

Disclaimer

© 2012 Delta Power Equipment Corporation. All Rights Reserved

This Old Workshop, in cooperation with Delta Power Equipment Corporation ("Delta"), is delighted to provide this digital reissuing of the historic *Deltagrams* produced from the 1930s through the 1970s. Each issue is presented by permission of Delta, and distributed and archived by This Old Workshop. The *Deltagram* publications are copyrighted materials. Delta is the sole owner of these publications. Reproduction of any articles, images or instructions contained in them requires the express written permission of Delta or its legal representative.

These Deltagram publications are presented solely as historic archival materials and are not intended to be used as instructional information. Techniques and practices described or depicted in these publications may no longer be consistent with accepted practice, and, in some cases, may be considered hazardous with a potential to result in serious personal injury or property damage. For the safety of you and those around you, we encourage you to comply with all warnings and instructions provided in connection with your products, including but not limited to any warning labels and operator manuals.

By using or possessing these *Deltagram* publications, you agree to hold Delta and This Old Workshop harmless against any liability based upon their content. Any advertisements or offers contained within these issues are discontinued and will not be honored.

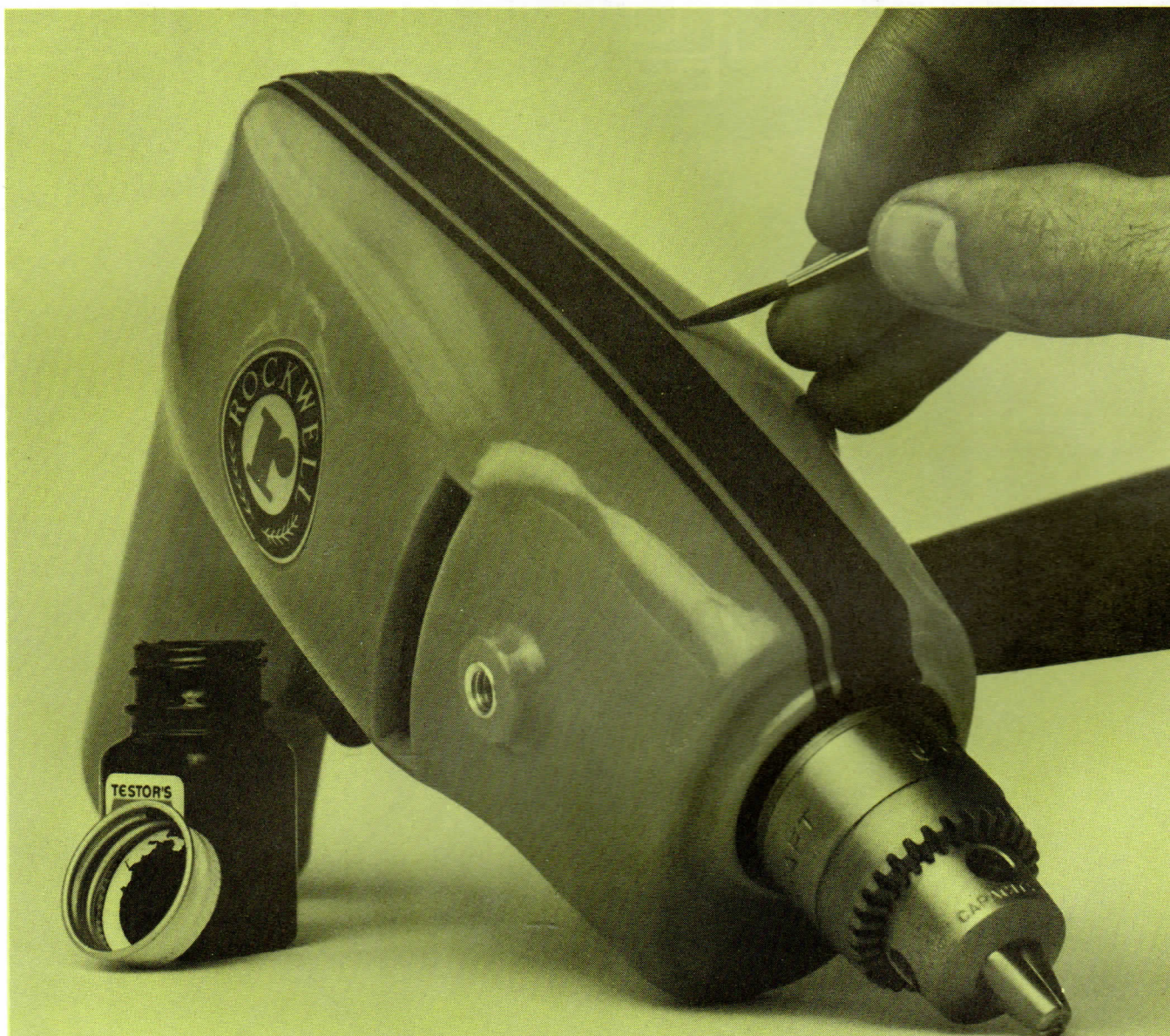
flying chips

JULY-AUGUST 1970 30c

FEATURING:

- GLIDER SETTEE
- SIMULATED STONE
GATE POSTS





We earned our stripes at Indy

We earned our racing stripes the hard way. At Indy. Where extraordinary performance is only average.

Our power tools hung in there, often exceeding the standards of extraordinary performance. And every machine that finished the 500 carried some evidence that Rockwell's Gasoline Alley Machine Shop was available to pit crews around the clock.

The 1/4" Model 70 Drill (illustrated here with optional side handle) is the best \$15 drill you can buy for under \$10. Check it out, along with our other tools, at a Rockwell Dealer or department store near you. See the Yellow Pages under "Tools—Electric" or write for our new catalog: Rockwell Manufacturing Company, Dept. FCD, 400 North Lexington Avenue, Pittsburgh, Pennsylvania 15208.



Rockwell
MANUFACTURING COMPANY

flying chips

A. M. Warkaske — Editor

Terrence M. Mahoney — Managing Editor

Mel Rigot — Associate Editor

Vol. 38 Issue No. 4 July-August 1970

Rates: 30 cents Per Copy



1 year (6 issues) \$1.75

3 years (18 issues) \$4.00

5 years (30 issues) \$6.00

Foreign countries add 50 cents per year extra for postage and handling.

This is a Rockwell publication written and edited for the home shop owner by the Power Tool Division of the Rockwell Manufacturing Company.

Every attempt is made to satisfy the needs of the home shop owner for a well rounded selection of project material and crafting tips. The Flying Chips is published six times a year. Subscriptions may be purchased from your authorized Rockwell Power Tool Dealer or direct from the Advertising Department of the Power Tool Division of Rockwell Manufacturing Company, 400 North Lexington Avenue, Pittsburgh, Pa. 15208.

NOTE: When changing your address be sure to give us the expiration date marked on the back cover of the magazine and also your old and new address. Allow four weeks for the first copy to reach you at the new address.

All correspondence regarding projects and editorial material should be addressed to the editor of the Flying Chips, A. M. Warkaske, Power Tool Division, Rockwell Mfg. Co., 400 N. Lexington Ave., Pittsburgh, Pa. 15208.

© Rockwell Manufacturing Company, 1970

FROM THE EDITOR'S DESK

- Call it summertime, vacation, or whatever . . . I'm sure glad to see it. So glad, in fact, that I have already taken a short vacation. My travels led me to the sunny South, and I can report that I had a very enjoyable time.
- As I had suggested in previous issues I took my camera along, shooting pictures as I came across many fine and interesting pieces of furniture. I hope to utilize a few as projects in coming issues.
- Featured in this issue is a Glider Settee, a challenging project to make but a very satisfying one when completed. There's nothing like sitting back and letting that cool summer breeze surround you.
- The kids will get a big kick out of the Buckin' Burro Glider also featured in this issue on page 100. This project will keep the tots occupied during the hot summer months over whose turn comes next.
- For those of you who plan to spend some time out in the wilderness, the Camp Kitchen on page 95 is virtually a necessity. Taking along the Camp Kitchen enables you to take some of the comforts of home with you.
- Whatever your plans, have fun and keep those Chips Flying.

A. M. Warkaske
Editor



TABLE OF CONTENTS

	Page
Glider Settee	88
Camp Kitchen	95
The Delta Citation [James H. Summers]	98
Buckin' Burro Glider	100
Simulated Stone Gate Posts	104
Lawn Chair	108
Flying Chips & Reader's Comments	110
Craftsheet	111

GLIDER SETTEE

How to get more out of your patio

You'll spend a lot more time on your patio when you have this glider settee. Made of exterior plywood, the settee has its own sunshade to protect you from the hot summer sun.

Entire project is made of $\frac{3}{4}$ " exterior or marine plywood. Using the squares method, lay out the three side parts ("A," "B" and "C") in Fig. 1 onto a piece of brown wrapping paper. Two pieces ("A") can be cut at the same time on the scroll saw, Photo No. 1. The outside outline of pieces ("A") can be cut on the scroll saw or band saw, Photo No. 2. Seat arm rests ("B-1") are notched out on the circular saw by making several passes over the dado head, Photo No. 3. Instead of making one cut at a time, it is best to make several light cuts to prevent the board from creeping or use a hand screw or C-clamp to clamp the stock to the miter gage.

Side pieces ("A") are assembled with cross pieces ("G") as indicated in Figs. 4 and 10-A. Half-lap joint on the cross pieces is made on the circular saw, Photo No. 4. Ends are angle cut at 25 degrees, see Fig. 10-B. Seat slats are screw fastened to seat sides ("B"). Note: Seat slat No. 2 is notched out and fitted in place as shown in Fig. 10. Cross braces ("F"), Fig. 5, screw fasten to the sides ("A"), see Fig. 4.

Sunshade supports are made of three pieces of stock, two side uprights ("D") and pivot block ("E"), Figs. 11 and 11-A. Sunshade frame details are given in Figs. 13, 14 and 15. Assembly details are shown in Fig. 7.

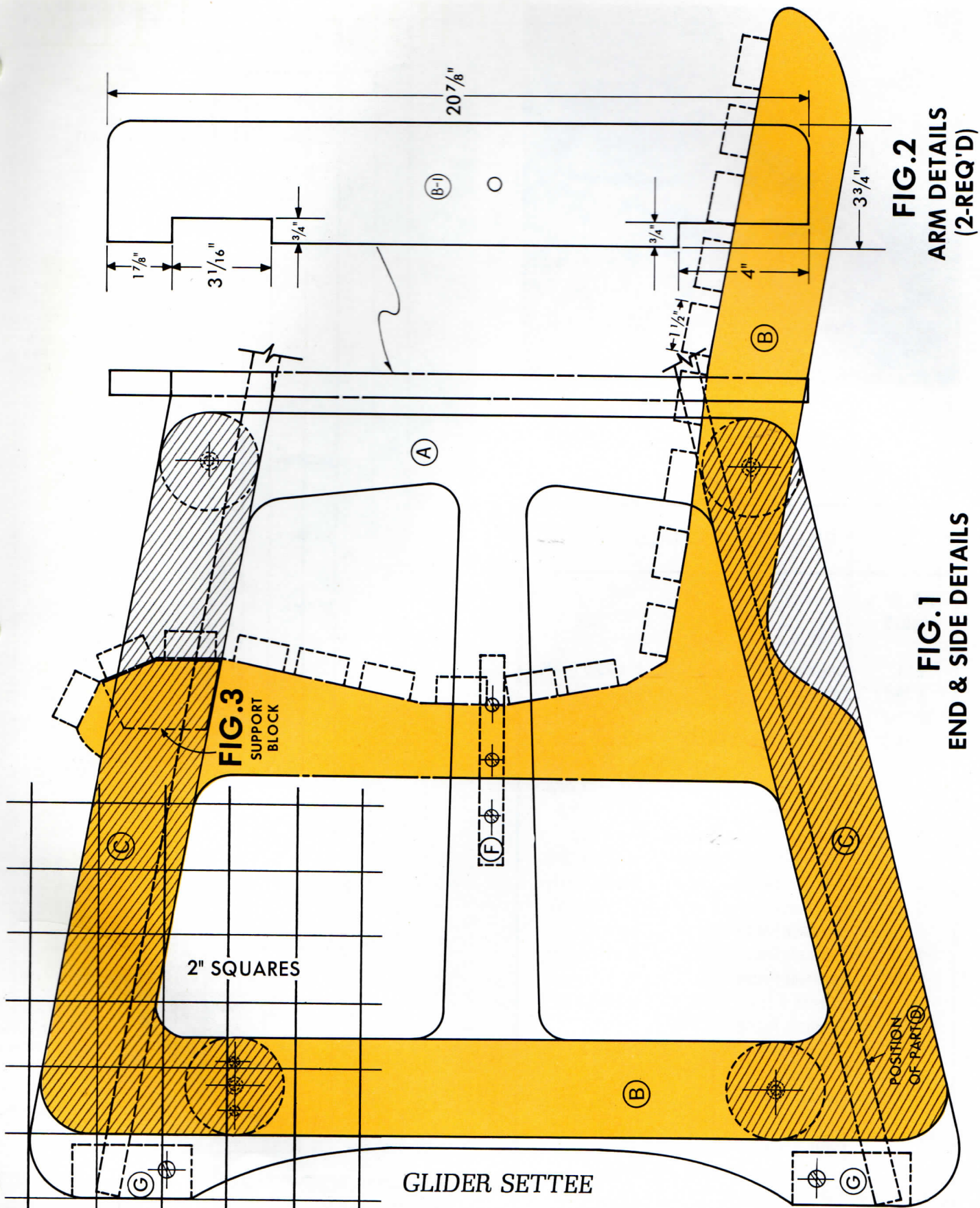
Break all sharp corners with a hand block plane and 3-0 garnet paper. Apply several coats of wood preservative followed by an undercoat paint and a coat of outside enamel—color of your choice. Set the finished settee onto a concrete slab or brick platform.



If you prefer the ease of tracing the parts for this project from full-size pattern sheets, send money for pattern to:

Steve Ellingson
U-Bild Enterprises
Van Nuys, California 91409

Project	Pattern	Price
Glider Settee	369	\$1.00

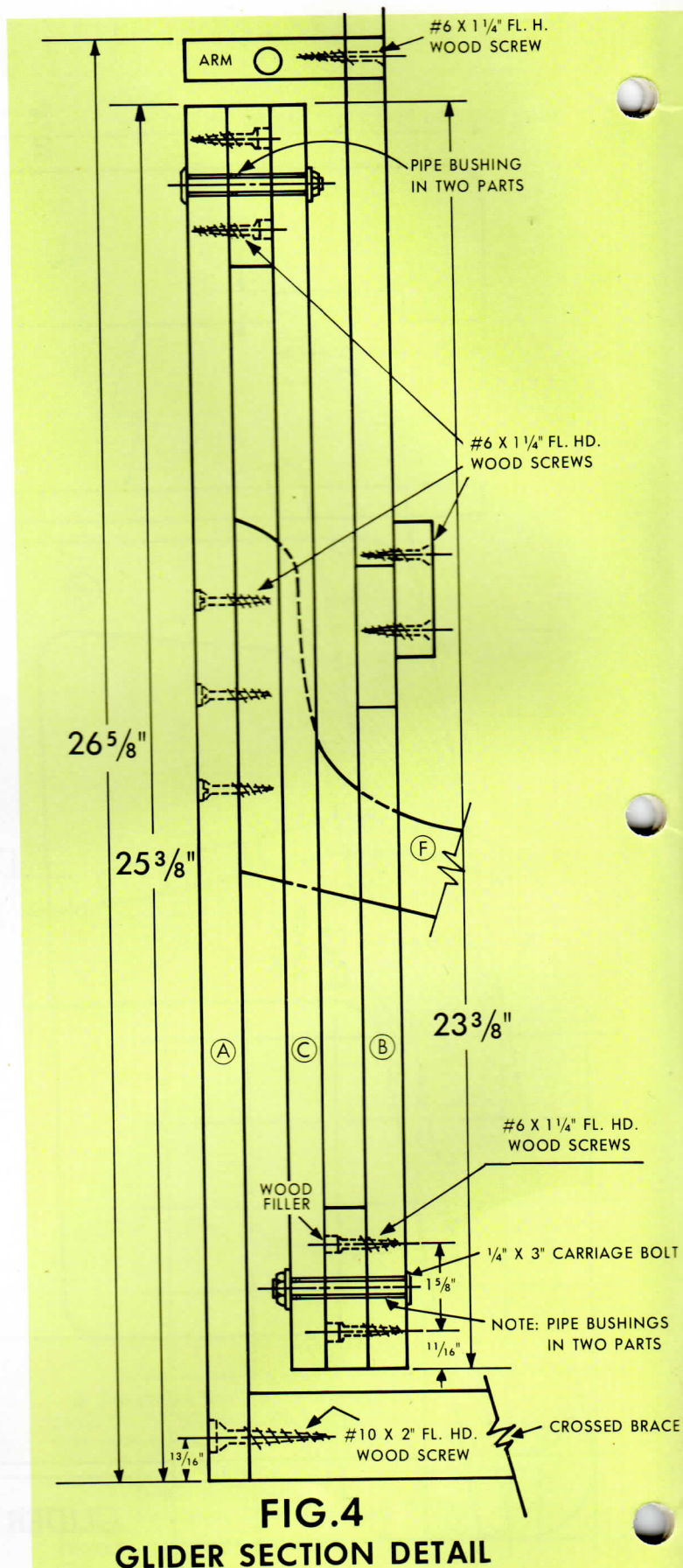


GLIDER SETTEE (continued)



BILL OF MATERIALS

NO. OF PIECES	NAME	SIZE
2 "A"	Side Uprights	$\frac{3}{4}$ x $25\frac{1}{2}$ x $28\frac{1}{8}$
4 "A-1"	Spacers	$\frac{3}{4}$ x 3 x 3
18 "A-2"	Seat Slats	$\frac{3}{4}$ x $1\frac{1}{2}$ x 51
2 "A-3"	Seat Slat Support Blocks	$\frac{3}{4}$ x $2\frac{1}{4}$ x $3\frac{3}{4}$
2 "B"	Seat Ends	$\frac{3}{4}$ x $27\frac{1}{2}$ x 36
2 "B-1"	Seat Arms	$\frac{3}{4}$ x $3\frac{3}{4}$ x $20\frac{7}{8}$
4 "C"	Seat Hangers	$\frac{3}{4}$ x 7 x $23\frac{1}{2}$
4 "D"	Sunshade Support Uprights	$\frac{3}{4}$ x 3 x 60
2 "E"	Upright Fastening Blocks	$\frac{3}{4}$ x $2\frac{3}{4}$ x $10\frac{7}{8}$
2 "F"	Base Cross Arms	$\frac{3}{4}$ x $5\frac{3}{4}$ x $31\frac{3}{8}$
2 "G"	Base Cross Braces	$1\frac{5}{8}$ x $1\frac{5}{8}$ x 61
2 "H"	Sunshade Frame Ends	$\frac{3}{4}$ x 4 x $31\frac{1}{4}$
2 "J"	Sunshade Frame Sides	$\frac{3}{4}$ x $1\frac{5}{8}$ x $63\frac{1}{2}$
1 "K"	Sunshade Frame Center Piece	$\frac{3}{4}$ x $1\frac{1}{16}$ x 62
4 "L"	Sunshade Frame Corner Blocks	$\frac{3}{4}$ x 3 x 3
4	Pipe Bushings	$2\frac{1}{4}$
4	Carriage Bolts (With Nuts & Washers)	$\frac{1}{4}$ x 3
2	Carriage Bolts (With Wing Nuts & Washers)	$\frac{1}{4}$ x 2
40	Flat Head Wood Screws	#6 x $1\frac{1}{4}$
4	Flat Head Wood Screws	#10 x 2



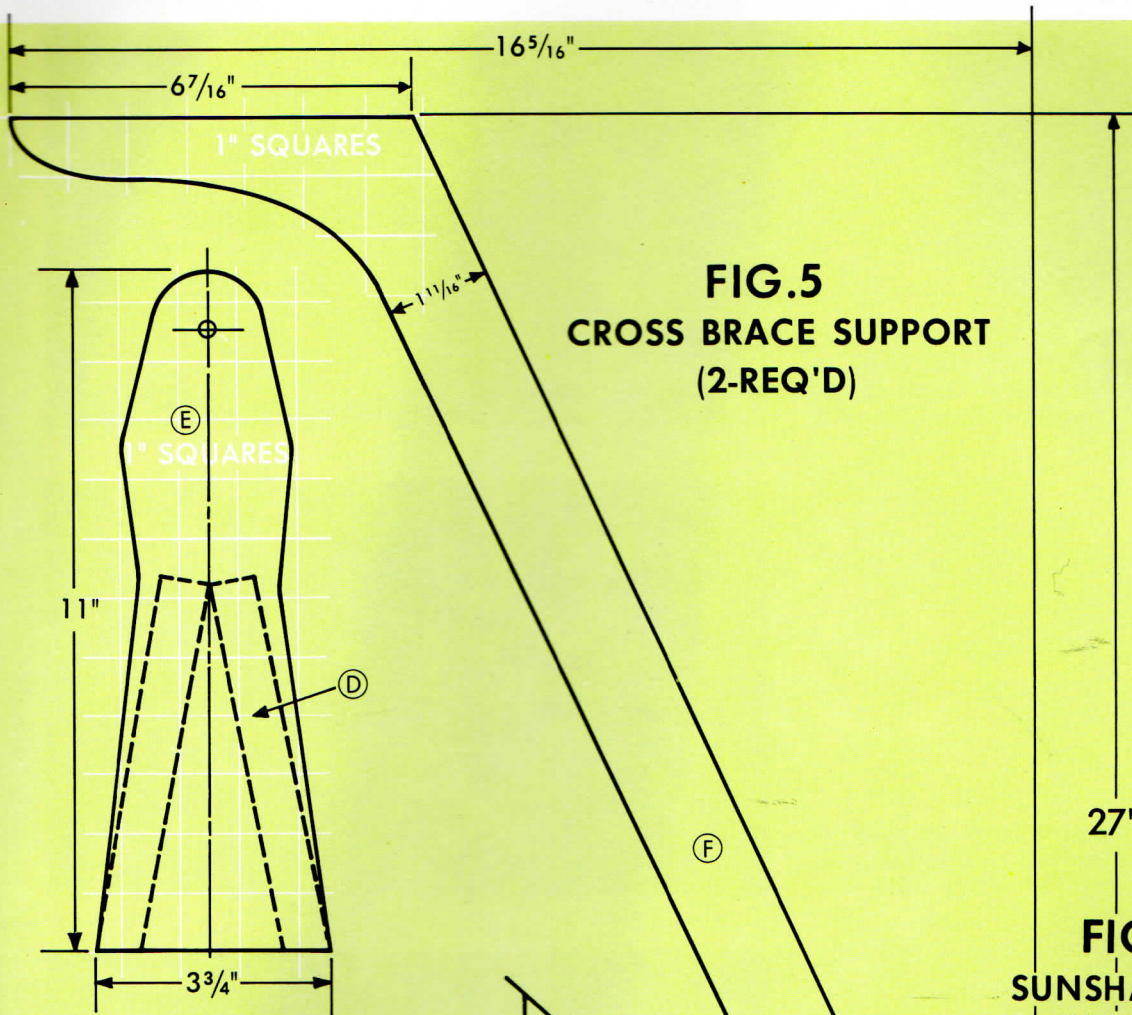


FIG. 5
CROSS BRACE SUPPORT
(2-REQ'D)

FIG. 6
TOP OF SUN SHADE
SUPPORT (2-REQ'D)

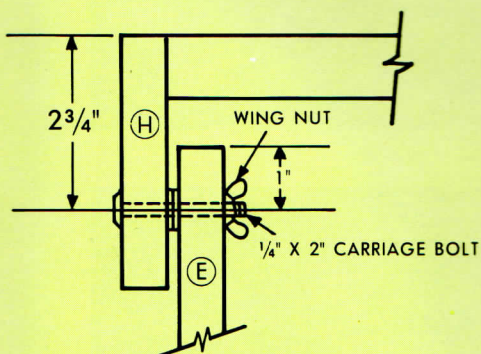


FIG. 7
ASSEMBLY DETAILS
OF PARTS (H) & (E)
TILTING SUNSHADE

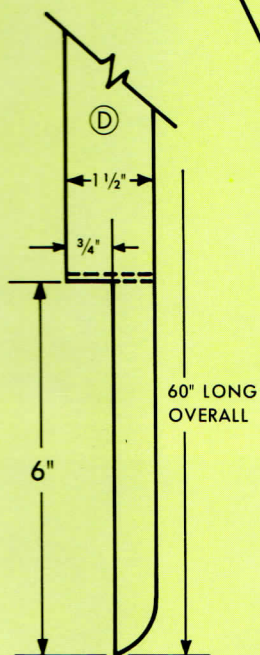
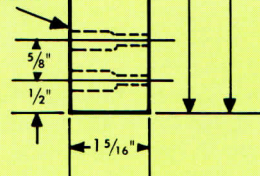


FIG. 8
SUNSHADE SUPPORTS
(4-REQ'D)



FIG. 9
SUNSHADE
SUPPORT

COUNTER BORED
HOLES FOR
WOOD SCREWS



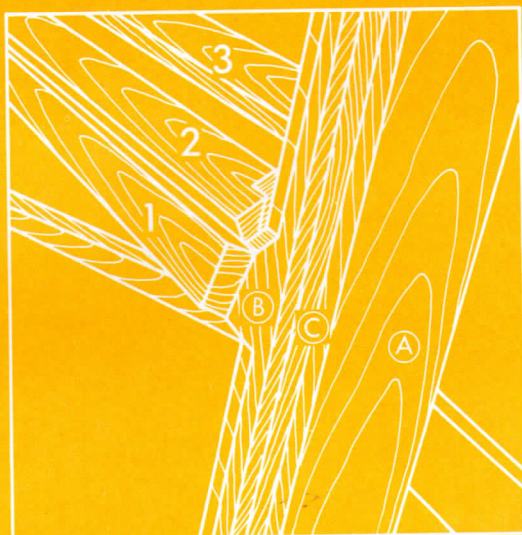


FIG. 10
NOTCHING NO. 2 SEAT SLAT



FIG. 10A
FRAME WITH
CROSS BRACES

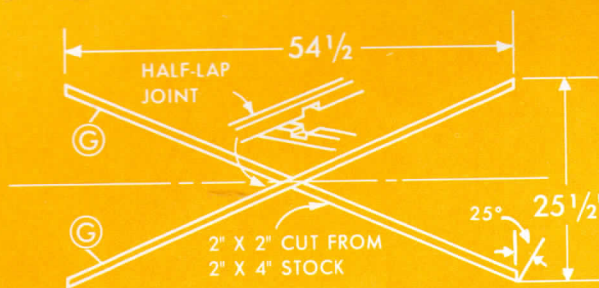


FIG. 10B
CROSS BRACES

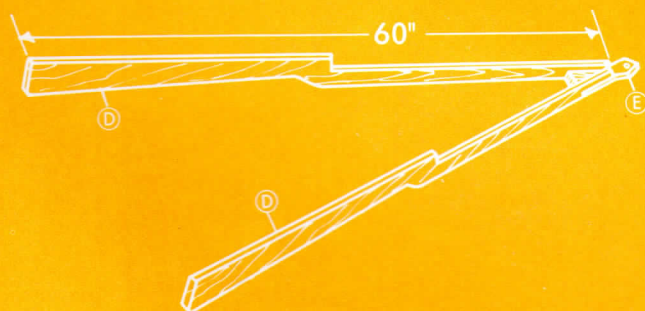


FIG. 11
ASSEMBLED SUNSHADE SUPPORTS

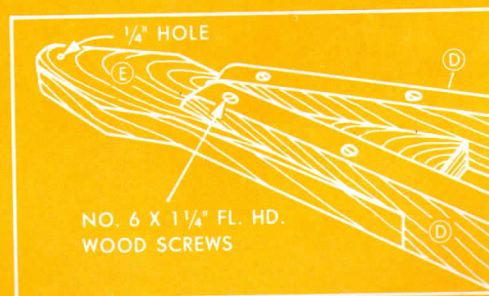
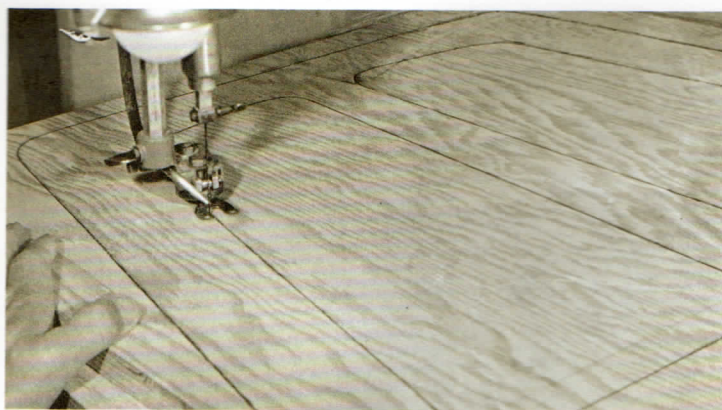


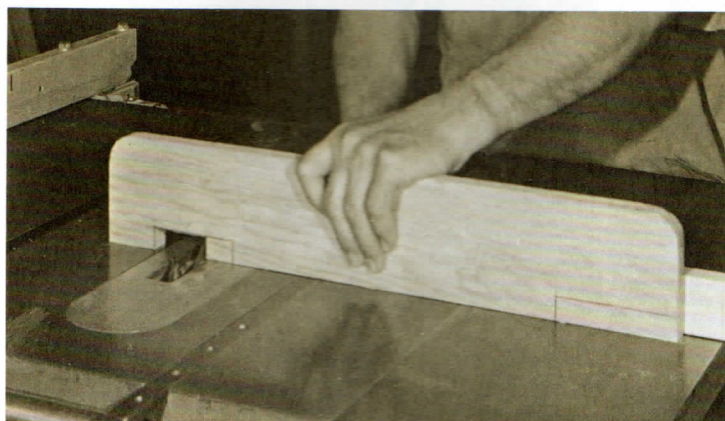
FIG. 11A
PIVOT BLOCK OF
SUNSHADE SUPPORT



1. By tacking the two outside frame pieces, they can be cut at the same time on the scroll saw using a No. 92 jeweler's blade.



2. After the scroll cut-outs are made on the scroll saw, the outside outlines can be cut on the band saw fitted with a $\frac{1}{4}$ " skip tooth blade.



3. Notches on the arm pieces are made on the circular saw using a Rockwell Tru-Cut adjustable dado head in three or four passes.



4. Half-lap joint on cross pieces "G" is made on the circular saw with the pieces riding against the miter gage that is set at 46 degrees. The cuts are made in three passes over the dado head.

GLIDER SETTEE

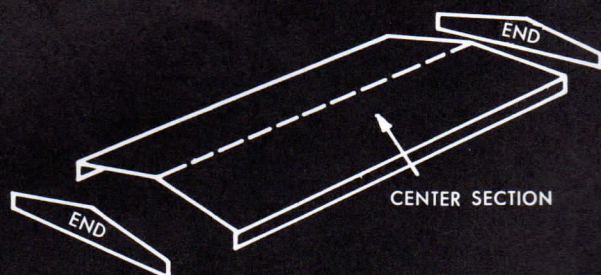
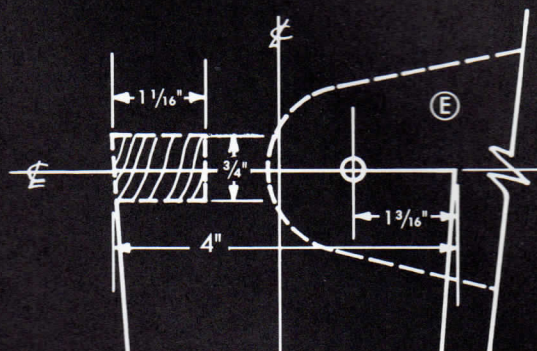


FIG.12
SUNSHADE CANVAS



HOLES FOR NO. 6 X $1\frac{1}{4}$ "
FL. HD. WOOD SCREWS

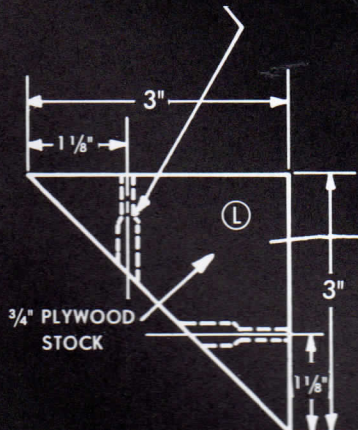


FIG.13
CORNER BRACES
(4-REQ'D)

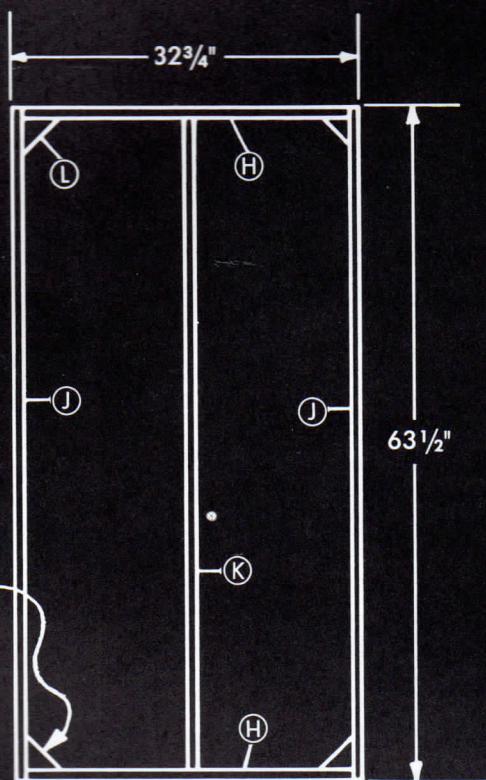
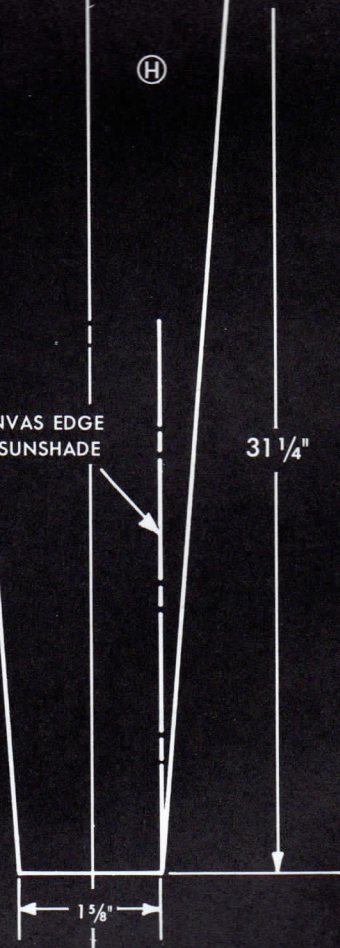


FIG.14
SUNSHADE FRAME

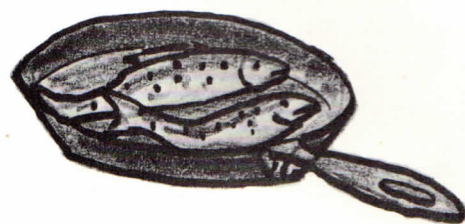
CANVAS EDGE
OF SUNSHADE

FIG.15





CAMP KITCHEN



Spending a long weekend in the mountains? With this camp kitchen along, breakfast, lunch and dinner are no longer a chore. The kitchen keeps things organized and is ready for use at a moment's notice.

The stand is constructed from $\frac{3}{4}$ " exterior plywood. The dimensions are given in Figs. 1 and 2. Note, leg 1A is $\frac{3}{4}$ " shorter at the top to allow for the spacer strip. With the spacer strips, the leg units when folded will rest one upon another. The legs can be drawn to size using the squares method, Fig. 2, and are cut out using the bayonet saw, Photo 1.

The stand is assembled by using four 2" lightweight narrow butt hinges to fasten the legs to the top. The 10" lid supports (folding hinges) are attached as shown in Figs. 1 and 6. $\frac{1}{4}$ " plywood edging is used as shown in Figs. 2 and 3 to hold the grub boxes in place.

The large and small grub boxes, Figs. 1, 2 and 5, are made of $\frac{3}{4}$ " plywood for the sides and dividers, and $\frac{1}{2}$ " plywood is used for all other pieces. The grub boxes are assembled with glue and 4d finishing nails.

Although only a center divider is shown, the large grub box can be divided into as many compartments as needed.

Fig. 5 shows the front and top open and suspended by lightweight chain. The drop front can be used as a working surface when cooking meals. Both the front and top are assembled with strap hinges. Note, hinges are bent as shown in Fig. 2.

Fig. 4 shows the hasp and staple with wood peg used to hold the grub boxes closed.

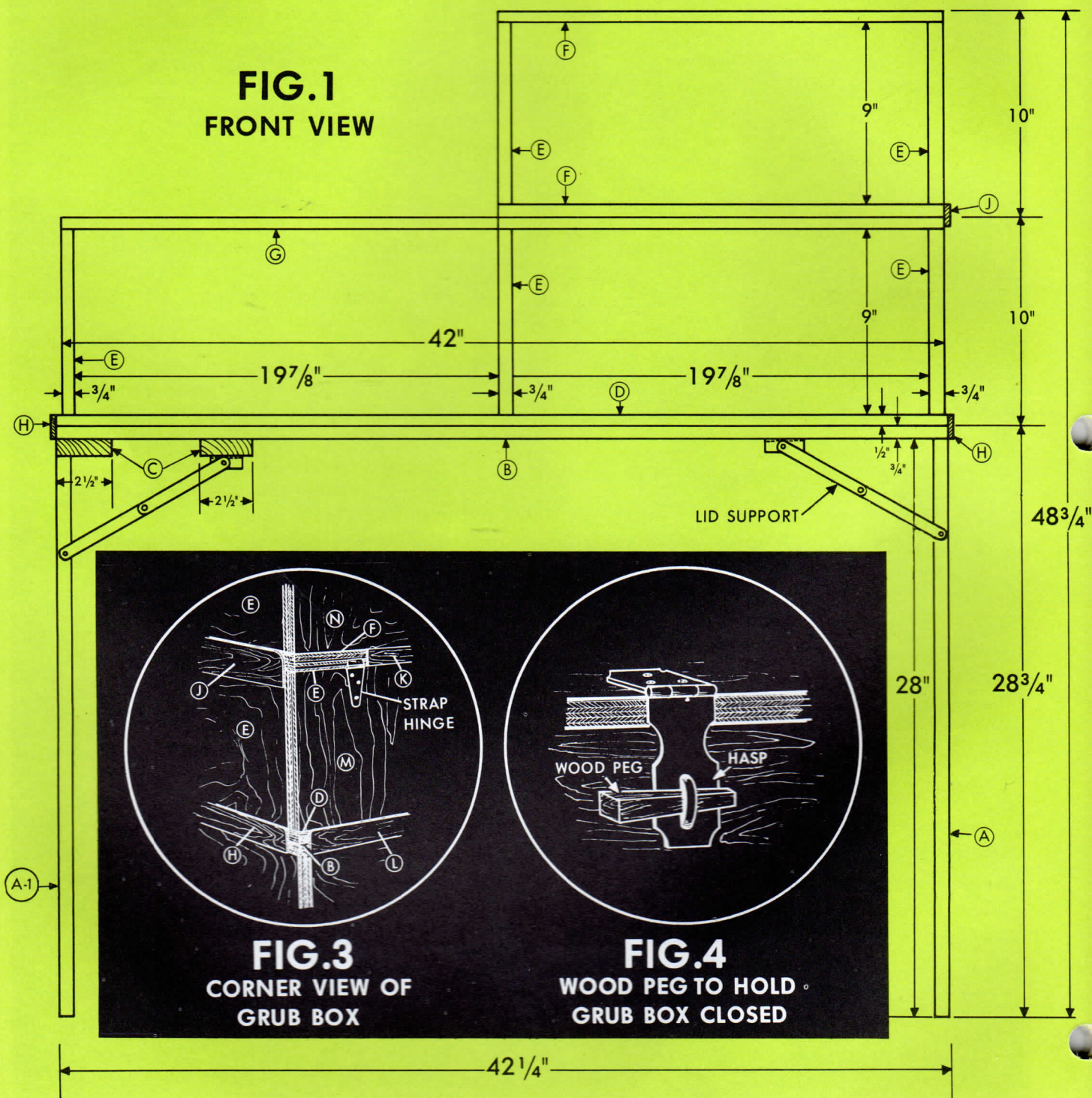
Finish the kitchen with the color of your choice, using exterior paint.

BILL OF MATERIALS

NO. OF PIECES	NAME	SIZE
1 "A"	Leg	$\frac{3}{4}$ x 18 x 28
1 "A-1"	Leg	$\frac{3}{4}$ x 18 x 27 $\frac{1}{4}$
1 "B"	Table Top	$\frac{3}{4}$ x 14 x 42 $\frac{1}{4}$
1 each "D & G"	Large Grub Box Top & Bottom	$\frac{1}{2}$ x 13 $\frac{1}{4}$ x 42
2 "C"	Leg Cleat	$\frac{3}{4}$ x 2 $\frac{1}{2}$ x 14
5 "E"	Grub Box Sides & Divider	$\frac{3}{4}$ x 9 x 13 $\frac{3}{4}$
1 each "M & O"	Large Grub Box Front & Back	$\frac{1}{2}$ x 9 x 42
1 each "N & P"	Small Grub Box Front & Back	$\frac{1}{2}$ x 9 x 20 $\frac{7}{8}$
2 "F"	Small Grub Box Top & Bottom	$\frac{1}{2}$ x 13 $\frac{1}{4}$ x 20 $\frac{7}{8}$
2 "H"	Plywood Edging	$\frac{1}{4}$ x 1 $\frac{1}{2}$ x 13
1 "L"	Plywood Edging	$\frac{1}{4}$ x 1 $\frac{1}{2}$ x 41 $\frac{1}{4}$
1 "J"	Plywood Edging	$\frac{1}{4}$ x 2 x 12 $\frac{1}{4}$
1 "K"	Plywood Edging	$\frac{1}{4}$ x 1 x 20 $\frac{3}{8}$
6 pairs	2" Lightweight Strap Hinges	
2 pairs	2" Lightweight Narrow Butt Hinges	
2 pairs	10" Lid Support (Folding Hinges)	
3 pairs	1 $\frac{1}{2}$ " Hasps & Staples	
14 ft.	Light Chain	
3	Carrying Handles	

CAMP KITCHEN

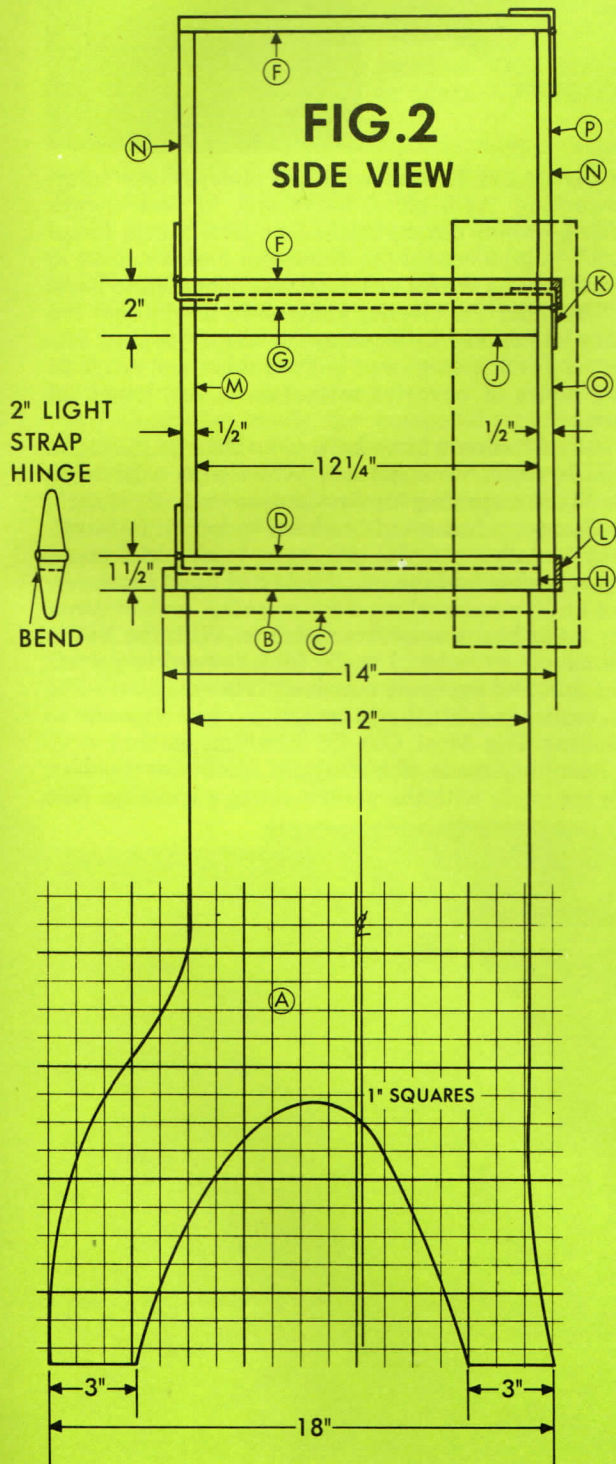
FIG.1
FRONT VIEW



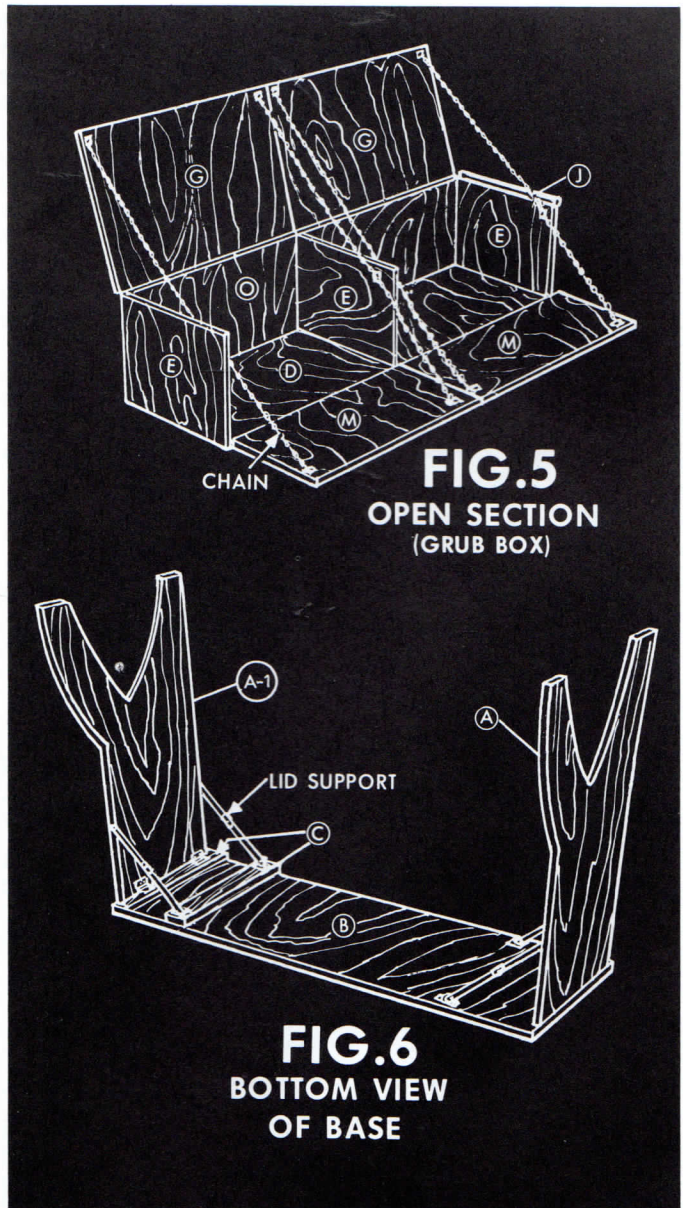
If you prefer the ease of tracing the parts for this project from full-size pattern sheets, send money for pattern to:

Steve Ellingson
U-Bild Enterprises
Van Nuys, California 91409

Project	Pattern	Price
Camp Kitchen	446	\$1.00



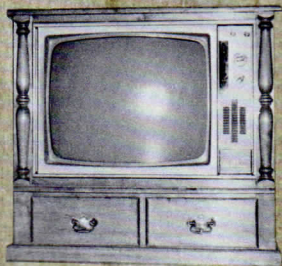
Cut the outline of the side legs with the portable electric bayonet saw using a No. 24163 general wood cutting blade.



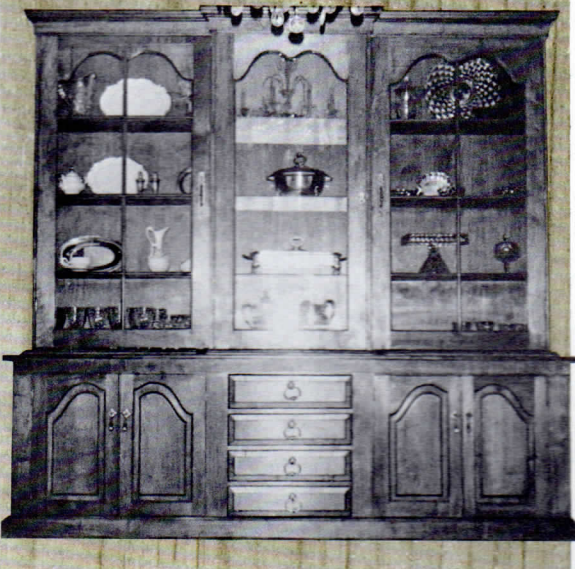
THE DELTA CITATION



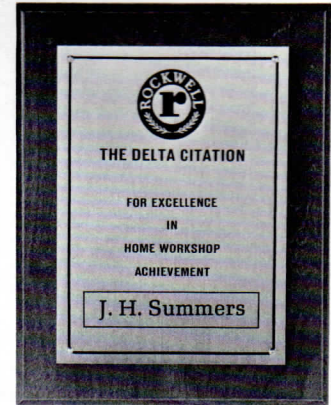
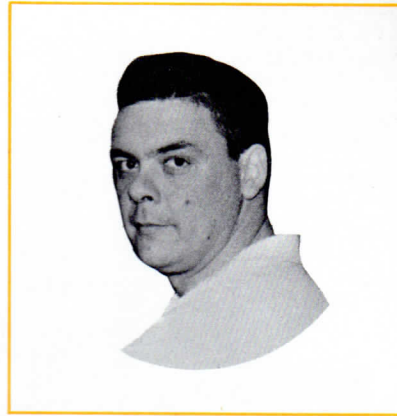
1



2



3

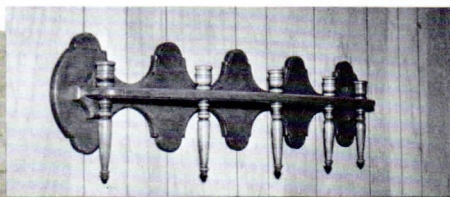


You might say that James H. Summers has always been interested in woodworking. As a child, he recalls, "I was always building something—rabbit boxes, chicken houses, things found around the farm." In high school Mr. Summers took a course in vocational agriculture, six weeks of which were devoted to basic woodworking. "Actually the teacher knew very little about the craft and more or less turned us loose in the shop," he says. His first real project—a porch swing—was built at this time. After 25 years and many hours of peaceful relaxation it still hangs on his parent's porch.

This issue's Delta Citation winner hails from Decatur, Georgia, and is employed by Holt, Rinehart and Winston as a Division Sales Manager. Since acquiring his first power tool—an electric sabre saw—Mr. Summers has steadily added to his home workshop which now includes a radial arm saw, lathe, drill press, shaper, band saw, jointer and the usual array of hand tools.

Mr. Summers finds woodworking very relaxing, and he says, "Woodworking is the best tranquilizer I know. With the hectic pace we are all caught in today, I really look forward to getting in my basement and making some sawdust." He enjoys reading books on the craft, and attributes much of his success to Rockwell's "Getting The Most Out Of Your" manuals.

Photo 1 is a Secretary made of Mahogany. Note that the door frame and base are made with the grain running vertically. This

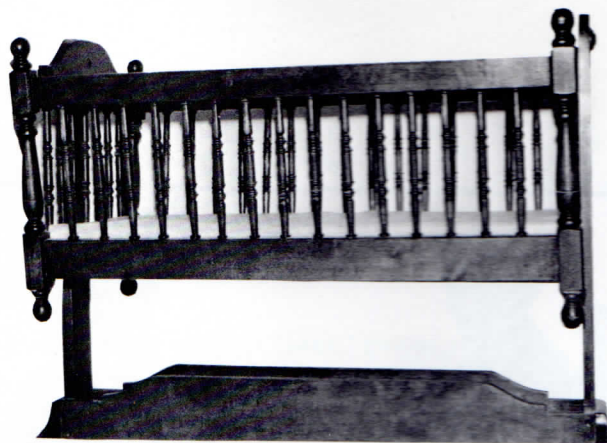


4

5



11



was done by gluing boards together—very time consuming but the result is a most interesting effect. All wood except the back is solid.

The Television Set in Photo 2 was made to match a coffee and end table in Mr. Summers' family room. The drawers are fake. The cabinet is mounted on casters.

The Breakfront and Serving Cart (Photos 3 and 7) are made of solid Walnut. The breakfront is eight feet long, and was made in two sections (top and base). The top of the serving cart folds outward to six feet and is covered with laminated plastic.

The Cherry Wall Candelabra in Photo 4 is made of scraps.

Photo 5 is a Maple Cabinet Bookcase. The bookcase is solid Maple except for the veneer back.

Mr. Summers made the octagonal table with the marble top (Photo 6) at a time when his only power tool was a bayonet saw. The sides are Walnut veneer over $\frac{3}{4}$ " plywood.

Photo 8 shows a Mahogany Secretary and Grandfather Clock. The desk top on the secretary opens downward and the slides come forward automatically. The Walnut clock has an eight tube chime arrangement. Both pieces are solid wood except for plywood backs.

The project Mr. Summers is most proud of is his Roll Top Desk (Photos 9 and 10). Made of Sepali with dovetailed drawers, Mr. Summers used screws with plugs to fasten all sides.

Photo 11 is a solid Birch Cradle. The spindles were individually turned on the lathe.

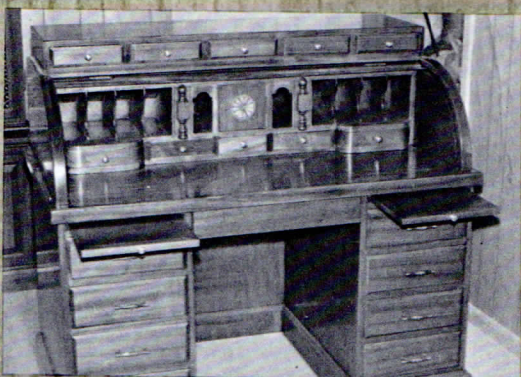
Congratulations, Mr. Summers, on winning the Delta Citation, and continue your excellent work.



10

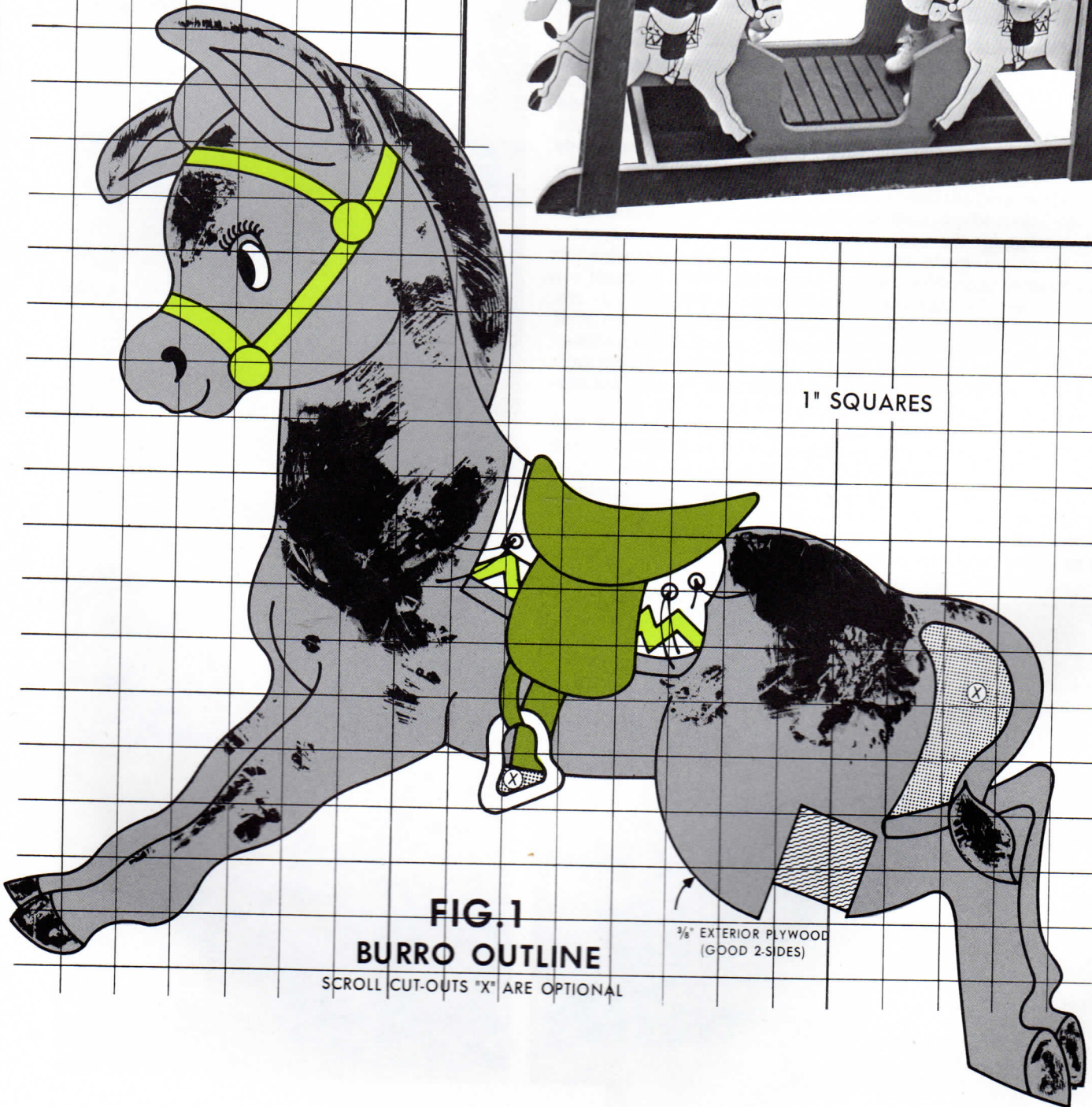


9



8





1" SQUARES

FIG.1
BURRO OUTLINE

SCROLL CUT-OUTS "X" ARE OPTIONAL

$\frac{3}{8}$ " EXTERIOR PLYWOOD
(GOOD 2-SIDES)

BUCKIN' BURRO GLIDER

Your young colts will get a "kick" out of this one.

This project is bound to be a hit with the kids. The glider is designed so that even the smallest child can sit in it and glide back and forth without fear of falling out.

Glider frame and base, as well as the floor assembly, are made of $\frac{3}{4}$ " exterior plywood. Seat boards and seat backs are made of $\frac{1}{2}$ " exterior plywood. The four burro designs are cut from $\frac{3}{8}$ " exterior plywood, two sides good.

Lay out the burro design on a piece of wrapping paper or directly onto one of the pieces of plywood, using the squares method. By tacking all four pieces ("A") together, they can be cut at one time on either the band saw or scroll saw, Photo No. 1. Note: Scroll saw cut-outs ("X") on the foot spur and tail do not necessarily have to be made. As a matter of fact, the tail cut-out would have a tendency to weaken the outline, causing it to break off if handled

roughly. Pipe bushings in spacer blocks ("F") are used as pivot points for mounting the burro cut-outs to the glider frame sides ("L"), see Figs. 7 and 8 of drawing.

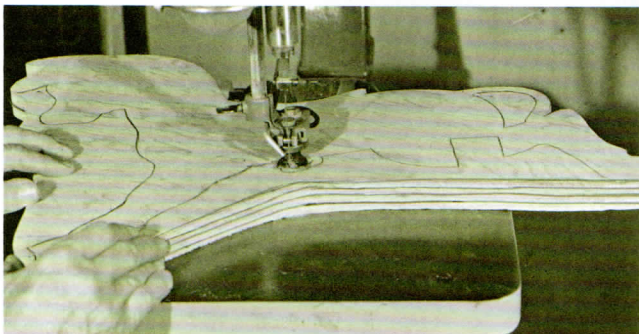
Glider frame sides ("L") are assembled together with cleats ("M") and seat and seat backs ("J") and ("K"), Figs. 6 and 7. Position of burro is indicated in Fig. 7.

All necessary details of glider base are shown in detail in Figs. 2, 3, 3-A and 9. Floor assembly is screw fastened to the base frame sides with No. 8 x $1\frac{3}{4}$ " flat head brass wood screws.

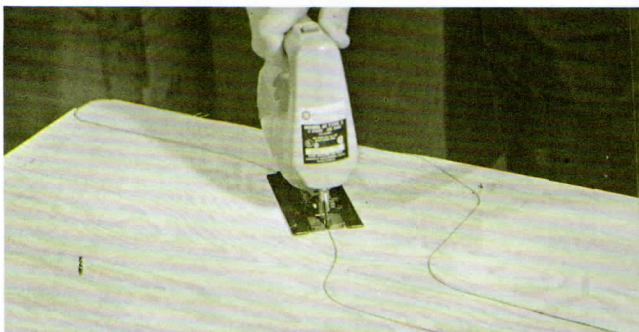
Break all sharp corners with 3-0 garnet paper to prevent splinters. Glider frame assembly should be treated with a wood preservative followed with an outside undercoat and enamel. Burro should be painted with a lighter enamel with feature lines in black or brown.

BILL OF MATERIALS

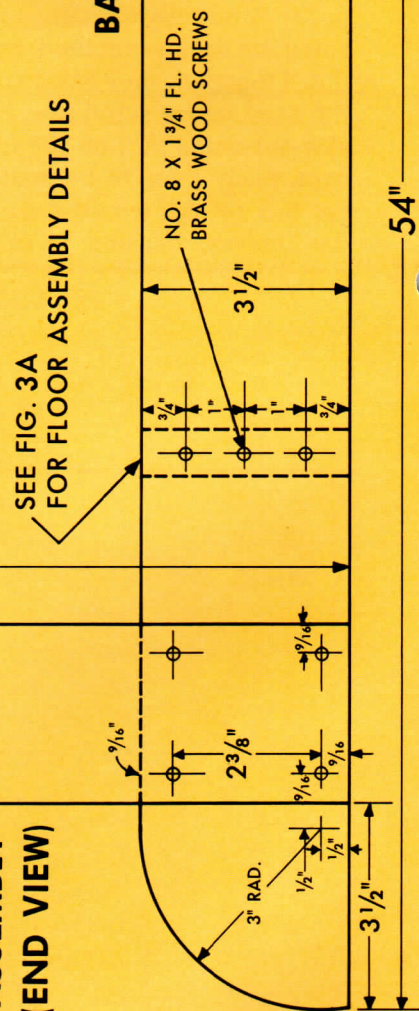
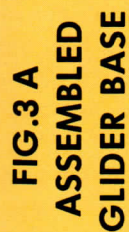
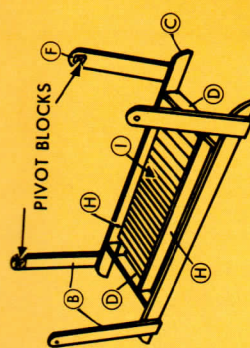
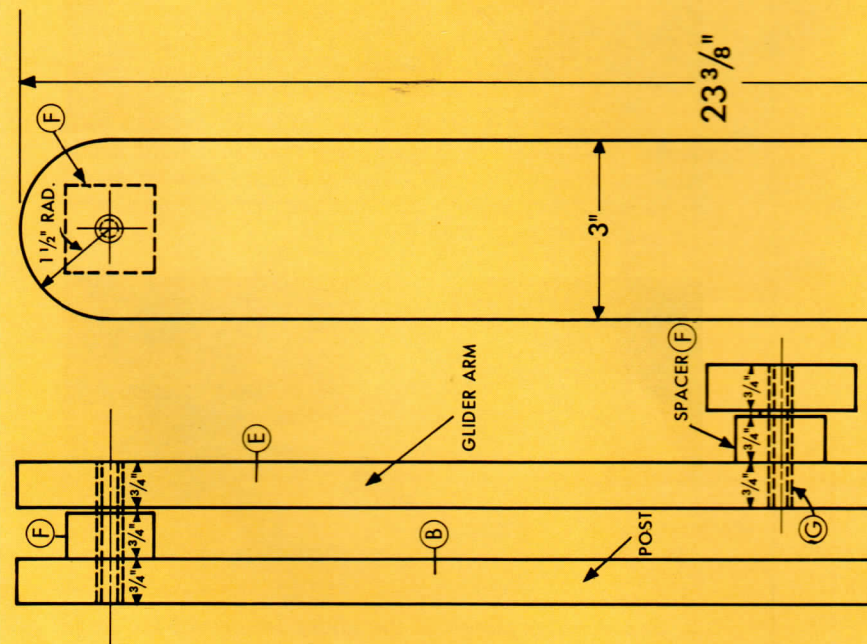
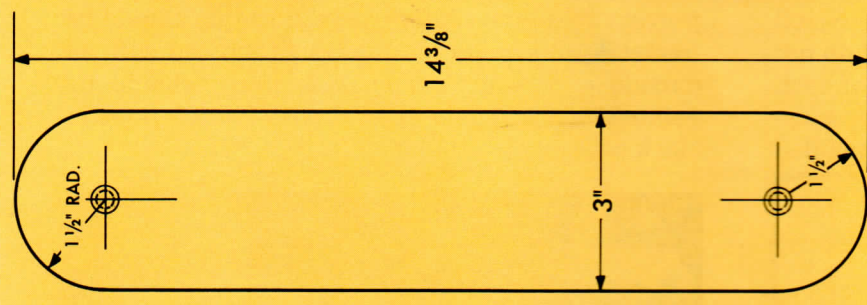
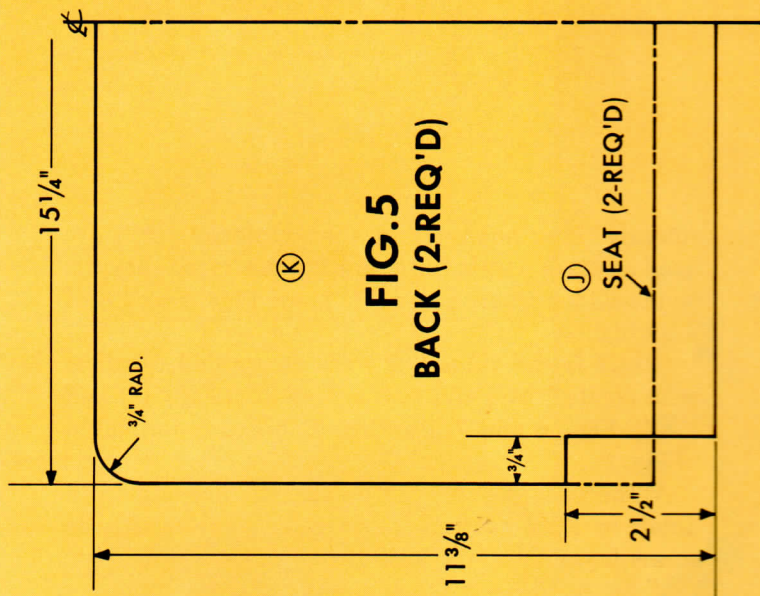
NO. OF PIECES	NAME	SIZE
4 "A"	Burro Sides	$\frac{3}{8}$ x 18 x $20\frac{1}{2}$
4 "B"	Posts	$\frac{3}{4}$ x $2\frac{7}{8}$ x $23\frac{3}{8}$
2 "C"	Base Side Pieces	$\frac{3}{4}$ x $3\frac{1}{2}$ x 54
2 "D"	Base End Pieces	$\frac{3}{4}$ x $3\frac{1}{2}$ x $19\frac{1}{2}$
4 "E"	Glider Arm	$\frac{3}{4}$ x 3 x $14\frac{3}{8}$
8 "F"	Spacers	$\frac{3}{4}$ x $1\frac{1}{2}$ x $1\frac{1}{2}$
8 "G"	Pipe Bushings (For $\frac{1}{4}$ " Carriage Bolts)	$2\frac{5}{16}$
2 "H"	Floor Cleats	$\frac{3}{4}$ x $3\frac{1}{2}$ x $34\frac{3}{4}$
12 "I"	Floor Slats	$\frac{3}{4}$ x $1\frac{3}{4}$ x $11\frac{1}{2}$
2 "J"	Seat	$\frac{1}{2}$ x $10\frac{1}{4}$ x $15\frac{1}{4}$
2 "K"	Back	$\frac{1}{2}$ x $11\frac{3}{8}$ x $15\frac{1}{4}$
2 "L"	Frame Sides	$\frac{3}{4}$ x $10\frac{1}{2}$ x $47\frac{1}{2}$
2 "M"	Frame Cleats	$\frac{3}{4}$ x $2\frac{3}{4}$ x $13\frac{3}{4}$



1. Tack all four burro pieces together with light brads and cut the outlines on either the band saw or scroll saw. A No. 92 jeweler's blade is best for this operation. Run the saw about 1725 RPM.



2. Because the pieces of the glider frame are too large to handle on the scroll saw or band saw, a portable bayonet saw is excellent for this purpose.



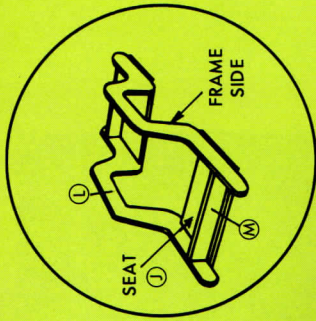


FIG. 6
GLIDER FRAME
ASSEMBLY
BOTTOM VIEW

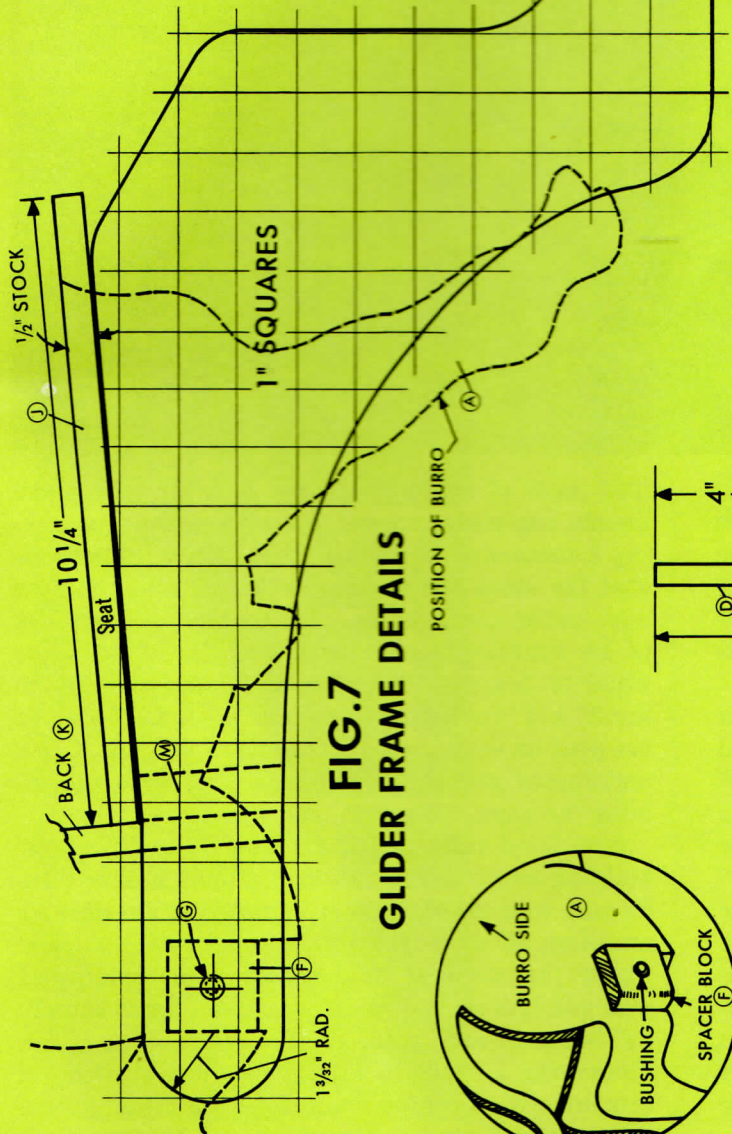


FIG. 7
GLIDER FRAME DETAILS

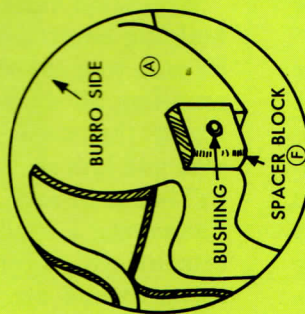


FIG. 8
BURRO ATTACHED
TO GLIDER

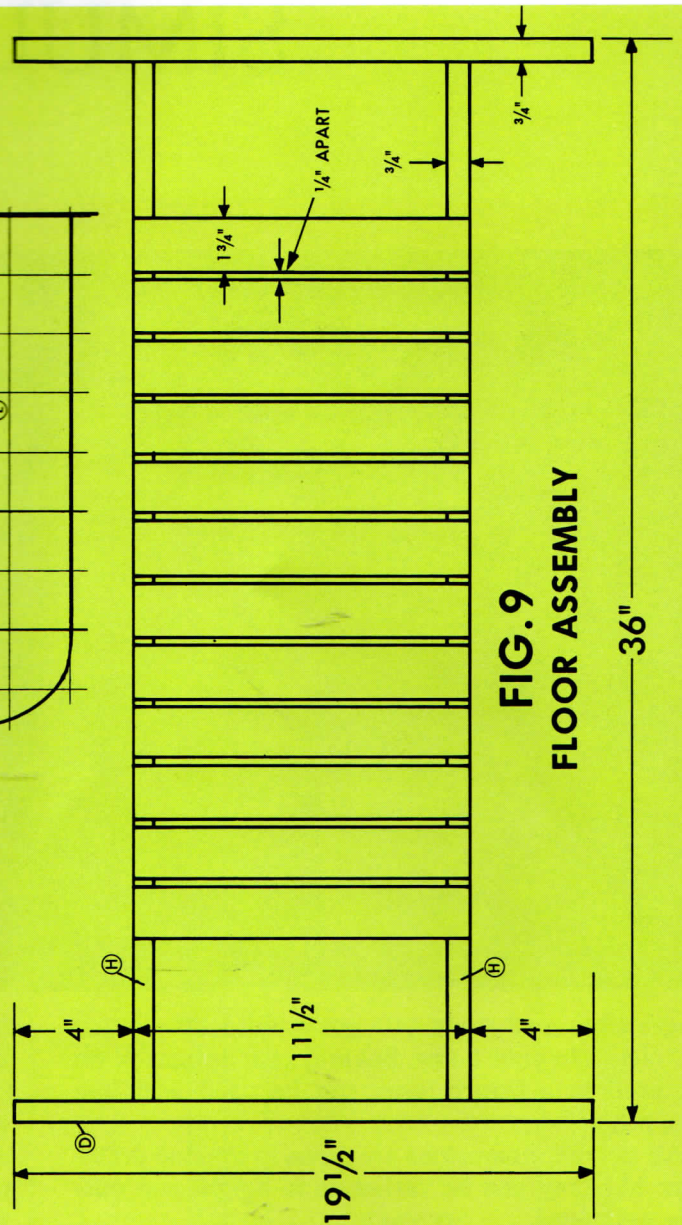


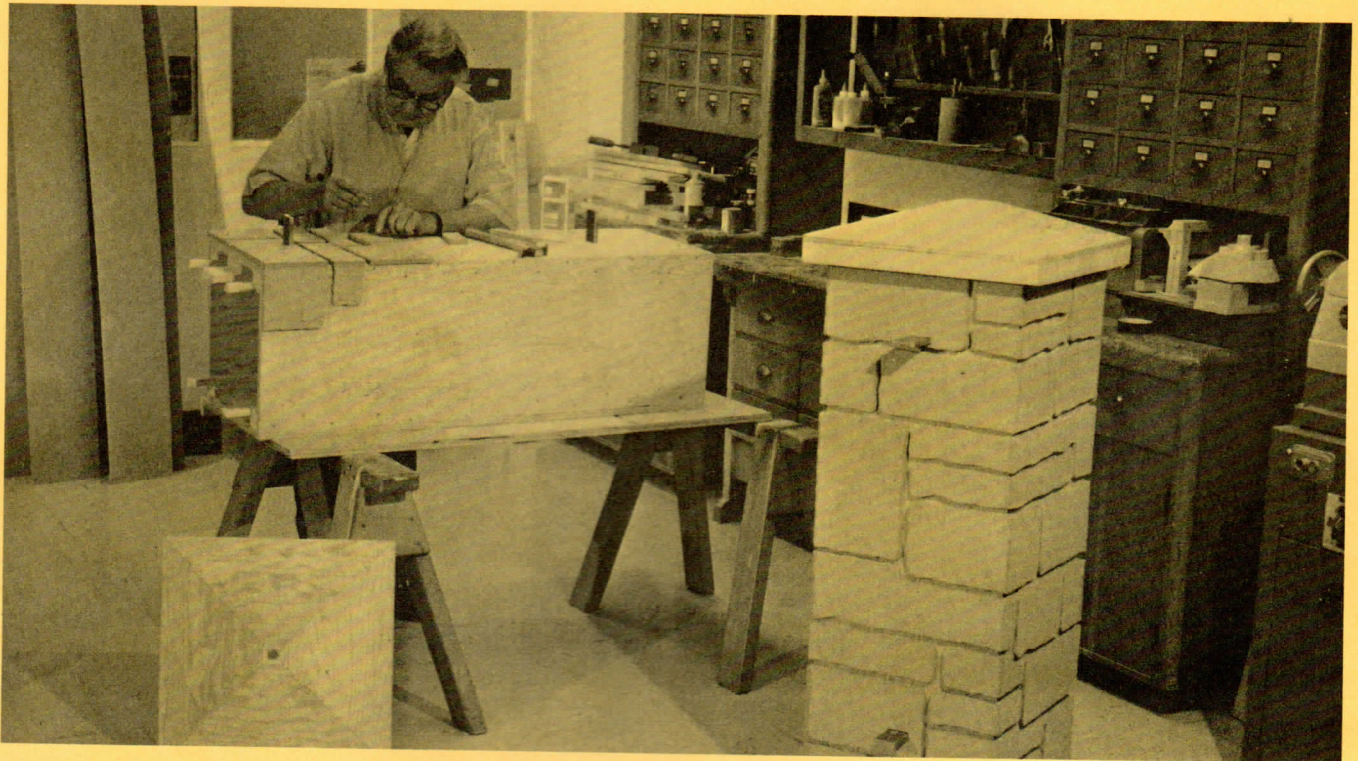
FIG. 9
FLOOR ASSEMBLY

If you prefer the ease of tracing the parts for this project from full-size pattern sheets, send money for pattern to:

Steve Ellingson
U-Bild Enterprises
Van Nuys, California 91409

Project	Pattern	Price
Buckin' Burro Glider	445	\$1.00

SIMULATED STONE



These simulated stone gate posts will lend a touch of "class" to your home. Several gate designs to be featured in a future issue can be used with the gate posts.

All overall dimensions are given in the line drawings, but they can be varied as to height and outside perimeter.

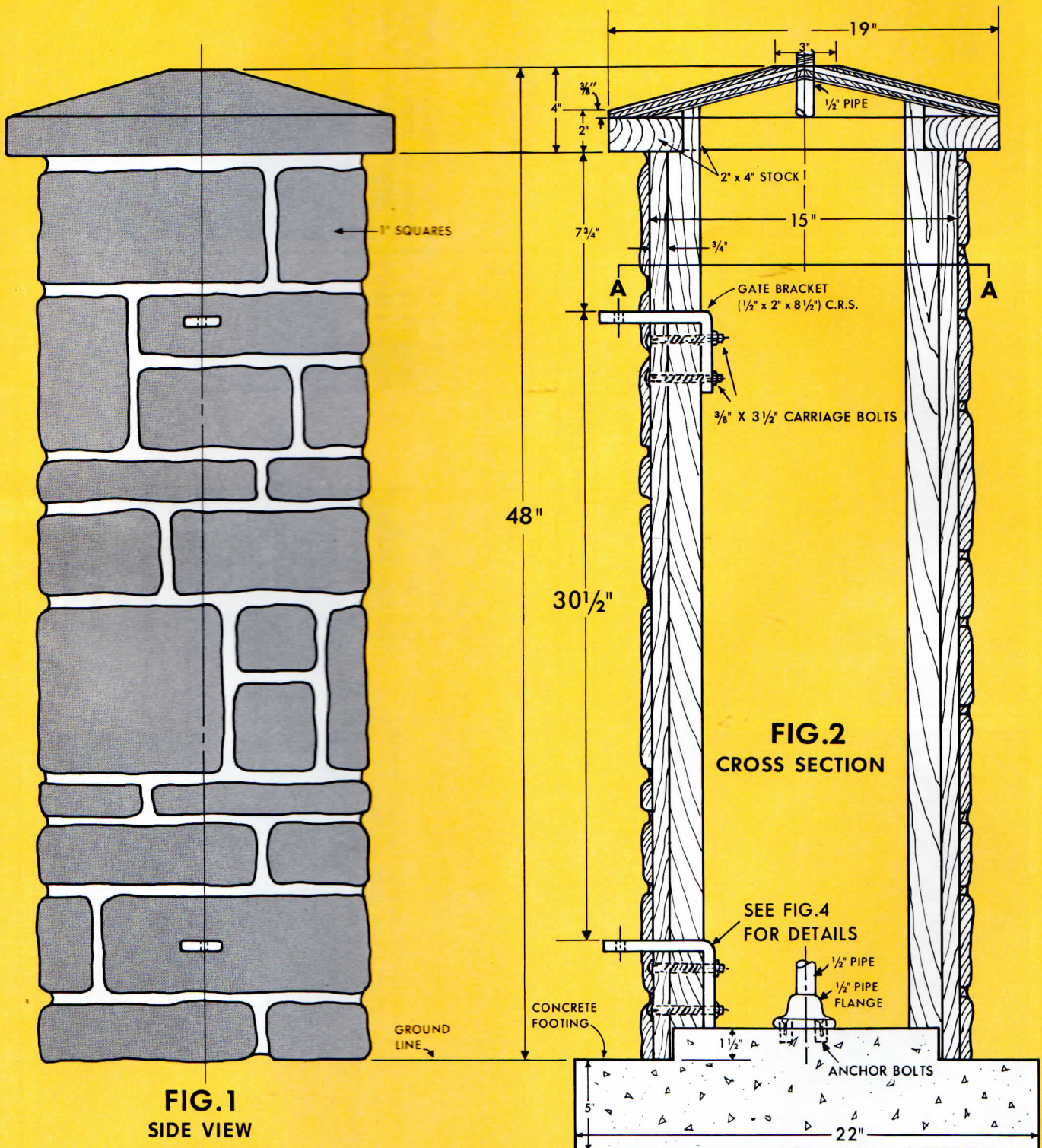
Main side pieces and cap tops are $\frac{3}{4}$ " exterior plywood. Two by four's ripped in half were used on the inside corners with waterproof glue and 2" cement or rosin coated common nails, see Figs. 2 and 5. Note how the pieces are assembled to make the 15" wide sides. Corner cleats and center 2" x 4" gate bracket holder are mounted $1\frac{1}{2}$ " above the bottom edge of the side pieces and extend into the cap to hold it in place and also for additional support for the cap boards, see Fig. 2. Before assembling the main housing, be sure to notch the top portion of the corner posts and the 2" x 4" used for brackets, as indicated in the line drawing. Slots for the gate brackets are mortised in the 2" x 4" upright and one side of each post assembly, Photo 1.

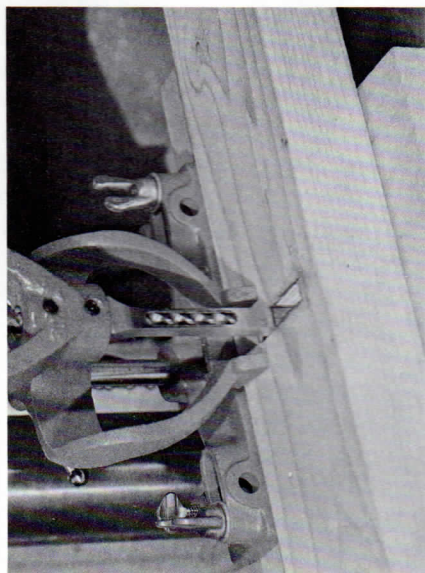
Cap top pieces are made from $\frac{3}{4}$ " exterior plywood. Bevel cuts are made on opposite edges of a

long piece of stock, Photo No. 2. After cutting the bevels, cap pieces are cut to length on the saw making a compound angle cut, Photo No. 3. Simply invert the stock for making each cut. Final outside edge cut is made on the circular saw with the use of an auxiliary wood fence and the blade arbor tilted 13 degrees, Photo No. 4. To add stability to the 2" x 4" frame cap bottoms, $\frac{1}{2}$ " x $1\frac{1}{2}$ " splines are used on each corner, Photo No. 5 and Fig. 3. Use waterproof glue and 2" finishing nails when assembling the caps.

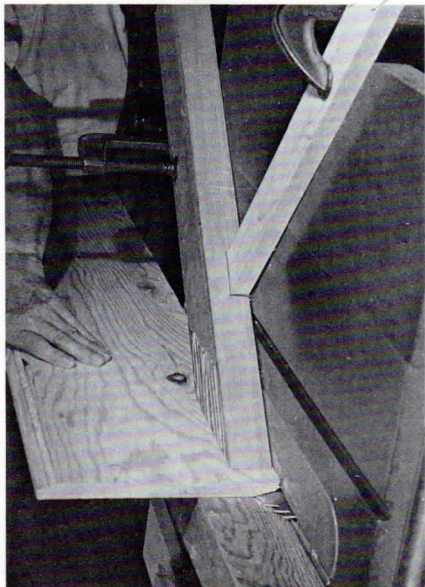
Simulated stone pieces are made from $\frac{3}{8}$ " or $\frac{1}{2}$ " building board cut at random lengths and widths. Be sure to make the pieces as rough as possible by rounding off the edges with a small sanding drum. Apply the material to the post with waterproof glue and lath nails. Leave a space of approximately $\frac{1}{2}$ " between each piece to allow for mortar effect. The mortar is made by mixing patching plaster and cement, which can be applied with a metal trowel or hardwood scoop. Round off the grooves with your finger or brick grooving tool. After allowing the pieces and the mortar to dry thoroughly, apply several coats of masonry paint to complete the job.

GATE POSTS

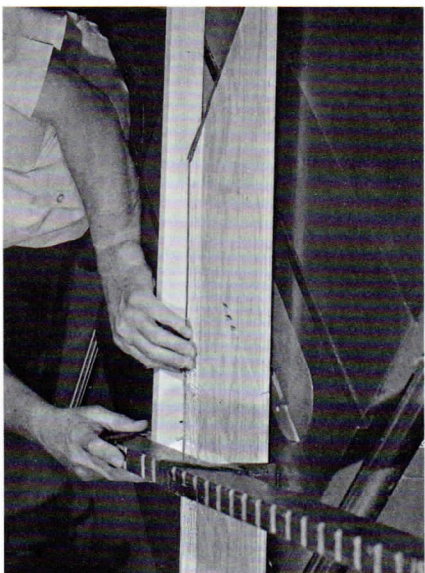




1. Slots for the gate brackets are mortised on the drill press using a $\frac{3}{8}$ " hollow chisel.



2. For the top cap, make angle cuts with the circular saw on opposite edges of the long piece of stock. Tilt blade arbor to 18 degrees. Note the wood spring used to hold the stock while being cut.



3. Saw compound cuts on the cap stock with the miter gage set at $43\frac{1}{2}$ degrees and the blade arbor tilted at 13 degrees.

4. Beveled edge on the cap stock is also made with the circular saw, blade tilted at 13 degrees.



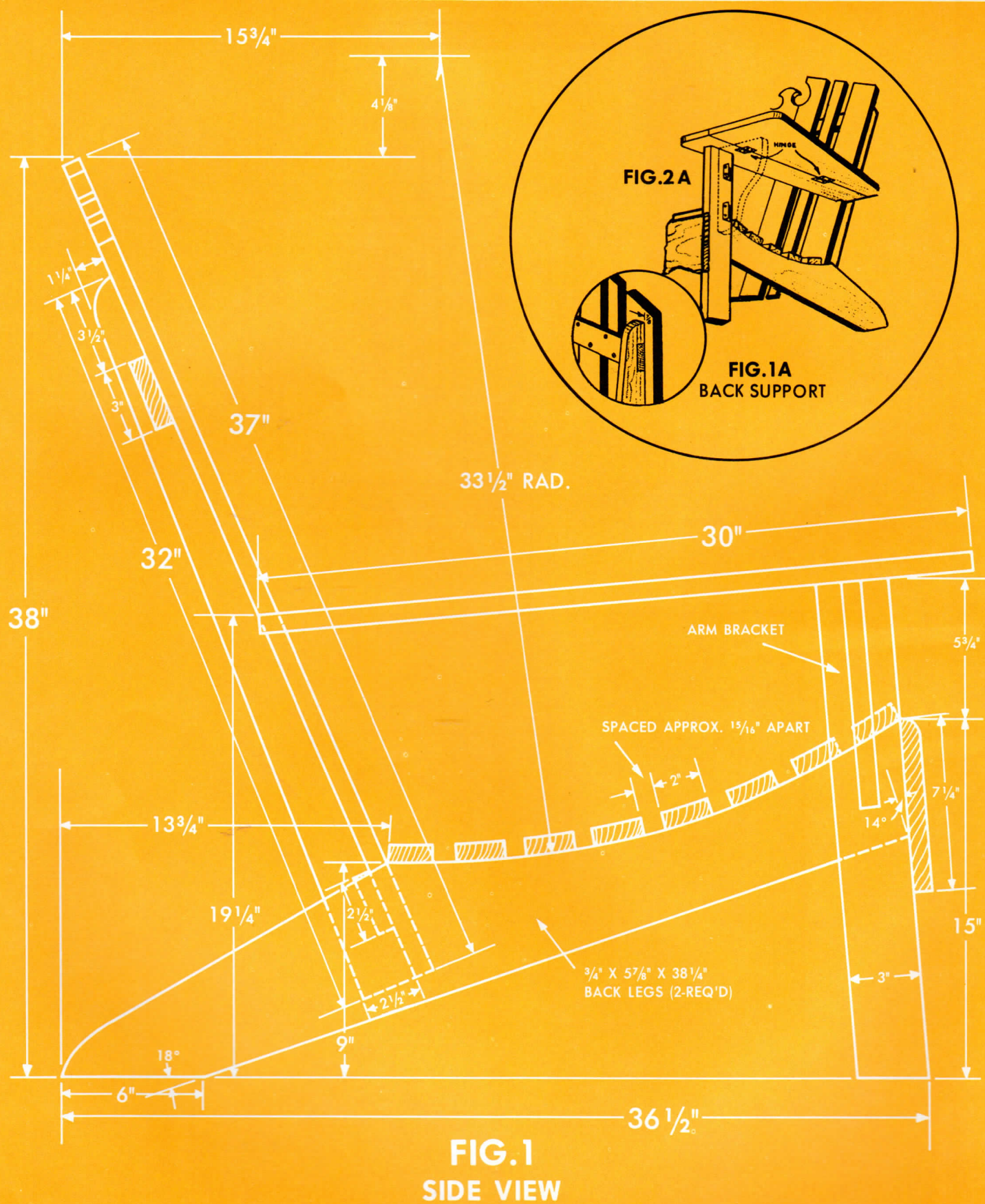
5. The $\frac{1}{2}$ " grooves in the 2" x 4" cap stock for the splines are made with the circular saw using two $\frac{1}{8}$ " outside and two $\frac{1}{8}$ " inside cutters of the dado set.



BILL OF MATERIALS

NO. OF PIECES	NAME	SIZE
4	Sides	$\frac{3}{4}$ x $14\frac{1}{4}$ x 44
4	Corner Posts	$1\frac{5}{8}$ x $1\frac{5}{8}$ x $44\frac{7}{8}$
4	Cap Sides	$1\frac{5}{8}$ x $3\frac{5}{8}$ x 19
2	Cap Cross Braces	$1\frac{5}{8}$ x $3\frac{5}{8}$ x $16\frac{3}{4}$
4	Cap Top Pieces	$\frac{3}{4}$ x 10 x 19
4	Cap Top Splines	$\frac{1}{2}$ x 2 x $5\frac{1}{2}$
1	Upright	
	(For Gate Support Brackets)	$1\frac{5}{8}$ x $3\frac{5}{8}$ x 46
1	Pipe	$\frac{1}{2}$ x $47\frac{1}{2}$
1	Pipe Flange	$\frac{1}{2}$
3	Screw Anchors	
	(For #10 Screws)	
2	Gate Support Bracket	$\frac{3}{8}$ x $1\frac{3}{4}$ x $8\frac{1}{2}$
4	Carriage Bolts	
	(For Support Brackets)	$\frac{1}{4}$ x $3\frac{1}{4}$
	Outside Post Covering	
	(Plastic or Building Board)	





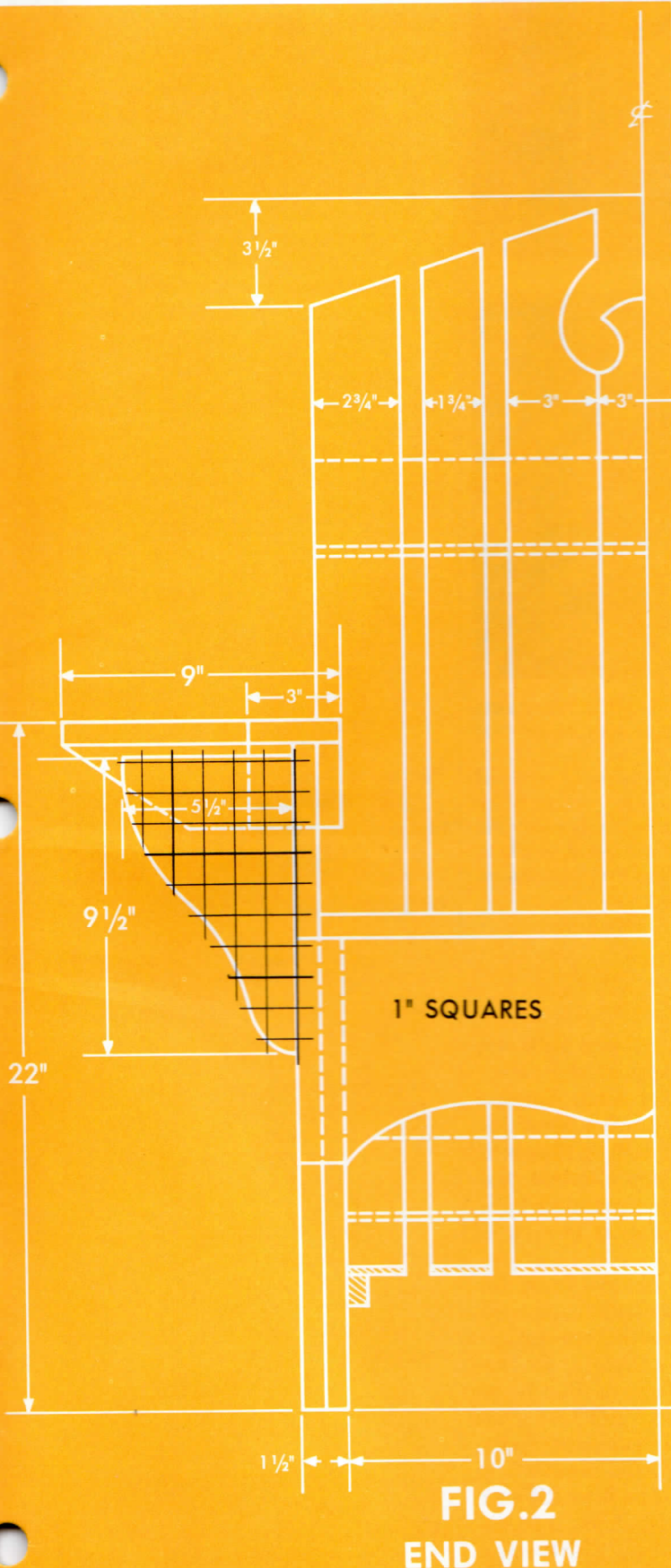
LAWN CHAIR



The attractive lawn chair featured here has folding arm supports. The stock used was $\frac{3}{4}$ " solid cypress. However, redwood or straight grained fir could be used since these are all weather resistant woods.

The worms-eye view shows the hinged arrangement. All dimensions are given in the line drawings. The unit is put together with rosin or cement coated common nails and flat head brass wood screws. You will find this chair a very sturdy and serviceable addition to your garden or patio furniture.

Finish natural with spar varnish or paint to suit.



BILL OF MATERIALS

NO. OF PIECES	NAME	SIZE
2 "A"	Back Legs	$\frac{3}{4}$ x $57\frac{1}{8}$ x $38\frac{1}{4}$
2 "B"	Front Legs	$\frac{3}{4}$ x 3 x $20\frac{3}{4}$
2 "C"	Back Supports	$\frac{3}{4}$ x $23\frac{1}{4}$ x $34\frac{1}{4}$
2 "D"	Back Supports	$\frac{3}{4}$ x $13\frac{1}{4}$ x $35\frac{1}{4}$
2 "E"	Back Supports	$\frac{3}{4}$ x 3 x $36\frac{3}{8}$
2 "F"	Back Supports	$\frac{3}{4}$ x 3 x $33\frac{3}{4}$
2 "G"	Back Upright Cleats	$\frac{3}{4}$ x $2\frac{1}{2}$ x 32
2 "H"	Back Horizontal Cleats	$\frac{3}{4}$ x 3 x $21\frac{1}{2}$
1 "I"	Front Railing	$\frac{3}{4}$ x $7\frac{1}{4}$ x 23
2 "J"	Arm Rests	$\frac{3}{4}$ x 9 x 30
2 "K"	Arm Rest Brackets	$\frac{3}{4}$ x $5\frac{1}{2}$ x $9\frac{1}{2}$
8 "L"	Seat Slats	$\frac{3}{4}$ x 2 x $21\frac{1}{2}$
4 Pair	Butt Hinges	2 x 2

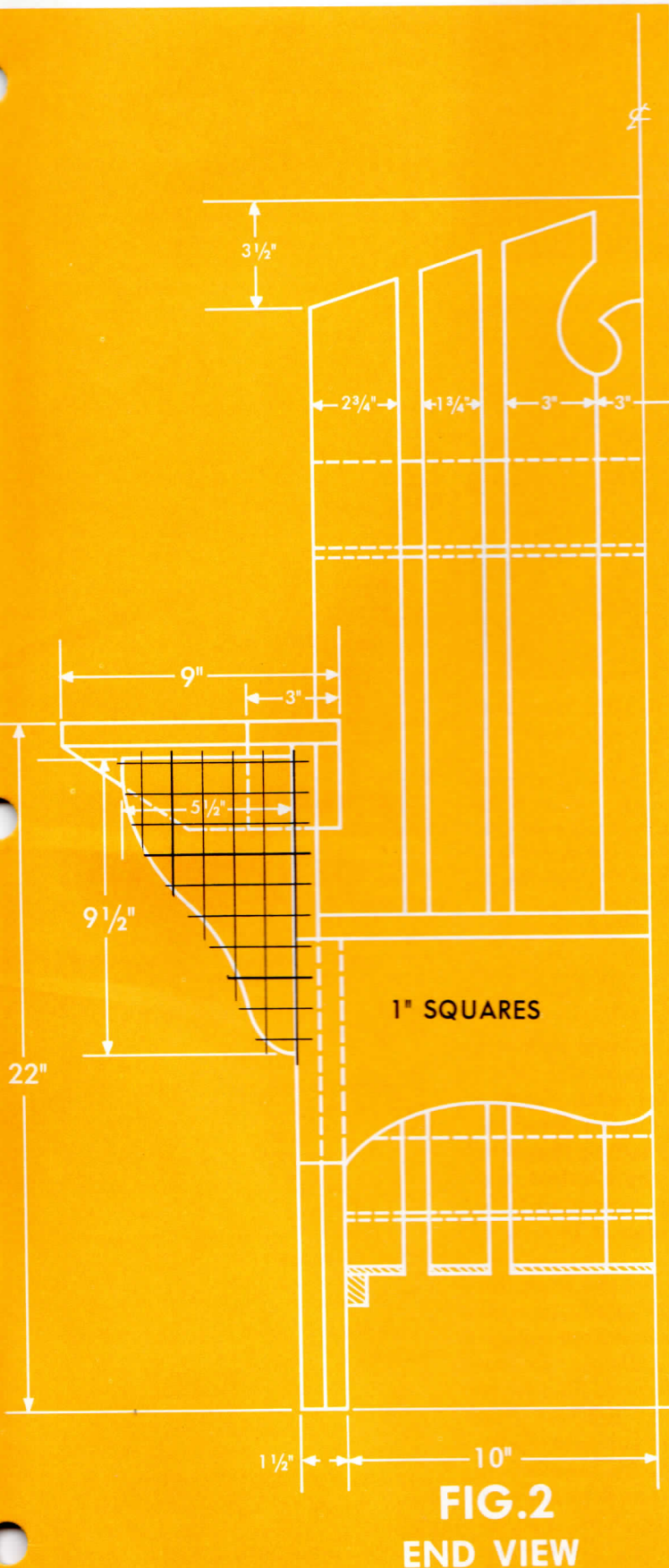
LAWN CHAIR



The attractive lawn chair featured here has folding arm supports. The stock used was $\frac{3}{4}$ " solid cypress. However, redwood or straight grained fir could be used since these are all weather resistant woods.

The worms-eye view shows the hinged arrangement. All dimensions are given in the line drawings. The unit is put together with rosin or cement coated common nails and flat head brass wood screws. You will find this chair a very sturdy and serviceable addition to your garden or patio furniture.

Finish natural with spar varnish or paint to suit.



BILL OF MATERIALS

NO. OF PIECES	NAME	SIZE
2 "A"	Back Legs	$\frac{3}{4}$ x $5\frac{7}{8}$ x $38\frac{1}{4}$
2 "B"	Front Legs	$\frac{3}{4}$ x 3 x $20\frac{3}{4}$
2 "C"	Back Supports	$\frac{3}{4}$ x $2\frac{3}{4}$ x $34\frac{1}{4}$
2 "D"	Back Supports	$\frac{3}{4}$ x $1\frac{3}{4}$ x $35\frac{1}{4}$
2 "E"	Back Supports	$\frac{3}{4}$ x 3 x $36\frac{3}{8}$
2 "F"	Back Supports	$\frac{3}{4}$ x 3 x $33\frac{3}{4}$
2 "G"	Back Upright Cleats	$\frac{3}{4}$ x $2\frac{1}{2}$ x 32
2 "H"	Back Horizontal Cleats	$\frac{3}{4}$ x 3 x $21\frac{1}{2}$
1 "I"	Front Railing	$\frac{3}{4}$ x $7\frac{1}{4}$ x 23
2 "J"	Arm Rests	$\frac{3}{4}$ x 9 x 30
2 "K"	Arm Rest Brackets	$\frac{3}{4}$ x $5\frac{1}{2}$ x $9\frac{1}{2}$
8 "L"	Seat Slats	$\frac{3}{4}$ x 2 x $21\frac{1}{2}$
4 Pair	Butt Hinges	2 x 2



Kenneth Hammond of Plum Borough, Pennsylvania, has recently made three major projects in his shop. The dry sink is an authentic copy of the Early American design made entirely of pine, Photo No. 1. The TV cabinet, Photo No. 2, and the eight foot stereo cabinet, Photo No. 3, are also matching pieces which are products of his shop. These three pieces are his first real attempt at making furniture. Keep up the good work, Mr. Hammond.

CHESSMEN DESIGNS

DAYTON, ILLINOIS:

I would very much like to make a chess set on my wood lathe. There are a few questions I would like to have answered first before I attempt to tackle the project.

1. Where can I get patterns for the various figures?
2. What kinds of wood are best suited?
3. Do you know of any problems that I might encounter?

Thanks in advance for any information you or your readers might have to offer.

G. L. R.

First of all, regarding the patterns of the various chessmen, we do not have anything in our files. I would suggest you visit your local library for design ideas. It may be that some

of the other homecraft publications may have something on this subject in their files.

The chessmen are usually made of hardwoods like walnut, white holly or any of the exotic foreign woods. You will have a little hand work to do after turning, like the features on the faces and so on.

The Editor

OF INTEREST TO WOOD CARVERS

The fourth International Folk Art Show will be held at the Great Mississippi Valley Fair, August 6-15 at Davenport, Iowa. Headlining the 1970 event will be the sixth International Decoy Contest, the forerunner of the expanded Folk Art Show of which it is now a division.

Well over 250 Decoys from the country over and Canada, as well as some from Europe, are anticipated by show officials. In the past, entries have been filed from England, Germany, and last year three Decoys were exhibited from Helsinki, Finland. An innovation of the 1969 fair—The Blue Ribbon—Purchase Award class, is to be continued in 1970. Thirty-two carvers won a total of 84 Blue Ribbons at four shows in 1969.

CHARGE TABLE FOR SERVICES RENDERED

OCEANSIDE, CALIFORNIA:

In the past twenty years, more or less, I have found that if a charge is made for the work I do for others, it is appreciated more than if no charge at all is made. A copy of such a bill is shown below to give our readers of Flying Chips magazine a better understanding of how the billing is made. You can see that the charges are all very reasonable. I feel that a workman should be worthy of his hire, and I'm not one to sell myself short. One thing that's not unusual—I'm still waiting to be paid for the first bill that's twenty years old. This bill will be like the rest, and all I'll get is "Thanks." Oh well, that's better than nothing—I think.

D. M. B.

REPAIR OF JEWEL BOX

Applying Glue to Box	
5 Places @ \$50.00 Each	\$ 250.00
Four Strips of Wood While Gluing	
@ \$50.00 Each	200.00
Two Clamps	
@ \$50.00 Each	100.00
Tightening Clamps	
2 @ \$50.00 Each	100.00
One Weight to Put on Top of Box (VERY HEAVY)	
	300.00
Temporary Repair of Catch	
	50.00
Covering Up OLD Scratches on Box	
	700.00
Insurance on Box and Contents While in My Care	
	1,000.00
Transportation from Lodge to Shop and Back to Lodge	
1 Come and 1 Go	
@ \$50.00 A Went	100.00
Total	\$2,800.00

I wonder if D. M. B. of Oceanside, California would like to present a bill like this to some of his clients? Oh well, you can't beat fun. Do any of you readers have any good comments you'd like to make?

The Editor

Apologies to Mr. Josef Goodman of Crawford, New Jersey for having omitted his name as the designer of the China Cabinet featured in the May-June 1970 issue.

The Editor



Kenneth Hammond of Plum Borough, Pennsylvania, has recently made three major projects in his shop. The dry sink is an authentic copy of the Early American design made entirely of pine, Photo No. 1. The TV cabinet, Photo No. 2, and the eight foot stereo cabinet, Photo No. 3, are also matching pieces which are products of his shop. These three pieces are his first real attempt at making furniture. Keep up the good work, Mr. Hammond.

CHESSMEN DESIGNS

DAYTON, ILLINOIS:

I would very much like to make a chess set on my wood lathe. There are a few questions I would like to have answered first before I attempt to tackle the project.

1. Where can I get patterns for the various figures?
2. What kinds of wood are best suited?
3. Do you know of any problems that I might encounter?

Thanks in advance for any information you or your readers might have to offer.

G. L. R.

First of all, regarding the patterns of the various chessmen, we do not have anything in our files. I would suggest you visit your local library for design ideas. It may be that some

of the other homecraft publications may have something on this subject in their files.

The chessmen are usually made of hardwoods like walnut, white holly or any of the exotic foreign woods. You will have a little hand work to do after turning, like the features on the faces and so on.

The Editor

OF INTEREST TO WOOD CARVERS

The fourth International Folk Art Show will be held at the Great Mississippi Valley Fair, August 6-15 at Davenport, Iowa. Headlining the 1970 event will be the sixth International Decoy Contest, the forerunner of the expanded Folk Art Show of which it is now a division.

Well over 250 Decoys from the country over and Canada, as well as some from Europe, are anticipated by show officials. In the past, entries have been filed from England, Germany, and last year three Decoys were exhibited from Helsinki, Finland. An innovation of the 1969 fair—The Blue Ribbon—Purchase Award class, is to be continued in 1970. Thirty-two carvers won a total of 84 Blue Ribbons at four shows in 1969.

CHARGE TABLE FOR SERVICES RENDERED

OCEANSIDE, CALIFORNIA:

In the past twenty years, more or less, I have found that if a charge is made for the work I do for others, it is appreciated more than if no charge at all is made. A copy of such a bill is shown below to give our readers of Flying Chips magazine a better understanding of how the billing is made. You can see that the charges are all very reasonable. I feel that a workman should be worthy of his hire, and I'm not one to sell myself short. One thing that's not unusual—I'm still waiting to be paid for the first bill that's twenty years old. This bill will be like the rest, and all I'll get is "Thanks." Oh well, that's better than nothing—I think.

D. M. B.

REPAIR OF JEWEL BOX

Applying Glue to Box	
5 Places @ \$50.00 Each	\$ 250.00
Four Strips of Wood While Gluing	
@ \$50.00 Each	200.00
Two Clamps	
@ \$50.00 Each	100.00
Tightening Clamps	
2 @ \$50.00 Each	100.00
One Weight to Put on Top of Box (VERY HEAVY)	
	300.00
Temporary Repair of Catch	
	50.00
Covering Up OLD Scratches on Box	
	700.00
Insurance on Box and Contents While in My Care	
	1,000.00
Transportation from Lodge to Shop and Back to Lodge	
1 Come and 1 Go	
@ \$50.00 A Went	100.00
Total	\$2,800.00

I wonder if D. M. B. of Oceanside, California would like to present a bill like this to some of his clients? Oh well, you can't beat fun. Do any of you readers have any good comments you'd like to make?

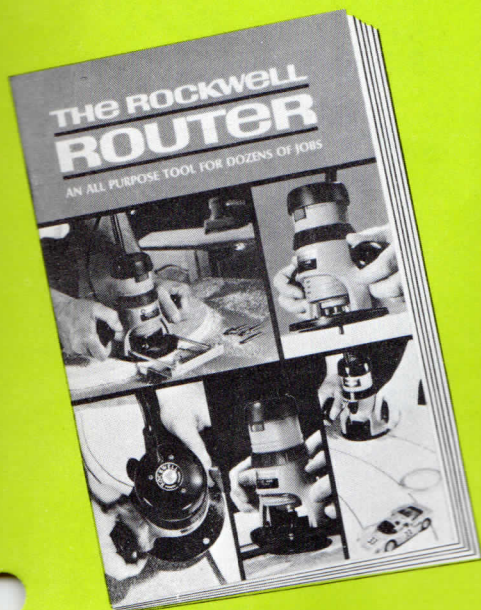
The Editor

Apologies to Mr. Josef Goodman of Crawford, New Jersey for having omitted his name as the designer of the China Cabinet featured in the May-June 1970 issue.

The Editor

NOW! Learn to be an Expert with the Router!

only \$2.00



The Rockwell Router is a beautifully bound, hard-cover handbook that contains all you need to know about routing. It's written in clear, easy-to-understand language with more than 125 photos and line drawings.

This book takes the "mystery" out of routing ... add it to your workshop library today!

Money Order or Check Must Accompany Each Order
(All Handbooks \$2.00 each)
Rockwell Manufacturing Company
Power Tool Division
400 N. Lexington Avenue
Pittsburgh, Pennsylvania 15208

Enclosed is my check or money order for \$.....
Please send me

Quantity	Book Title	Total
"PROJECT" BOOKS		
.....	Router	.....
.....	One Evening Projects	.....
.....	Projects For Outdoor Living	.....
.....	Practical Finishing Methods	.....
.....	Things To Make On The	.....
.....	Tools You Own	.....
"GETTING THE MOST OUT OF YOUR" BOOKS		
.....	Drill Press	.....
.....	Circular Saw and Jointer	.....
.....	Abrasive Tools	.....
.....	Lathe	.....
.....	Shaper	.....
.....	Band Saw and Scroll Saw	.....
.....	Radial Saw	.....
Total \$.....		

Name

Address

City..... State..... Zip Code.....



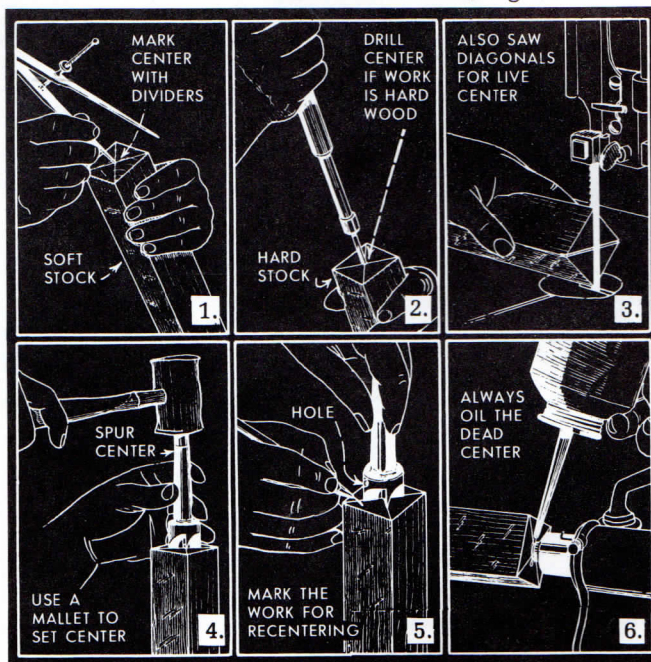
CRAFTSHEET

Centering Work
on a Wood Lathe
SERIES NO. 6

MARKING LATHE CENTERS FOR SPINDLE TURNING

Wood stock for any spindle turning should be approximately square, and the ends should be square with the sides.

After marking each end by drawing diagonal lines for finding a definite center, mark the center with a punch awl or dividers, Fig. 1. For hardwoods, drill a hole about 1/8" deep, Fig. 2. Make a starting slot for the spur center by cutting diagonal lines on the band saw, Fig. 3. The spur or line center is then placed against the end of the work and seated by striking with a mallet, Fig. 4. Should work be removed from the lathe before completion, make an index mark as a guide for re-centering as shown in Fig. 5. If a ball bearing center is not available, bees-wax or oil is used on the tailstock end, Fig. 6.



flying chips SUBSCRIPTION BLANK

Mail to: Power Tool Division • 400 N. Lexington Avenue • Pittsburgh, Pa. 15208

Enclosed is my check or money order for . . .

☐ 1 year (6 issues) \$1.75 ☐ 3 years (18 issues) \$4.00 ☐ 5 years (30 issues) \$6.00

Foreign countries add 50 cents per year extra for postage and handling.

Name

Address

City..... State..... Zip Code.....

Please Check ☐ New ☐ Renewal



I found a
great way
to keep
things
trim

I'll
buy that

quick 'n' easy

\$19⁹⁹
REG. \$29.99
SAVE
\$10.00

GATORTOOTH
HEDGE TRIMMER
(MODEL 35)



\$34⁹⁹
REG. \$39.99
SAVE
\$5.00

EDGER-TRIMMER
(MODEL 40)



Spring... for Rockwell Power Tools

ROCKWELL MANUFACTURING CO.
FACTORY SERVICE BRANCH
2755 N.E. BROADWAY
PORTLAND, OREGON 288-6888, 89