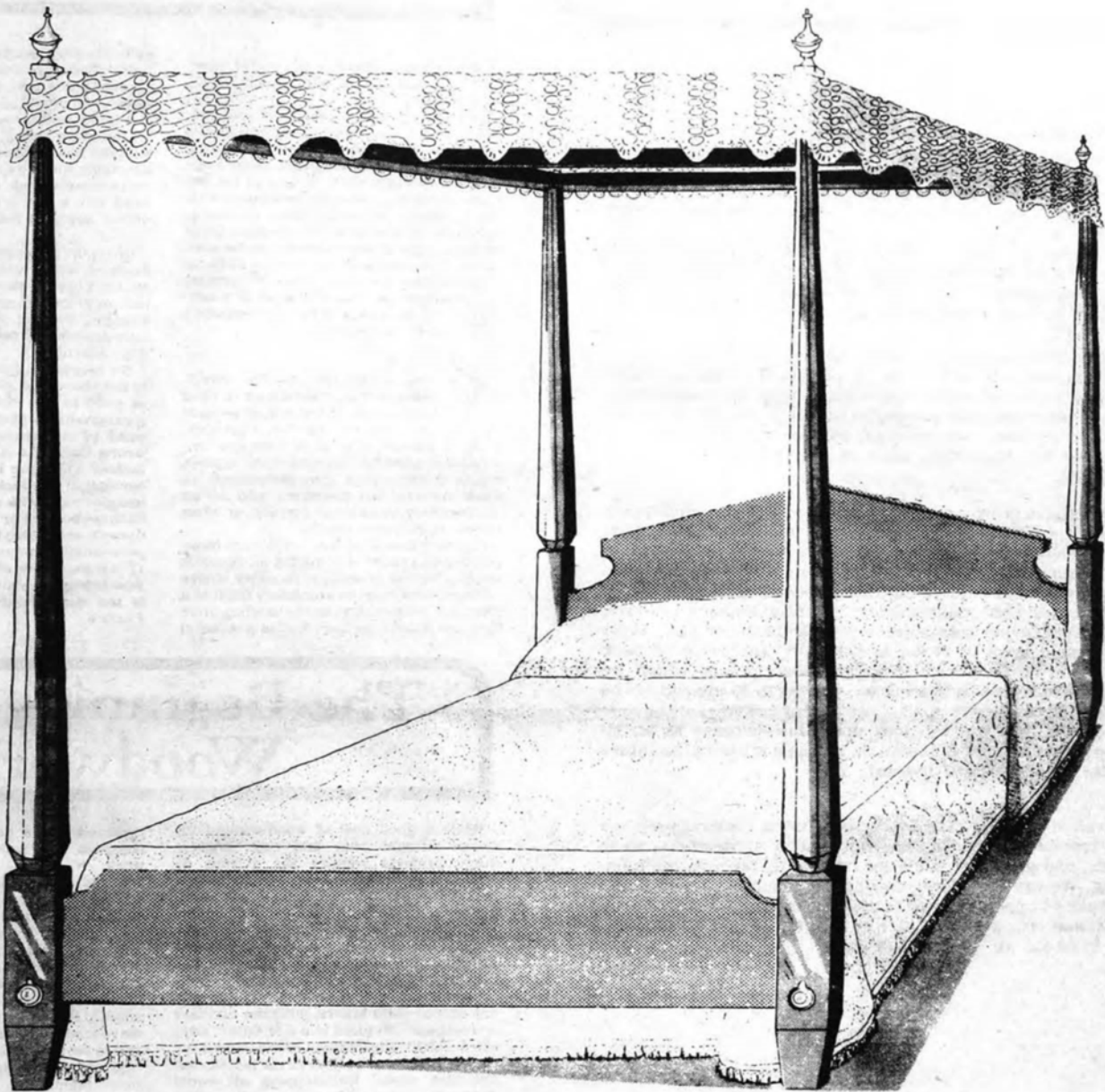


The Woodworker's Journal

VOL. 1, NO. 6

NOVEMBER/DECEMBER 1977

16 PAGES \$1.25



IN THIS ISSUE:

- Shaker Settee
 - Wine Rack
 - Valet Stand
 - Ox Yoke
 - 6 Holiday Gifts
- and much more . . .**

Shoptalk

This issue marks the close of our first publishing year, and it has certainly been an enlightening experience. We have had periods of heady exhilaration, grim frustration and sometimes, just before printing day, a feeling close to complete panic. Cameras have malfunctioned, manuscripts have been misplaced, and once, a wet Siamese cat sat down on a page of artwork, effectively obliterating eight solid hours of work. But the testimonials and other encouragement we've received, in the form of renewals and new subscriptions, have more than made it all worthwhile.

We've tried to answer every inquiry with some sort of personal note, or with a reply in the "Letters" column. Sometimes, as a deadline approached, the mail has piled up, but we have always managed to handle it somehow, for we feel strongly that such personal contact with our readers is not only an important part of publishing, but also a privilege.

As we have grown, so also have the problems and the cost of operating. While we've managed to contend with the usual and expected costs of soliciting new subscriptions, printing and mailing, we have found that factors, some of which are beyond our control, have inflated our expenses considerably over the past year. Consequently, starting January 1st, 1978, we must raise our subscription price to \$7.00 per year, from the present level of \$6.00. Additionally, the price of back issues will be \$1.50 each. Foreign subscriptions, which we have taken a bit of a beating on, will be \$9.00 instead of the present \$7.00.

We hope that you will look upon this increase as an investment in a better publication, and as a stake in the future of *The Woodworker's Journal*.

To all of you who have subscribed during the first year, we owe special thanks. You are our charter subscribers, so to speak, and are responsible for helping us through the launching. We are therefore offering all our original 1977 subscribers an opportunity to renew, before January 1st, for an additional year at the old rate of \$6.00 for domestic renewals, and \$7.00 for all foreign renewals.

The Woodworker's Journal

Sunset Lane
Washington Depot, Ct. 06794

Publisher and Editor... James McQuillan

Contributing Editor... Charles C. Burke

General Manager... Edward P. Kramer

Advertising Manager... Margaret E. McQuillan

Published bi-monthly by The Madrigal Pub. Co.
Sunset Lane, Washington, Depot, Ct. 06794
Address all mail: Subscriptions, change of address
to The Woodworker's Journal, Sunset Lane,
Washington Depot, Ct. 06794

Second Class Postage paid at
Washington Depot, Ct. 06794.

Copyright 1977 Madrigal Publishing Co.

Reprinting in whole or in part forbidden except by permission
of the publisher.

Subscription Rates:
1 yr. (6 issues) \$6.00

LETTERS

Do you know where to get metal hardware for building a baby crib? R.M., Navarre, Ohio.

We know of no source for this hardware, other than writing to the manufacturer of a particular crib, for replacement parts. Most of the special hardware (long rods, brackets, springs etc.) is needed for the operation of the moveable crib sides. This can be fabricated in the home workshop, but there are also good crib designs which do not require all that hardware. One such design is included in the *Sunset Book of Woodworking Projects*, Lane Publishing Co., Menlo Park, Cal. This book is a soft-cover, sells for about \$2.50, and contains a wide variety of projects.

As a new subscriber to *The Woodworker's Journal*, I was distressed to read sanding instructions at the end of several construction articles in the Sept.-Oct. issue. I submit that it is virtually impossible to sand satisfactorily after a piece has been assembled, and particularly so when construction members join at an inside corner on an outer surface, or when joined on different planes.

I think it would be best to instruct those who need to know to complete all possible sanding before assembly. In cases where two members must be absolutely flush at a joint, it is necessary to do the sanding after they are fitted together; but as a general

rule, sanding should be a first step (even before sawing to finish size in many cases) rather than a last step, as the articles in question indicate. J.D.L., Winchester, Va.

A point well taken. While a lot depends on the piece being made, we must agree with the above. Sanding thoroughly before assembly will always permit an easier and more complete job. In addition; we always sand with a fine grit after assembly, and before applying finish.

In your "Letters" column, S.S. of Foxboro, Mass. wishes details on making an Ox-Yoke. I suggest he purchase, or borrow from his local library, an edition of *Foxfire*, Volume No. 2 which contains instructions and details of measurements. J.S., Aiken, S.C.

We received so many responses similar to the above that we decided to include an ox yoke in this issue. After studying the measurements given in *Foxfire*, we must come to the conclusion that something is wrong. One yoke has a bow opening of 6 inches, while the larger yoke has a bow opening of 9 1/2 inches. We find it hard to imagine oxen with necks narrow enough to fit these bows. For decorative purposes, it doesn't really matter, but the yoke we personally measured had a bow opening of 12 inches, which seems more reasonable. Just thought we'd mention it...and thanks to the many readers who told us about *Foxfire*.

The Beginning Woodworker

While a good deal of woodworking involves straight lines and right angles, many projects require the cutting of circles and curved shapes. Down through the centuries, certain hand tools have evolved to efficiently handle such work, and it might be wise, at this point, to discuss the various operations necessary to produce curved work, as well as some of the basic tools needed.

The lay-out of circles or arcs is done, as any school child knows, with the dividers or compass. Dividers in a 6 or 8 inch size, are a worthwhile addition to the tool kit for they are used not only in circle layout, but are also useful for stepping off equal distances. Dividers have two legs, ending in sharp points. One leg is stabbed into the wood and the other scores the required circle. Occasionally, you may wish to mark a circle but would like to avoid marring the workpiece. In such a case it's better to use a compass which employs a pencil rather than a steel point. Some dividers have a removeable leg that can be

replaced with a pencil, but a dime store compass will prove adequate for most work.

Large circles can be laid out with a set of trammel heads which are mounted on a wooden beam, and can be adjusted for any large radius. If you intend to do a lot of work involving large circles or arcs, a set of trammel heads might be worth buying, but a simple shop-made device is effective for occasional jobs. Cut a thin wooden strip slightly longer than the radius needed and drive a small brad into the strip, near one end to serve as the circle center and pivot. The radius is then measured from the pivot point, and a small hole is bored through the strip, just big enough to slip a pencil point through. Figure 1 shows the device in use.

If you wish to avoid marring the workpiece by stabbing the point of a compass into the wood, support the point on a

Continued on Page 3

SUBSCRIPTION ORDER FORM

The Woodworker's Journal
DEPT. SL, SUNSET LANE
WASHINGTON DEPOT, CT. 06794

Please enter my subscription to *The Woodworker's Journal* for the price of \$6.00 for a full year (6 issues).

Foreign countries add \$1.00 extra

I enclose \$6.00 (Foreign countries — \$7.00 U.S.)

Name

Address

City

State Zip

Please allow 6 - 8 weeks for delivery of 1st copy

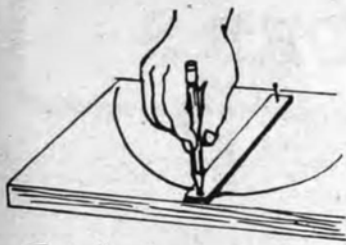
The Beginning Woodworker
(cont'd)

FIG 1

square of celluloid which has cross-marks etched on it to locate the center. A washer of sandpaper is cemented to the bottom of the square to keep it from sliding in use. (Fig. 2)

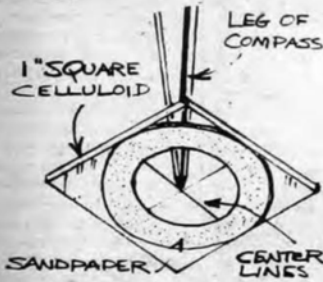


FIG 2

The preferred hand tool used to cut a circular shape is the compass saw, or its smaller, and narrower cousin, the key-hole saw. Both of these small hand saws are inexpensive, and can be considered as essential. The power tool counterpart is the saber or power jig saw. The typical "handyman" model of saber saw sells for about \$20.00, and is all right for occasional use in soft pine up to 1 1/4 inch thickness, but they are prone to overheating, and don't hold up very well when cutting hardwoods. As with most portable power tools, it is advisable to purchase the professional or commercial grade. Although they are considerably more expensive, they will do many more jobs than the cheap models, and last much longer. It is our opinion though, that it is a more valuable learning experience for the beginner to get the feel of controlling hand tools, and become proficient in keeping them sharp and in good condition.

The bow or frame saw (Fig. 3) is a very useful and versatile hand saw for cutting curves as well as straight lines. For some reason, it is not often found in American home shops, probably because few hardware stores stock it. But they can be easily

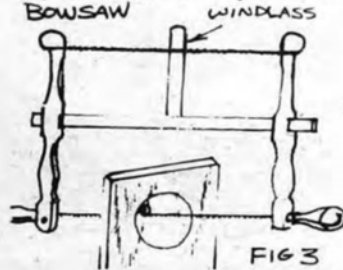


FIG 3

obtained from most mail order firms that specialize in woodworking tools, and are well worth the reasonable cost of about \$15.00. Blades come in various widths to handle small curves, and the wide blades are good for ripping. Blade tension is regulated by means of a thumbscrew or windlass, and these saws, when properly used, will cut quite effortlessly.

For small scroll work, in thin stock, the coping saw is usually used. This little saw has a removable blade held by loops or

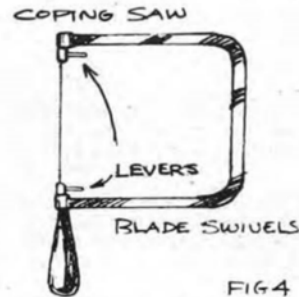


FIG 4

pins which engage slots in the saw frame. Again, like the bow saw, a variety of blades are available, ranging from 10 to 32 teeth per inch, and blade tension can be regulated, and the blade can be swiveled to any angle by moving small levers at the ends of the frame. When replacing blades, note that the teeth should slant downward, or toward the handle (Fig. 4).

Coping saws are generally used in conjunction with a notched board which is clamped to the bench top to support the work (Fig. 5). Closely related to the coping

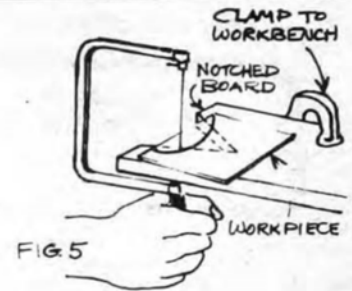


FIG 5

saw is the fret saw. This is smaller, and is used for fine cutting in delicate materials such as veneers used in marquetry work. With the proper blades, they are also used for delicate cutting of soft metals, ivory, and other materials used in jewelry work.

Cutting a circle or a deep curve involves approaching the grain from varying directions. This can cause splintering in certain woods, particularly fir. For this reason it is a good idea to make circular cuts 1/32 inch outside the line to allow for smoothing. Drawknives are useful for roughing down long curves. The blade is held with the bevel side down; taking short strokes. This hand tool of ancient origin is particularly effective when working large timbers such as the curving stems of wooden boats. The spoke shave (Fig. 6) is excellent for smoothing long curves, as it cuts like a plane with a regulated depth of cut. Spoke shave blades are generally straight across the width, but are also made with concave and convex blades for corresponding curves. The blade is usually held by a lever cap with adjusting screws. please turn to page 16



Firewood Box

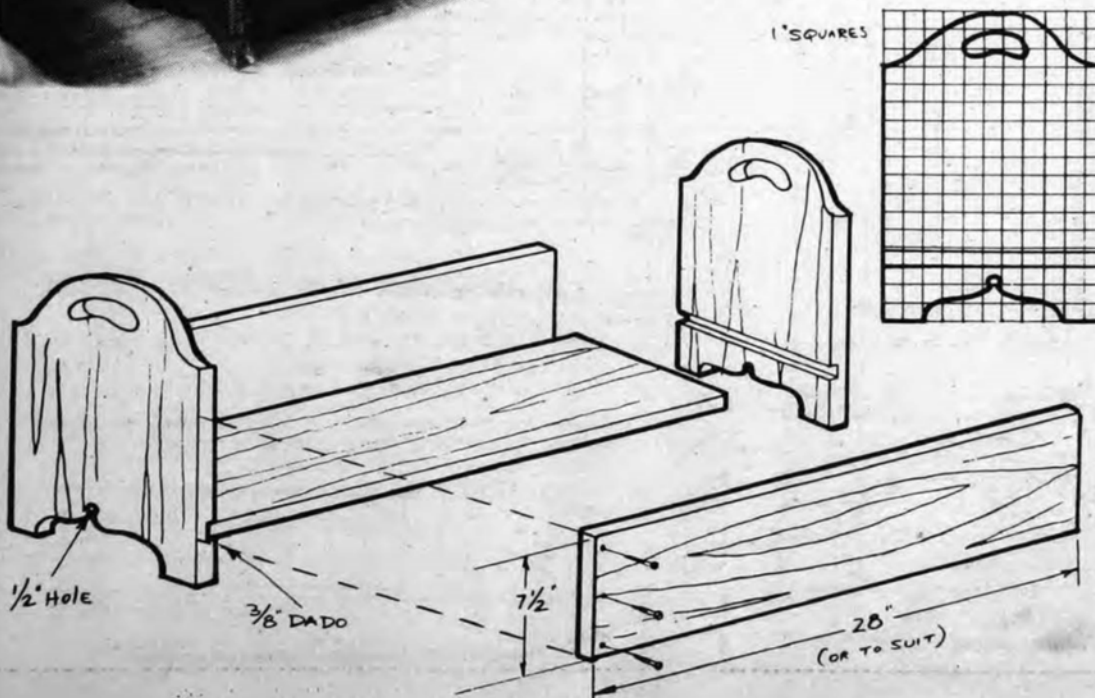
This firewood box provides a neat and convenient way to transport firewood and kindling from the woodpile to the stove or fireplace. It's the right size to hold an evening's supply of logs, without being too heavy to carry, and good-looking enough to sit on the hearthside.

The 28 inch length shown is long enough to hold logs for the average fireplace. If you have a stove or fireplace which will not take logs longer than 24 inches, adjust the length accordingly.

The box shown in the photograph is quite old, and made entirely of chestnut; a wood that is no longer available commercially. Any wood is suitable, but a hardwood woodbox will take more of a beating than one made of pine. The pattern for the end

pieces is transferred to 1 x 12 inch stock and cut to shape. Cut dados in each end piece to receive the bottom which can be either solid stock or 1/2 inch plywood. Bore holes at each end of hand holes and clean out with a compass saw. When cutting the bottom scroll, drill the hole first, and then cut up to it.

The box sides are cut from 1 x 8 inch stock and are screwed to the ends, and nailed to both edges of the bottom. Counterbore the screws deep enough to fill the holes with plugs for a pegged appearance. Round all edges, especially the top edges of sides to reduce splintering. Finish with stain or paint.



2500 TOOL CATALOG

This New 104 page, 4 color catalog contains a complete line of woodworking hand tools and accessories chosen from the manufacturers of the highest quality tools in Europe and America. The fine collection includes tools for Woodcarving, Cabinetmaking, Veneering, plus special tools for Miniature Work, Musical Instruments and Boat Building and a selection of Design Books, How-to Books and Measured Drawings. Every tool is fully described and where necessary its use explained.

Catalog 50¢ in Coin or Stamps

WOODCRAFT

Dept. WJ 127 313 Montvale Ave.
WOBBURN, MASS. 01801

Valet Stand

If you're one of the well organized types...you probably already have one of these stands. If, however, you are among the great majority of us who stagger about early in the morning, groping for trousers on the backs of chairs, and neckties hanging from doorknobs, you'll appreciate this useful piece. It will hold jacket, slacks and necktie wrinkle-free. Shoes sit on the bottom rungs, ready for action, and the small tray will hold wristwatch, eyeglasses, wallet and pocket change.

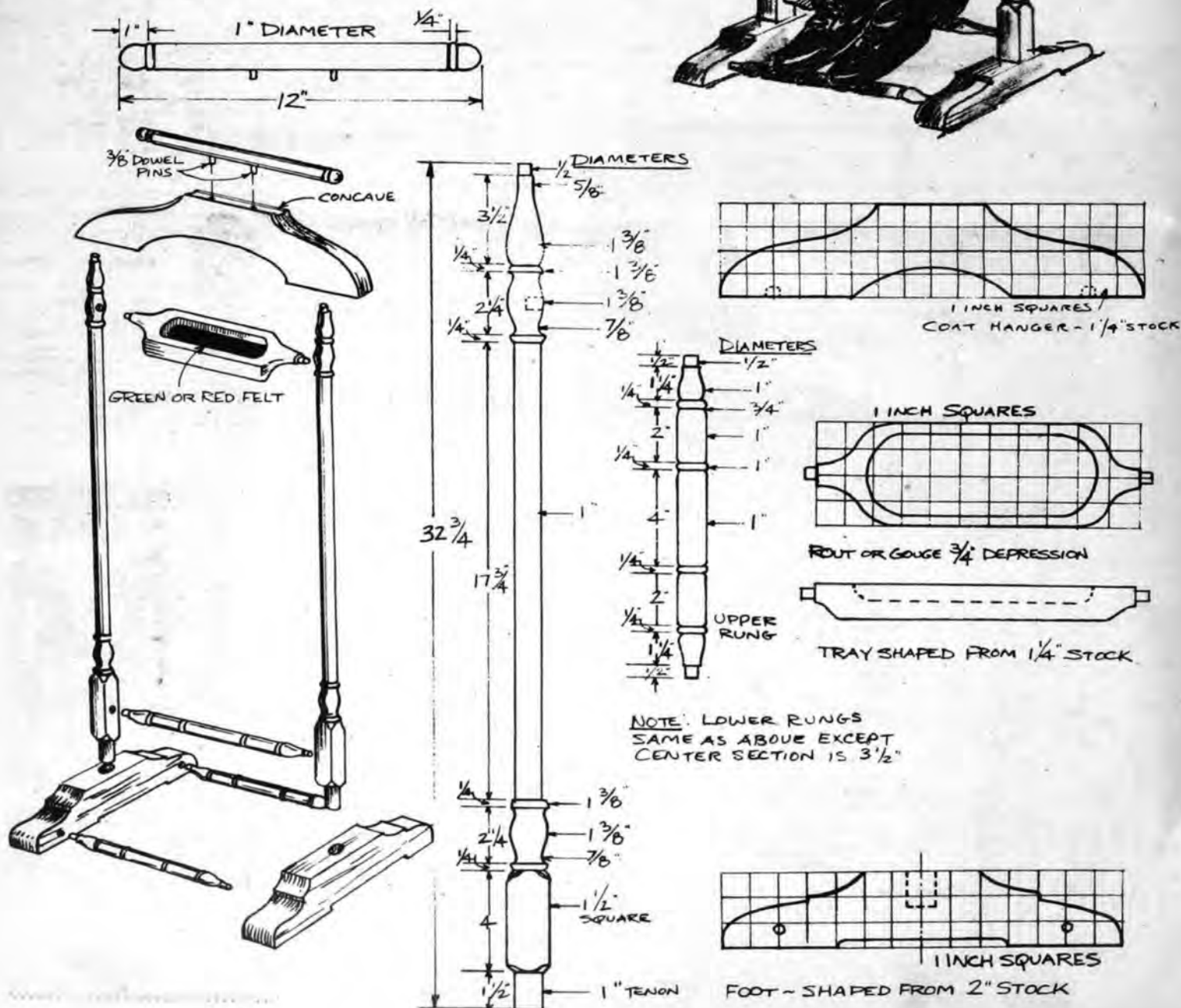
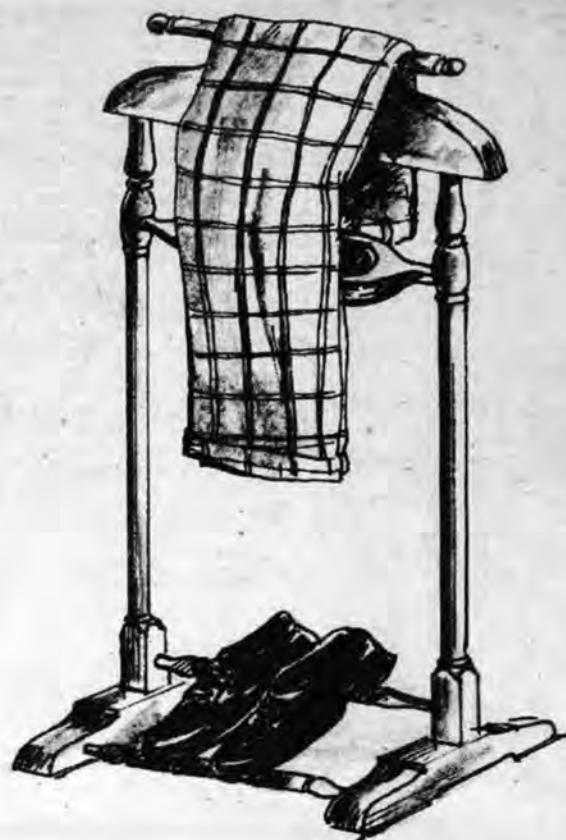
Duplication of posts, rungs and pants bar, as shown, will require lathe work, but if you lack this machinery don't let that stop you. Square posts, with neatly chamfered corners, can replace all turned parts. The piece may not look quite as elegant, but it will be no less useful. It is suggested that a hardwood such as maple be used for all turned parts. Coat hanger, tray and feet can be shaped from either pine or hardwood.

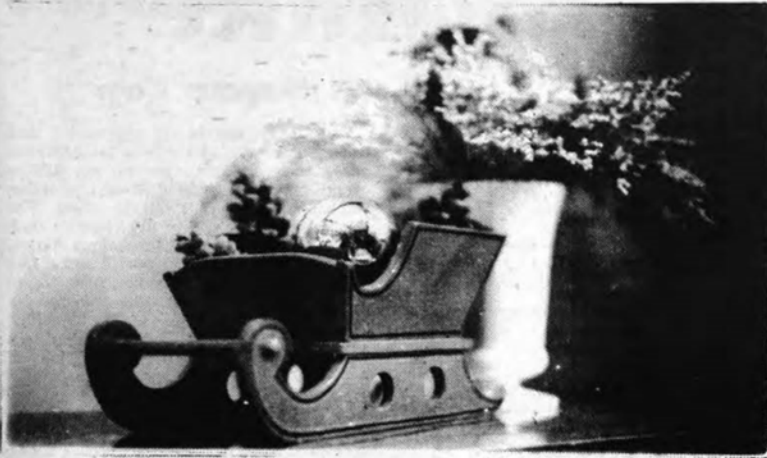
The $1\frac{1}{2}$ " x 34" long posts are turned first, taking care to keep them identical. Pre-drill sockets for tray tenons and upper rung before mounting in the lathe. Use a large gouge to bring turned portions to a

cylindrical shape, then mark locations of various shapes and finish with gouge and skew chisel. The three rungs and pants bar are shaped from $1\frac{1}{4}$ " stock, cut a couple of inches longer than needed. After turning, the tenons can be trimmed to $\frac{1}{2}$ " inch length.

Enlarged patterns for the coat hanger and tray are transferred to $1\frac{1}{4}$ " stock for shaping with compass or bandsaw. The top edge of coat hanger is shaped with a rasp to form a concave trough that matches the pants bar. All edges should be well rounded. Feet are shaped from 2" stock and bored to receive 1" post tenons, and $\frac{1}{2}$ " inch rung tenons.

Sand all shaped parts thoroughly before assembling with glue. The piece may be left natural or stained. An antique glaze of thinned burnt umber, applied to the turnings, and wiped off before drying, will give the piece an old mellow look. Finish with two coats of low-luster varnish. A piece of felt cemented to the bottom of the tray will help silence the clatter of loose change being dumped late at night.





Victorian Sleigh

The little sleigh shown in the photo was made one weekend just before Christmas of 1964. Since then, it has been brought out each Christmas and, in our home, has become as much a part of the holiday season as the Christmas tree itself. Use it as a table centerpiece, decorated with golden balls, pine cones and a sprig or two of evergreens. Or fill it with nuts and hard candy for holiday guests. In Victorian times, these quaint sleighs were made for small dolls, and as a gift for a small child, they are as appropriate today as they were in 1877.

The entire sleigh is made of $\frac{1}{4}$ inch plywood, and one short length of $\frac{3}{8}$ inch dowel. If you have some odd scraps in the shop, this is a good way to put them to use. Enlarge patterns and transfer to plywood. Shape the runners with coping saw, sand them well and fasten to platform with glue and a few small brads. In the original, the dowel protrudes through the sides of runners and the dowel ends were carved to a rounded shape and painted gold. Two

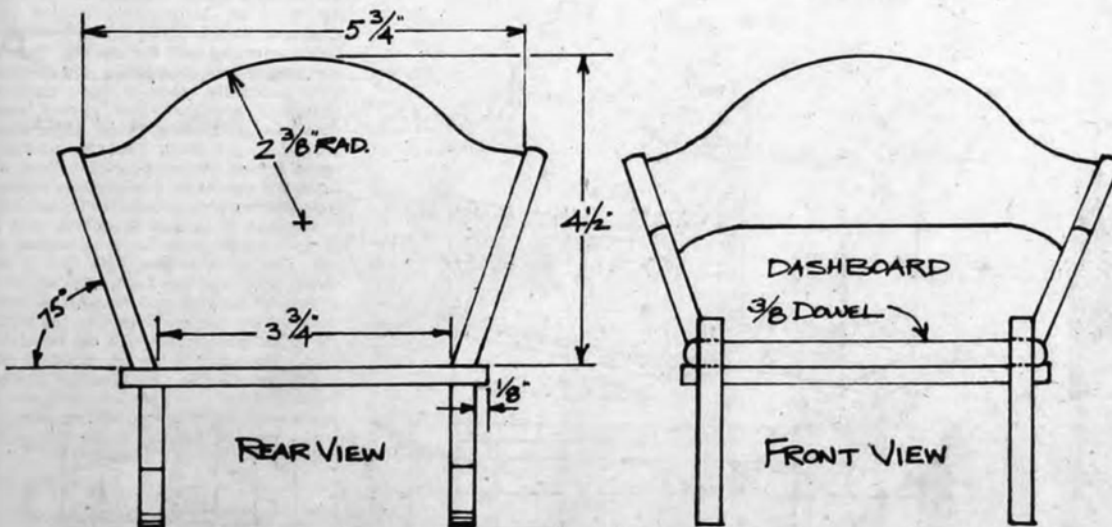
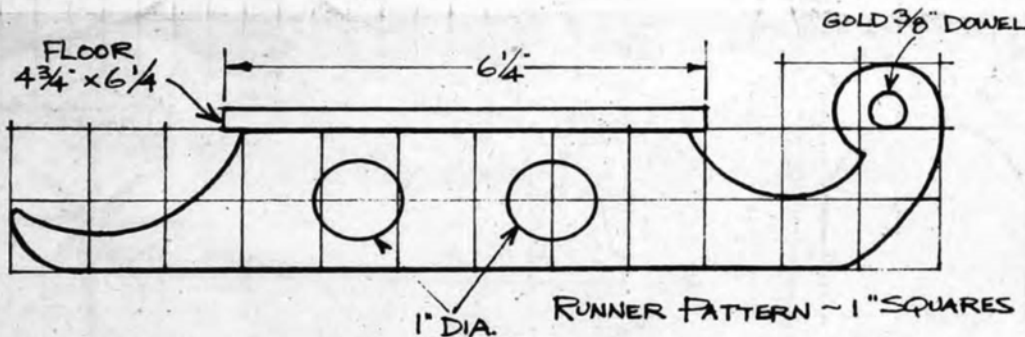
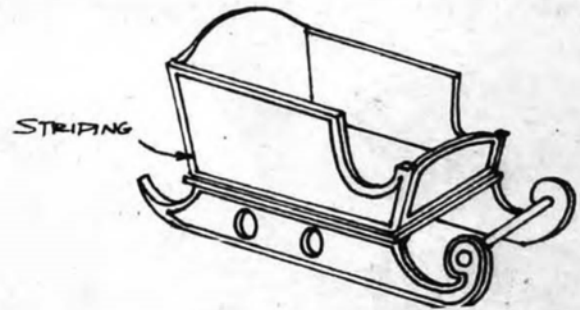
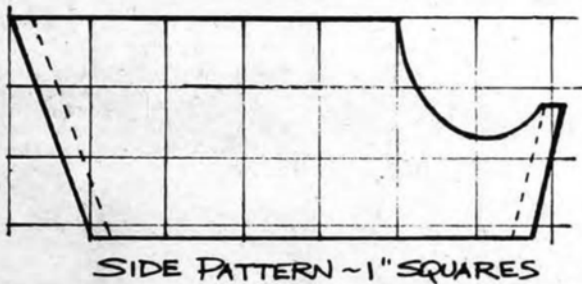
fancy rosettes glued over each dowel end would look even better.

The parts of the upper box are cut to size, sanded and their bottom edges beveled with a block plane to the angles necessary to achieve a good tight joint with the platform. Glue box in place, and when glue has cured, break all sharp edges with sandpaper.

Seal the sleigh with thinned shellac and give it two or three coats of bright red enamel, lightly sanding between coats. A fancy striping job will add considerably to the charm of this piece. The original was striped with thin lines of black and gold; laid on with a striping brush. If your line wanders a bit, simply wipe it off the smooth enamel and try again.



CHRISTMAS SLEIGH ~ $\frac{1}{4}$ " PLYWOOD



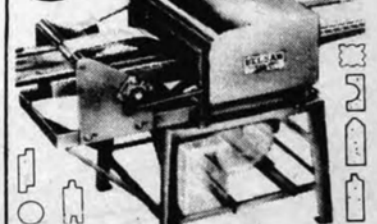
Superior.

The Mason & Sullivan Clock you build.

The finest woods and imported movements distinguish Mason & Sullivan's 19 different styles of floor, wall, and mantel clocks—all replicas of classic antiques. Send \$1 for catalog and plans to build grand-father clock shown, or 50¢ for catalog alone to: MASON & SULLIVAN CO. Dept. WJN8/39 Blossom Ave. Osterville, Mass. 02655.

Planer Molder Saw

3 Power Tools in 1



Now you can use this ONE power-feed shop to turn rough lumber into moldings, trim, flooring, furniture—ALL popular patterns. RIP-PLANE-MOLD... separately or all at once with a single motor. Low Cost... You can own this power tool for only \$59 down.

30-Day FREE Trial! EXCITING FACTS NO OBLIGATION—NO SALESMAN WILL CALL RUSH COUPON TODAY! BELSAW POWER TOOLS CO. 3941 Field Bldg. Kansas City, Mo. 64111

BELSAW POWER TOOLS 3941 Field Bldg. Kansas City, Mo. 64111

☐ YES Please send me complete facts about PLANER—MOLDER—SAW and details about 30-day trial offer.

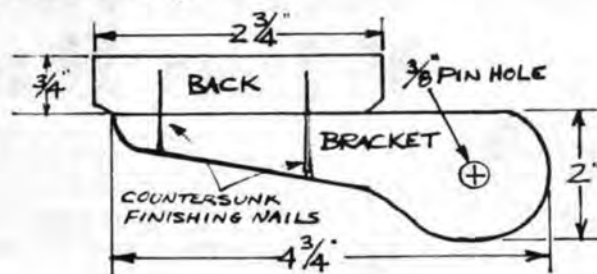
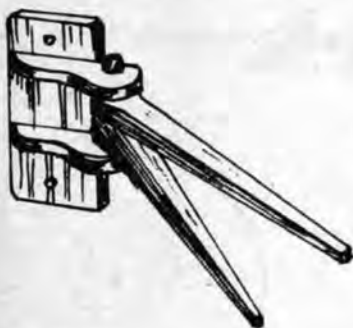
Name _____

Address _____

City _____

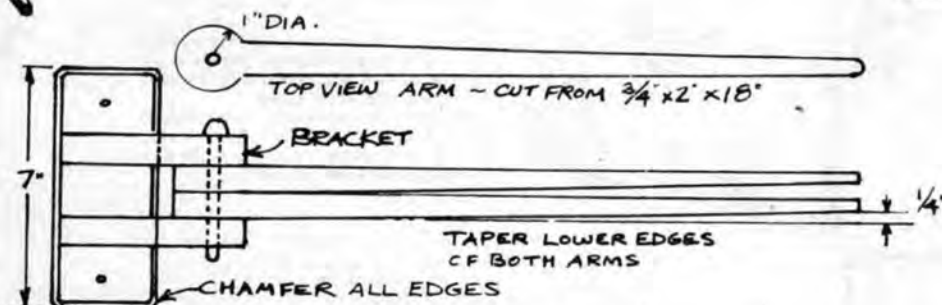
State _____ Zip _____

6 Holiday Gifts (cont'd.)

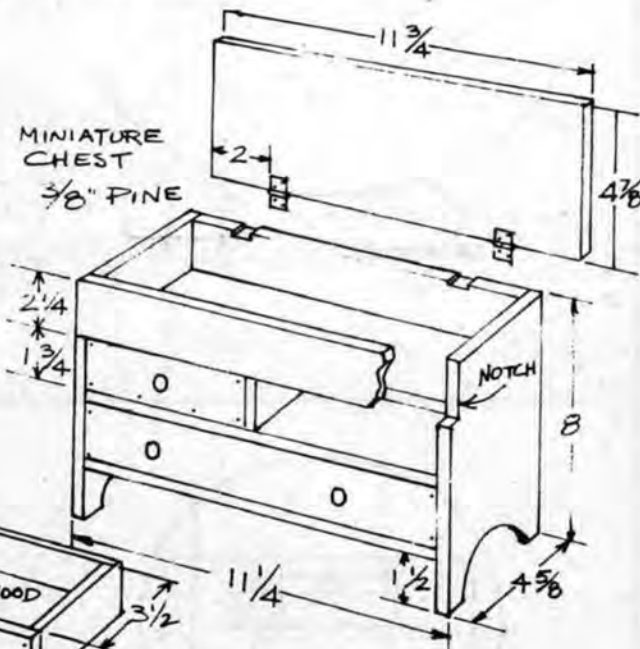


Towel Rack

This homey towel rack is based on an original Shaker design, and like most Shaker pieces, is attractive as well as being functional. The 1 x 2 3/4 x 7 inch back piece can be made of pine with the outer edges chamfered. This is screwed to a convenient wall location. The brackets, arms and pin should preferably be of hardwood. Brackets are glued and nailed to the back. The pin may be shaped from maple or birch dowel, and has a conical or round knob to hold it in place. It should be an easy slip fit. By making the back piece a bit longer, an extra bracket and arm can be added to increase the capacity.



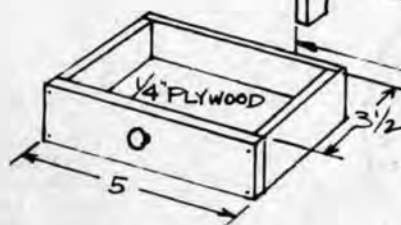
MINIATURE CHEST
3/8" PINE



Miniature Chest

Many years ago, furniture salesmen carried small models of their wares, and some of these tiny antiques are exquisite. This little chest will be most welcome as a small desk organizer for stamps, paper clips and the like or with the addition of velvet covered cardboard liners, it will make a very nice jewelry box. Plane 1/2 inch pine to a thickness of 3/8 of an inch. If you're inclined to take the time, the upper bottom panel, drawer divider, and supports can be inserted into dadoes; otherwise, glue and brads will do the job.

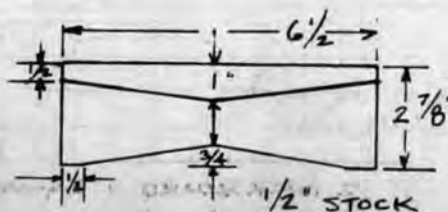
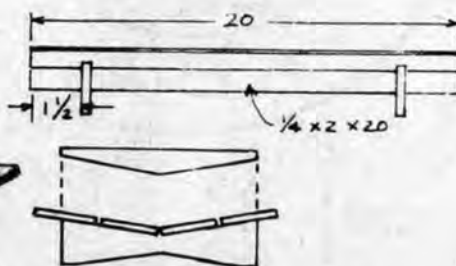
The tiny drawers can have 3/8 inch bottoms nailed in place through the front and sides, but it is better to use 1/4 or even 1/8 inch plywood resting in grooves cut in the front and sides. Finish with slight distressing and an antique pine stain.

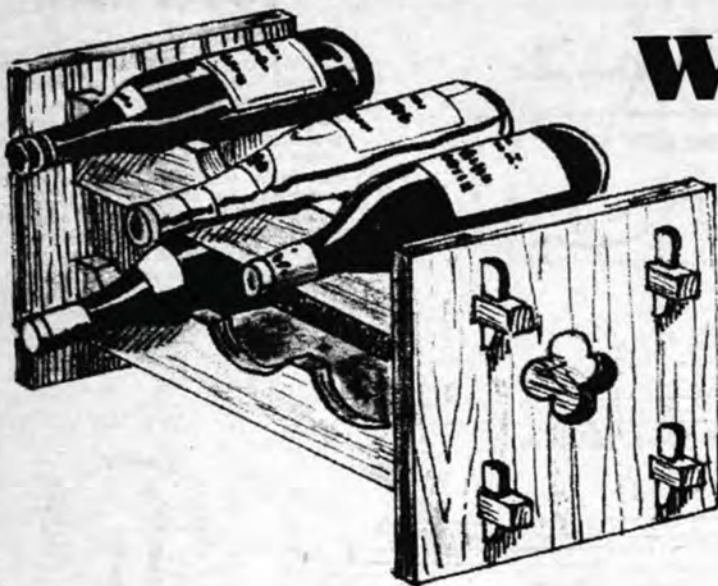


Fruit Tray

This contemporary piece can be used to hold almost anything. It also makes a very nice centerpiece and a welcomed gift. Walnut, in 1/2 inch thickness is the preferred wood.

Cut two rectangles 2 1/2 x 6 1/2 inches, and then cut apart as shown, and shape the bottom edges. The tray slats consist of four 1/4 x 2 x 20 inch pieces spaced 1/8 inch apart and glued to the feet. Then glue the upper end pieces in place. Finish by rubbing in several coats of vegetable oil.



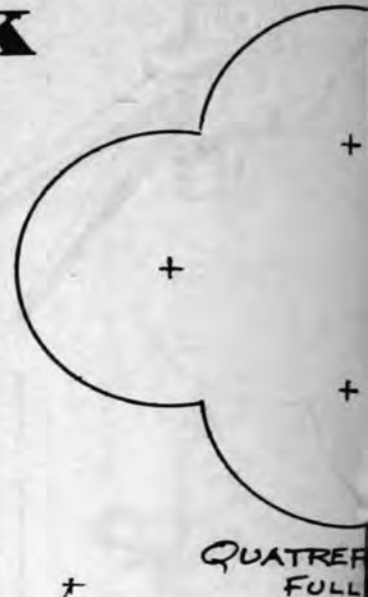


Wine Rack

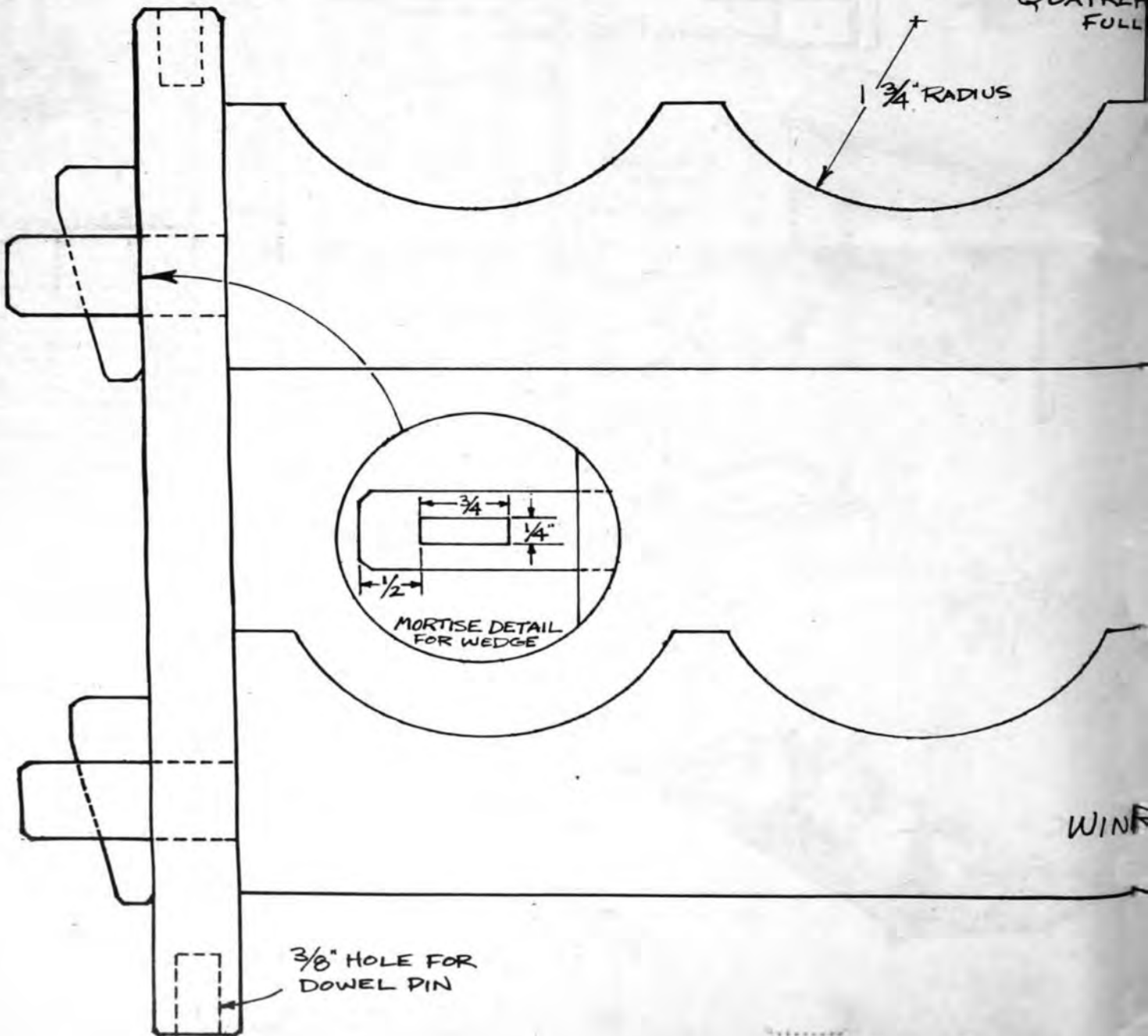
This good-looking wine rack, as shown, will hold six bottles tipped at the proper angle to keep the corks moist. It can be lengthened to hold up to 10 bottles, and if $\frac{3}{4}$ inch holes are drilled in top and bottom edges, the racks can be stacked by inserting dowel pins in the bottom edges of upper racks.

Build the rack of $\frac{3}{4}$ inch pine or oak. Wedges are shaped from $\frac{1}{4}$ inch hardwood. Four bottle carriers are required for one rack, and it would be a great help to stack-saw these with a bandsaw. If you intend to make several racks, the outside edges of each end should be given a slight bevel so that a V-groove effect is achieved when the racks are stacked.

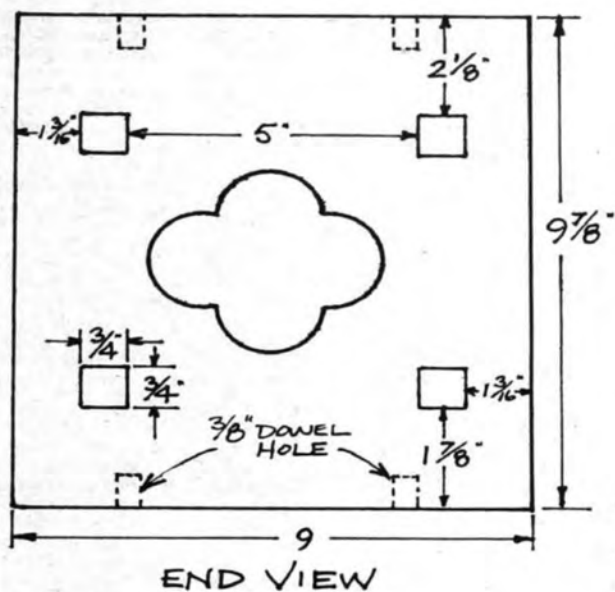
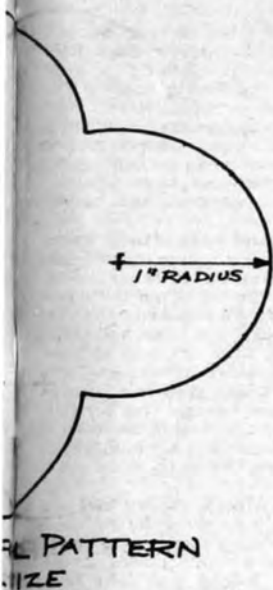
The pierced quatrefoils and wedged tusk-tenons give the piece a Spanish look, so the most appropriate finish would be a distressed, dark walnut stain.



$1\frac{3}{4}$ " RADIUS



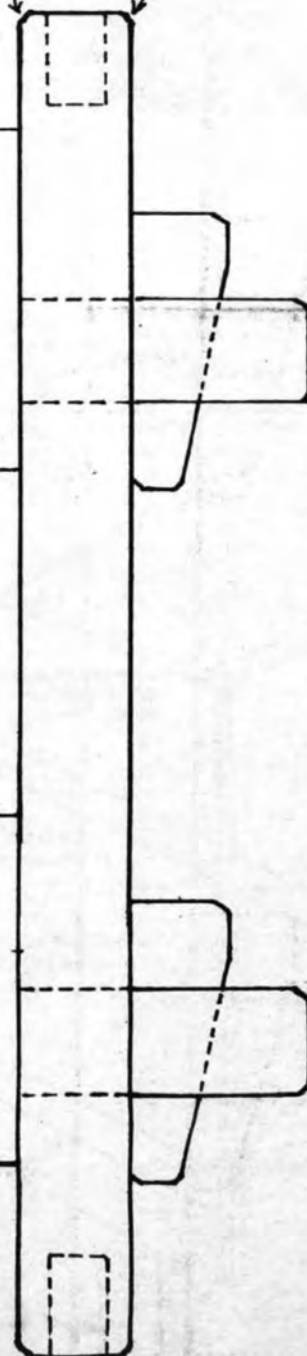
$\frac{3}{8}$ " HOLE FOR DOWEL PIN



BEVEL
CORNERS

TOP & BOTTOM
BOTTLE RACKS ~ 3/4" x 2 1/2" x 19 1/8" (INCLUDES TENONS)

RACK ~ FULL SIZE



Pencil-Post Bed

A bed is, without a doubt, the single most significant and intimate piece of furniture in our lives. It is a place where life begins and ends; where marriages are consummated, and sometimes dissolved, and a vessel upon which we travel, for a good one-third of our lives, to that world beyond consciousness where we are regenerated to face yet another day.

In the traditionally decorated home, few pieces are as imposing as a tall, four-poster bed with a canopy, and the pencil-post, or octagon poster is one of the very few authentic designs that can be reproduced without the need for lathe work. Its understated elegance rates it as one of the finest examples of early 18th century furniture design. We can't imagine a finer wedding gift for a son or daughter.

Liberties have been taken with the original design in order to make use of modern bed springs and mattresses. The original beds used a rope mattress which was fastened to wooden pins set in the rails. Before attempting construction, it is imperative that you have the spring and mattress on hand so that the bed can be dimensioned accordingly. Mattresses and springs come in standard sizes (twin, 39" x 74"; full, 54" x 74"; queen, 60" x 80") but there is some variation between manufacturers, both as to width and thickness, so they should be measured carefully. Generally, the top of the spring should be about 18 inches from the floor. Add another 6 inches for the mattress and you have a total height of 24 inches, which is about right for a bed of this type. Antique beds were much higher, and even required step-stools, but modern baseboard heating has made such height

unnecessary.

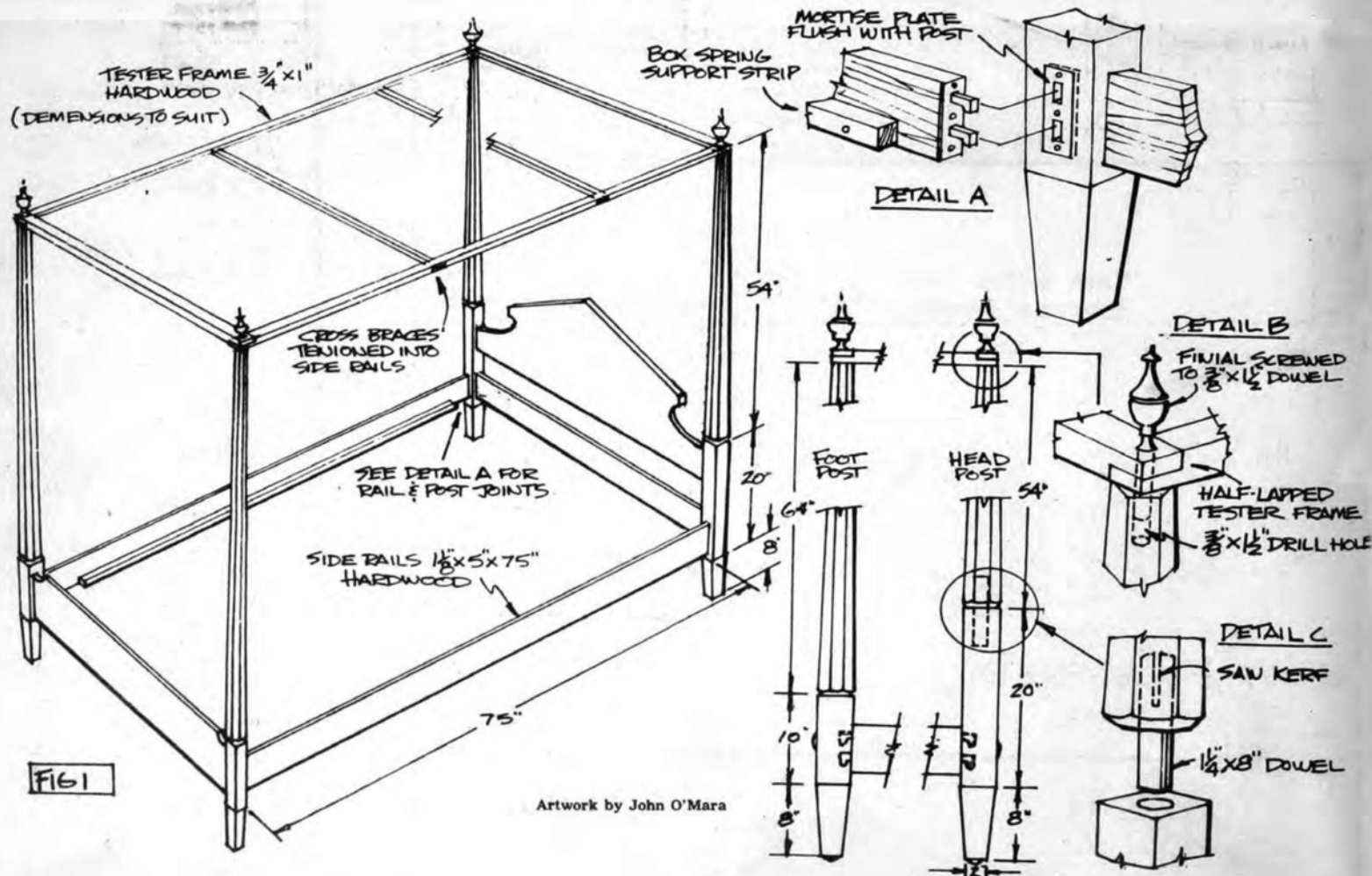
The parts of the bed that can be seen should be made of cherry, though Honduras mahogany is certainly a good substitute. Side rails can be made of any tough hardwood, or even yellow pine. Securing 4 x 4 stock for the posts will be a problem for most woodworkers, and it is suggested that the posts be built up by gluing two or more pieces together. Naturally this involves very careful joining.

The lower square section of the posts are easily shaped with a square tapered foot. Note that the actual size of the posts is 3½ inches square. The top of the lower post must be absolutely flat and square to the center. This applies also to the butt end of the upper post. Drill both post sections, while still in the square, to receive a 1½" x 8" dowel. The 4 inch deep hole bored in each section must be done very carefully to insure that it is parallel to the center of the posts. A small variation here will be painfully apparent 5 feet up at the top of the post.

The octagonal posts require care and patience, but are not particularly difficult to get out. Most home shop table or radial-arm saws are woefully inadequate for handling such a long and hefty stick. Sometimes it's easier to get the work done with hand tools, rather than spending a lot of time building jigs and fixtures for a one-shot job. The best approach is to cut the stick to a tapered square; from 3½ inches at the butt to ¾ inch at the top. If you are

continued on next page

Artwork by Cathy Utter



Artwork by John O'Mara

Pencil-Post Bed (cont'd.)

good with an adze or sharp hatchet, the stick can be hewn to a rough taper, leaving enough excess to plane down to final dimensions. A sharp draw knife will do the job, as will a portable circular saw, cutting first from one side and then the other, to get the full depth of cut. Use a new or freshly sharpened blade. If you are fortunate enough to have a big power jointer, you're in business.

When the stick has been tapered, carefully lay out the eight sides along the length and at both ends, and plane the flats. Go slowly at this phase, and strive for a uniform taper of each side, from butt to tip. (Fig. 2)

After all four upper posts have been completed, grove the upper half of each 8 inch dowel to allow for escape of air and glue. Then glue dowels into the octagonal posts only. The dowels should fit quite snugly into both post sections, and the joint between upper and lower posts should be hardly noticeable.

Next, lay out the mortises for head and foot boards, and the location of side rails. There are several ways to join side rails to posts. The old-fashioned way is to drill through posts and into hefty side rails, and join the two with a bed-bolt. This method is probably the most difficult, and requires special bed-bolts, a wrench to tighten them, and extra thick side rails. With this arrangement, the bed spring usually rests directly on top of the rails. The easier and more modern method is to use the hardware shown in detail A. This is easily installed, without any heavy mortising, and disassembly of the bed is simple. Use 1"x5" hardwood for the side rails, as

considerable stress is placed on this members. The spring can rest upon a 1"x1" hardwood strip screwed close to the bottom edge of the side rails, or on bed angle irons either hooked over the rails or screwed to them.

Head and foot boards are glued up to required widths from narrower stock, and shaped with a tenon on each end as per Fig. 5. These tenons are shouldered, but that's no excuse to cut a sloppy mortise. Care should be taken to achieve a good snug fit. All tenons are secured with glue and 3/8" inch dowel pins.

The Design of the headboard departs from the usual custom of having two tenons at each end. This avoids the necessity of cutting mortises into the octagonal portion of each post, and makes for a much more attractive headboard but at the cost of sacrificing rigidity. Headboard stock should therefore be a minimum of 1 full inch thick (actual) and three hardwood cleats should be installed on the back side to help prevent twisting of the headboard.

The top of each post is drilled to receive a 3/4"x1 1/2" dowel to which the finial is screwed. (Detail B) Brass finials may be used, or the finials can be lathe-turned, complete with dowel, from matching hardwood. The canopy frame, or tester is made of 3/4"x1" hardwood. Determine measurements after posts and rails have been assembled. There are two center braces on the tester frame, shown in Fig. 1, and these may be through-mortised into the long rails. All joints in the tester should be left unglued for easy disassembly and storage.

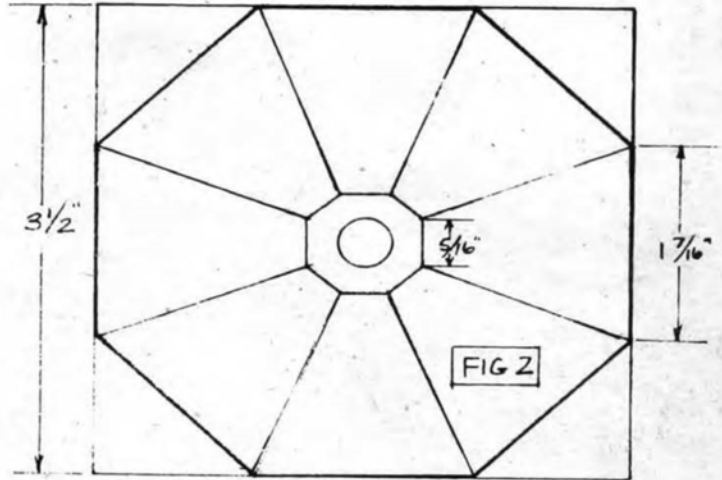
An ideal finish for this type of bed is a rubbed oil finish which will bring out the color and grain of the wood. Heat up a container of boiled linseed oil and apply generously to all surfaces with a rag. After half an hour, wipe all surfaces completely dry. Wait 24 hours and then sand lightly with at least 220 grit paper; then repeat the oil application and wiping. Four such application will result in a beautifully soft luster. After a couple of weeks, apply a good furniture wax, followed by buffing.

Whether you use bed-bolts or not, it's a nice touch to install brass bolt covers about an inch or so up from the tapered portions of each post. Domes of silence should also be installed on the bottom of each foot.

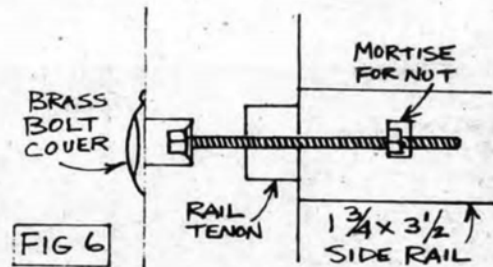
Bed hardware can be obtained from the following suppliers:

Craftsman Wood Service Co., 2727 S. Mary St., Chicago Ill. 60608 (bed fastening hardware) Catalog - 50c

Horton Brasses, Box 95, Nooks Hill Rd., Cromwell, Ct. 06416 (Bed fasteners, bed-bolts, bolt covers and finials) Catalog - \$1.25.



TOP VIEW OF OCTAGONAL POST
(ACTUAL SIZE)



SECTIONAL VIEW OF
POST & SIDE RAIL
JOINED WITH 7" BED BOLT

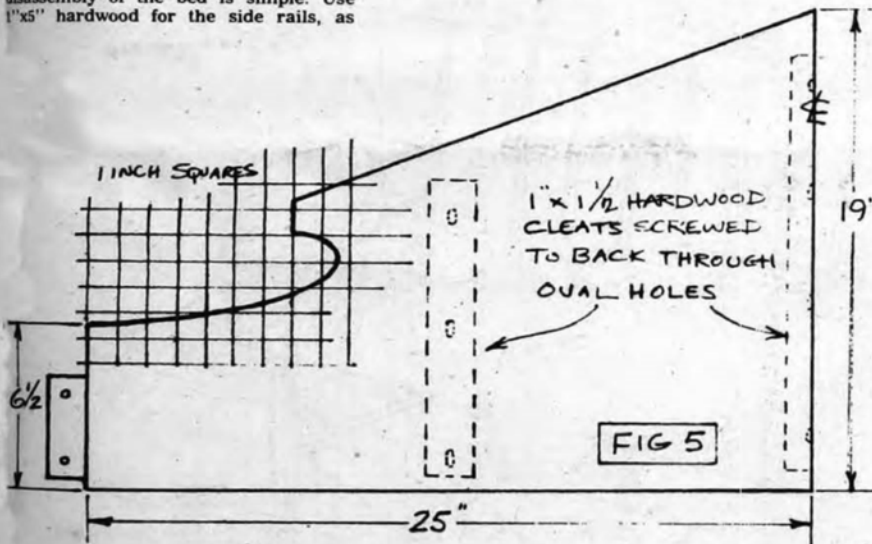


FIG 5

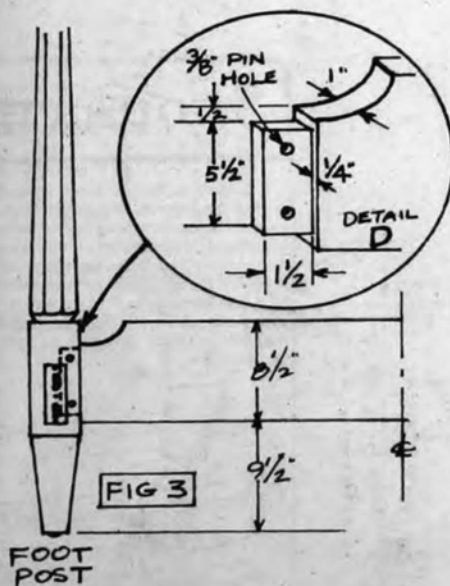


FIG 3

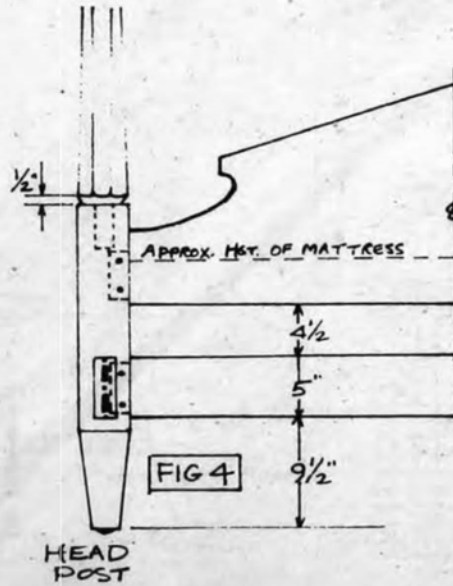
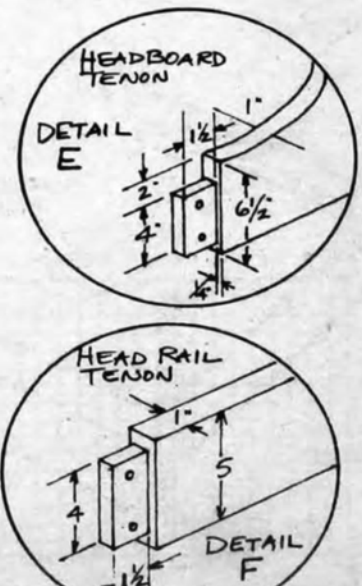
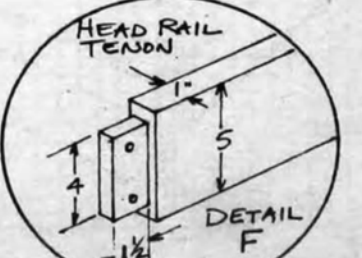


FIG 4

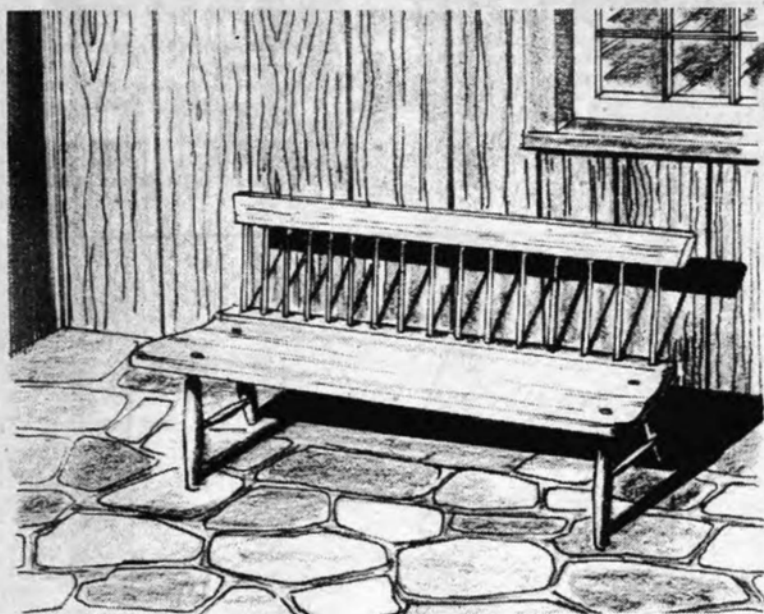


DETAIL E



DETAIL F

Shaker Settee



This classic piece was made by the Shakers for use in their meeting rooms. The basic design is believed to have originated at the Canterbury New Hampshire community, sometime around 1830. The shorter version is a versatile addition to the modern household. Use it as a decorative accent for a sheltered entryway, or to add interest to a long hallway wall. If all components are uniformly shaped and sanded carefully, this settee has an uncluttered, contemporary look. A rustic appearance can be achieved by shaping spindles and legs with a drawknife and plane, and by leaving tool marks on the seat.

The originals were made with pine seats and backs, while legs were turned from maple. Ash or hickory are excellent for the thin back spindles. The seat is glued up from two pine boards of at least 1 1/4 inch thickness. Locate and drill 3/8 inch holes for leg tenons before shaping the seat. Note that legs splay to front and rear, but are perpendicular to seat when viewed from the front. Use a bevel square to line up the auger for boring these holes at the proper angles. An in-shave is a very handy tool for shaping the concave portion of the seat. A bench or radial-arm saw can be used to cut the shallow cove near the back edge, which can then be finished with curved scrapers and sandpaper. A jack plane will make quick work of rough shaping the forward portion of the seat.

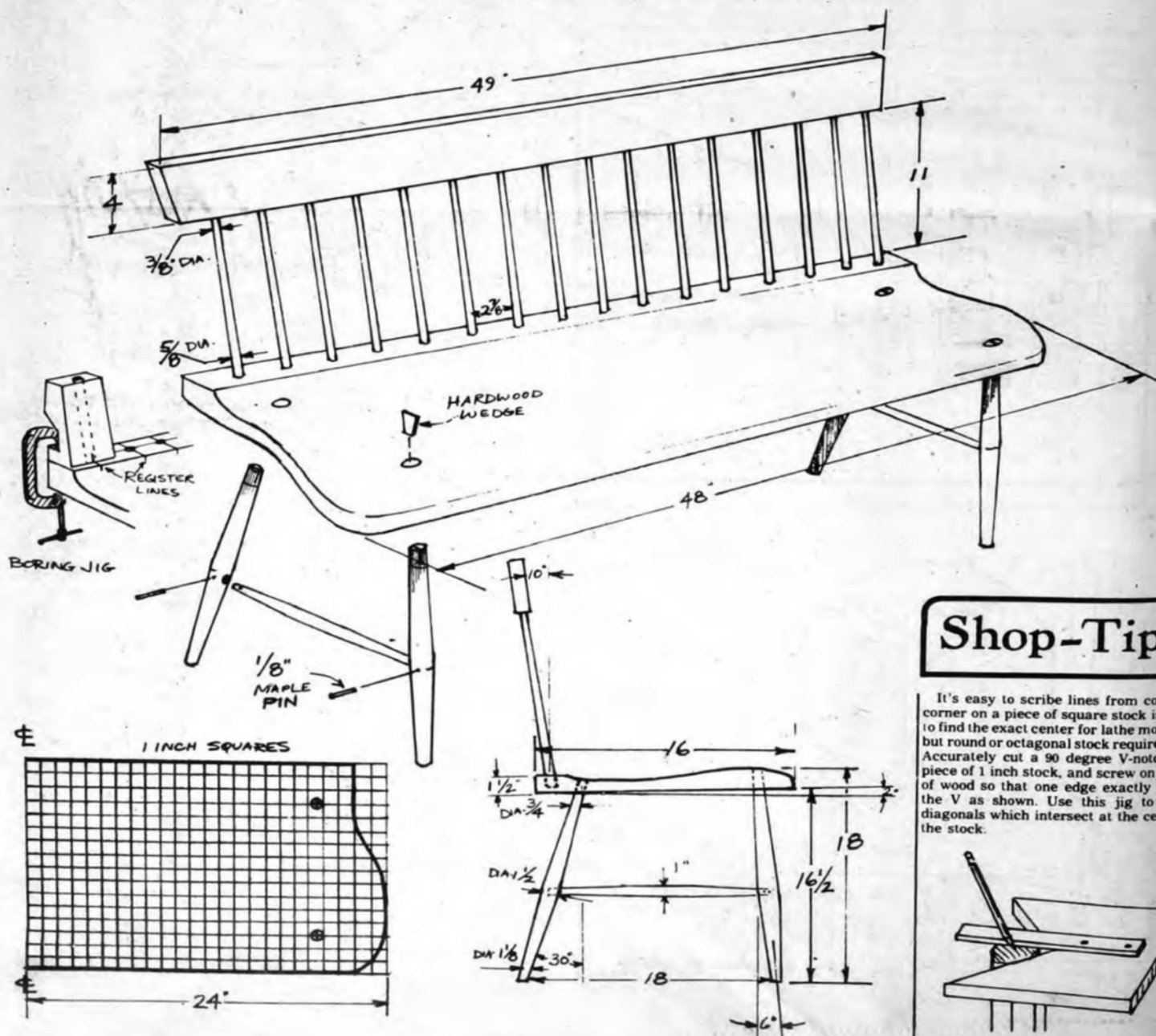
Legs and rungs can be turned on the

lathe, or given an octagonal shape with drawknife and plane. Cut the legs with a shouldered tenon, and saw a slot, or kerf in the top for insertion of hardwood wedges. These are trimmed and sanded flush when finishing the seat. Rung tenons are glued and pinned to the legs with 1/8 inch maple pins.

The 16 spindle holes along the back edge of the seat must be bored accurately so that all the spindles are seated at the same angle. It's best to make a simple jig for this task; one that can be clamped to the seat in the exact position to guide the auger. The jig illustrated is a suggestion, and should have center line register marks that can be lined up with lay-out on the seat.

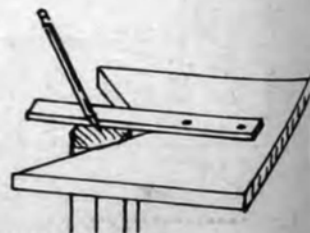
Spindles can be shaped from 1 1/16 inch square hickory; either lathe turned or shaped with a plane. The back rest is cut from full 1 inch pine, and marked and bored to receive spindles which are glued into their sockets.

Either a stained and varnished or a painted finish is suitable for this piece, but a high gloss should be avoided. One interesting method used by the Shakers was to thin paint and apply it as a penetrating stain. This gave color to the piece but also allowed the grain to show through. When this paint-stain has dried, several coats of well rubbed varnish can be applied for a clear, protective finish with a soft luster.

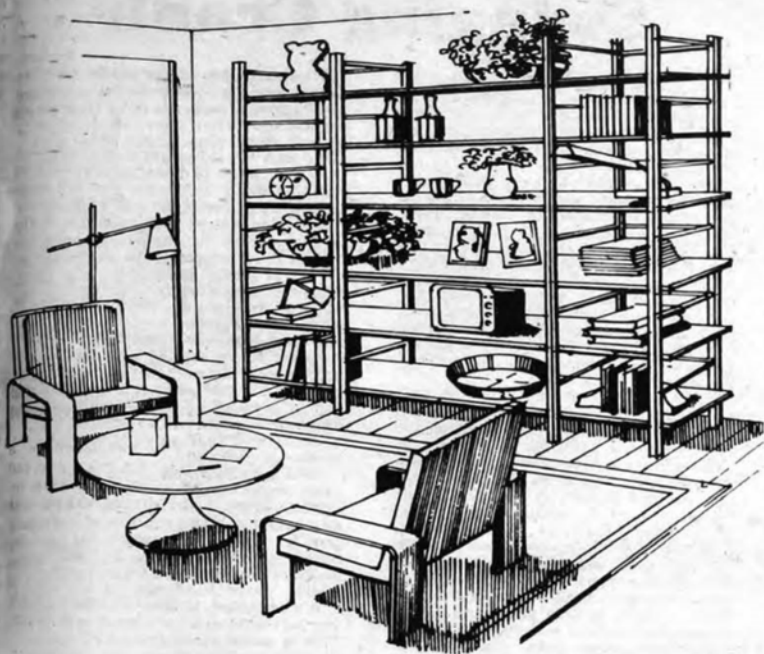


Shop-Tips

It's easy to scribe lines from corner to corner on a piece of square stock in order to find the exact center for lathe mounting, but round or octagonal stock requires a jig. Accurately cut a 90 degree V-notch in a piece of 1 inch stock, and screw on a strip of wood so that one edge exactly bisects the V as shown. Use this jig to scribe diagonals which intersect at the center of the stock.



Shelving System



Artwork by John O'Mara

This versatile shelving unit can be adjusted to hold books, stereo equipment, potted plants or just about anything you would like to display. In addition, since it is free standing, you can use it as a room divider. Finished to compliment other furnishings, it has a contemporary look, and best of all it's easy to build.

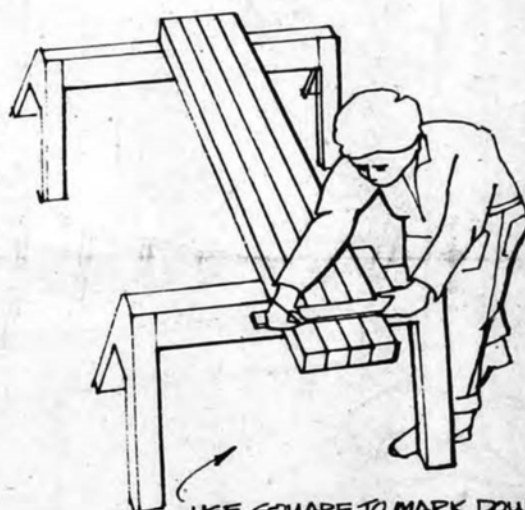
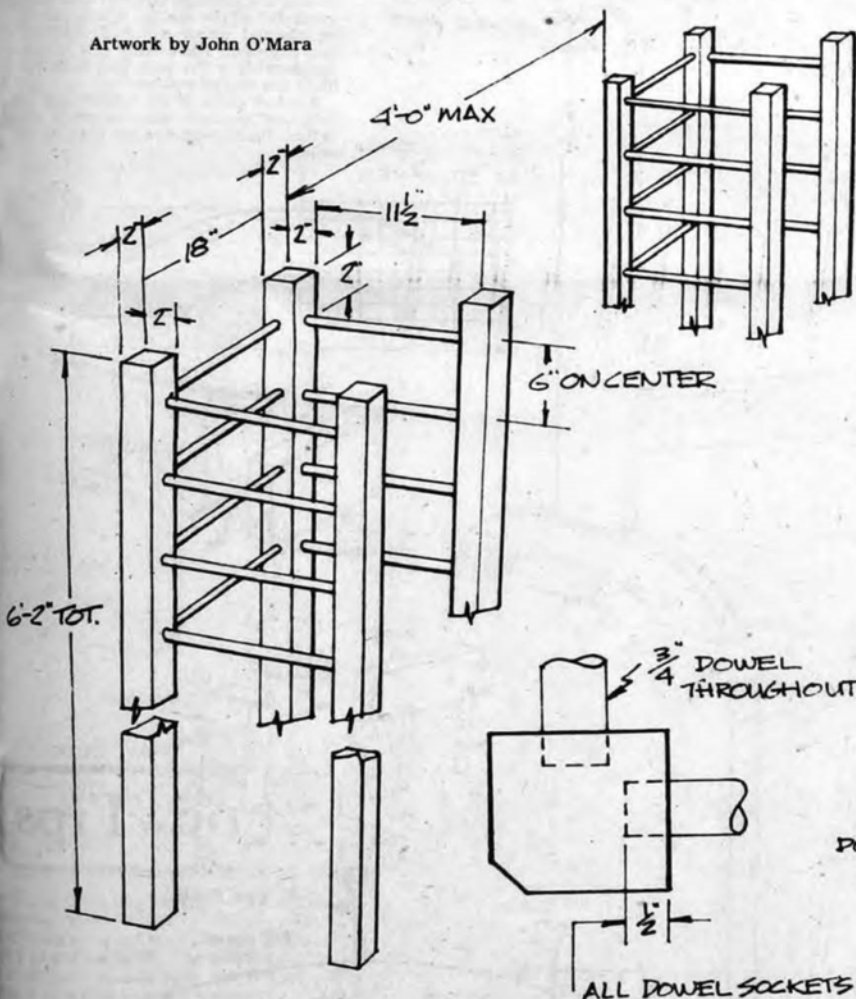
A methodical approach is best when cutting the 2" x 2" pine or fir posts to length, and drilling the sockets for the $\frac{3}{4}$ " dowel rungs. Lay out four posts, comprising one "tower," and scribe all together with a framing square. Do the same for the remaining four posts using a previously marked post as a guide. With a marking gage or adjustable try square, scribe center lines down two adjoining sides of four rear posts, and a center line down one side of each of the front posts. Then cross through lines at 6 inch intervals to locate the dowel centers.

When drilling the dowel sockets, try to keep them a uniform $\frac{1}{2}$ inch in depth. If you lack a depth gauge, wrap a piece of tape around the drill bit to mark the proper depth. Chamfer the posts on the corners indicated, and at the tops, using a plane or

Stanley Sure-form.

Set up a stop on your table saw to cut the dowels to uniform length, or if you're using a hand saw and miter box, clamp a stop block to the edge of the work bench. Cut all side dowels to 12 $\frac{1}{2}$ inches; then cut the rear dowels to 19 inches. Sand all parts carefully and assemble both units.

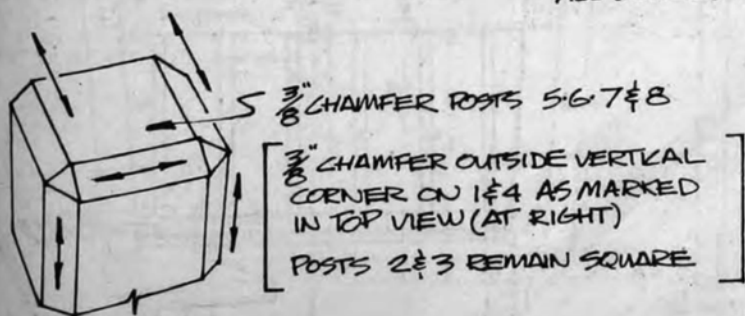
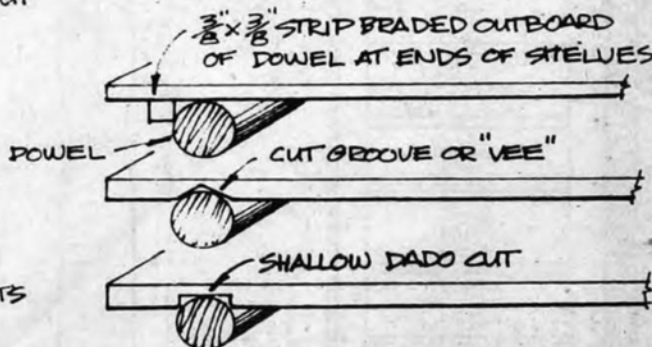
Shelving can be Philippine mahogany, or common pine 1 x 12's. Nail cleats at ends of boards, or groove them, depending on the equipment you have available. If you choose to stain the unit, or leave it natural, it should be given a couple of coats of urethane varnish. If a painted finish is preferred, seal the unit first with a coat of shellac thinned 50/50 with wood alcohol.

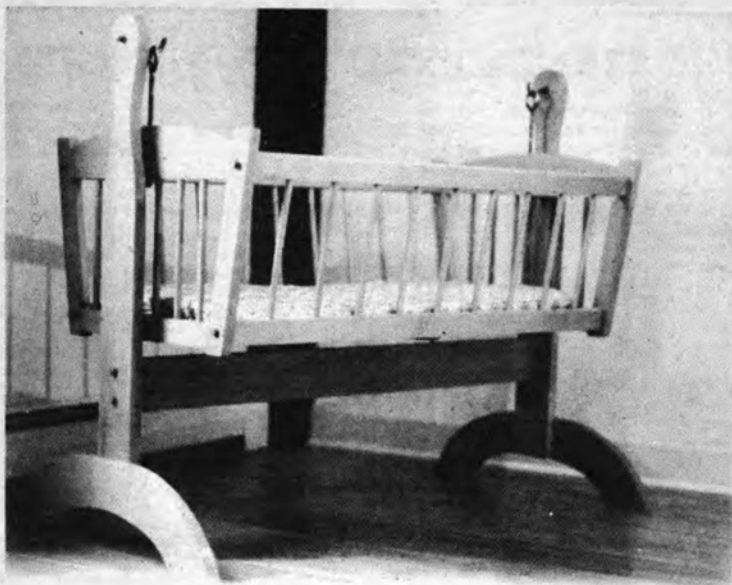


USE SQUARE TO MARK DOWEL HOLES ACROSS 4 POSTS TOGETHER

USE 1x12 FOR SHELVING (ACTUAL $\frac{3}{4}$ x 11 $\frac{1}{2}$)

3 WAYS TO SECURE SHELVES





Swinging Cradle

It's a nice feeling to build something that will possibly be passed down from one generation to the next, and this swinging cradle will certainly qualify as an heirloom piece. It's a very rewarding project.

One incn maple was used for the original, though most any hardwood that is not prone to splintering can be used. Since cradles receive only periodic use, they should be easily taken apart for storage. Thus, this design makes use of 1/4" - 20 rosan nuts (sometimes called threaded inserts) and stove bolts for easy disassembly. Rosan nuts are available from Craftsman Wood Service Co., 2727 South Mary St., Chicago, IL 60608, or Brookstone Co., 127 Vose Farm Rd., Peterborough, NH 03458.

Make a pattern of the feet and transfer to 1 x 8 inch stock. Cut feet to shape and then cut and shape the two upright posts. Mark feet and posts for a 1/4 inch lap joint. The feet receive a dado 1/4 inch deep by 3 1/2 inches wide, while the posts are rabbeted 1/4 inch by 3 1/2 inches. The foot-post joint is secured with three countersunk flat-head wood screws.

In each end of the crosspiece drill two $\frac{1}{4}$ " dia. x $\frac{1}{4}$ " deep holes to accept the $\frac{1}{4}$ " - 20 rosan nuts. Use a screwdriver to install the nuts. Drill corresponding $\frac{1}{4}$ " holes in both upright posts and fasten crosspiece in place with four $\frac{1}{4}$ " x $1\frac{1}{2}$ " round-head stove bolts and washers.

Start assembly of the cradle itself by making two identical ends. Note that top and bottom of ends are cut 6 degrees off vertical and all four pieces are joined with $\frac{1}{4}$ inch dowel pins. Space dowel pins to allow for a $\frac{1}{4}$ stove bolt to pass between them. After 12 dowel holes have been

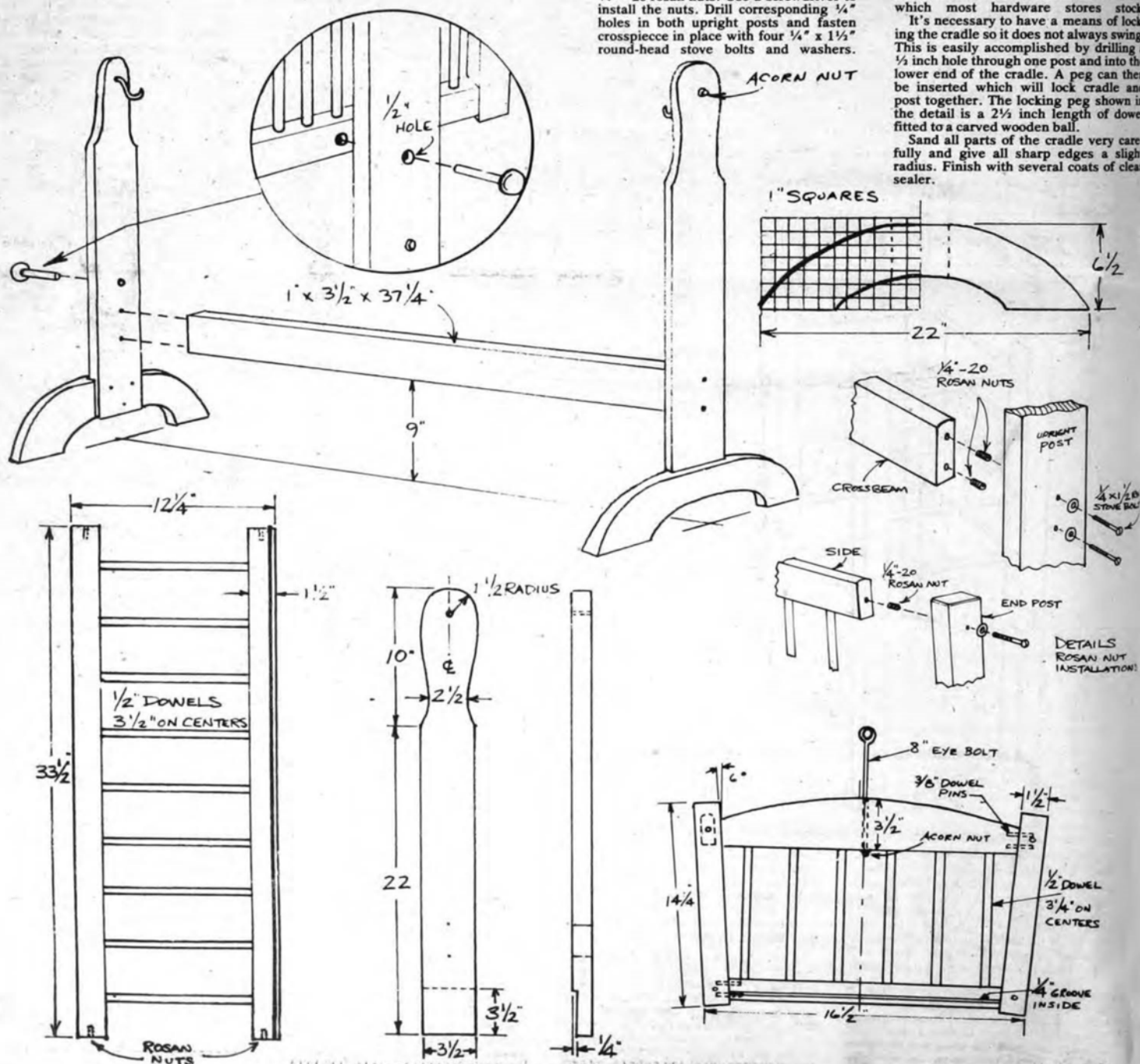
them. After 12 dowel holes have been drilled, run a $\frac{1}{4}$ " wide by $\frac{3}{4}$ " deep groove along inside face of each bottom piece. This groove will hold the cradle bottom which is either plywood or masonite. Assemble end frames with glue and clamp overnight. The cradle sides are simple enough, but care should be taken in laying out and drilling the 18 holes for $\frac{1}{4}$ inch dowel. The bottom pieces of each side should also be given a groove to correspond with the $\frac{1}{4}$ inch groove cut in the ends.

Assemble two sides and one end and cut 1/4" plywood panel to fit into grooves. The bottom panel will have to be notched at each corner to fit around the ungrooved portion at each end.

Drill a 1/4 inch hole down through the exact center of each end for a 5/16" x 8-eye bolt which is secured with washer and an acorn nut. Drill the top of each end post for 5/16" hooks which are also secured with acorn nuts. Eye bolts and hooks can be fashioned from threaded rod which most hardware stores stock.

It's necessary to have a means of locking the cradle so it does not always swing. This is easily accomplished by drilling a 1/2 inch hole through one post and into the lower end of the cradle. A peg can then be inserted which will lock cradle and post together. The locking peg shown in the detail is a 2 1/2 inch length of dowel fitted to a carved wooden ball.

Sand all parts of the cradle very carefully and give all sharp edges a slight radius. Finish with several coats of clear sealer.



Ox Yoke



Hanging from a beam in a cathedral ceiling room, or on a paneled wall, the old-time ox yoke is a strikingly decorative piece. If you should find one in an antique shop, better brace yourself before looking at the price tag. It's painfully apparent that the demand for these yokes far exceeds the supply, and the only way to come out ahead is to make your own. But be careful when showing it to friends; you may find yourself with more orders than you can handle.

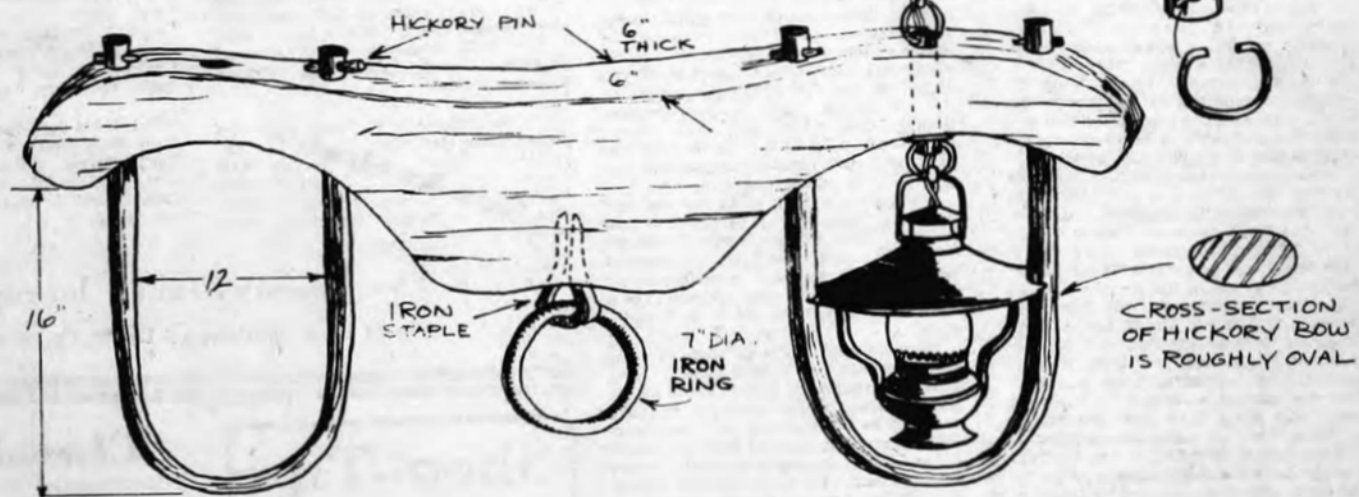
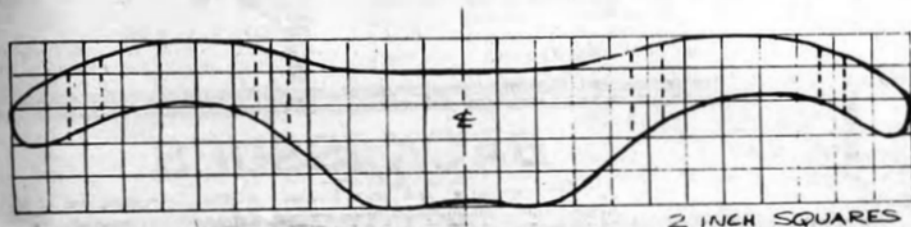
Making these yokes is not difficult; your biggest problem will be obtaining a suitable log from which to hew the beam. The yoke in the photograph is a massive 5 feet long, but you can make yours any size you want. Miniatures of from 18 to 24 inches in length are fun to make from soft pine, and are equally decorative, though perhaps not as impressive as the large yokes. The pattern given provides a yoke of 4 feet in length, which is a good size for decorative purposes.

Starting with a pine or poplar log, hew it roughly rectangular, to a width of 10 inches by 6 inches thick. Use a sharp axe or adze, and be careful of your shins. If you are hopelessly addicted to power tools, much of the roughing out can be done with a chain saw. After enlarging the pattern on kraft paper, transfer it to both sides of the timber, and bore all holes before shaping the piece. The size of the bow holes will depend on how thick your hickory bows will be.

Obtain green hickory saplings, or split the bow stock from a larger piece, and drawknife the sticks to a roughly oval shape with ends rounded where they pass through the beam. The green hickory can be bent around a suitably-sized tree trunk if the bending is done slowly. Better still, place bow stock in the bathtub and cover with boiling water. After soaking, and while still hot, bend the bows and insert the ends into the beam to dry in place. Fashion four hickory pegs to be tapped into holes drilled in the bow ends, to lock them in place.

If you would like to convert the yoke into a chandelier, it will be necessary to purchase the lighting fixtures first, and then plan the size of the yoke. The metal shades will probably have to be notched around the bows as was done with the original. The illustration shows how the lamps are attached to the yoke with fixtures made from pipe, split rings and chain. Most of the hardware on the original appears hand-forged, including the heavy staple, or steeple as it's sometimes called, and the hitching ring. All hardware is dull black.

The beam should be smoothed with a drawknife and plane, but do not overdo the smoothing. Try to retain a rustic effect by letting the tool marks remain. You will probably want to stain the piece to make it look properly old. A light coat of stain is suggested, followed by liberal application of warm linseed oil. Let the oil soak in, and wipe off the excess with a soft cloth. Repeat this several times over a period of a week, and thereafter, once a year.



Shop-Tips

Just about everything imaginable has been used to give pine that distressed, antique look. Gouging and jabbing with chisel, awl or screw-driver is an accepted method, but nothing beats the random effect obtained by working the piece over with a tire chain. The clusters of dents and nicks just seem to look right. Sand well after this treatment, and then apply stain.

Small brads are almost impossible to hold with the fingers and hit with a hammer. Instead, grip the brad with long-nose pliers and tap it in with a small tack hammer...or push the brad into the wood with the pliers and finish up with the hammer.

Getting a clean edge on both sides when sawing plywood can be a problem if you don't have a special saw blade. To prevent splintering of outer layers, use a sharp utility knife to score through the top veneers on both sides, then follow that line with the saw blade.

When a project calls for mitered molding trim, purchase or cut one length of molding for the entire job. Two lengths of supposedly identical molding, pulled from the rack at the lumber yard, will often vary in width by as much as $\sqrt{16}$ of an inch. If you buy a couple of short lengths for one job, you may well find it impossible to match them up at the mitered corners.

If you've misplaced your square, the front edge of a backsaw blade can be used to scribe a cutting line across narrow stock.



Use small squares of waxed paper under clamp pads, when glueing a joint together. This will prevent squeezed out glue from getting on the clamp pads, causing them to stick to the workpiece. Waxed paper will also prevent glue drippings from getting all over the bench top, and is better than sheets of newspaper which will sometimes leave troublesome stains on fine work.

Moving?

You must inform your Postmaster if you want your copy of the Journal forwarded.

To insure that you will not miss an issue, please send us your old and new address at least 4 weeks before we publish.

THE WOODWORKER'S
JOURNAL
Sunset Lane
Washington Depot, Ct. 06794

THE BEGINNING WOODWORKER

(cont'd from page 3)

While not absolutely an essential tool, the spokeshave is inexpensive and well worth getting familiar with. Incidentally, the name of the tool apparently goes back to the days when the making of wooden spoked carriage wheels was an important craft. Obviously, very few wooden spokes are shaved nowadays, but the name has persisted.

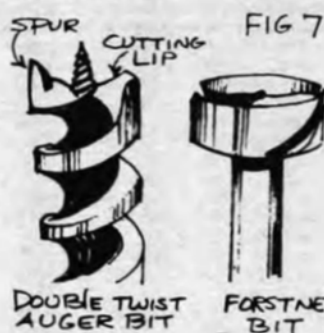


FIG 6

Inside cutouts require a hole bored through the stock so that the compass, or other saw can be started. The boring of holes is a common operation in wood-working, and whether you choose to use an auger bit held in a brace, or an electric drill with a twist bit, it is wise to invest in a set of high quality bits.

Auger bits come in several styles, but for general use, two-lipped bits are the best. These have a screw point which helps feed the bit forward into the wood. The two spurs, or ribs, cut a circle in the wood, while the cutting lips chisel out the bottom of the hole. The resulting wood chips are carried out of the hole by the twist of the

bit. A very handy addition to your boring armament is the Forstner bit. This is cup-shaped, and since it does not have a lead screw, it will drill nice sockets, almost completely through a board, without an unsightly screw hole coming through on



the opposite side. (Fig. 7) It will also bore at an angle, and can be used to cut a segment of a circle from the very edge of a board. The most commonly used sizes in

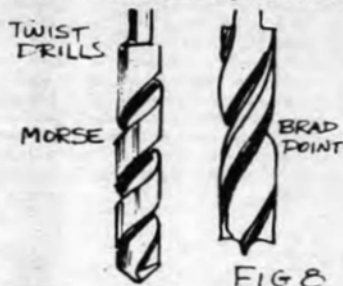


FIG 8

both two-lipped and Forstner bits are $\frac{3}{8}$, $\frac{1}{2}$ and $\frac{3}{4}$ inches.

Twist drills (Fig. 8) are used with a hand drill, or an electric drill. The high speed bits are hardened to cut through metals as well as wood. Most boring of small holes, from $\frac{3}{8}$ inch on down is done with twist drills. Holes up to 3 inches in diameter can best be bored with an expansion bit (Fig. 9) which is usually adjustable to bore holes from $\frac{3}{8}$ to 3 inches in diameter.

EXPANSION BIT



FIG 9

When using augers with a screw tip, bore until the screw starts to emerge through the back side; then remove the auger and complete the boring from the back side. Boring completely through a piece from one side will result in considerable splintering as the auger breaks through. Splintering can also be prevented by clamping a piece of scrap wood to the back side of the workpiece.

Auger bits require periodic sharpening, and this can best be done with a special file that has thin, paddle-shaped ends. The tops of the lips should be filed; then undersides are touched up lightly to remove the resulting burr. Cutting spurs on augers should be sharpened on their inside edges

only; otherwise, the precise diameter of the bit may be reduced (Fig. 10).



FIG 10

Take care to store your auger bits, and other boring equipment in wooden racks above the workbench, or in their own wooden boxes so that they do not touch each other, or other tools. This will help to keep them sharp. Cutting tools thrown together loose in a box will soon have their fine edges knocked off.



Workshop Income

How many times have you thumbed through a magazine such as *Better Homes and Gardens*, or *Yankee*, examined display advertisements for handcrafted wooden items, and thought to yourself "I can easily turn out something like that myself, with no trouble at all. That guy is probably making a pile of dough. Why can't I do the same thing?" Many a woodworker has dreamed of "making it big" by selling some handcrafted item through the mails. It's a tempting proposition, but let's look at some of the hard facts behind mail-order selling of wooden gift items.

How many are really aware of the costs involved in placing a display advertisement in a nationally circulated magazine. Well, brace yourselves for here are some of the figures you're going to face. A one inch deep by one column wide (about $2\frac{1}{4}$ inches) ad in one of the smaller (650,000 circulation) magazines will cost you between \$175.00 and \$200.00 for just one insertion. If you feel that you can effectively display what you have to offer, plus a sales message, price and your business address in a strip $2\frac{1}{4}$ inches wide by 1 inch deep, then your advertising expense, for that particular publication will cost you at least \$175.00, provided you can get an advertising agency to do the artwork, or photography, set the type and lay out your ad.

For this service, the agency will receive the usual commission of 15 percent of the net cost of the ad...or \$26.25. That's not much incentive for an agency to give your ad very much attention is it?

Let's say that you need at least two inches of depth to get your message across. That will cost you at least \$350.00. Advertising space costs, in magazines, is generally determined by the number of subscribers the magazine has. A two inch ad in a magazine which has a circulation of well over a million readers will cost you plenty. Are you prepared to spend five or six hundred dollars just to place your ad one time in one magazine?

Study the ads for handcrafted wooden items in the various magazines that generally feature such ads. Note how many ads are repeated month after month. Notice also how many of the firms are already established gift shops or mail-

order firms that offer a catalog of many other items.

Sure you've heard about the fellow who made a fortune selling genuine Vermont milking stools through a small ad. There are exceptions to every rule, of course, but please realize that mail-order is a very, very tough field to make good in. If you absolutely feel that you've got something that is unique, easy to produce and package and really can't miss, you're going to go ahead with it despite what you read here. But please!...prepare for the possibility of taking a beating.

If you are one of the lucky few who hits upon a hot item, are you prepared to turn out 5000 of them within a couple of months? Think in terms of labor, material procurement, shipping containers and postage. Sometimes, what appears to be a success initially, turns out to be a nightmare.

There's a wealth of books that cover the field of mail-order merchandising. Most public libraries have several books on the subject, though they may be woefully outdated as far as costs are concerned. Read everything you can lay your hands on, and follow the magazines that feature such products in ads, month after month. The ads that are consistently repeated are winners. Analyze what they have to offer, and how they make their pitch. In other words, educate yourself as best as you can before jumping in.

Correction

In the Sept.-Oct. issue, on page 11, the length of the board required for the whale wall plaque was given as 17 inches. This should have read 34 inches. Sorry about that.



BACK ISSUES

A limited number of back issues are still available. To order, send name and address and back issues desired, along with payment of \$1.25 per issue.

Vol. 1 No. 1 Jan-Feb '77: Shaker Woodbox, Old-time Toys, Bunching Table, Glass Top Tables, Early American Wall Shelf, 19th cent. Steeple Clock, Butler's Tray Table, Velvet-Lined Treasure Case, Louvered Hamper, Colonial Pipe Box, Picture Framing Primer.

Vol. 1, No. 2 Mar-Apr '77: Cor... ffee Table, Little Red War... ch, Fife-Rail Table... er Wall Cabinet, P... Handy Kitchen Item... Desk, Butcher's Table, Hon... Clamp, Practical Bird Hous...

Vol. 1, No. 3 May-Jun '77: Colonial Plate Rack, 17th cent. Hutch Table, Adirondack Lawn Chair, Crossbuck Picnic Table, Colonial Blanket Chest, Shaker Candlestand, English Tea Box, Swan Rocker, 3 Projects for Scrap Ends, Small Shaker Table, Toy Train, Table Saw Cove Cutting.

Vol. 1, No. 4 July-Aug '77: Shaker Drying Rack, Pine Trestle Table, Candle Scones, Toy Riverboat, 19th cent. Shelf Clock, 19th cent. Wall Shelf, Wheelbarrow-Planter, Child's Desk & Bench, Cube Table, Parsons Table.

The Woodworker's Journal

Sunset Lane, Washington Depot, Ct. 06794

Shop-Tips

Make your own bead forming tool by driving a flat-head wood screw into a dowel. The bead width can be regulated by adjusting the distance the screw protrudes from the dowel. Make repeated passes with the cutter until the desired depth has been reached...just like an old-time molding plane or scratch stock.



Classified

The Classified Rate is .25 per word, payable with order. Minimum ad is 15 words. Send copy and check to: The Woodworker's Journal, Advertising Dept., Sunset Lane, Washington Depot, Ct. 06794.

AT LAST: Plans for Great Highland Bagpipes \$8.50; Fireside Pipes \$5.50; Practice Goose \$3.50; Practice Clarinet \$2.50. Dougan, 17 Jura Court, Dregghorn, Ayrshire, Scotland.

STAINLESS STEEL SCREWS, small quantities, Free Brochure, Elwick Dept. 247, 230 Woods Lane, Somerdale, N.J. 08083.

CONVERT your circular saw into tablesaw. Plans, including accessories \$2.00. 4585 Hudgins Rd. No. 2, Memphis, TN 38116.