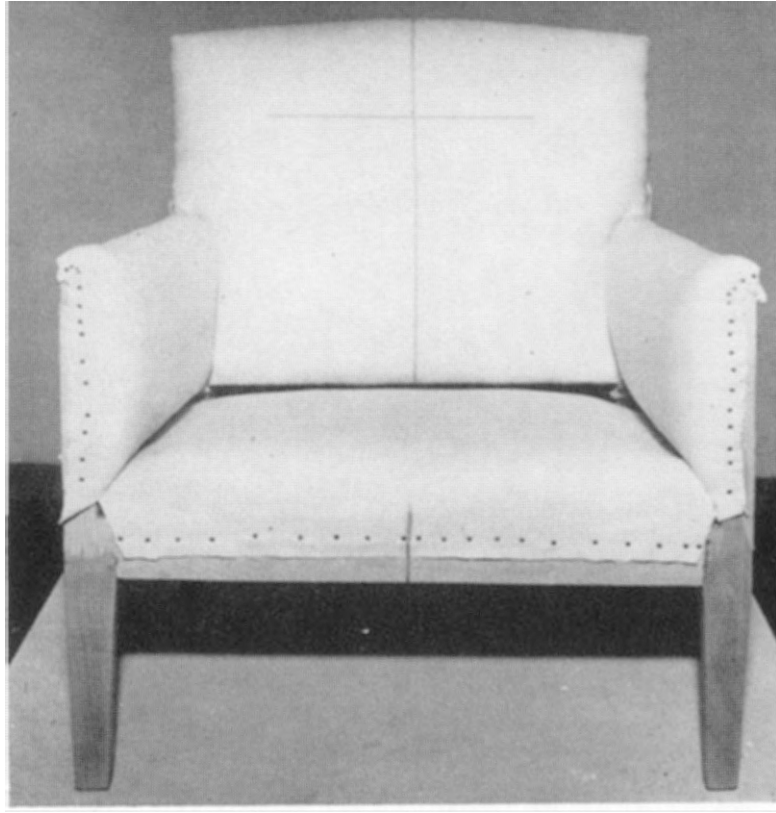


Fig. 33 Chair Ready for Upholstery Fabric—Front View



Fig. 32 Cutting Fabric to Fit Around Arm Post



Fig. 34 Chair Ready for Upholstery Fabric—Back View

Trim away excess fabric after tacks are driven into place. (Figure 31).

Back

Find the center of the muslin at the top and the bottom. Pull the muslin through to the back of the chair. Tack it temporarily on the center marking of the outside seat frame. Smooth the muslin upward with the hand, and tack it at the top in the center of the frame. Tack the sides on the outside.

Push the muslin near the seat down to the farthest point at one corner. Hold the finger at the corner of the post. Mark this point with chalk. Make a diagonal slash from the corner of the muslin to this point. Fold the muslin back. Follow directions for cutting around posts. (Figure 32). Fit and cut the muslin in the same way at the other corner. Again pull the bottom end of the muslin to the back of the chair and tack it temporarily across the outside of the frame.

To fit the muslin around the curving part of the arm, hold the muslin firmly in place. Make a series of slashes, one at a time, at a point where it seems necessary to release the fabric to make it fit smoothly around the curve. The first cut comes at the inside top edges of the upper-arm frame. One cut should be in the center of the arm. Make as many more cuts as are needed. The muslin is tacked to the back after it is fitted. Repeat on the other side of the chair. If the fitting is not smooth where the slashes are made, the fault can be laid to one of three reasons: the cuts are not deep enough; there are not enough cuts; or more padding is needed underneath.

To fit the muslin covering over the back, stretch the material tightly to the upper corners of the chair. Pull it in both directions up and to the side but with the grain of the material.

Tack from the center of the top (already temporarily tacked) toward the corner. Stop within several inches of the corner point. To get rid of the fullness, take one or more deep folds in the material and pin it until the opposite corner is adjusted, and tack. Be sure that the corners are firm. Drive in all of the tacks permanently.

The chair is ready for upholstery fabrics. (Figures 33 and 34.)

Preparation for applying fabric

Measure the chair for each separate part that will be used in upholstering. The measurements should be accurate and allow one inch on all sides for tacking.

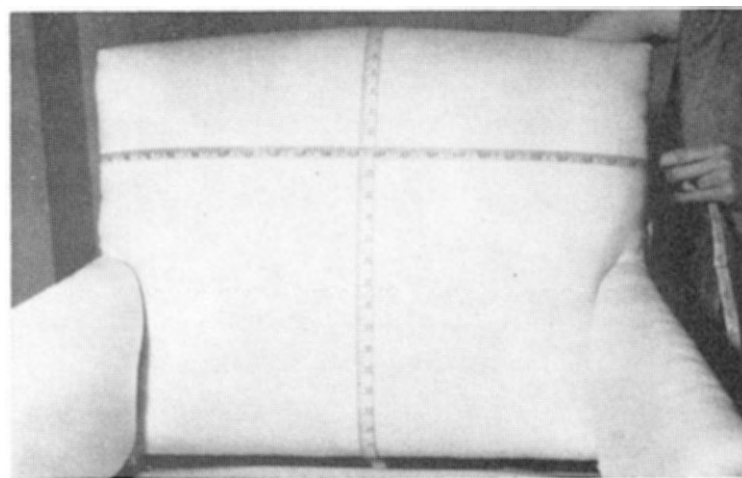


Fig. 35 Measuring Chair for Upholstery Fabric

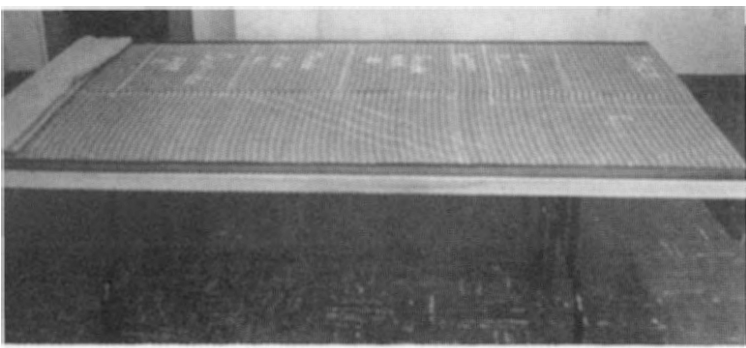


Fig. 36 Marking Upholstery Fabric for Cutting

Mark the back of the upholstery fabric with chalk where each piece will be cut and label each piece.

Applying Upholstery Fabric

The procedure in applying the upholstery fabric is usually the same as applying the muslin. The seat area, the inside arms, inside back, outside arms, outside back, and the dust cloth on bottom of the chair.

The upholstery fabric is not stretched into place but is smoothed to remain firm when tacked.

Front of Seat

Only the front one-third of the seat area is covered with upholstery fabric as the cushion covers the other. A cotton broadcloth in matching color is used to cover the back two-thirds of the seat area. These two pieces are seamed together on the machine.

When center grainlines are obtained, a small curved needle and sewing thread are used to attach the fabrics (along the machine stitched line) to the muslin cover using the back stitch. Tack center grainlines first, then cut and shape around corners. Tack into place similar to the muslin.

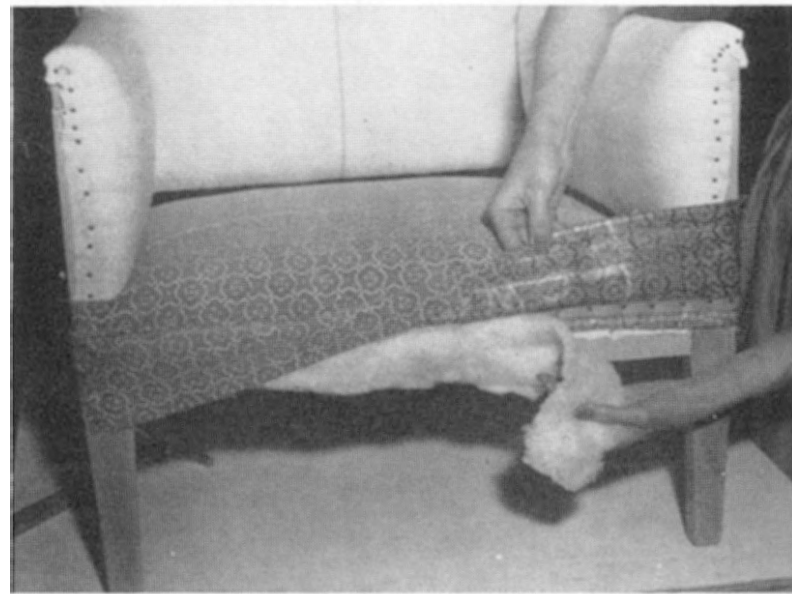
Lower Front Panel

Before the lower front panel is placed, a row of welt cording enclosed in bias upholstery fabric is

placed along the horizontal board. Pin the lower panel fabric into place along the edge of the cording matching the design with the fabric above. (Pin only on the fold).

Turn the panel piece of fabric up and place a 1/2" strip of cardboard against the cording. Tack the cardboard into place (tacks about one-inch apart). (Figure 37).

Fig. 37 Applying the Lower Front Panel



Place a thin layer of cotton over the exposed wood and bring the lower panel fabric over the cotton and under the chair frame. Tack fabric into place working from center to sides. Use the illustrated section on cutting at posts to shape the upholstery fabric around chair legs. (Figure 38).

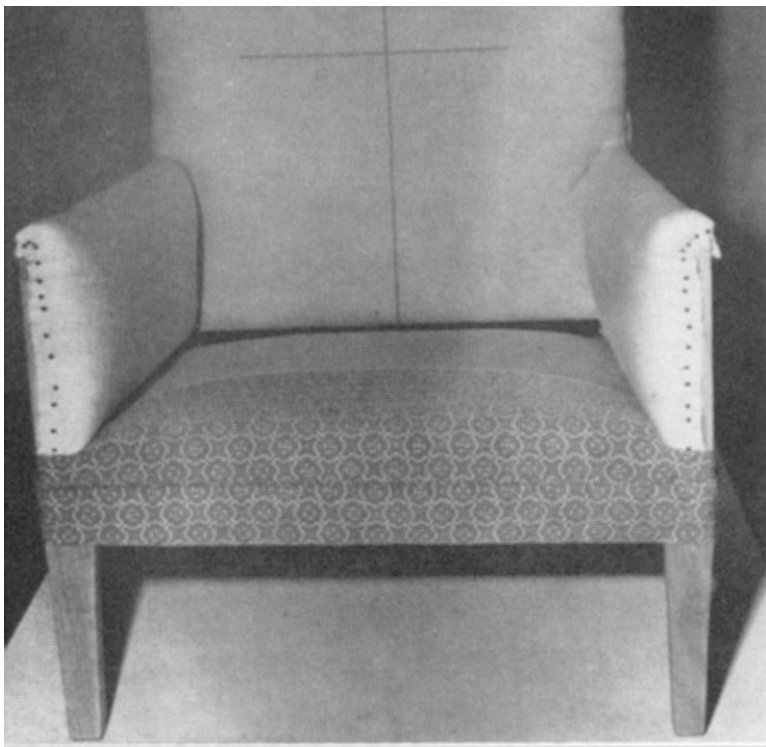


Fig. 38 Completed Front Panel

Inside Arms

The same method is used for applying the upholstery material as for the muslin covering, except the fabric at the lower edge is tacked to the lower section of the frame to close the opening.

Cotton is put over wood part to give a softer effect. (Figure 39).



Fig. 39 Padding Wooden Parts

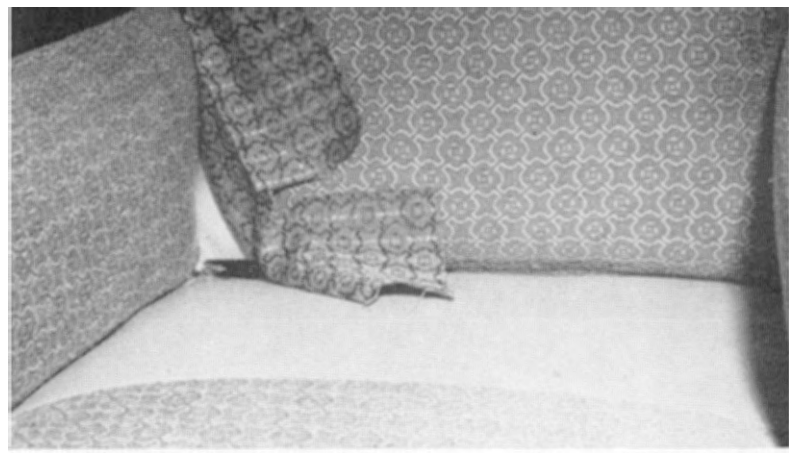


Fig. 40 Attaching Fabric to Seat Frame

Inside Back

The fabric is applied in the same manner as the muslin, except it is attached to the seat frame to close the opening at the bottom. Be sure to match the design with the inside arm and seat area. (Figure 40).

Outside Arm

The cording is placed first along the outline to be followed in applying the fabric.

Figure 41 shows the outside arm ready for upholstery fabric.

The design of the fabric is matched to the inside arm material and shaped into place. The fabric for

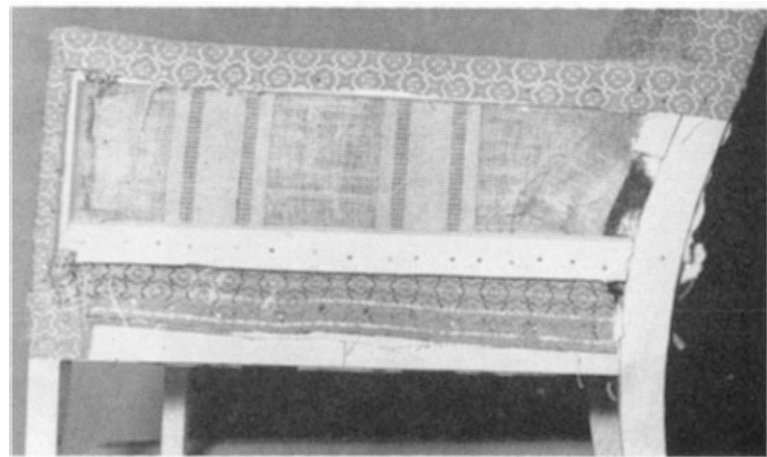


Fig. 41 Outside Arm Ready for Upholstery Fabric

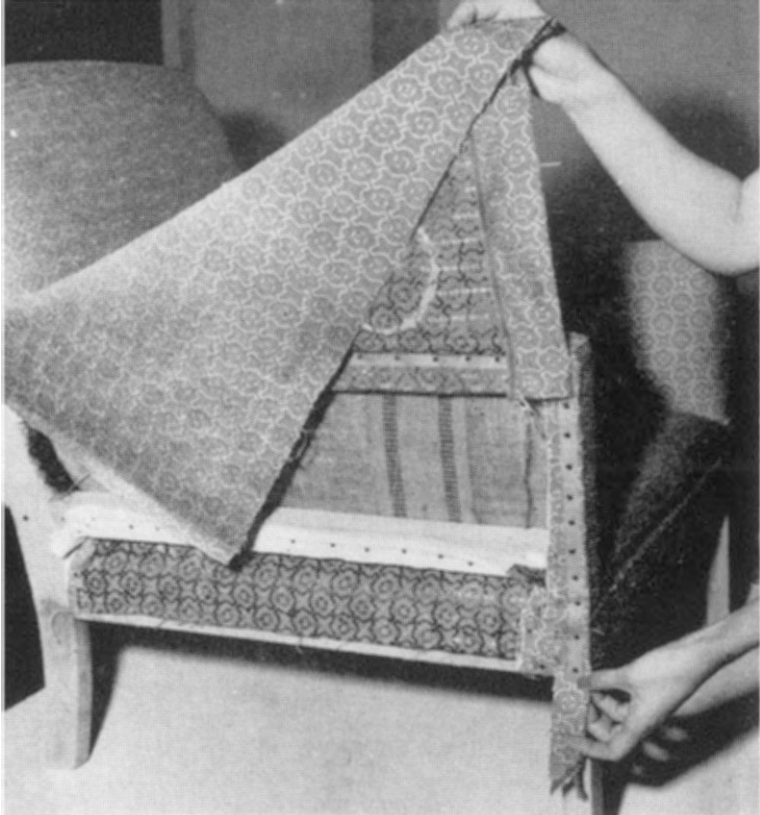


Fig. 42 Use of Cardboard in Attaching Outside Arm Fabric

the outside arm can be tacked with cardboard only along one straight edge. (Figure 42). This gives a smooth line and eliminates hand sewing with a curved needle.

The front edge of outside arm fabric is pinned into place against the cording and stitched into place with a curved needle. (Figure 43).

Outside Back

Place cording on the outline designed. Match fabric design to other parts of the chair. Only one side

Fig. 43 Method of Finishing Front Edge

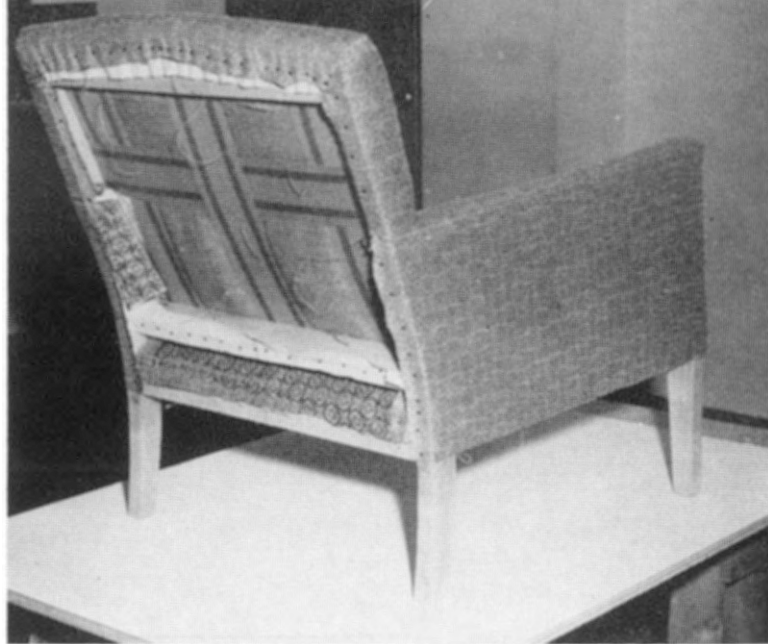


Fig. 44 Completed Side Arm

of the fabric can be tacked into place with the cardboard strip. (Figure 45).

Notice all cording is tacked into place with cardboard strips. Some cardboard must be shaped to fit curved areas. Figure 46 shows the procedures in pinning the fabric to the back of the chair in preparation for stitching with curved needle.

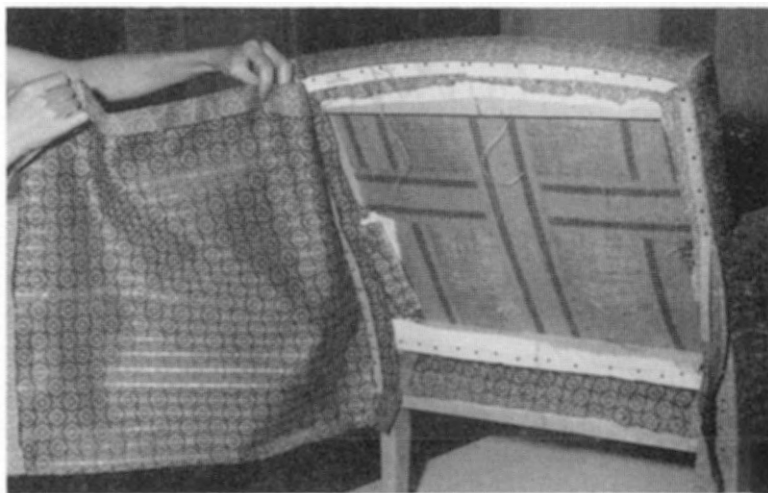


Fig. 45 Attaching One Side of Fabric with Cardboard

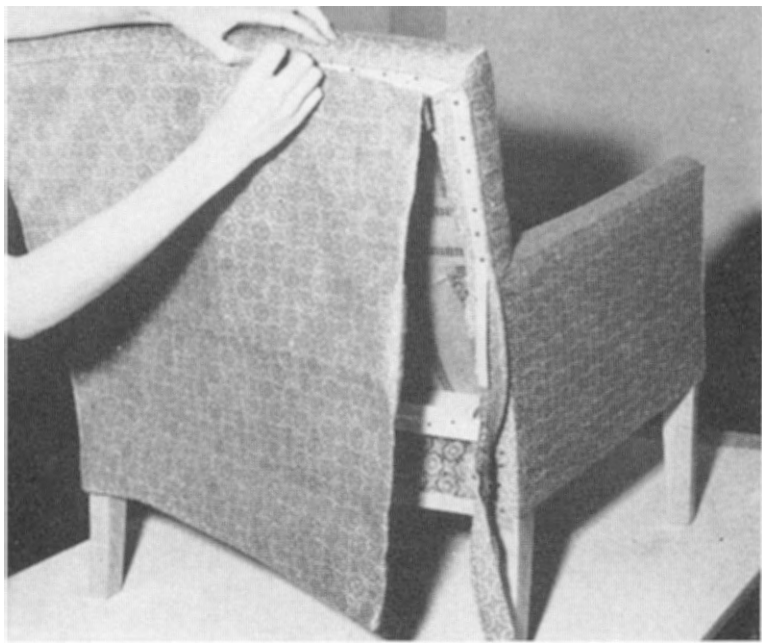


Fig. 46 Pinning Back Panel into Place

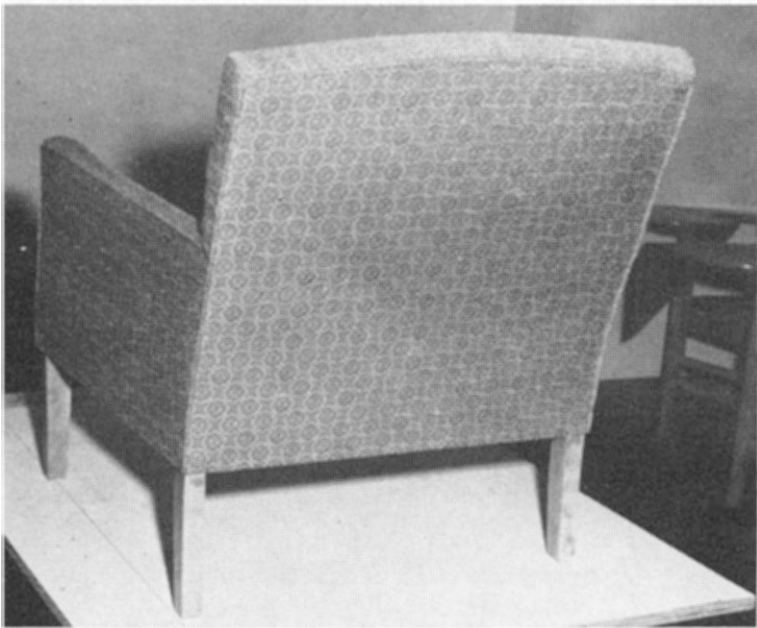


Fig. 47 Completed Back

Lining Bottom of Chair

A dark colored fabric is usually used to line the bottom of the chair as it will attract little attention.

Figure 48 shows the bottom of the chair ready for the lining.

Cambric is one of the most used

fabrics for this purpose. The raw edges are turned under and tacked. Cut the fabric at the posts in the recommended manner to make a smooth lining. (Figure 49).

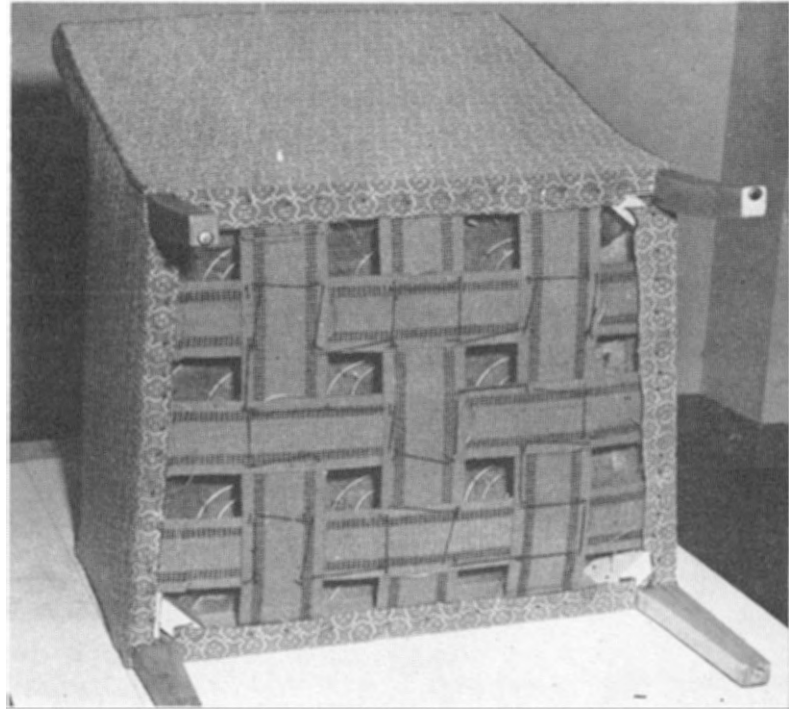


Fig. 48 Chair Bottom Ready for Lining

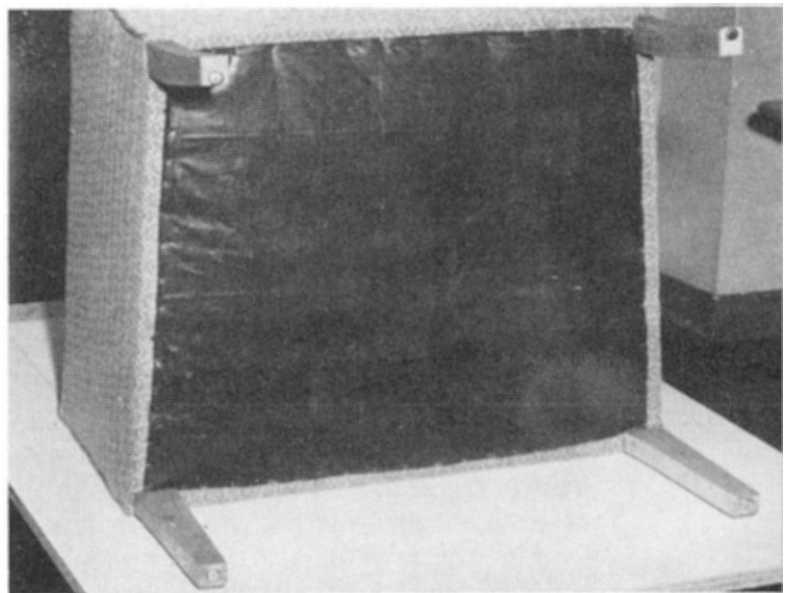


Fig. 49 Lining Tacked into Place

Repairing Inner Spring Cushions

Many times the cushions on the chairs and davenport become misshapen and uncomfortable. When the cushion bulges in the center and sags at the edges it may be opened and the innerspring unit removed and remade. When the cotton padding is opened the spring coils have worn through the muslin covering causing a tangled mass of loose springs.

Steps in Reconditioning an Innerspring Cushion

To open the cushion rip the boxing on one side at the back of the cushion along the corded edge. Rip about five inches around both corners at the back of cushion and fold the old upholstery back. Separate the padding and draw the spring unit out. Separate the individual springs. The number of springs will vary with different cushions.

The old lining may be used as a pattern to make the casing for the springs. Count the number of springs. Count the number of springs to determine the number of pockets to be made in each row of casing.

Casings

Unbleached muslin or sacks may be used for the casings. If the casing around the springs cannot be used for a pattern the following directions may be followed in determining the size of casing to be used for the springs. To form a sturdy unit, the springs should be compressed to about half the normal height.

The height of the spring, plus twice the diameter, plus two inches for seam allowance, will give the length of the material for each casing. (Example—a spring 6 inches high and 3 inches in diameter would be figured as follows: 6 inches plus 6 inches (2x3" the diameter) plus 2 inches seam allowance would equal 14 inches. Assuming that the spring is to be compressed to half its normal height.)

To determine the width, measure the distance around top of spring plus 1/2-inch for roominess in the casing. Multiply by number of springs in each row plus 2 inches seam allowance (one inch on each end of casing). (Example—the distance around the top of the springs is 9 1/2 inches plus 1/2 inch equals 10 inches allowance for each spring.

Since the material will be doubled, only half of the measurement (5") would be used; 5 inches x 6 (the number of springs) equals 30 inches plus 2 inches allowance equals 32 inches the width of the material.)

Take the strip 14 inches long and 32 inches wide and fold through the center crosswise. Mark the divisions in which the springs are to be inserted according to Figure 50.

Stitch folded ends together; from the end seam measure 5 inches and mark. This is the amount allowed for each spring. Stitch these mark-

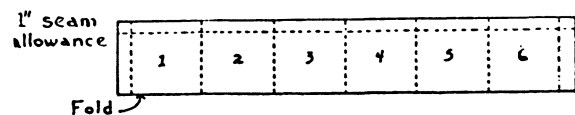


Fig. 50

ings to form the individual pockets for the springs. After the casing is made grasp the spring in the hand, compressing it entirely and push to the bottom of compartment No. 1 (Figure 51).

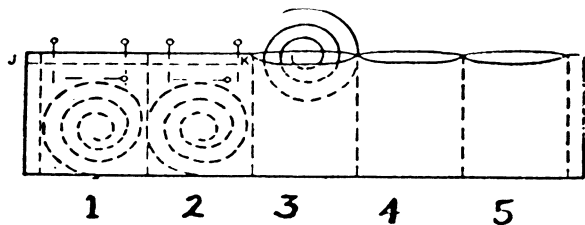


Fig. 51

While the spring is compressed, place a pin in the casing just above the spring, pinning both sides of the material together. Repeat for each spring. When each compartment contains a spring, stitch the open end on the machine allowing 1 inch seam allowance at the top of the casing. The pins keep the springs compressed and allow room for the muslin casing to be placed under the presser foot of the sewing machine.

Pull the casing over the ends of the spring. Bring the seam across the center of the spring. (Figure 52).

Tuck the material between each two springs under the top coil to

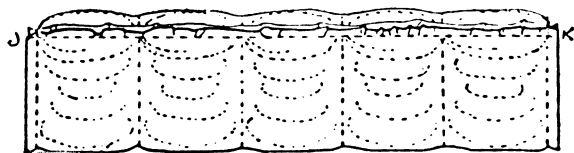


Fig. 52

give the appearance of an individual sack. Repeat the procedure for each row of springs. Catch the edges of the springs together with a lock stitch using a curved needle and mattress twine. When the tops of the springs for the entire unit have been sewed together, (Figure 53), turn the springs over and catch in the same manner.

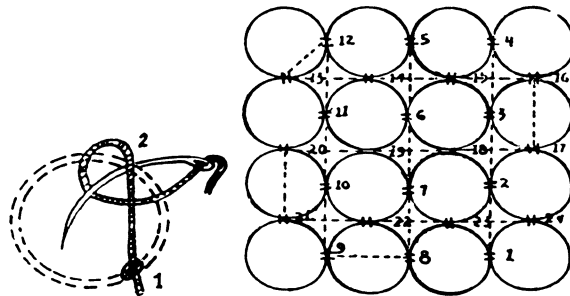


Fig. 53

Measuring for Cushion Size

The size of the cushion may vary with the change in padding. Use a firm paper and mark for size as Figure 54. Add 1 inch seam allow-

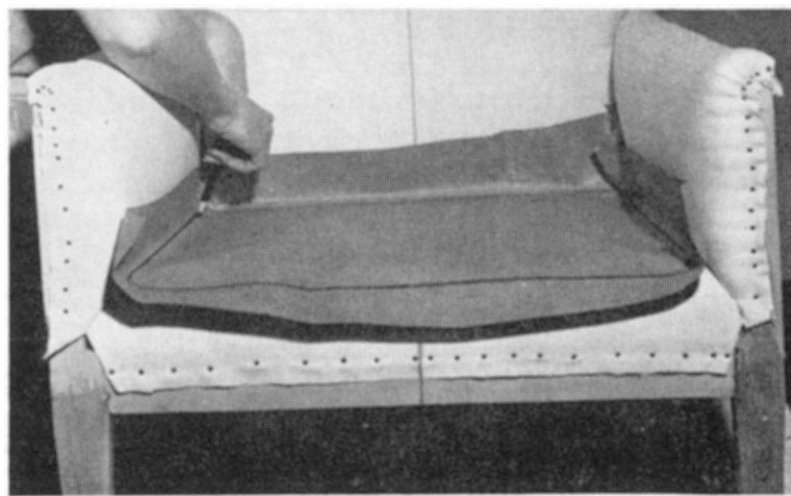


Fig. 54 Measuring for Cushion Size

ance on all edges. Match the design to the back and front seat section before cutting material. Cut the boxing for the cushion the same width as the original cushion. Add 1 inch seam allowance.

Wrapping Unit with Cotton

If the old cotton is soiled it is advisable to use all new cotton.

Wrap the springs in two or three thicknesses of upholstering cotton (enough so that the spring cannot be felt by the hand from the outside). Let the cotton covering the top and bottom overlap and cover the sides. (Figure 55.)

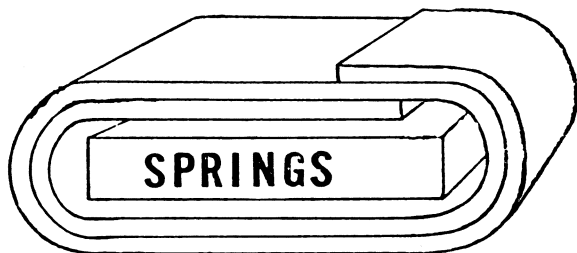


Fig. 55

To make the front corners of the finished cushion firm, place a roll of folded cotton in each front corner and across the front of the boxing.

Placing Unit into Cushion

Place the spring unit that has been wrapped in cotton between two pieces of heavy cardboard. Fold the cardboards around the sides and overlap them on top of the padded unit. (Figure 56.) Tie the overlapping cardboards with a heavy twine drawing the unit smaller than the opening in the cushion. (Figure 57).

Roll the cushion cover back and slip it over the front of the cardboard forcing the corners of the

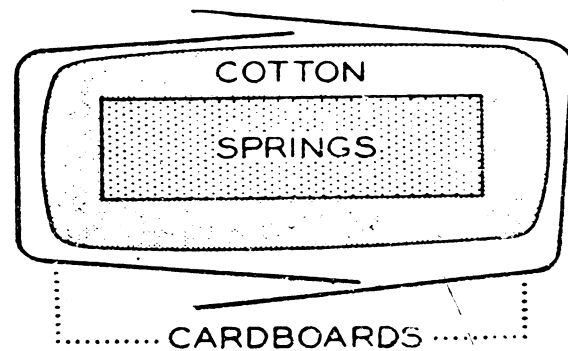


Fig. 56

cardboard into the padded front corners of the cushion. Draw the upholstery material over the cardboards. Untie the string and carefully remove one cardboard at a time. The spring will unfold into position making the cushion full. (Figure 58.)

Finishing Cushion

Draw the open edges together at the back and pin. Turn under the seam allowance on the boxing. Sew the upholstery cover with a blind-stitch, using a strong button or carpet thread of matching color. (Figure 59.)

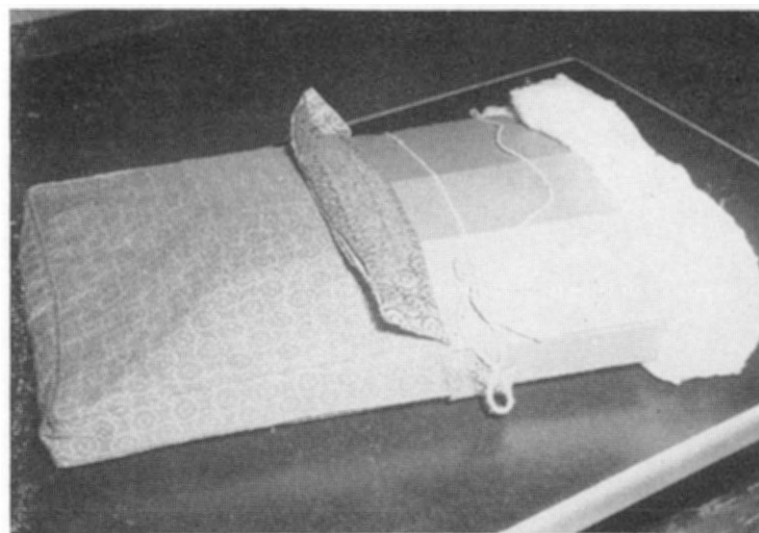


Fig. 57

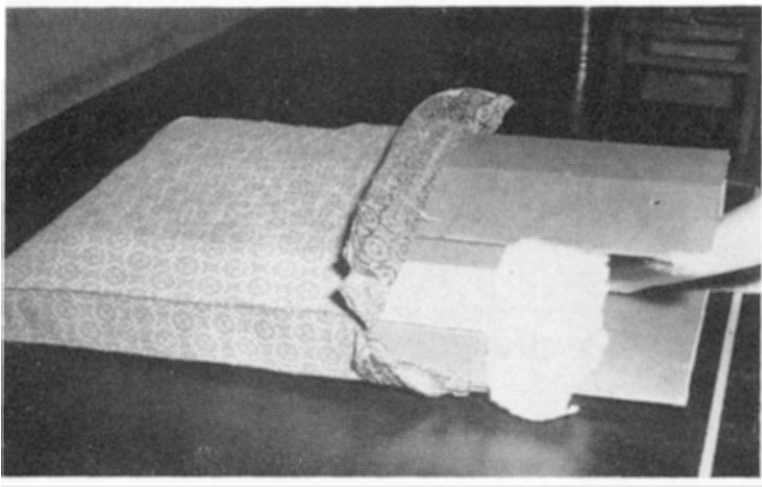


Fig. 58

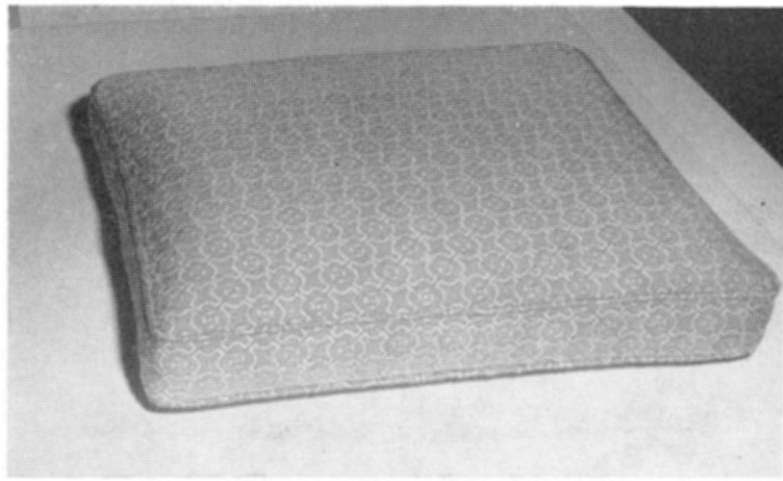


Fig. 59

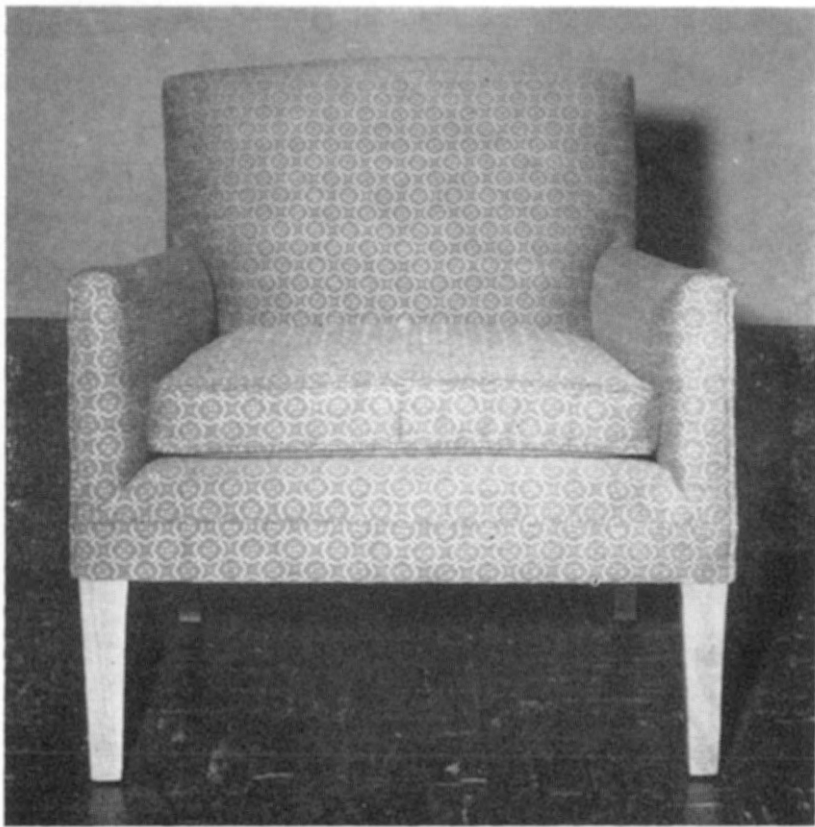


Fig. 60 Completed Chair

Cooperative Extension Work in Agriculture and Home Economics, Oklahoma State University and United States Department of Agriculture, Cooperating. Luther H. Brannon, Director, Oklahoma Agricultural Extension Service, Stillwater, Oklahoma. Distributed in furtherance of the Acts of Congress of May 8 and June 30, 1914.