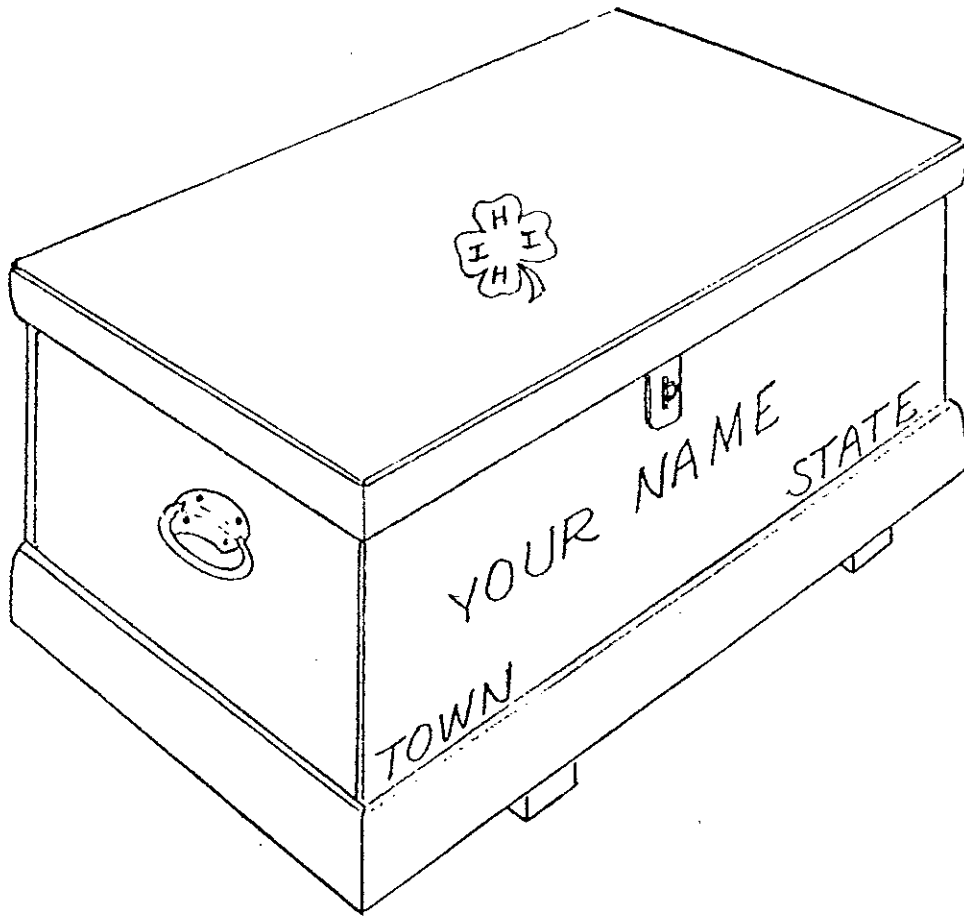


4-H EQUIPMENT SHOW BOX



BY

LAWRENCE J. RONDEAU, 4-H LEADER
SOUTHERN RHODE ISLAND 4-H LEADERS ASSOCIATION
70 PIERCE ST., EAST GREENWICH, R. I.

PREPARED FOR DISTRIBUTION TO 4-H MEMBERS
PLANNING LIVESTOCK PROJECTS

INTRODUCTION

An essential item for the 4-H Member planning a livestock project is an Equipment Show Box. The show box provides a neat and orderly storage space for the equipment and supplies needed at local, state and regional fairs and field days. A list of suggested equipment for beef, dairy, horse and sheep projects will be found on the following pages. This list can be used as a guide with the most important items at the top of the list. It is suggested that 4-H Member look over the list and start to acquire this equipment over a period of time rather than buying all the items at once. The cost of the supplies and equipment should be entered in your project record in the space for supplies and equipment.

This Show Box has been designed to be constructed of waterproof plywood and will provide dry water-tight storage space during rainy weather. The Show Box is durable and strong, and will last indefinitely with a minimum of care. The following instructions are arranged step by step to make construction as simple as possible. The material required to make the show box is listed on page 3. The box can be made from one 4 ft. by 8 ft. sheet of 1/2 in. waterproof plywood if the pieces are cut as shown on page 5.

NOTE: The preparation of material and construction of the Show Box will be much easier for the 4-H Member if these instructions are read thoroughly before material is purchased or the building is attempted.

The finished Show Box is shown on the cover, the location and arrangement of parts on Sketch "A" and the Show Box Opened is shown on Sketch "B".

BILL OF MATERIAL

Lumber

1 sheet	1/2" AC Exterior Plywood 4' x 8'
1 piece	8' long, 6" wide, finished clear pine or fir
1 piece	8' long, 8" wide, finished clear pine or fir
2 pieces	8' long, 3/4" thick, 3" wide Chair Rail or Casing pattern molding

Hardware

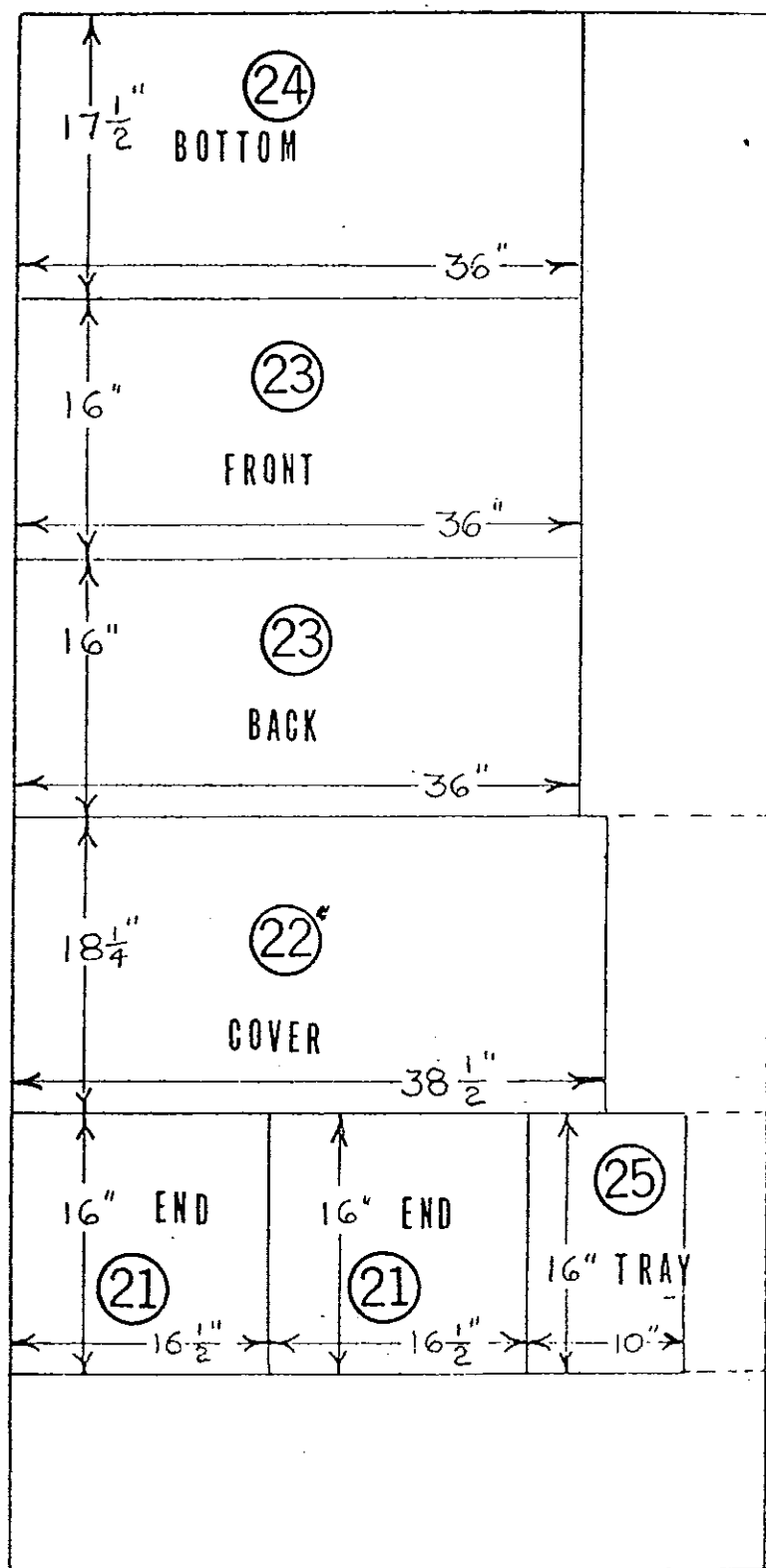
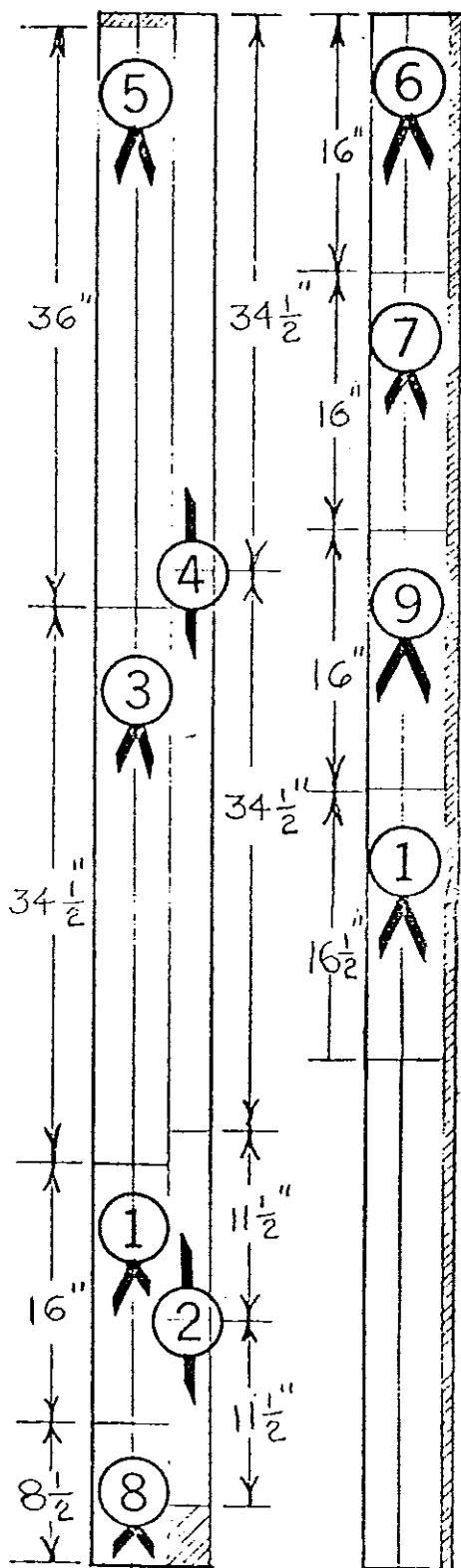
1 pair	4 heavy "T" hinges
2 each	3-1/2" folding trunk handles
1 each	3" hasp
1 piece	light chain 24" long
1 box	#9 1-1/4" long flat head wood screws
1 box	#9 1-3/4" long flat head wood screws
1/2 lb.	2-penny finishing nails
24 each	#8 stove bolts 3/4" (for attaching hinges)
24 each	washers
1 can	waterproof glue

Finishing Material

1 can	plastic wood
1 quart	plywood sealer
1 quart	white enamel undercoat or sealer
1 quart	white enamel (outside)
1 can	one-half pint forest green enamel
1 can	one-half pint royal blue enamel

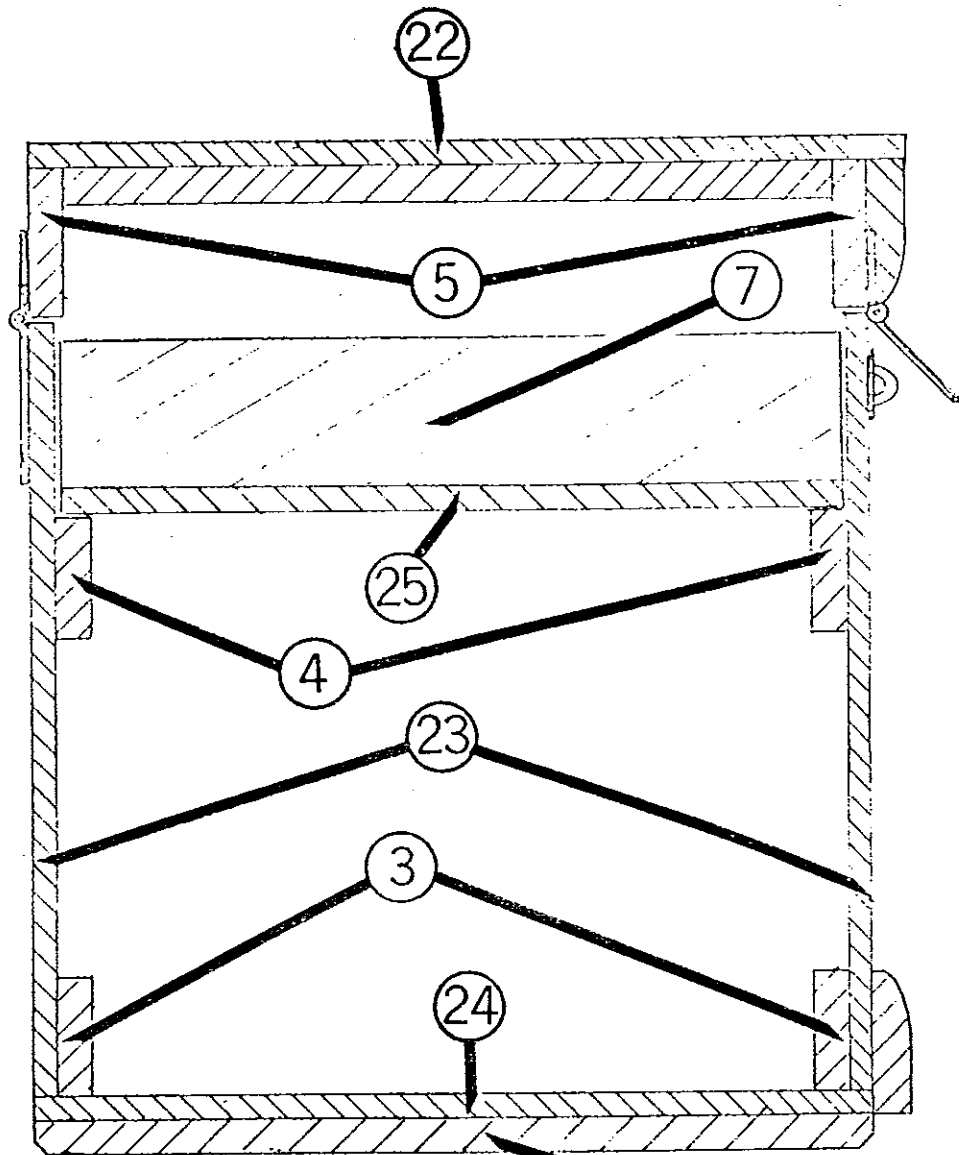
Layout Numbers and Pieces

①	4 Pieces	2-1/2" x 16"	End Side Frame
②	2 Pieces	2-1/2" x 11-1/2"	End Bottom Frame
③	2 Pieces	2-1/2" x 34-1/2"	Front & Back Bottom Frame
④	2 Pieces	2-1/2" x 34-1/2"	Tray Slide
⑤	2 Pieces	2-1/2" x 36"	Cover Front & Back Frame
⑥	2 Pieces	2-1/2" x 16"	Cover Side Frame
⑦	2 Pieces	2-1/2" x 16"	Tray Side
⑧	2 Pieces	2-1/2" x 8-1/2"	Tray End
⑨	2 Pieces	2-1/2" x 16"	Runners
⑳	2 Pieces	16" x 16-1/2"	End
㉑	1 Piece	18-1/4" x 38-1/2"	Cover
㉒	2 Pieces	16" x 36"	Front and Back
㉓	1 Piece	17-1/2" x 36"	Bottom
㉔	1 Piece	10" x 16"	Tray Bottom



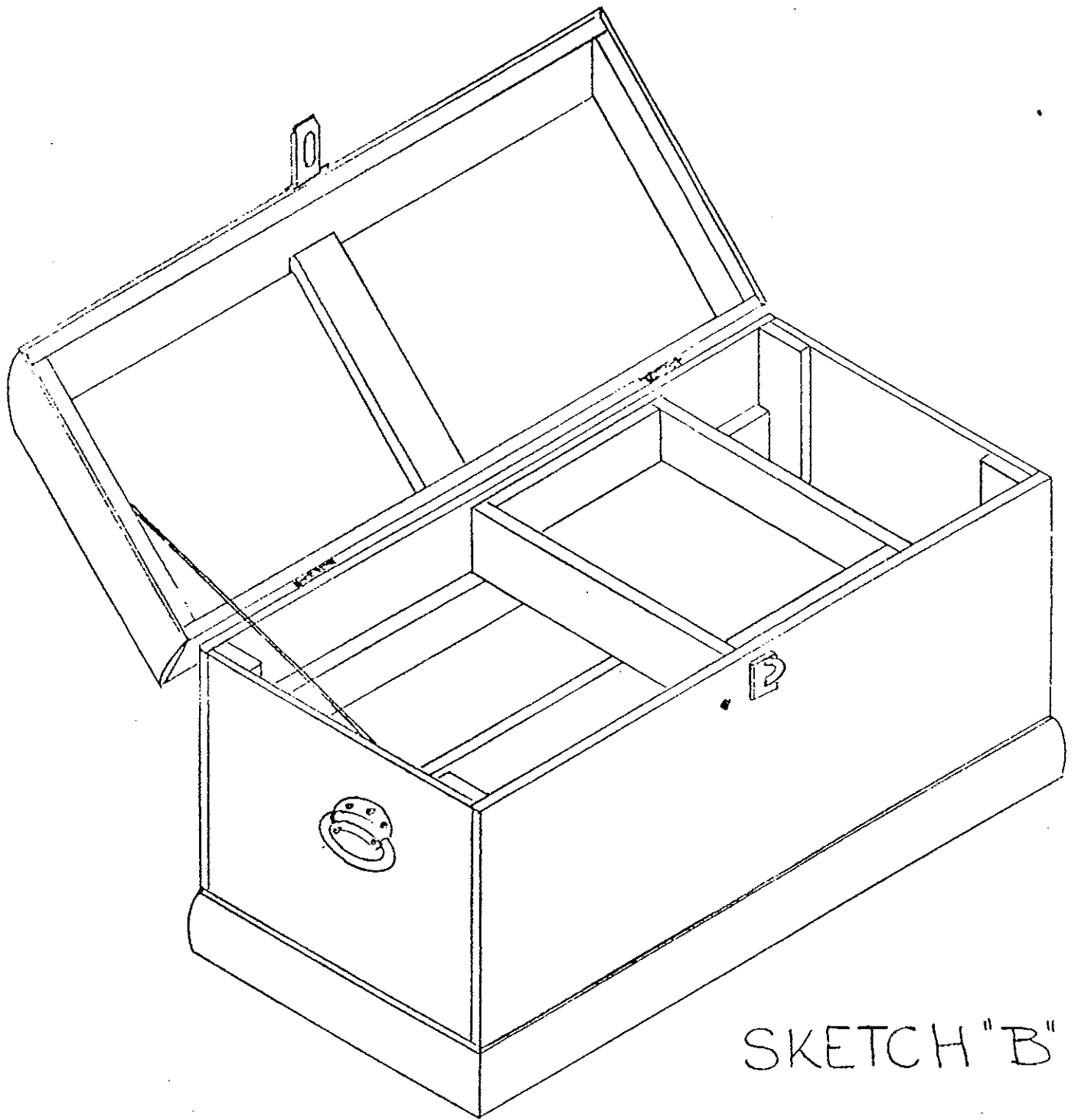
LAYOUT
1" FINISH LUMBER

LAYOUT
1/2" AC EXTERIOR PLYWOOD



SKETCH "A"

LOCATION AND ARRANGEMENT OF PARTS



SKETCH "B"

COMPLETED SHOW BOX OPENED

INSTRUCTIONS FOR CUTTING MATERIAL

and

ASSEMBLY OF THE SHOW BOX

Buying.

1. When buying the material shown on the Material Sheet, Page 3, the two pieces of pine or fir should be straight, fine grain and free of knots, holes, splits and cracks. Most lumber yards will rip cut these boards to the 2-1/2" width as shown on page 5. All other material is generally standard but the plywood should have sound faces or sides and free of open spaces between the inner plys. Look over the plywood carefully and select the most perfect sheet available.

Layout.

1. Using Page 5 as a guide, carefully lay out the pieces on the 2-1/2" strips, if rip cut at the lumber yard, or the boards if not cut. As you lay out each piece mark that piece with the same number as shown on Page 5 with a soft black pencil. After all layout has been completed, check pieces to make sure all measurements are correct and are numbered the same as Page 5. Cut these pieces and put aside for assembly.

2. The plywood sheet will have two faces, one face, the "A" face or side will be free of any defects, the "C" face or side may have slight defects or imperfections. Place the "C" face up and mark out the Show Box parts as shown on Page 5. Mark the part number on the part with a soft black pencil. After the plywood is marked to the right measurements and part number, check all measurements and part numbers before cutting. Cut the pieces from the plywood - note that there are three dash lines that indicate saw cuts. The plywood will be easier to handle and saw if these cuts are made first.

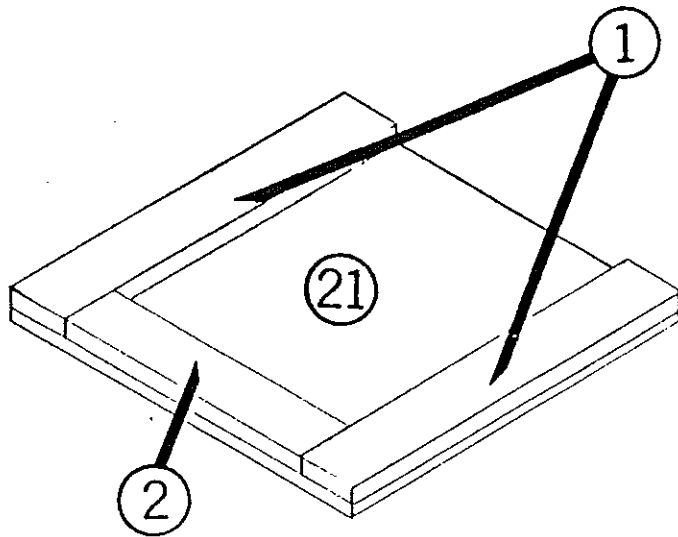
It is important to number the pieces exactly the same as shown on Page 5 as the pieces shown in assembly sketches will be identified by these numbers.

Assembly.

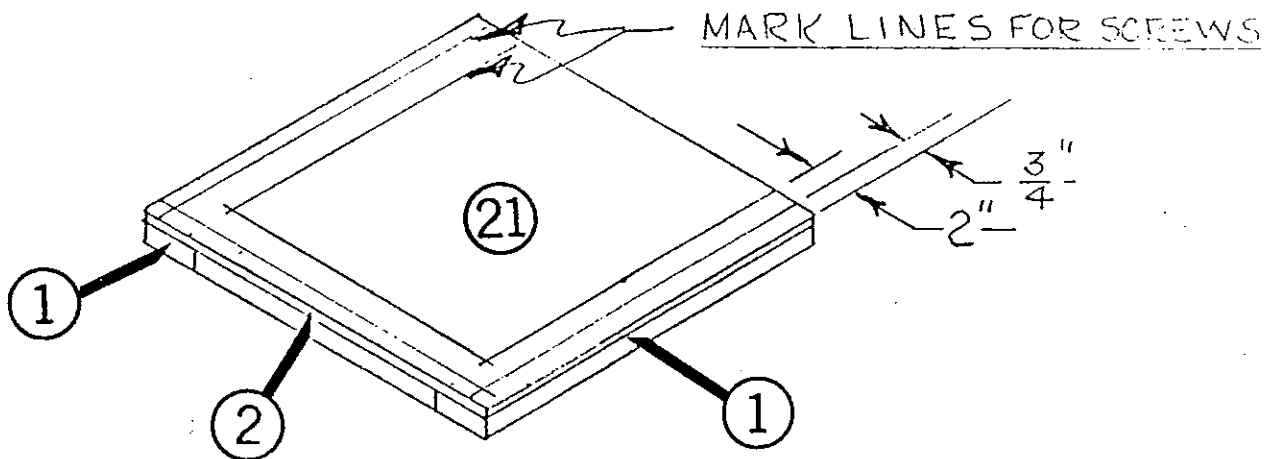
You are now ready to start the actual assembly of your Show Box. The first step is to have a clean flat surface available on which to assemble the parts. Mix a small quantity of waterproof glue in a clean container, following the directions on the package.

Step #1:

Find End #21, End Side Frames #1 (2 each) and End Bottom Frame #2. Place End #21 on clean flat surface with number up. Lay Sides #1 and Bottom Frames #2 on End #21 as shown in Sketch "C". Lightly trace the outline of the frames on the end and remove frames. Using a small brush, apply a thin



SKETCH "C"
END



SKETCH "D"
END

Step #1 (Cont'd):

coat of glue on Frames and on the End that you just outlined. Carefully place Side Frame #1 on End #21. Using a small hammer and the 2-penny finish nails, nail the Frame to the End using only enough nails to make a good contact between the pieces and to hold them firm. Repeat the assembly with the other Side Frame and then the Bottom Frame. Turn the End over and draw two lines as shown on Sketch "D"; the first line is $3/4$ " from the edge and the second is 2" from the edge. Mark outside lines starting at the corners so spacing will be about 2" apart. Mark the inside line starting at the corner so the marks will be between the outside marks. Using a small drill; drill starter holes at marks and countersink these holes. Screw the pieces together, setting heads of screws slightly below plywood surface.

Step #2:

Repeat Step #1 for opposite End and put Ends out of the way. Discard any glue you have left over; don't add water and try to remix left over glue as it will not have the strength or waterproof quality.

Step #3:

To prepare the Front #23, it is only necessary to attach the Bottom Frame #3 and Tray Slide #4. Lay the Front #23 with the Number side up; with a rule mark off a line $1-1/4$ " in from each end and a line 4" down from the top, as shown on Sketch "E". After these lines are laid out, place pieces #3 and #4 as shown on Sketch "F" and mark outline of these pieces on Front #23.

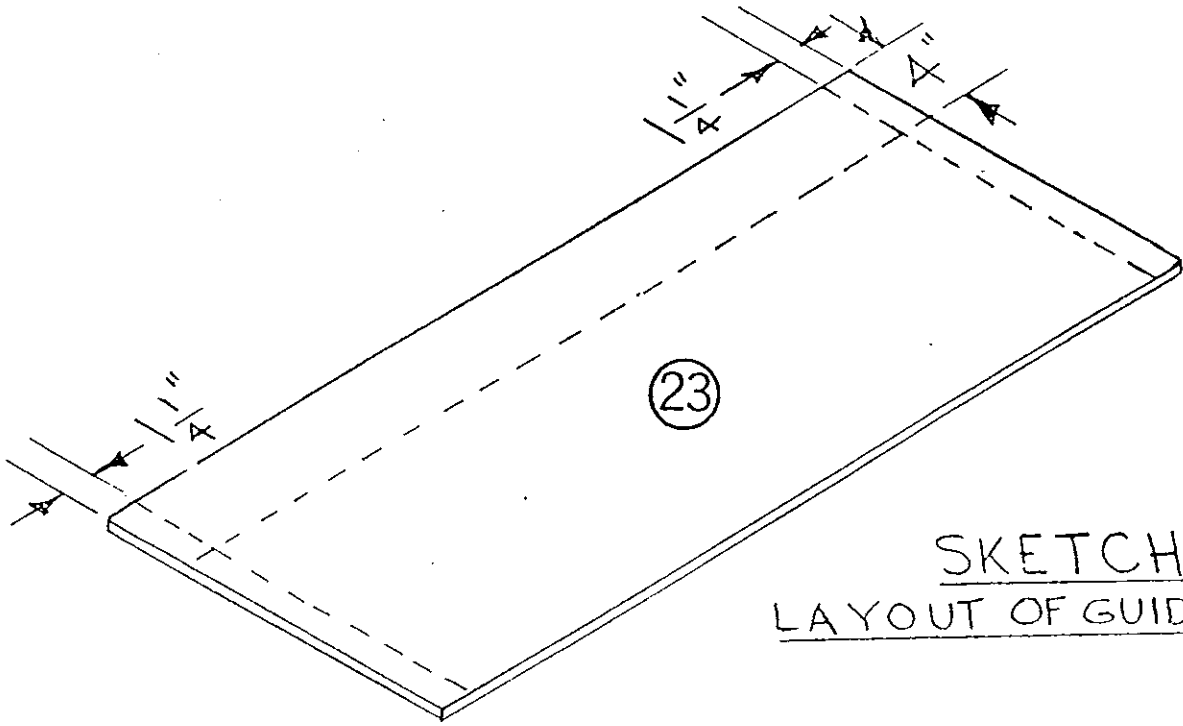
Remove pieces #3 and #4, coat with glue; also coat the area outlined on piece #23. Carefully replace Bottom Frame #3 and Tray Slide #4, nail these pieces in place using the 2 penny nails.

Turn the Front #23 over and mark off 4 lines; one line $4-3/4$ " down from top and one line $5-1/2$ " down from the top, 2" from one end mark the top line about every two inches for screw locations, mark the second line so marks are between the marks on the top line.

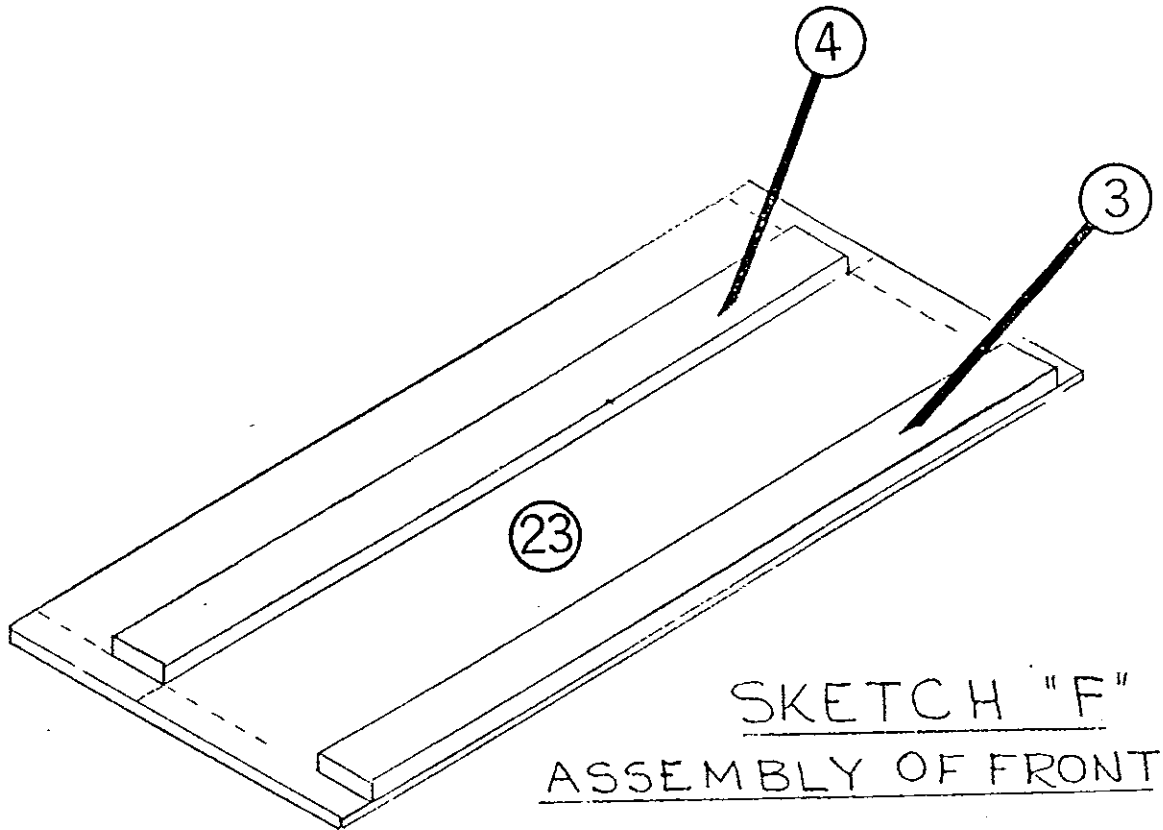
The next two lines are laid off 1" from the bottom and $1-3/4$ " from the bottom. Mark off for screws the same as described above. Drill and countersink the holes as marked and using the #9 - $1-1/4$ " wood screws, fasten pieces #3 and #4 to Front #23.

Step #4:

The Back #24 is assembled the same way as the Front #23 -----Follow the directions given.



SKETCH "E"
LAYOUT OF GUIDE LINES



SKETCH "F"
ASSEMBLY OF FRONT

Step #5:

The Bottom #24 has only the Runners #9 to be attached but this cannot be done until the Ends, Front and Back are assembled as the Bottom must be screwed to the other parts. If the Runners are installed now the screws cannot be put in under the Runners.

Even though the Runners cannot be installed yet, this is the best time to make your layout! Place the Bottom #24, number side down and mark lines 6" from each end as shown on Sketch "G"; Turn Bottom #24 over and mark a line 7-1/4" from each end as shown on Sketch "H". Lay Bottom and Runners aside.

Step #6:

To assemble Front #23, to Ends #21, lay out screw lines as shown on Sketch "J", after these lines are laid out mark for screws about 1" apart. Coat End and Side End Frame that comes in contact with Front with a liberal amount of glue. Carefully place Front in position as shown on Sketch "J", nail with 2 or 3 2-penny finishing nails to hold End and Front together. Drill and countersink holes and screw End and Front together using the #9 - 1-3/4" screws.

Step #7:

Repeat the above directions to assemble Back #24 to other End.

Step #8:

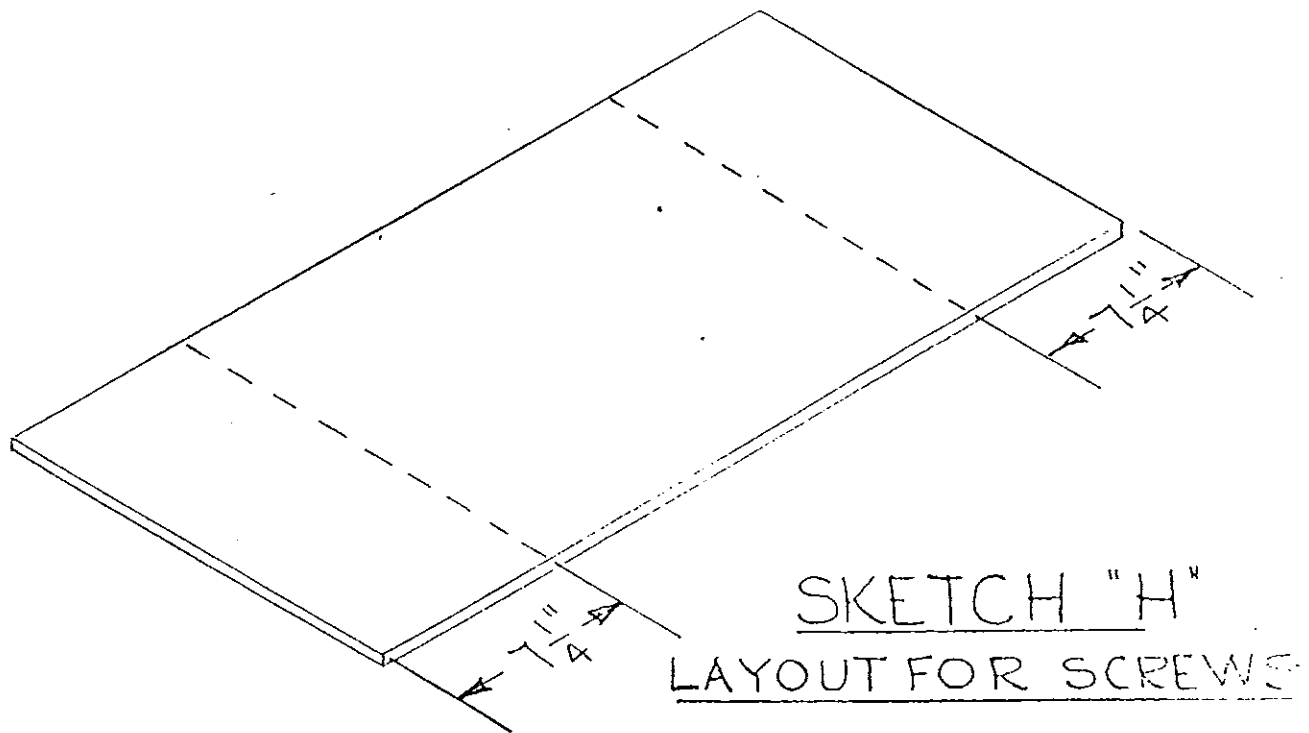
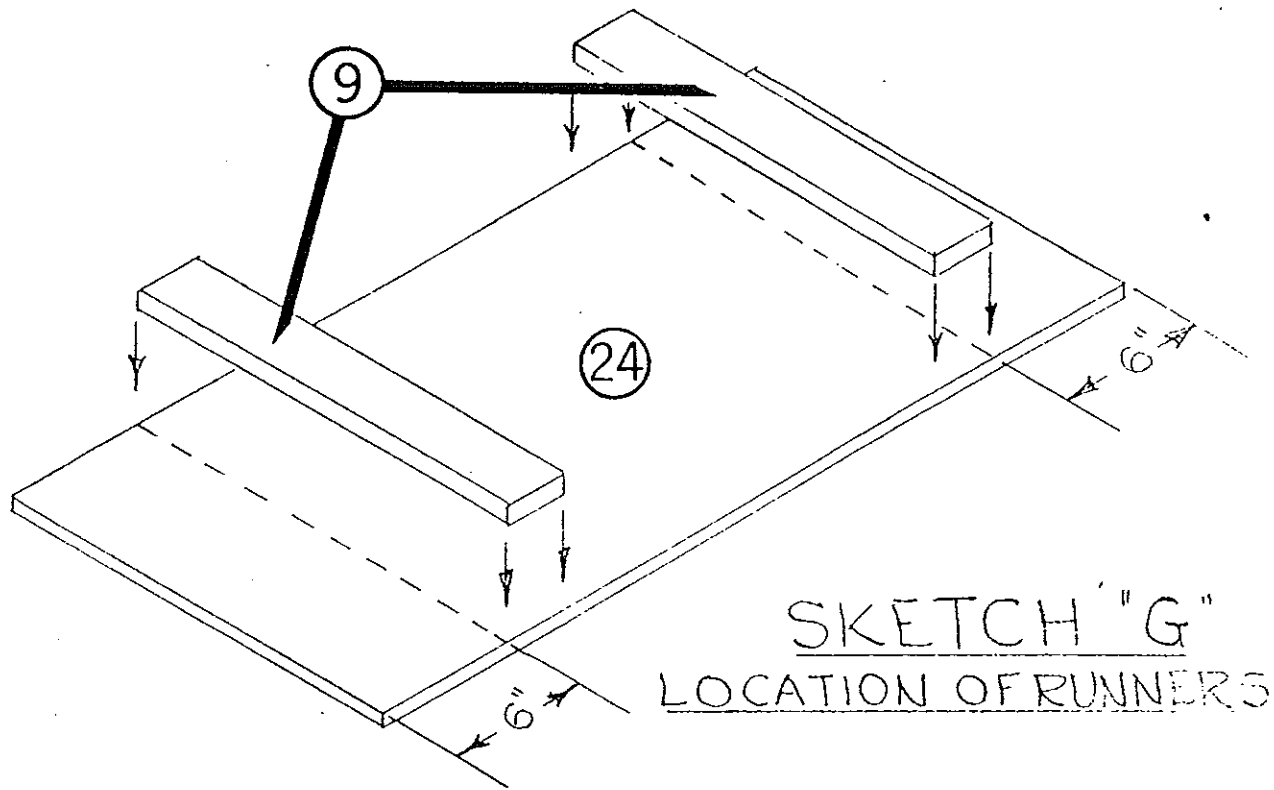
Now assemble the Front to the Back using the same method.

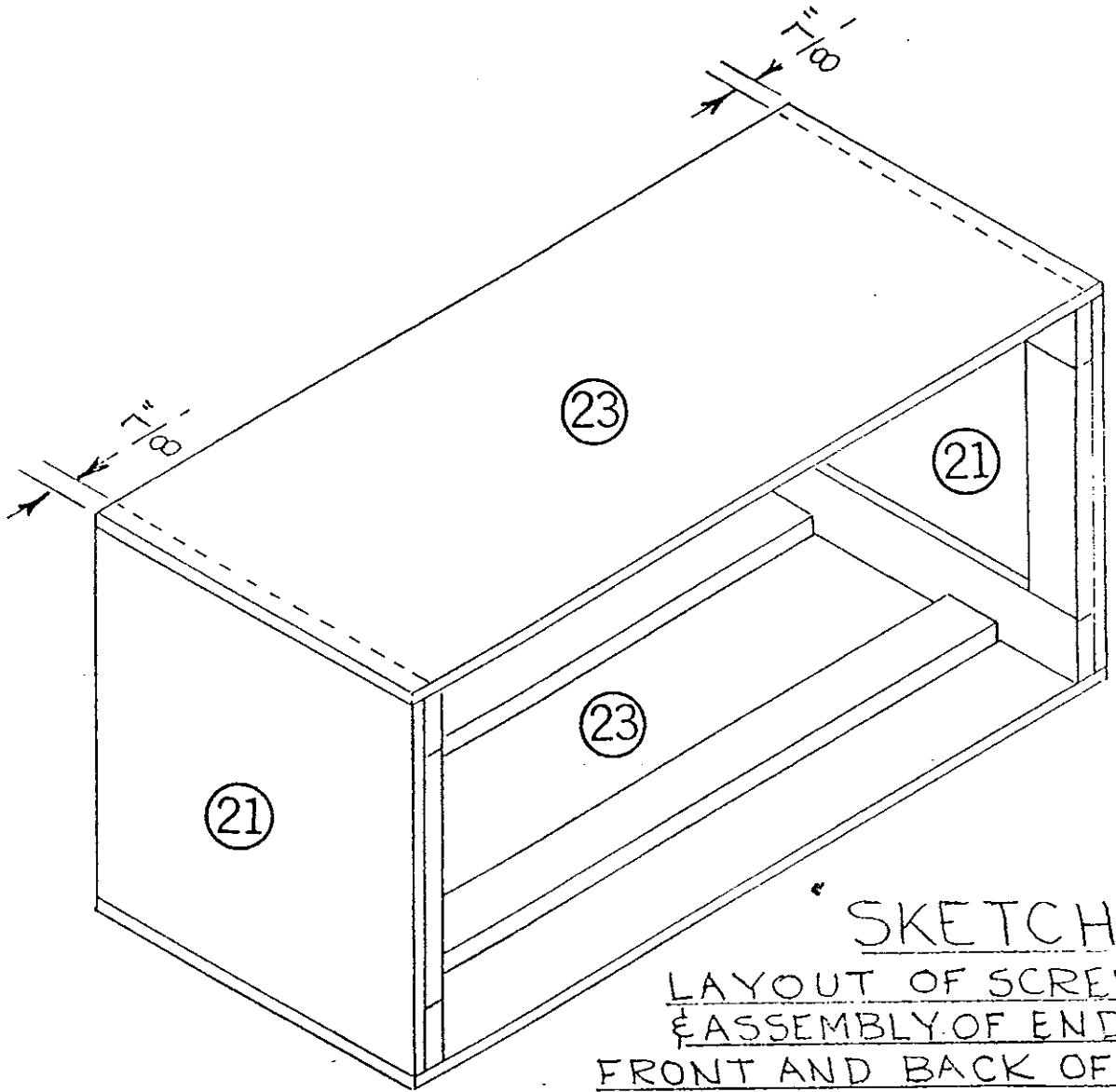
Step #9:

Turn the Box upside down; Layout screw lines as shown on Sketch "K". Mark off screw locations about 1" apart, coat Front, Back and Ends and bottom frames with a liberal amount of glue, position as shown and nail to hold in position. Drill and countersink screw holes and using the #9 - 1-3/4" screws, fasten Bottom to Box.

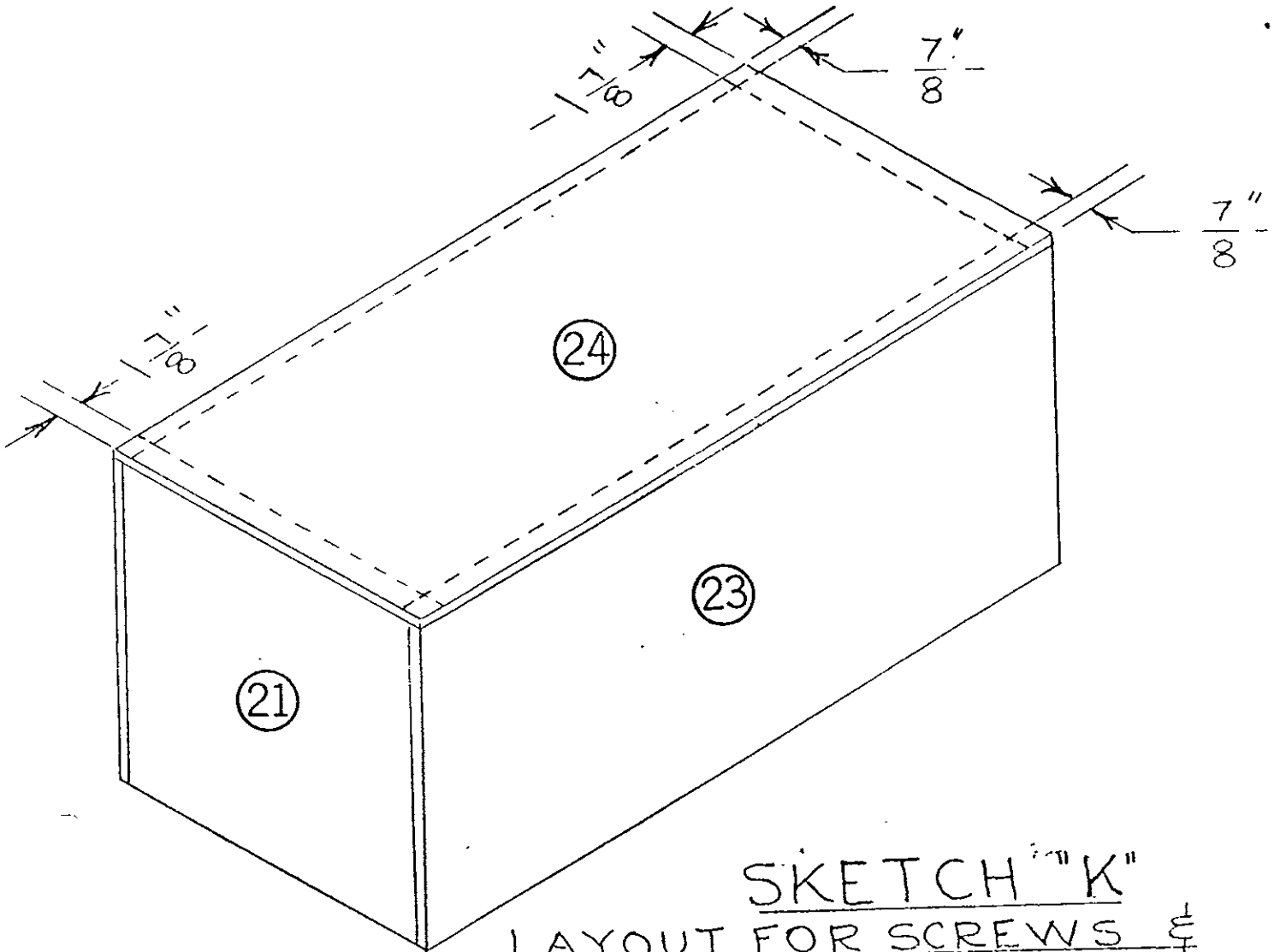
Step #10:

Position Runners on Bottom as shown on Sketch "E" and nail with one or two nails to hold in position. NOTE: Do not use glue on the runners; only use 4 or 5 #9 1-3/4" screws on the inside to hold! The Runners are only to protect the Show Box and are not part of the Box itself.





"SKETCH "J"
LAYOUT OF SCREWS
& ASSEMBLY OF ENDS TO
FRONT AND BACK OF BOX



SKETCH "K"
 LAYOUT FOR SCREWS &
 ASSEMBLY OF BOTTOM.

Step #11:

Place Cover #22, number side down and mark location of Cover Front and Back Frames #5 and Cover Side Frame #6 as shown on Sketch "L". Also mark Frame Ends where they meet. Remove Frames, coat marked ends with glue, and nail pieces together.

Turn Cover #22 Number side up and lay out and mark screw locations as shown on Sketch "M". After Frame glue has dried, place on Cover #22 as shown on Sketch "M". Clamp Frame to Cover to hold in position; drill and countersink screw holes. Screw parts together using #9 - 1-3/4" wood screws.

Step #12:

Mark center of Cover Front Frame; locate and install hasp.

Cut molding to size (front must be 36" long measured on inside of bevel end pieces 16" from bevel to end). And nail to frame using 2-penny nails. NOTE: There is no molding on rear of show box, and front molding must be fitted over hasp!

Cut molding to size and nail to bottom of show box.

Step #13:

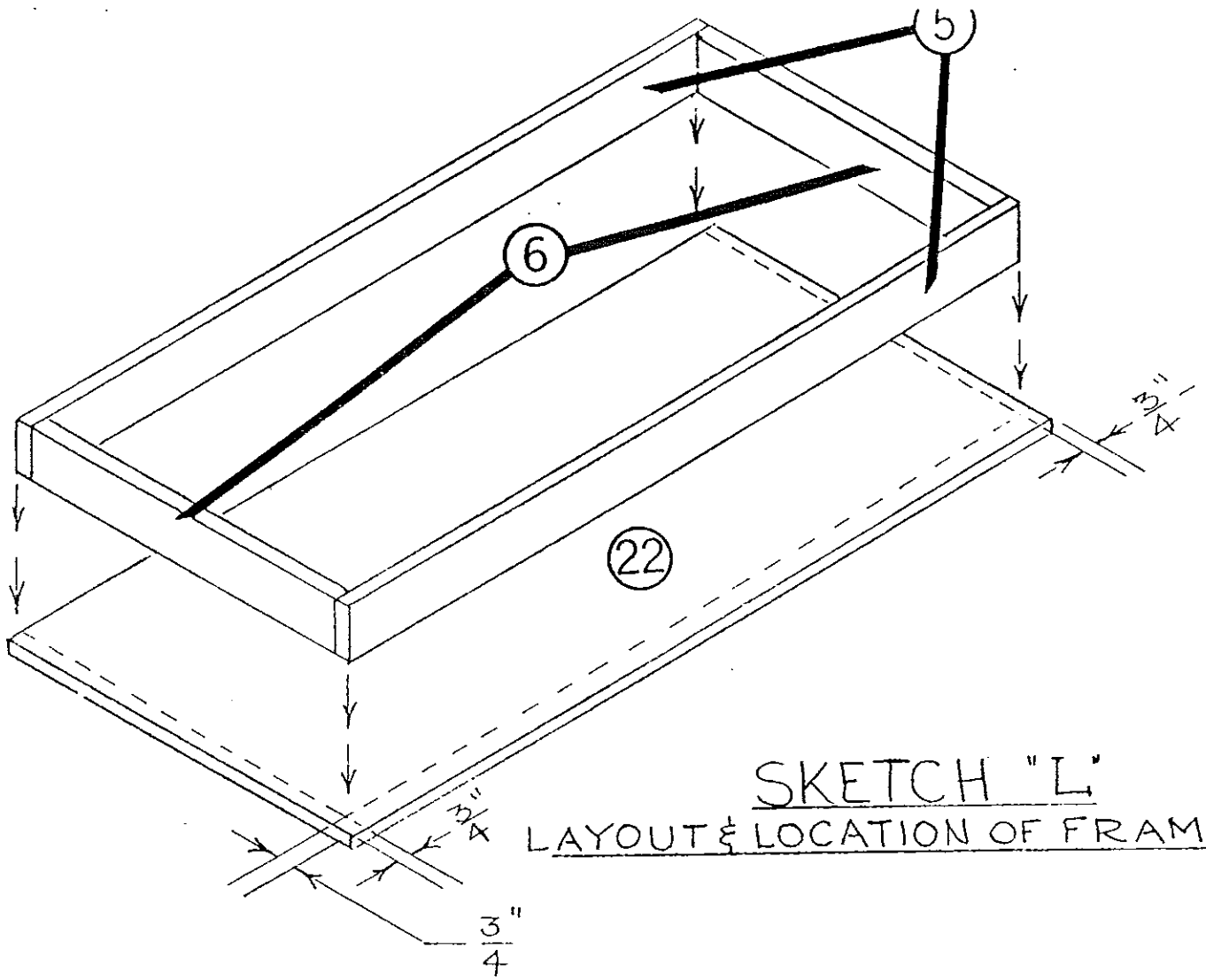
Using Sketch "N" as a guide, assemble the tray as shown. The tray can be nailed together instead of screws but parts should be glued for greater strength.

Step #14:

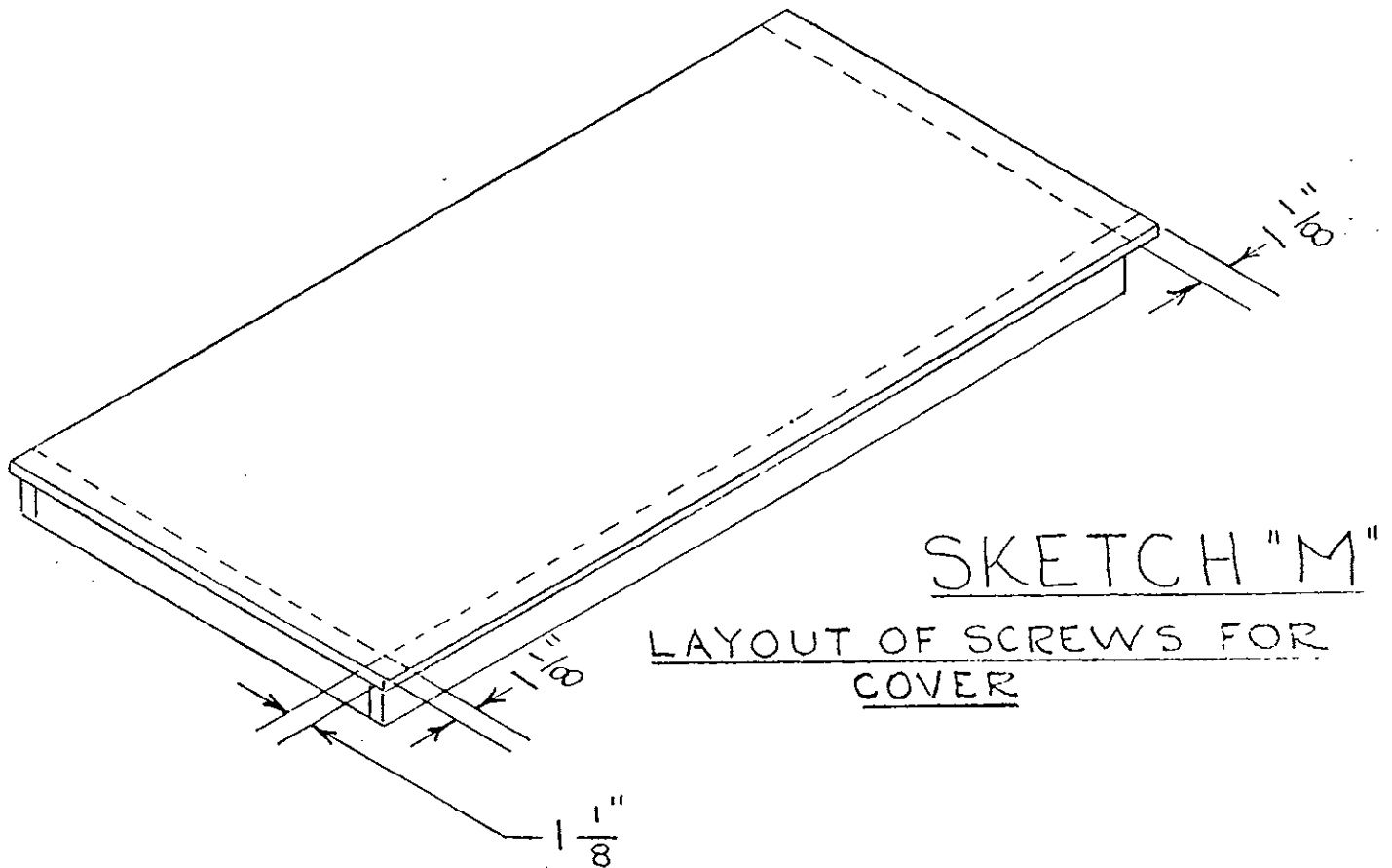
Locate hinges and install as shown on Sketch "P". Open cover and install chain at the best place to keep the cover from opening too far.

Step #15: Final Finishing

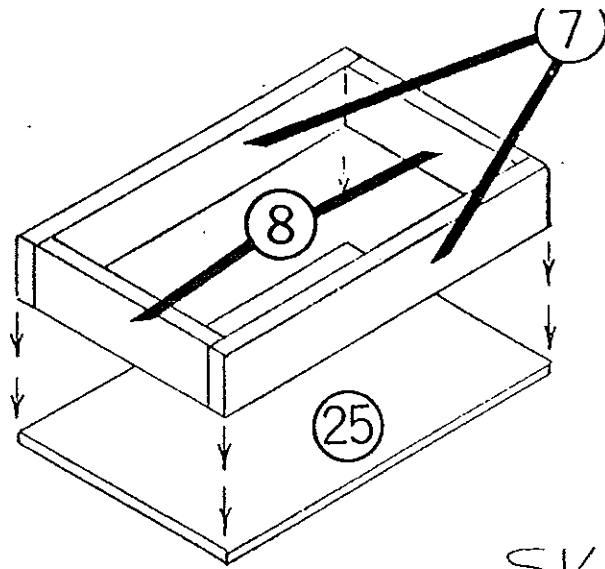
1. Fill all holes over screw heads, small cracks at joints and any dents or scratches with Plastic Wood.
2. Allow to dry overnight.
3. Sand entire box smooth with 1/0 or 2/0 grade 80 or 100 grit sandpaper.
4. Finish sanding with 6/0 grade or 220 grit sandpaper.
5. Wipe off all dust.



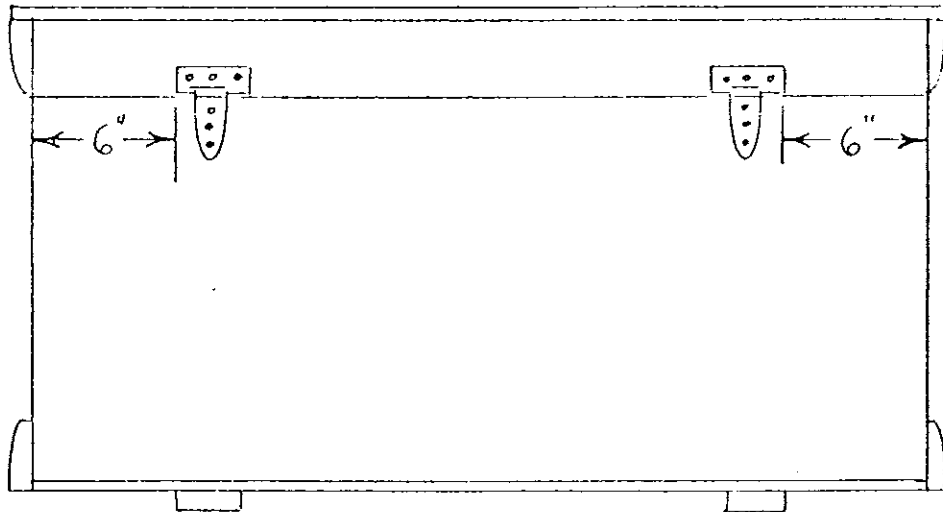
SKETCH "L"
LAYOUT & LOCATION OF FRAME



SKETCH "M"
LAYOUT OF SCREWS FOR COVER



SKETCH "N"
TRAY ASSEMBLY



SKETCH "P"
LOCATION OF HINGES (BACK)

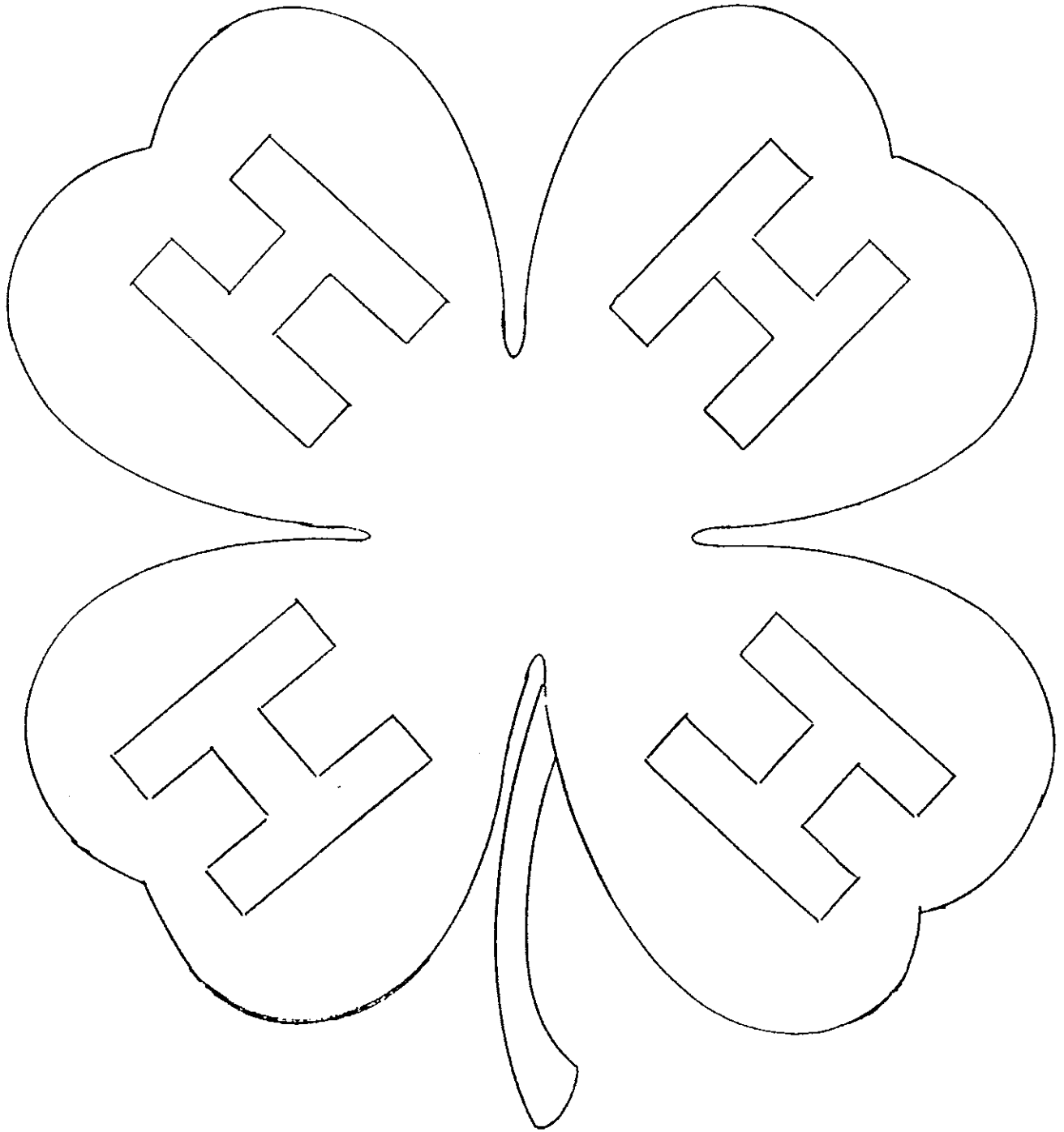
Step #15 (Cont'd):

Final Finishing

6. Apply one coat of plywood sealer, following instructions on the can, to inside and outside of box.
7. Allow to dry completely (the directions on the can will say how long it takes to dry).
8. Apply enamel undercoat or primer to entire box inside and outside.
9. Allow to dry, following directions on can.
10. Sand lightly with 6/0 or 220 sandpaper.
11. Wipe off all dust.
12. Apply White Outside Enamel to box (inside and outside).
13. Allow to dry, following directions on can.
14. Paint top and bottom Molding, Handles and Runners dark blue enamel.
15. Trace the 4-H Emblem on the cover using the last page for a pattern.
NOTE: A metal pattern may be available at the 4-H Office. Use this metal pattern if available for best results.
16. Paint 4-H Emblem with dark green enamel.
17. Paint or stencil your Name, Town and State as shown on cover.
18. Allow to dry thoroughly and place your supplies and equipment inside.
19. Remove the equipment sheet for your project and tack it on inside cover of the Show Box with thumb tacks. This list then can be used as a check-off when going to a show.

Good Luck in the Show Ring!

L. J. RONDEAU
4-H Leader
S.R.I. Dairy Club



EQUIPMENT

BEEF

Feed and Water Buckets
Scotch, lining or curry comb
Stiff Bristle Scrub Brush
Grooming Brush
Stiff Bristle Tail Brush or Metal Comb
Rope Halter
New Rope Halter for Showing
Small Bottle Alcohol
Soft Rags for Washing
Mild Detergent or Animal Soap
Wood Chisel - 1 in. wide blade
Hoof Rasp
Scissors
Wash Pail
Show Stick
Tie Chain 8 ft. long with snaps
Fly Spray
Hoof Polish
Blueing
Clippers
Wash Cloth

HORSE

Feed and Water Buckets
Hoof Pick
Curry Comb
Metal Mane and Tail Comb
Wash Sponge
Wash Rags
Rubber Curry Comb
Grooming Brush, Soft
Wash Bucket
Sweat or Exercise Blanket
Sweat Scraper
Halter
Lead Rope or Chain
Spare Halter
Mild Detergent or Animal Soap
Hoff Oil
Fly Spray
Scissors
Alcohol

DAIRY

Mild Detergent or Animal Soap
Blueing
Scrub Brush, stiff bristle
Grooming Brush
Curry Comb
Metal Tail Comb
Wash Bucket
Rope Halter
Show Halter
Flannel Sweat Blanket
Wood Chisel
Hoof Rasp
Clippers
Fly Spray
Hoof & Horn Polish
Water Pail
Feed Bucket
Show Blanket
Alcohol
Scissors
Clippers
Wash Cloth

SHEEP

Curry Comb
Stiff Fiber Brush
Wool Cards, one #2; One Face Card
Rope Halter
Trimming Shears
Wool Cloth
Wooden Paddle
Sheep Dip
Whetstone
Pail
Table Fork with tines bent of cleaning
wool cards
Blankets

To avoid accidents, alcohol, detergent and other supplies should be bought in plastic containers or put in plastic containers to prevent breaking glass and spilled material.

