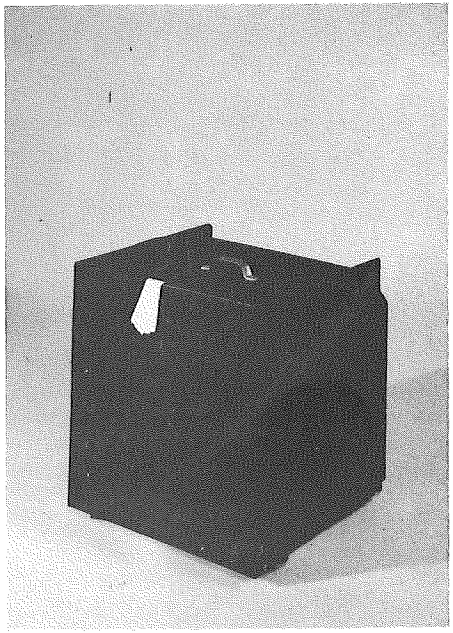
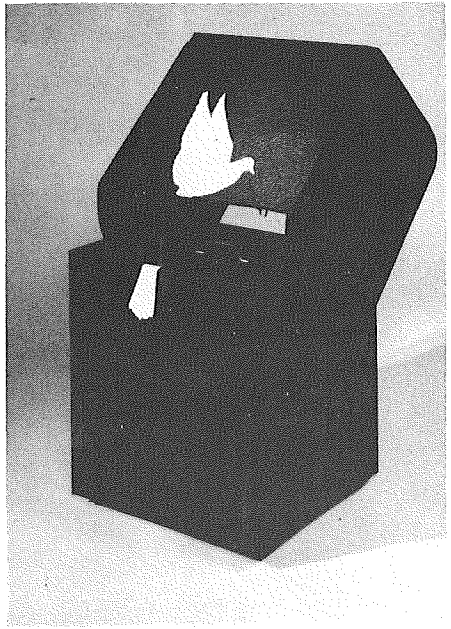
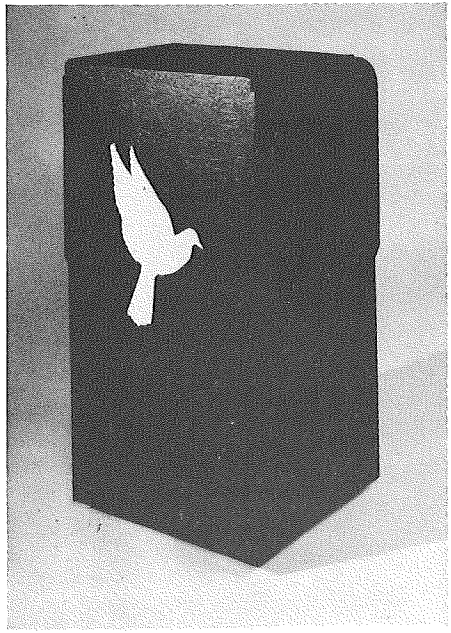






Equipment Trunk to Utility Magic Stand in 15 seconds

Preston Grey's **FASTAND®** Workshop Plans

FASTAND: UNIQUE BY DESIGN

- Fast to build.
- Easy to set up and take down (15 seconds).
- Sturdy design to withstand heavy road use.
- Retractable servante.
- Built in servante blinders, rendering servante virtually invisible.
- "No Trespassing" features.
- 4.5 cubic feet of packing space for equipment.
- Washable, scuff-resistant vinyl covering.
- Padded velvet top.
- Recessed casters for portability.
- Unlimited personalizing possibilities.
- Patterns for travel cover and servante included.

FASTAND: CREATED BY A NEED

It was with some trepidation that I embarked upon this project. Having examined the inadequacies of my former equipment, and failing to find a reasonable solution available on the market, I had little recourse but to forge ahead and design my own equipment---a utility stand, with all the right options. Even my limited experience in working with wood failed to deter me. I was determined that my ideal magic stand should. . .

- Double as a carry-all for my magic equipment and still retain its portability.
- Be sturdy and road-worthy, wear well, and be attractive.
- Have the capability of fast and easy set-up.
- Not look like a collapsible suitcase when set up.
- Have a behind-the-stand servante that is "invisible" from side angles.
- Close quickly after a show, completely protecting props from curious children and uninhibited adults (a "no trespassing" feature).
- Be easy to build; using just a few tools and a limited knowledge of woodworking.

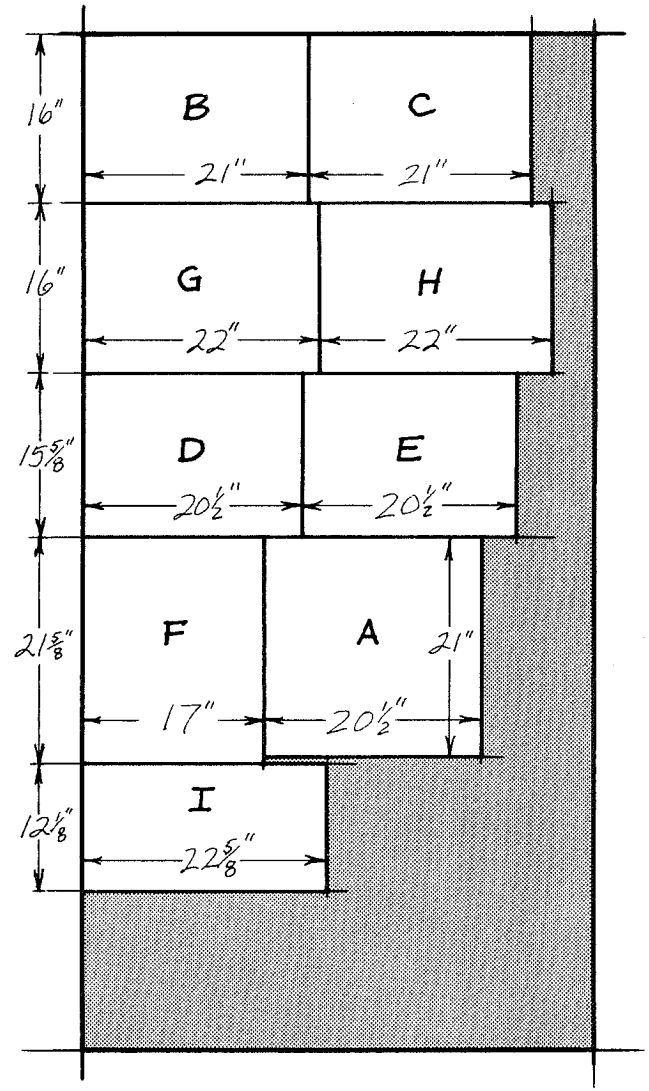
So with outline in hand, I retreated to my design studio to seek the ideal solution. After examining all possible options, making countless sketches, and rejecting numerous designs, the FASTAND was finally created.

The FASTAND is an effective solution to the needs of the serious magician. Its beauty is in its simplicity. The plans for its construction are simple and thorough. Read these workshop plans thoroughly before purchasing materials or beginning construction.

FASTAND: BILL OF MATERIALS

1 – 3/8" x 4' x 8' sheet plywood
4 – 1 5/8" black wheel, plate mounting casters
1 – 3/16" x 36" smooth cold roll rod
1 – 36" black tubular shoestring
(cotton type--must slip over 3/16" cold roll rod)
4 – screw eyes large enough to admit cold roll rod encased by the shoestring
1 – 1" x 36" hardwood dowel rod
2 – 3/4" x 3/4" x 12 1/8" pine stock
1 – 1" x 22 5/8" x 12 1/8" foam padding
1 – 6 1/2" pull with one screw hole on each end
2 – draw catches without padlock eye
12 – no. 4 x 3/8" flathead wood screws (if not included with set of catches or if screws with set are longer than 3/8")
40 – no. 4 x 3/4" flathead wood screws
4 – no. 5 x 1" flathead wood screws
2 – no. 8 x 1" flathead wood screws
2 – no. 8 x 1 1/4" flathead wood screws
(if not included with pull)
16 – no. 10 x 1/2" panhead screws
16 – 1/4" lock washers
2 – 1 1/4" x 1/4" flat washers
2 – 2/0 x 1" taper pins
2 – 1 1/4" 16-gauge finishing nails
4 – 5/8" 18-gauge wire brads
2 – 3/16" acorn cap push nuts
1 – 8-ounce bottle of Elmer's Carpenter's Glue
1 – 32-ounce bottle of Elmer's Glue-All
velvet – black, 3/4 yard
felt – black, 1 2/3 yards
vinyl – color of your choice, 2 yards
vinyl – (optional) for inlaying, as needed for design
thread – black and color to match bias tape
wide bias tape – color of your choice, 3 packages
single side quilted fabric – color of your choice, 2 1/4 yards
flat black paint

"WIDE BIAS TAPE" should read
"DOUBLE FOLD QUILT BINDING"
on both the Bill of Materials,
page 4, and steps 7 and 8, page 21.



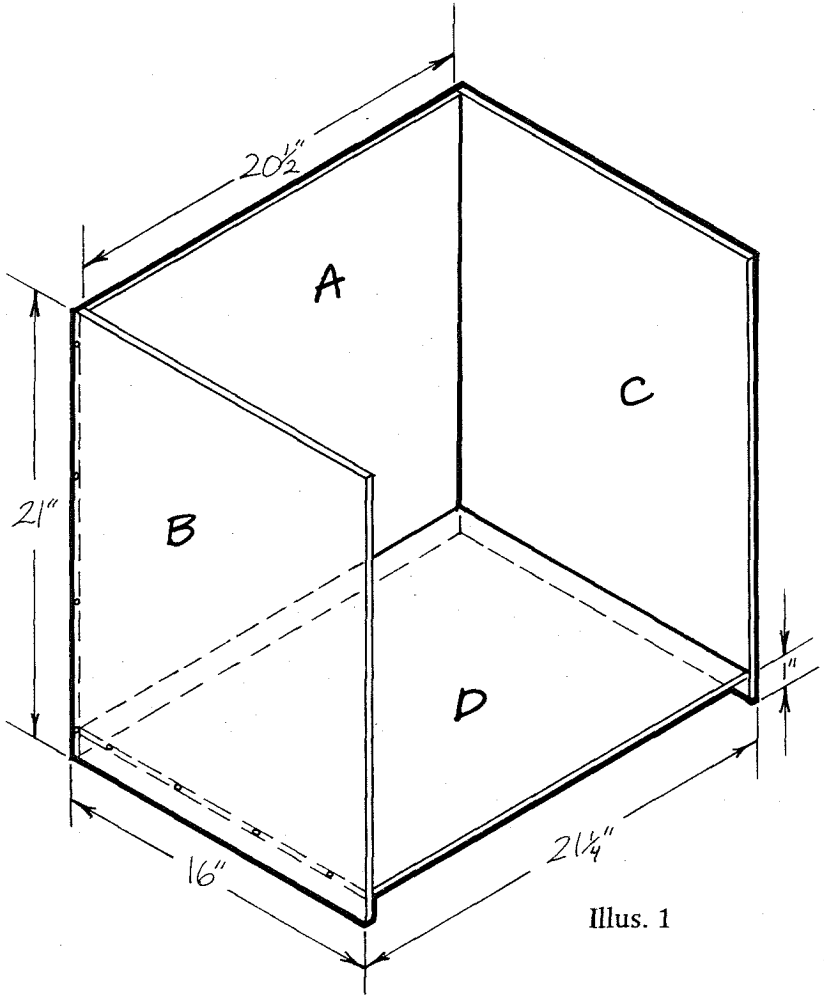
Cutting Diagram: 3/8" x 4' x 8' sheet plywood

NOTE: Some parts are cut larger initially, then trimmed to finished size. Be sure to make allowance for blade kerf. Read the instructions before cutting.

A – Bottom front – 20 1/2" x 21"
B – Bottom side – 16" x 21"
C – Bottom side – 16" x 21"
D – Base – 20 1/2" x 15 5/8"
E – Handle shelf – 20 1/2" x 15 1/8"
F – Top front – 21 5/8" x 17"
G – Top side – 16" x 22"
H – Top side – 16" x 22"
I – Cap/lid – 22 5/8" x 12 1/8"
Shaded portions are scrap.

PHASE I-THE BOTTOM

Throughout construction, drill pilot holes whenever fastening screws into the edge of plywood to prevent splitting. Also, use wood glue in all joints just before screwing tight to ensure added strength. Use no. 4 x 3/4" flathead wood screws for all construction unless otherwise noted.



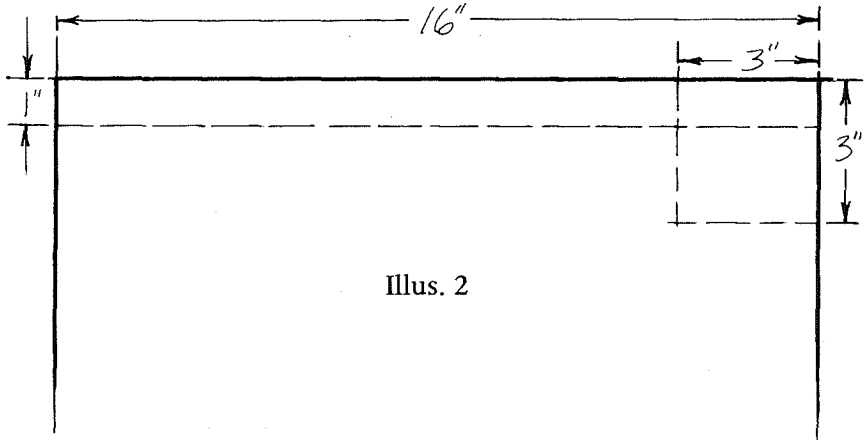
Illus. 1

1. Assemble the bottom sides (B, C) to the bottom front (A).
2. Install the base (D) leaving 1" clearance between it and the floor. This will function as a recess to conceal the casters (illus. 1).

PHASE II-THE TOP

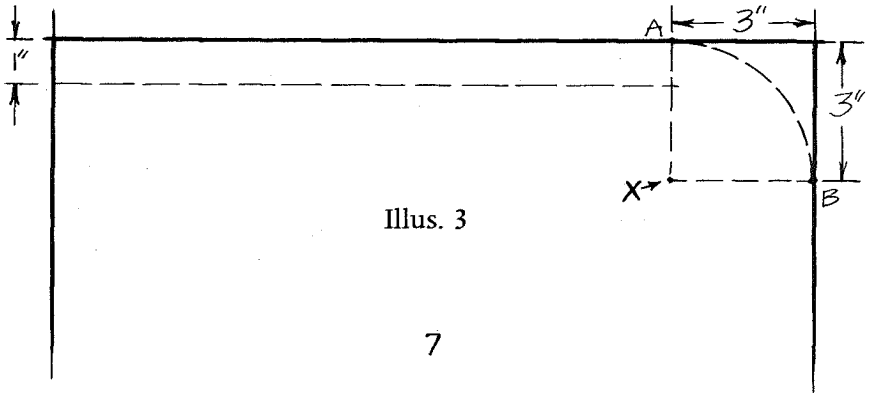
In this phase, both of the top sides (G, H) require additional trimming to finished size. Steps 1–9 apply to both pieces G & H. Follow these steps very carefully as these pieces must be identical when step 9 is finished. If using a double graded plywood, you may want to have the lesser grade surface facing the inside of the stand. This should not matter, however, as the vinyl covering will hide any defects in the plywood surface. **If you plan to apply a paint finish, read step 1 of PHASE VI — FINISHING TOUCHES before going any further.**

1. Begin by measuring 1" down from the top edge (G, H). Draw a pencil line across the board at this point.
2. Measure 3" over from the upper right corner and 3" down (illus. 2).

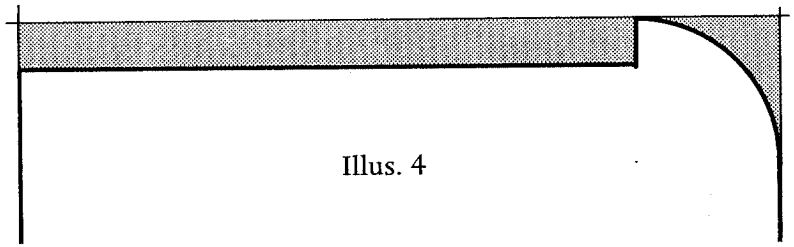


Illus. 2

3. Set a compass point on X and draw an arc from points A to B (illus. 3).

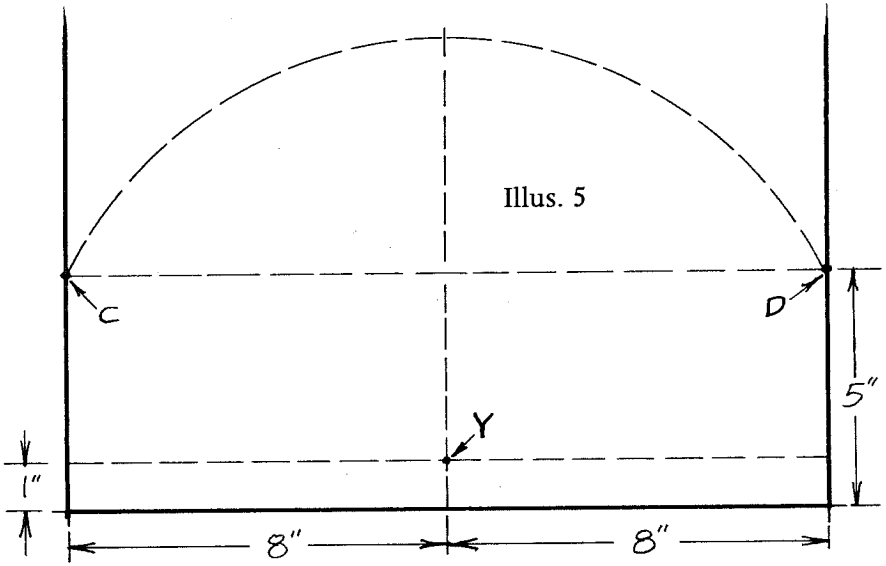


Illus. 3

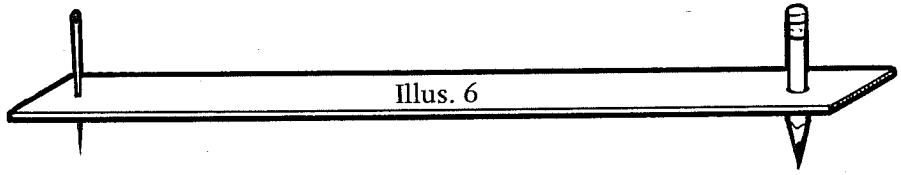


Illus. 4

4. Trim away all shaded portions (illus. 4).
5. Measure 1" up from the bottom edge. Draw a pencil line across the board at this point. Repeat this step measuring up 5" from the bottom.
6. Find the vertical center of the board by measuring 8" in from either side. At this point draw a vertical line the entire length of the board.
7. Setting a beam compass point on Y, draw an arc from points C to D (illus. 5). If you do not have a beam compass, you can use a 1" x 12" strip of heavy cardboard. Insert a heavy-duty needle through the cardboard about 1/2" from the end and the push a sharpened pencil point through the cardboard at the appropriate place (illus. 6).

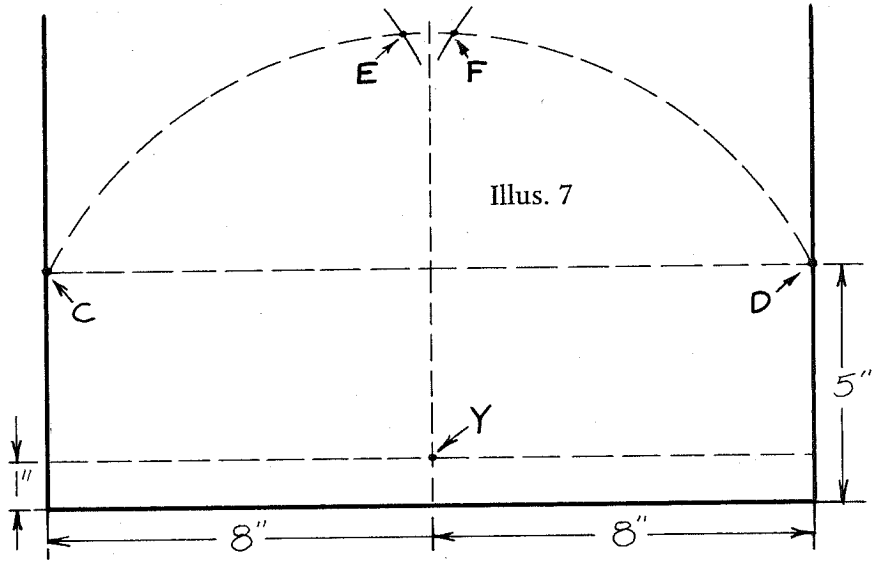


Illus. 5

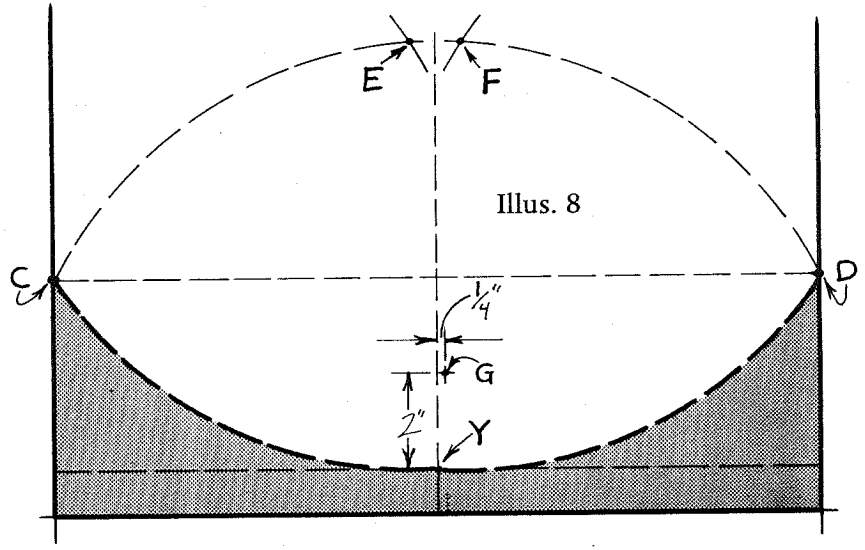


Illus. 6

8. Now, without changing the compass setting, place the compass point on C and intersect the arc just made with another short arc. This will create point E (illus. 7). Repeat this process placing the compass point on D. This will create point F (illus. 7). Although it may seem difficult to place the compass point on points C and D, it is important to get the compass point as near to the board edge as possible.

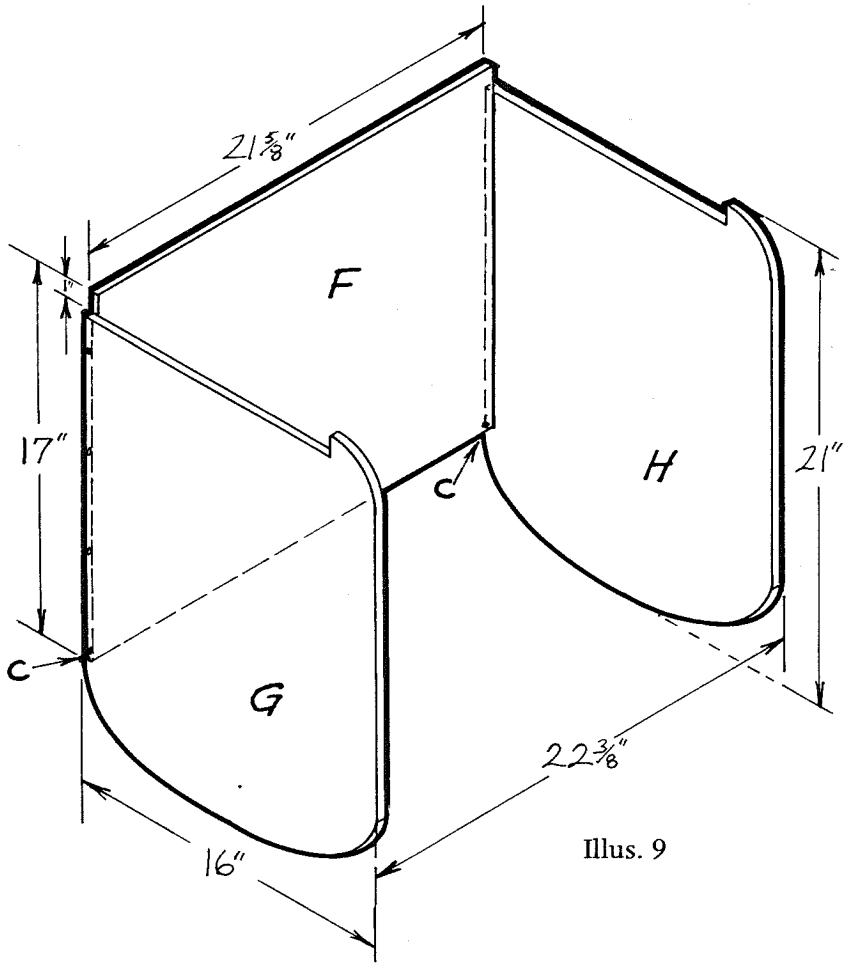


Illus. 7



Illus. 8

9. Finally, to create the line for trimming, place the compass point on E (do not change compass setting) and draw an arc from point C to Y. Repeat this process by placing the compass point on point F and draw an arc from points D to Y. Carefully trim away the shaded portion (illus. 8).
10. Assemble the top sides (G, H) to the top front (F). The bottom edge of F must line up perfectly with point C of the top sides (G, H). This should leave the top front (F) with exactly a 1" lip extending above the top sides (G, H). Make sure this lip measures exactly 1" across the top (illus. 9).

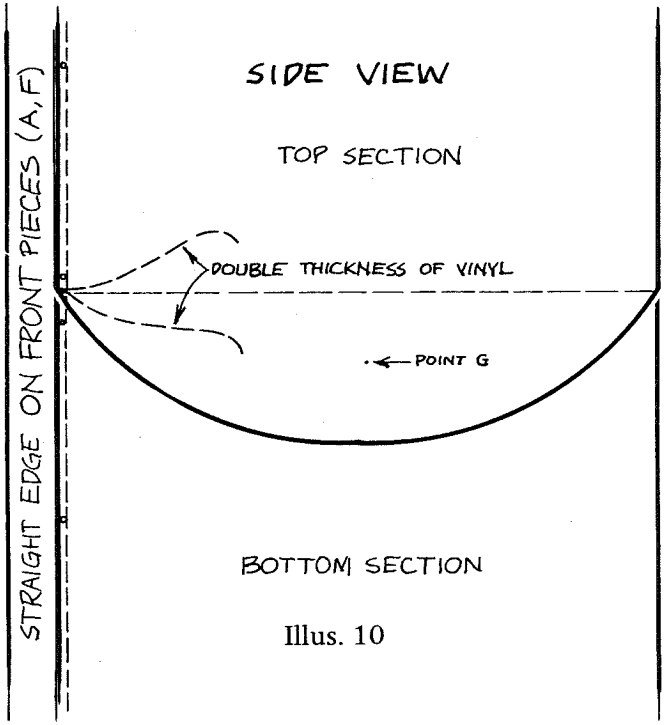


Illus. 9

PHASE III-ASSEMBLY

Joining the bottom assembly to the top assembly must be done correctly if the stand is to open and close properly.

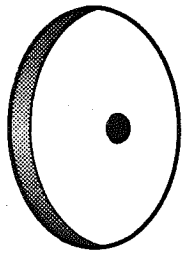
1. To find the points for drilling the hinge pin holes, measure up 2" from point Y and 1/4" toward the back. Mark this point (G) and repeat for the other side (illus. 8). This 1/4" offset is very important.
2. Place a double thickness of the vinyl covering over the front edge of the bottom section. This is simply to add the proper amount of tolerance for closing the completed stand.
3. Position the upper section on top of the lower section holding it in place. Using a true straight edge, such as a level, make sure that the front surfaces (A, F) of both sections are flush and accurately vertical (illus. 10).



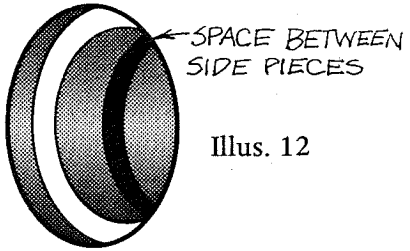
Illus. 10

4. Clamp the two sections in this position or have someone hold them tightly in place to prevent the sections from slipping. Although the top section may seem too wide, a 3/8" tolerance has been figured in for the vinyl covering and felt lining.
5. Carefully drill a 1/16" hole through both the top and bottom sections at the pivot points (G) marked on each side (illus. 10).

6. Slide the 16-gauge finishing nails through the holes just drilled to act as temporary hinge pins.
7. To test for opening and closing clearance, temporarily attach the casters to the base (D) using a staple gun or masking tape. Set the stand on a hard, even surface and close the top section. If all steps have been followed closely, the stand will close smoothly without the top section ever touching the floor. If for some reason your stand top will not close without hitting the floor, the only practical solution at this point is to place spacers between the base and the caster plates.

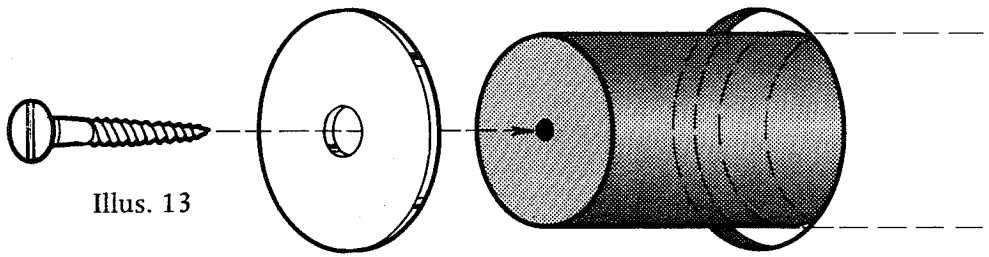


Illus. 11



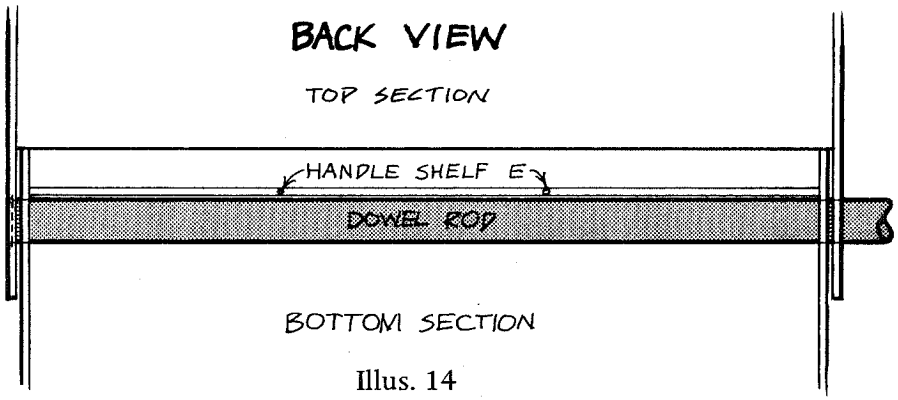
Illus. 12

8. A permanent "hinge pin" is necessary at this point. Begin by opening the stand fully and clamp the bottom and top halves firmly together to prevent any movement. Remove the finishing nails and using a 1 1/4" power woodboring drill bit (blade, not auger type), countersink 1/8" deep into the top sides G and H (illus. 11).
9. Now, using a 1" power woodboring drill bit, continue drilling in the same countersunk hole keeping it centered and straight. Drill completely through the top sides G and H and on through the bottom sides B and C (illus.12).
10. Insert the 1" dowel rod completely through sides (G, H and B, C). If desired, you may now test closing clearance again. This dowel rod will function as more than just a "hinge pin" as you will see in step 18.
11. Pull the dowel rod flush to the 1/8" deep countersunk hole on one side and place one of the flat washers to the end of the dowel rod. Make a pencil mark through the washer hole dead center onto the end of the dowel rod. Drill a pilot hole straight into the end of the dowel rod and fasten the washer in place with a no. 8 x 1" flathead wood screw (illus. 13). Dowel rod is shown extended from hole for clarity.



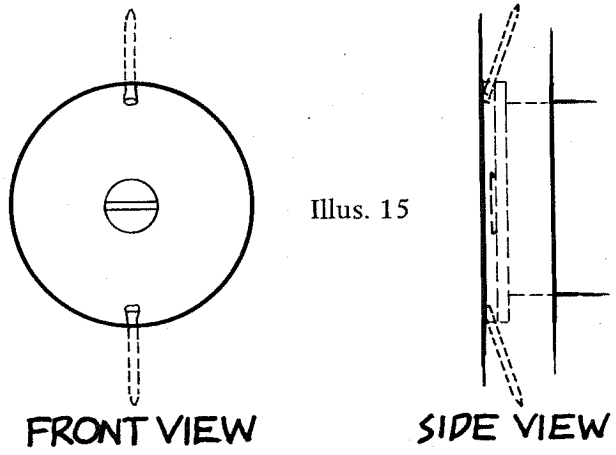
Illus. 13

12. With the dowel rod in place, position shelf (E) on top of the dowel making sure the shelf is level. Fasten the shelf (E) to the sides (B, C) and front (A) (illus. 14). The dowel rod must be removable. Illustration 14 shows the top section in position, however, it will need to be removed to fasten the shelf (E) in place.



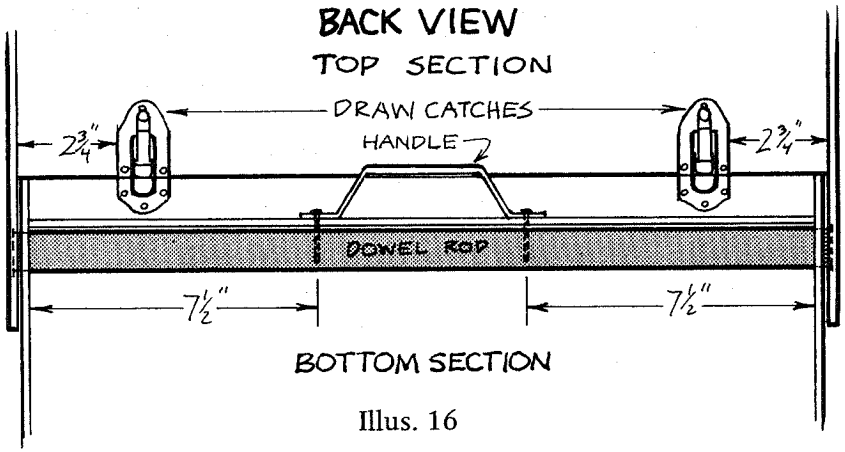
Illus. 14

13. In order to ensure proper clearance for the stand to open and close, the vinyl covering must be applied to the bottom outside and the felt lining must be applied to the top inside before cutting the dowel rod to its proper length. Application of the vinyl to the top of the handle shelf, and the felt lining to the bottom section should also be made at this time. Therefore, please remove the dowel rod and turn to step 2 of PHASE VI--FINISHING TOUCHES for the application procedure. It is important at this point to finish only these portions.
14. Trim the felt and vinyl away from the drilled dowel rod holes.
15. Reassemble the two sections, inserting the dowel rod with the fastened washer well seated in the countersunk hole. Allowing ample clearance for closing without binding, adjust the top sides in or out as necessary and mark the untrimmed end of the dowel rod for cutting. When cut, the dowel rod end should be flush with the countersunk hole, recessed 1/8" from the outside surface. Remove the dowel rod and cut it to size.
16. Replace the dowel rod and fasten the other flat washer to the newly trimmed end as in step 11 of this phase. To keep the washers firmly seated in the recessed holes, drive brads into the walls of the countersunk holes (illus. 15). These must be firm against the washers, yet allow the top freedom to pivot.



Illus. 15

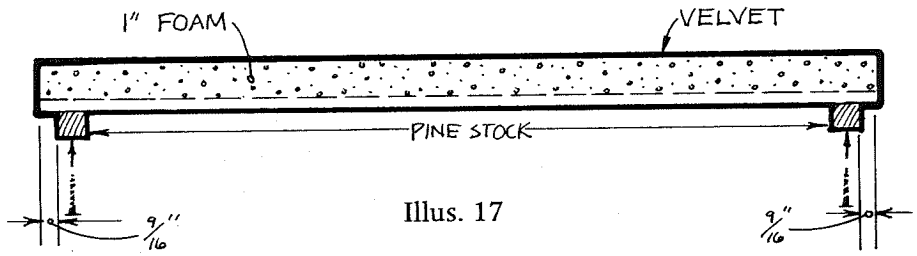
17. The top section is now ready for application of the vinyl. Special notes and details are found in step 2 of PHASE VI--FINISHING TOUCHES.
18. Find and mark the position for drilling pilot holes for the handle (illus. 16). Note that the handle is fastened through the shelf and into the dowel rod for stress distribution to the side pieces. Drill pilot holes, and using the appropriate screws, attach the handle to the dowel rod through the shelf (illus. 16).
19. Find and mark the position for drilling shallow pilot holes for the draw catches (illus. 16). Using the appropriate screws, install the draw catches to provide a snug bond between the sections when clasped.
20. Using the lock washers between the screws and caster plates, fasten the casters in place with no. 10 x 1/2" panhead screws.



Illus. 16

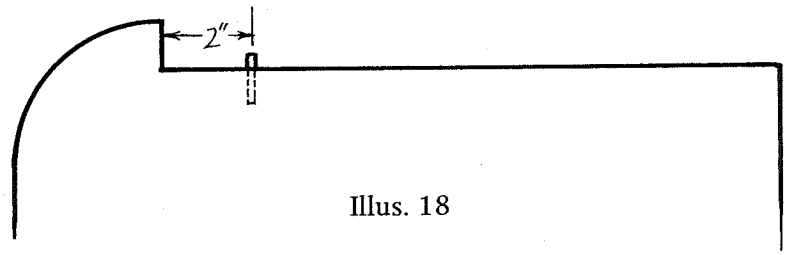
PHASE IV-THE CAP

1. To assemble the cap, fasten the pine stock rails in position using 2 no. 5 x 1" flathead wood screws per rail. The rails should be installed 9/16" in from the ends of piece I (illus. 17).
2. Glue the foam padding to the top of piece I.
3. Cut the velvet to size for the cap using the measurements provided (illus. 19). Proceed to cover the top and sides of the cap with velvet, gluing the edges to the underside of the cap (illus. 17).



Illus. 17

4. Paint the bottom of the cap and the cap rails flat black.
5. It is natural to hold onto the top sides (G, H) when moving the opened stand. This can cause the top sides to bow out in time. To prevent this from occurring, a simple pin system is used to hold the rear top sides firmly to the cap. Measure 2" forward from the curved flange of pieces G & H and drill centered pilot holes straight into the top edges. Glue and insert the taper pins into these holes leaving 3/8" protruding (illus. 18).

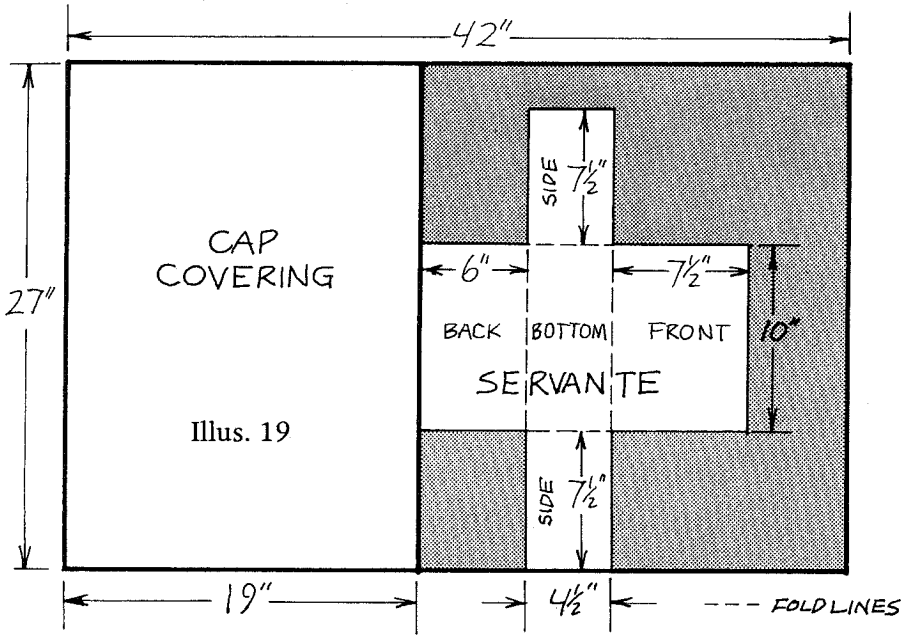


Illus. 18

6. Place the cap into position, and making sure that the top sides are firmly against the cap rails, carefully mark the points where the protruding taper pins contact the cap. Drill 3/8" deep holes at these points to accommodate the pins.

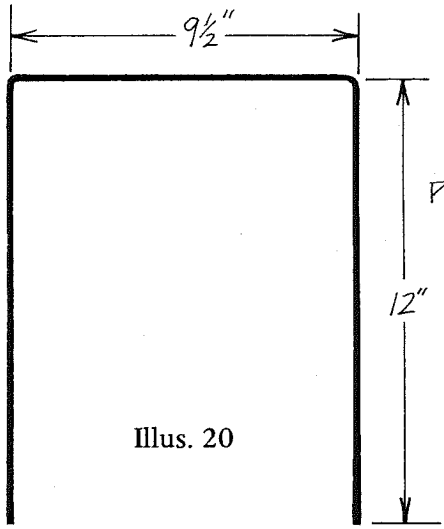
PHASE V-SERVANTE

1. Cut the velvet to size for the servante using the measurements provided (illus. 19). The shaded portions are scrap. Zigzag the long, raw edge of the BACK piece and fold it over 1/2", with the WRONG sides together. Bring the WRONG sides of the right-angles together, matching and pinning the edges. Sew these edges together using a tight zigzag stitch to prevent fraying and for added strength. Turn the velvet side (and seams) to the inside. The velvet's natural cushion will help to absorb any noise caused by dropping objects into the servante. By sewing these seams together you have formed a rectangular "bag," open at the top, with a seamless bottom.

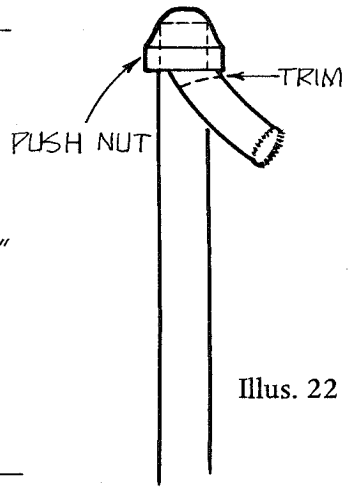


Illus. 19

2. Make a double fold on the remaining three raw edges, folding over first 1/2" and then 1", toward the outside of the servante and stitch down. This will provide a wide hem with the velvet to the outside (on the hem only). These three sides should be 1/2" higher than the BACK piece after hemmed.
3. Cut the 3/16" cold roll rod to 33 1/2" in length. Measuring in 12" from each end of the rod, mark and bend the ends 90° at these points (illus. 20).
4. Cut off one end of the shoestring and slide the rod into it, completely encasing it.

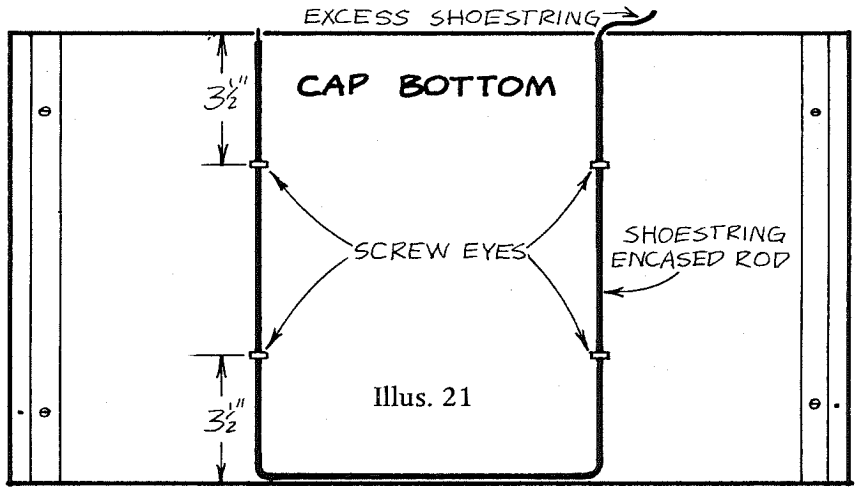


Illus. 20



Illus. 22

5. Lay the encased rod on the underside of the cap and mark the positions for the screw eyes (illus. 21). The screw eyes are to act as tracks for the servante rod.
6. Install the screw eyes and insert the encased rod, testing for smoothness of operation. Remove the rod from the screw eyes and thread the servante bag onto the rod. The wide hem at the top of the servante bag should slide easily over the encased rod. Note that the velvet should be to the inside of the bag.
7. Slide the rod and servante back into the screw eye tracks. Pulling the excess shoestring taut, fold back and hold it against the rod. Push the acorn cap push nuts firmly into position over the shoestring and onto the rod. Trim away the excess shoestring (illus. 22).



Illus. 21

PHASE VI-FINISHING TOUCHES

1. These plans include tolerances for a vinyl covering on the outside surface of the stand, and we recommend using it rather than a paint finish. It should be noted that the vinyl covering functions to cover the dowel holes which are drilled in steps 5-9 of PHASE III–ASSEMBLY, and also withstands the nicks and scratches that a paint finish is vulnerable to. Should you decide to use a paint finish, be aware that some pieces will fit looser than intended. Consequently, several changes need to be made. **These apply only if you are planning to use a paint finish rather than the vinyl covering.**

   A. The top front piece (F) should be cut to a 21 1/2" width rather than 21 5/8".
   B. The cap/lid piece (I) should be cut to measure 22 1/2" x 12 1/4" rather than 22 5/8" x 12 1/8".
   C. Step 2 of PHASE III–ASSEMBLY is no longer necessary.
   D. Step 13 of PHASE III–ASSEMBLY is no longer necessary. However, the top sides (G, H) should still be lined with felt to prevent scratching the paint finish on the bottom sides when the stand is opened and closed.
   E. Steps 14 and 17 of PHASE III–ASSEMBLY are no longer necessary.
   F. The foam padding for the cap should be cut to 22 1/2" x 12 1/4".

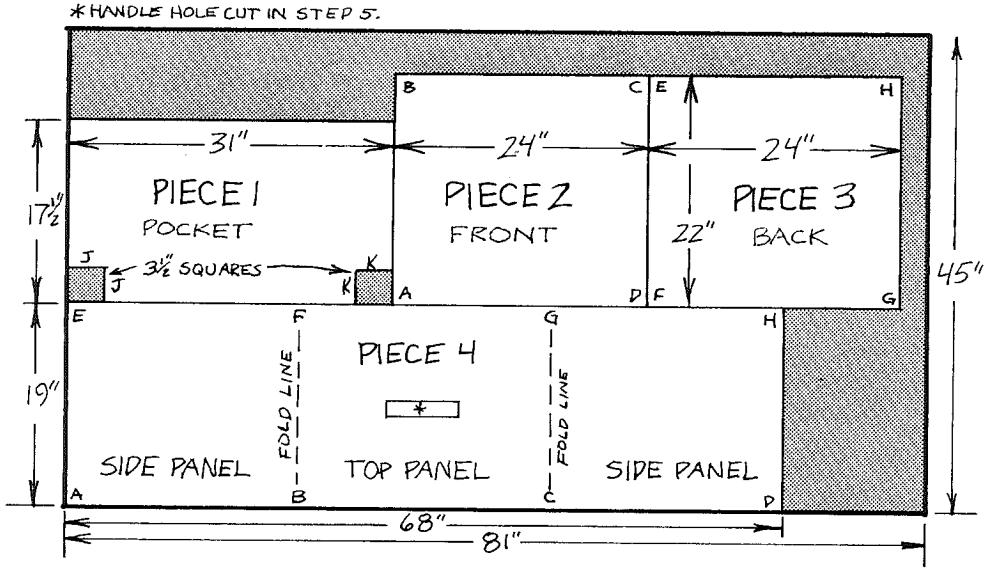
2. Applying the vinyl covering and felt lining:
   A. Cut two (2) pieces of vinyl, 56" x 24", and one piece, 21" x 16". These pieces are cut larger initially then trimmed to the finished size after the glue has thoroughly dried.
   B. Spreading the glue evenly on the wood surface with a brush, position the 21" x 16" piece of vinyl to the top and back edge of the handle shelf (E). A light-duty staple gun will aid in holding the vinyl edges in place until the glue has dried. These small staple holes will not be apparent when the staples are removed. When the glue is dry, trim away excess vinyl and remove staples.
   C. Using the same procedure of gluing and stapling, apply the vinyl to the bottom section making note of the following details: all exposed edges should be covered, including the inside edges above the handle shelf; the vinyl should be drawn around the very bottom edges and glued to the inside edges beneath the base (D). Trim away any excess vinyl after the glue has dried.
   D. The inside of the top sides are the only surfaces that require a felt lining. However, we recommend lining the entire inside surfaces with felt as added protection for equipment when traveling. If lining the stand with felt, cut pieces to size and glue in place. If lining the top sides only, paint the remaining inside surfaces with flat black paint if desired.
   E. Before the vinyl can be applied to the top ouside surfaces, PHASE III–ASSEMBLY must be completed through step 16. Having completed these steps, glue the vinyl to the outside surface of the top section using the same procedure as outlined earlier. Be sure to cover all exposed edges with the exception of the large curved bottom edges of the top sides. Paint these edges with flat black paint.

3. The dove design, shown in the cover photos on this booklet, was developed for use as a personal trademark by Preston Grey. An identifying symbol or logo is important to the continuity of your professional identity. If you have already established your own personal trademark, consider incorporating it onto the front of your FASTAND. If you have not developed your own personal trademark, you may use the copyright-free design which I have provided (illus. 25). You could paint your design on the front of your stand if desired, however, we recommend a more permanent method. The object of the following steps is to inlay a contrasting vinyl design so that its surface will be flush with the surrounding vinyl. The inlaying will eliminate objects from catching on the edge and peeling the design loose.
   A. Transfer your chosen design to a large piece of paper, enlarging it to the desired size.
   B. Position and tape the design in place on the front of the stand. Slide a contrasting color of vinyl under the pattern making sure it is large enough to accommodate the entire design. Secure the contrasting vinyl in place and, using a sharp X-Acto knife, carefully cut through the pattern and both layers of vinyl.
   C. Remove the pattern and contrasting vinyl. Peel away the area to be inlaid. This should not present a problem if Elmer's Glue-All was used to glue the vinyl covering down.
   D. Apply glue to the back of the design piece(s) and push them into the areas peeled away in step C, until they are flush with the surrounding vinyl.

PHASE VII-TRAVEL COVER

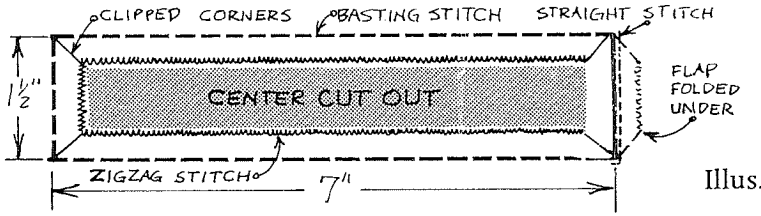
"Travel Cover" may prove misleading as this cover is actually multi-functional and well worth the time and effort to make. Not only does it protect the stand finish and provide a pocket for the stand cap, but it also functions as one of the "no trespassing" features. Even when the stand is open, the cover can be slipped over the top section, hiding prepared props on the top or handle shelf from wandering eyes or hands.

1. Cut out the pieces (illus. 23). Shaded portions are scrap.



Illus. 23

2. Zigzag the longest edge of the pocket (piece 1) with a tight zigzag stitch to prevent fraying. Fold this edge over 1" (WRONG sides together) and straight stitch it down.
3. Matching the 3 1/2" raw edges (J to J and K to K) with the RIGHT sides together, zigzag the bottom corner seams of the pocket (piece 1) together. The seam should be 1/4" from the raw edge and stitched only 3", starting from the INSIDE corner. (The other 1/2" is used to sew the pocket to the front panel.) Turn the seams, RIGHT side out.
4. With the WRONG side of the pocket lying on the RIGHT side of the front (piece 2), match the bottom edges and baste the bottom edge and side edges together with a 1/2" seam.
5. Find the center of piece 4 and measuring out from the center, mark a rectangle large enough for the stand handle (approximately 1 1/2" x 7"). Outline the rectangle with a basting stitch. Zigzag 1/4" in from the basting. Cut the fabric from the center, close to the zigzag stitch. Clip the corners of the hole, diagonally, to the corners of the basted rectangle. Fold the fabric (now flaps) under at the basting stitch and sew down with a straight stitch (illus. 24).



Illus. 24

6. With the WRONG sides of pieces 2 and 4 together, match A to A, B to B, etc., and baste edges together. Repeat this with pieces 3 and 4, matching E to E, F to F, etc.
7. Encase the raw edges of the basted seams from step 6 with wide bias tape and sew into place.
8. If necessary, even up the bottom edges of the cover, and encase them with bias tape, sewing it into place.

Illus. 25