

# 17th Century English Country Kitchen Furniture

B. Helen Dorsett



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## Editor's Introduction

The English Country Kitchen started as something of an experiment between Pete Westcott and Helen Dorsett and was meant to be the first in a series of free standing books designed to work with and for miniature clubs. Each project book was to include the plans for both a fairly simple period roombox (Pete's end of the operation) and the furniture (Helen's end). In addition, the series was to accompany a slide show that would be loaned to individual miniature clubs, a rather low tech approach that would, these days, border on the same quaintness with which we view the Book of Kells . Essentially, it was a "workshop in a box." A novel idea that did not work, and the plans and patterns languished in the bottom drawer of one of the company's file cabinets.

The failure of the project and the series was due, in large part, to two simultaneous and connected events: the recession of the early 1980s and the downturn in the miniature hobby. Miniatures saw a real boom in the 1970s and into the early 1980s. By the time the first issue of *The Scale Cabinetmaker* appeared on miniature shop shelves in 1976, the new hobby showed every sign that it would continue to grow and thrive. New businesses and new clubs were cropping up all over the place, and there was high demand for teaching materials and supplies and a whole raft of miniature this and thats. Almost every time you turned around, there were new companies and new products. In some ways, the 1970s were the halcyon days for the miniature hobby. It was new. Before the 1970s, supplies for the miniaturist were scrounged from quasi-related hobbies, most notably model railroading and model shipbuilding. Indeed, ninaturists, themeselves, were relatively rare, and were relegate to a supporting role in a hobby field dominated by doll collectors. .

Unfortunately, the boom was short lived (about 10 years), and many of the shops and manufacturers disappeared, lost now to memory. What started as a series of books, ended after the first book and the plans and patterns were boxed up and stored for "future use."

When we started building the last volume of *The Scale Cabinetmaker* and realized we were two issues short, we went scrounging in the dark recesses of the company's files and unearthed *The English Country Kitchen*. The plans included in the book have not, as far as we can tell, seen the light of day in nearly thirty years, but they included some of Helen's favorite furniture: the oak Welsh Dresser and the comb-back Windsor.

Unlike the *Cabinetmaker's Guides*, the furniture projects from *The English Country Kitchen* do include some "text support" and more detailed construction drawings. All projects are in 1":1' scale: To simulate oak, Helen substituted red alder and basswood (at least the prototype models are made from those particular woods). Typically, she used basswood for beginner's projects because it was fairly inexpensive, was readily available in a variety of thicknesses, and was an "easy" wood for new modelers. While most of the models can be made using hand tools, the more complex joinery (especially for the gateleg table, which is made out of walnut) may require access to power tools, most notably a dremel moto-tool, a drill press, and a lathe.



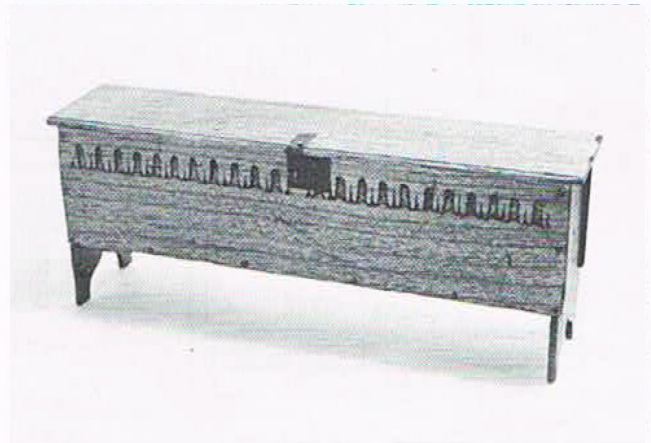
# 17<sup>th</sup> Century English Country Kitchen Furniture

## Oak Coffe (c. 16<sup>th</sup> Century)

The simple coffe or chest is one of the earliest types of western furniture. This 16th century country chest, designed after a piece appearing in *Antiques* magazine, is a good example of the type known as a *six board chest*: a name stemming from its simple structure of two ends, front, back, bottom and lid. The *boot-jack* ends have a simple scroll cut to form the legs and the *facia* carving is only suggestive of the often more intricate scratch-carved or gouged designs appearing on such pieces over the centuries. (Cf. Wallace Nutting, *Furniture Treasury* [1928] for a visual summary of an alternative range of surface decorations.) The prototype piece shown in the photograph was built of quarter-sawed cherry (to simulate the checked pattern in quarter-sawed oak); however basswood provides a similar appearance and is readily available.

The six-board chest is a good beginning piece for the inexperienced modeler. Sand a sheet of 5/64" basswood with 280 paper before laying out, marking, and cutting the end pieces. Then lay out (with vertical grain) and cut the two ends. Note that the front and back are notched into the sides of the ends. Mark and cut the scrolls on each, making two cuts up toward the point of the design from the feet. Turn the pieces over and measure and mark (lightly score) with a straight edge and knife point the position of the bottom board. Match the ends and sand them to the same contour and size.

Layout the bottom and back on a pre-sanded sheet of 1/16" basswood. Wood grain should run the length of the chest on these as well as on the front and top. Cut out and lay aside. Layout the front on the 1/16" sheet. Before cutting the piece, layout the incised carving pattern as indicated in the elevation and detail drawings, lightly marking the lines with a pencil or scribe. Clamp the wood sheet to the workbench and carve the detail. Carving is done by first



Oak Coffe or Six-Board Chest (16th Century).

tracing the pattern lines with the point of a hobby knife (X-Acto No.11 or equivalent) to the desired depth of the carving. Then remove the material within the lines with a flat chisel point. (Don't fuss over a perfectly smooth and symmetrical pattern; the original is quite primitive.) With the carving done cut out the chest front.

Glue the front to the ends (noting the 1/2" overhang at each end). Next glue the bottom in place, and then add the back. Mark the position of the dowels on the front, back and ends of the chest. If using 1/64" dowel, drill these holes with a 79 drill, and if 1/32" dowel a 70 drill. Insert short lengths of dowel in the holes and sand the ends flush.

Before cutting the lid from the pre-sanded sheet, mark the position of the incised finger molding along the front edge (cf. elevation and detail drawings). This can be done quickly with a T-pin and straight edge, scratching the line

### BILL OF MATERIALS

End	2	14" x 23 1/4" x 1" (cut to pattern)	5/64"
Bottom	1	12 1/2" x 4' - 11" x 3/4"	1/16"
Front	1	15 1/4" x 5' - 2" x 3/4"	1/16"
Back	1	15 1/4" x 5' - 2" x 3/4"	1/16"
Top	1	14 1/2" x 5' - 4" x 3/4"	1/16"
Hinge	2	cut to pattern	.010 brass sheet .025 brass wire
Pegs	20		1/32" dowel

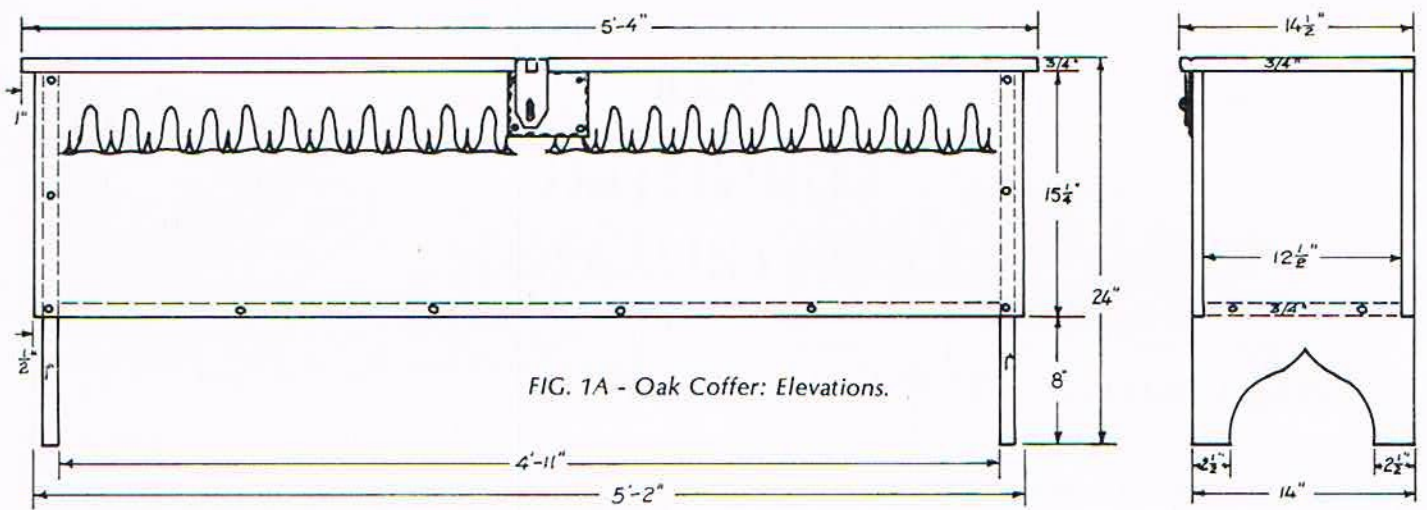


FIG. 1A - Oak Coffe: Elevations.

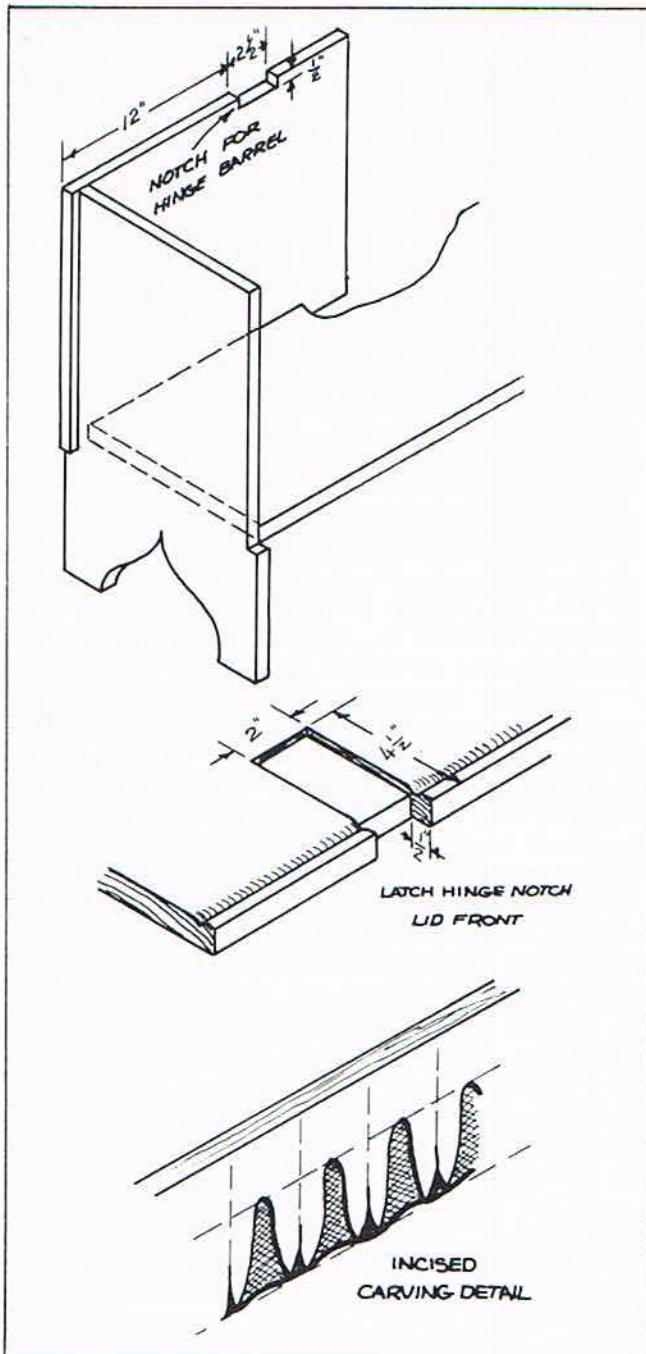


FIG. 1B - Oak Coffe: Construction and Carving Detail.

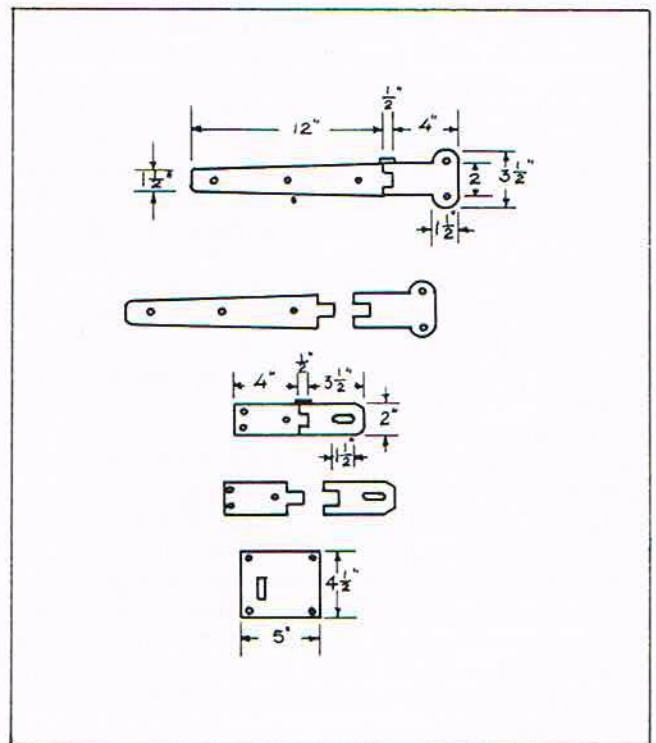
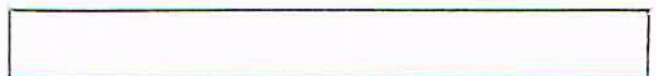


FIG. 1C - Oak Coffe: Hinge and Hasp Patterns.

with the pin point and smoothing it up with sandpaper. Cut out the lid. Mark the position of the hinged hasp on the front edge of the lid and notch and mortise the top and edge of the lid as shown. Stain (Minwax Provincial) and seal the chest and lid with a clear, satin finish.

The hinges and hasp are fabricated from .010 brass sheet as shown in the drawing. Mark the parts on the brass sheet with a scratch awl and cut out. Smooth the parts with needle files. Form the hinge barrels by bending the finger of the hinge part around a piece of .025 brass wire. (Again, the original's hand wrought iron hinges were not die-cut so don't let the irregularities bother you.) Mark and notch the hinge positions on the back edge of the chest. Mount the hinges to the back and lid with epoxy. Mount the hinged hasp and plate to the front of the lid and chest.





## Oak Welsh Dresser (c. 1670)

The Welsh Dresser was a side table with cupboards and drawers, a pot board below and shelves above. Its use as a combined utensil storage piece as well as a serving surface makes it an appropriate addition to this country kitchen. The descendent of the more elegant 16th century court cupboards (eg., the Welsh *deu-darn* and the French Renaissance *dressoir de salle a manger*), it is in turn an ancestor of today's colonial hutch cabinet. The design of this dresser is patterned after several pieces appearing in **Antiques** magazine.

While the original piece was built of oak, the prototype for this design was built of walnut. Basswood, however, is also a wood of choice because of its easy working properties

and low cost. Dimensions in the Bill of Materials reflect the use of butt joints throughout (unless, as in the case of the upper shelf unit, dados and rabbets are called for). If the more typical mortise and tenon joints are used, the length of the rails will have to be increased by the combined length of the tenons. The piece is built in two sections, ie., lower table and upper shelf, which are glued together in final assembly. If a light wood is used, the piece should be stained before finishing. Because of the difficulty in getting an even finish on any assembled shelf unit, prefinishing of the shelf materials before assembly should be considered.

Study the elevation drawings and the exploded view of the table unit before starting, checking the parts in the

### BILL OF MATERIALS

#### Base:

Post	4	3" square x 29"	1/4" sq.
Top	1	19 1/2" x 6' - 2" x 1"	5/64"
Shelf	1	18 1/2" x 6' - 0" x 1"	5/64"
Rail: Front (top)	1	1 1/2" x 5' - 6" x 1"	
Front (drawer)	1	3" x 5' - 6" x 1"	5/64"
Front (bottom)	1	2" x 5' - 6" x 1"	5/64"
Back (top)	1	8" x 5' - 6" x 1"	5/64"
Back (bottom)	1	2" x 5' - 6" x 1"	5/64"
Side (top)	2	8" x 12 1/2" x 1"	5/64"
Side (bottom)	2	2" x 12 1/2" x 1"	5/64"
Drawer Shelf (ends)	2	3" x 16 1/2" x 1" (cf. Exploded View)	5/64"
Drawer Guide (end)	2	2" x 12 1/2" x 1"	5/64"
Drawer Shelf (middle)	2	5" x 16 1/2" x 1"	5/64"
Drawer Guide (center)	2	3" x 16 1/2" x 1"	5/64"
Center Leg (block)	1	2" x 9" x 1" (Cut to pattern)	5/64"
Center Leg (post)	1	3" x 17" x 1" (cut & join to pattern)	5/64"
Brace Blocks	2	3 1/2" x 4 1/2" x 1" (Cut to pattern)	5/64"
Drawer (center):			
Front	1	16 1/2" x 18 1/2" x 1"	5/64"
Bottom	1	16" x 16 3/4" x 1/4"	1/32"
Side	2	5 1/2" x 16" x 3/4"	1/16"
Back	1	5 1/2" x 15 1/2" x 3/4"	1/16"
Drawer (side - 2)			
Front	2	6 1/2" x 21 1/2" x 1"	5/64"
Bottom	2	19 1/2" x 16 3/4" x 1/4"	1/32"
Side	4	5 1/2" x 16" x 3/4"	1/16"
Back	2	5 1/2" x 19" x 3/4"	1/16"

#### Cupboard:

Side	2	10" x 3' - 6" x 1"	5/64"
Top Shelf	1	8" x 5' - 8 1/2" x 1"	5/64"
Top Facia (front)	1	3" x 5' - 8 1/2" x 1"	5/64"
Shelf	3	9" x 5' - 8 1/2" x 1"	5/64"
Top	1	12" x 6' - 2" x 1"	5/64"
Base Trim	3 pcs.	cut to fit	1/16" quarter round
Cornice Trim	3 pcs.	assemble & cut to fit	1/16" x 3/64"

#### Hardware:

Batwing Plates & Bails	3 pr.	X-Acto Small Chippendale No. 43101
Batwing Key Plate	3	X-Acto Chippendale Key Plate No. 43105

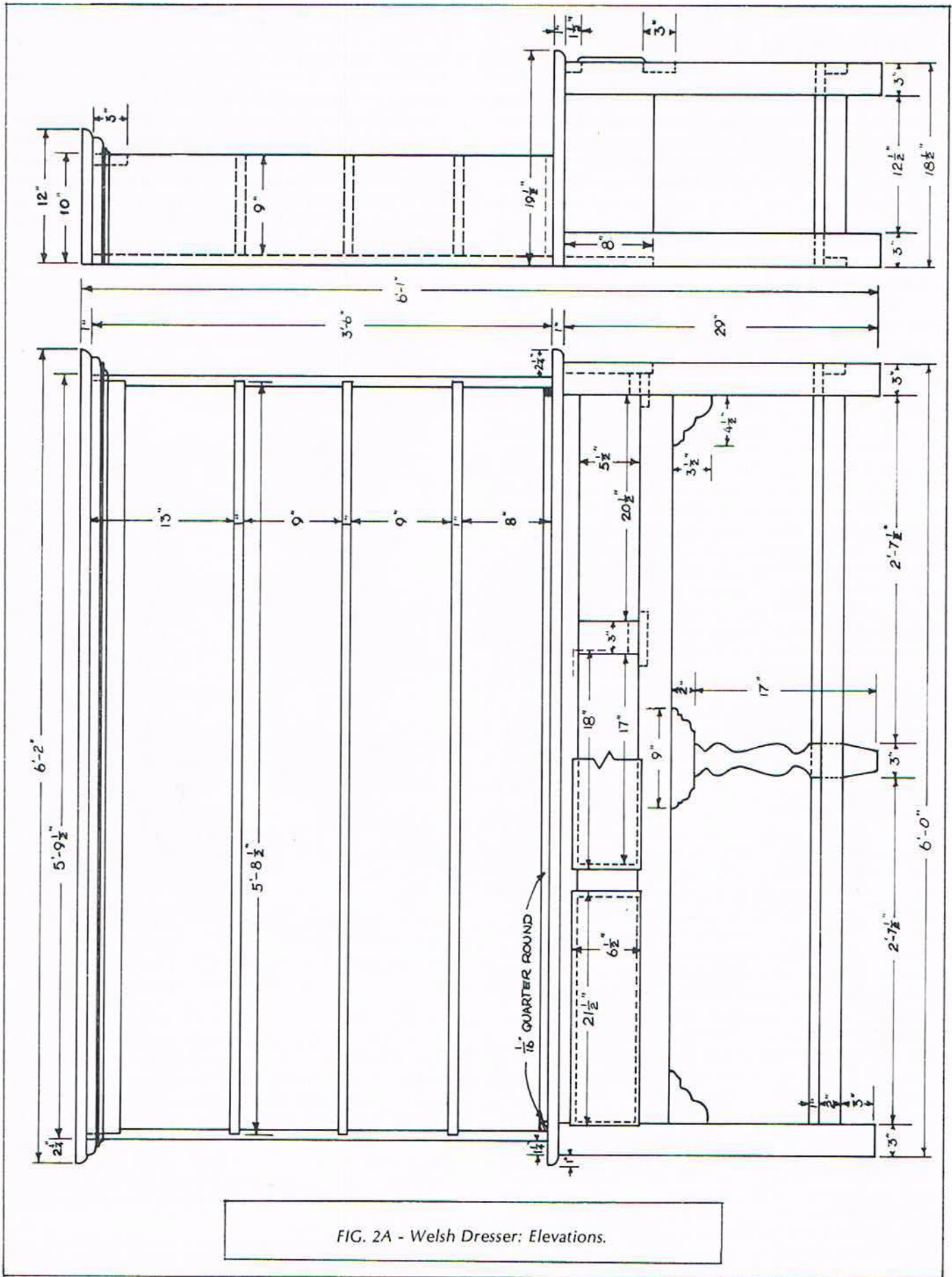


FIG. 2A - Welsh Dresser: Elevations.



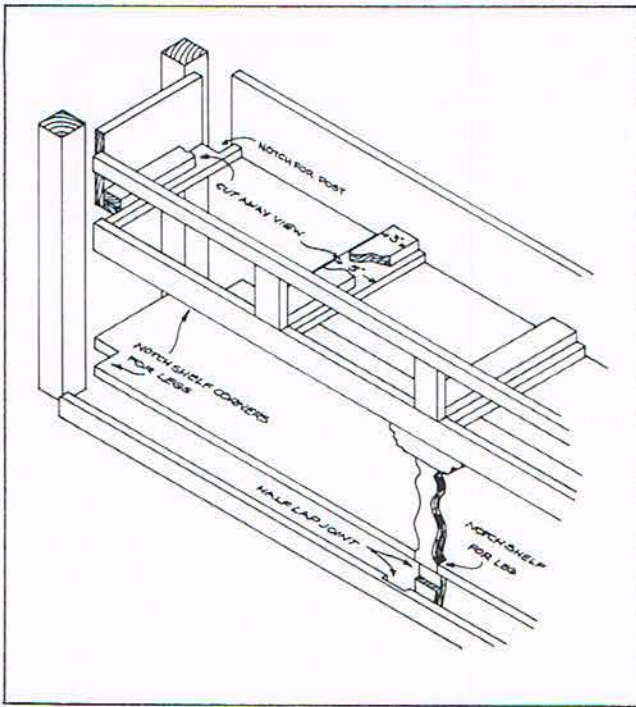


FIG. 2B - Welsh Dresser: Carcase Assembly Detail.

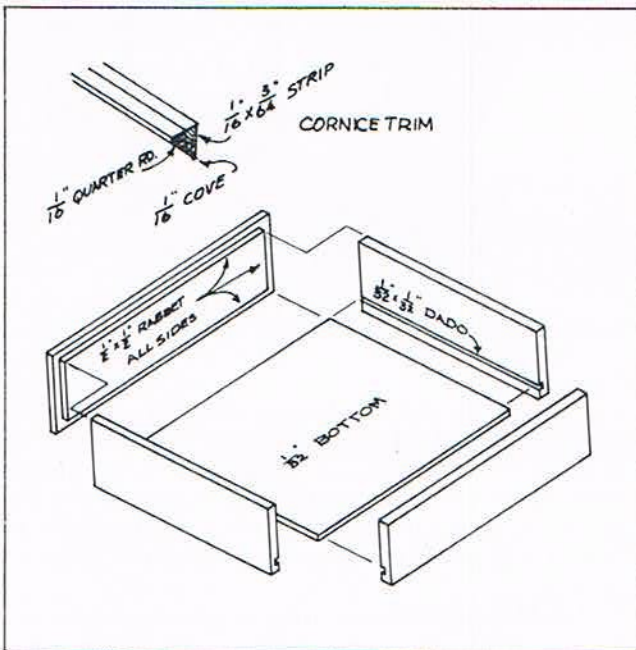


FIG. 2C - Welsh Dresser: Drawer and Cornice Trim Detail.

drawing against those listed in the Bill of Materials. While there appears to be a confusing number of parts, the basic structure of the table is a simple system of posts and rails.

Pre-sand all pieces of stock wood before cutting out the parts. Mark and cut the four posts, the nine pieces of rail, and the shelf (or pot board). Mark the rail positions on the posts, noting in the elevations that the rails are all flush with the outside of the posts. Mark and notch the shelf for the corner posts and for the scroll-cut center post. Glue the end assemblies first (front and back posts, top and bottom rails). Next join the ends by gluing the shelf in place. Add the top and bottom rails at the back and the top and drawer



Oak Welsh Dresser (c. 1670).

rails at the front. Again studying the exploded view, cut, fit and install the drawer shelves and guides across the interior of the piece. (Note that the shelves at both ends are notched around the posts.)

Mark and scroll cut the top block and post of the center leg. Before assembly, mark and cut half-lap joints in the center leg and bottom rail (cf. exploded drawing). Glue the post and block together and trial fit the rail/post/shelf assembly before gluing.

Referring to the Bill of Materials and the exploded drawing of the drawer, cut the parts for the three drawers

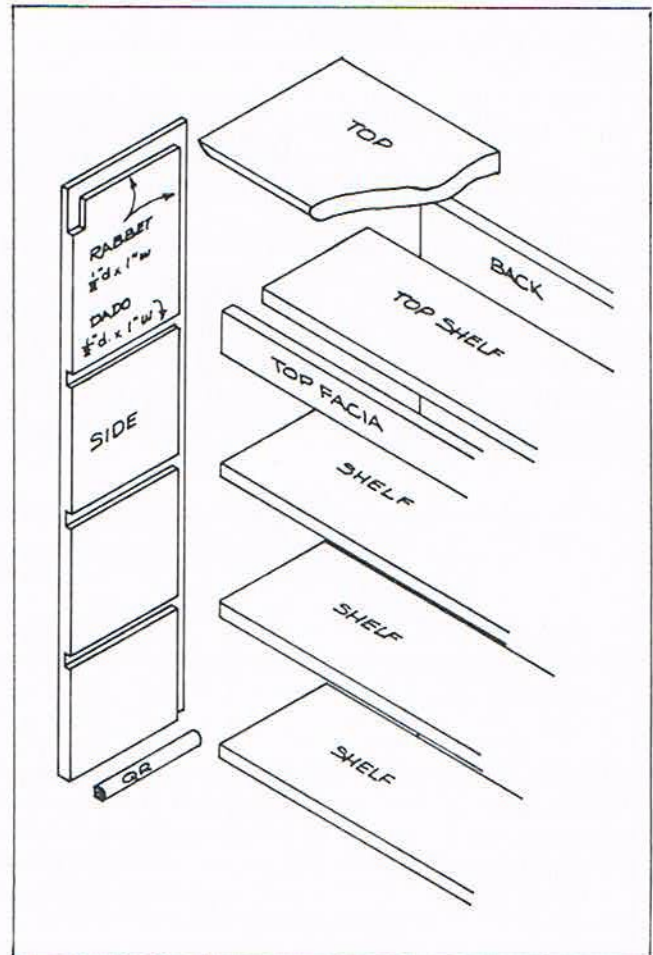


FIG. 2D - Welsh Dresser: Shelf Assembly.



(noting the different width of the center drawer). Assemble and glue the drawers. When dry, sand and fit each drawer until free-working. Finally cut the table top to size (noting the half-round lower edge on the front and sides) and glue it into place. Scroll cut and glue the two brace blocks under the drawer rail.

The upper shelf unit uses a typical mode of construction for such pieces: solid back rabbeted into the back edge of the sides, shelves dadoed into the sides, plus a top with a built-up cornice molding.

First cut the sides to identical dimensions. Mark and cut the rabbets along the inside back edge, top and front as indicated in the exploded drawing. Next cut matching dados for the shelves on each piece. Measure and cut out the back, three middle shelves, top shelf and top fascia board. Trial fit the assembly before gluing. First glue the

sides to the back, next the top shelf and intermediate shelves, and finally the fascia board. Clamp the assembly and allow it to dry.

Cut and edge mold (quarter-round on bottom edge) the top and glue it into place. The cornice molding strip is preassembled from individual strips of 1/16" x 3/64", 1/16" cove and 1/16" quarter-round, as indicated in the *Cornice Trim* detail drawing. Glue the strips together as shown; then mark and cut the pieces to length (45° miter at corners) and glue them into place.

Stain and finish the top and bottom assemblies. Then glue the shelf to the table. Pre-stain and finish a strip of 1/16" quarter round, cut three lengths to fit and glue them around the inside face of the joint between shelf and table top.

## William & Mary Gateleg Table (c. 1695)

The gateleg drop-leaf table was introduced in the mid-17th century Jacobean furniture and has been popular in succeeding periods of furniture style. The plain turned legs of this particular piece and the simple, scroll-cut block feet on the posts (suggestive of the carved and flared *Spanish* foot) identify this table as late-Jacobean or early William & Mary. The original table was built of yew: a reddish-brown, fine grained wood; the prototype piece for this miniature design was made of walnut. While basswood may be used, the mortise and tenon joints are more cleanly cut in a harder wood.

First cut the six legs and two pivot posts to length. Before turning them to the contours in the elevation drawings, mark the position of the mortises in each post. Using a drill and chisel, cut all mortises as indicated in the elevation and exploded drawings.

Cut all rails to the lengths indicated in the drawings and the Bill of Materials. Mark and cut 1" tenons on the rail ends as indicated. Trim and fit the tenons to the mortises, marking the parts (legs and rails) for later identification of the joining parts. Then turn (lathe) the posts to the pattern indicated in the elevation drawings. Trial-fit the central frame of the table and the two gates as indicated in the exploded drawing.



William & Mary Gateleg Table (c. 1695).

Identify the top and bottom side rails and mark the position of the lap joints in each (ie., 24" from the right end of each). Referring to the joint dimensions in the exploded view, cut these four lap joints. Mark and cut the matching lap joints in each of the two gate legs. Center-drill a .025 hole in both ends of each pivot leg; locate, mark and drill an

### BILL OF MATERIALS

Leg	6	2 1/4" sq. x 29" (turn to pattern)	3/16"
Foot Blocks	6	2 1/4" x 3 1/2" x 1 1/2" (cut to pattern)	1/8"
Pivot Leg	2	2 1/4" sq. x 20" (turn to pattern)	3/16" sq.
Rail:	4	2 1/4" sq. x 31"	3/16" sq.
	2	5" x 11" x 1"	3/32"
	2	2 1/4" sq. x 11"	3/16" sq.
Gate Rail:	4	2 1/4" x 1" x 17 1/2"	3/32"
Top: Center	1	18" x 1" x 3' - 9"	3/32"
Top: Leaf	2	19 1/2" x 1" x 3' - 9" (cut to pattern)	3/32"
Hinge	2 pr.	Strap type	Houseworks 1121 or equivalent
Swivel Pin	2 pr.		.025 wire



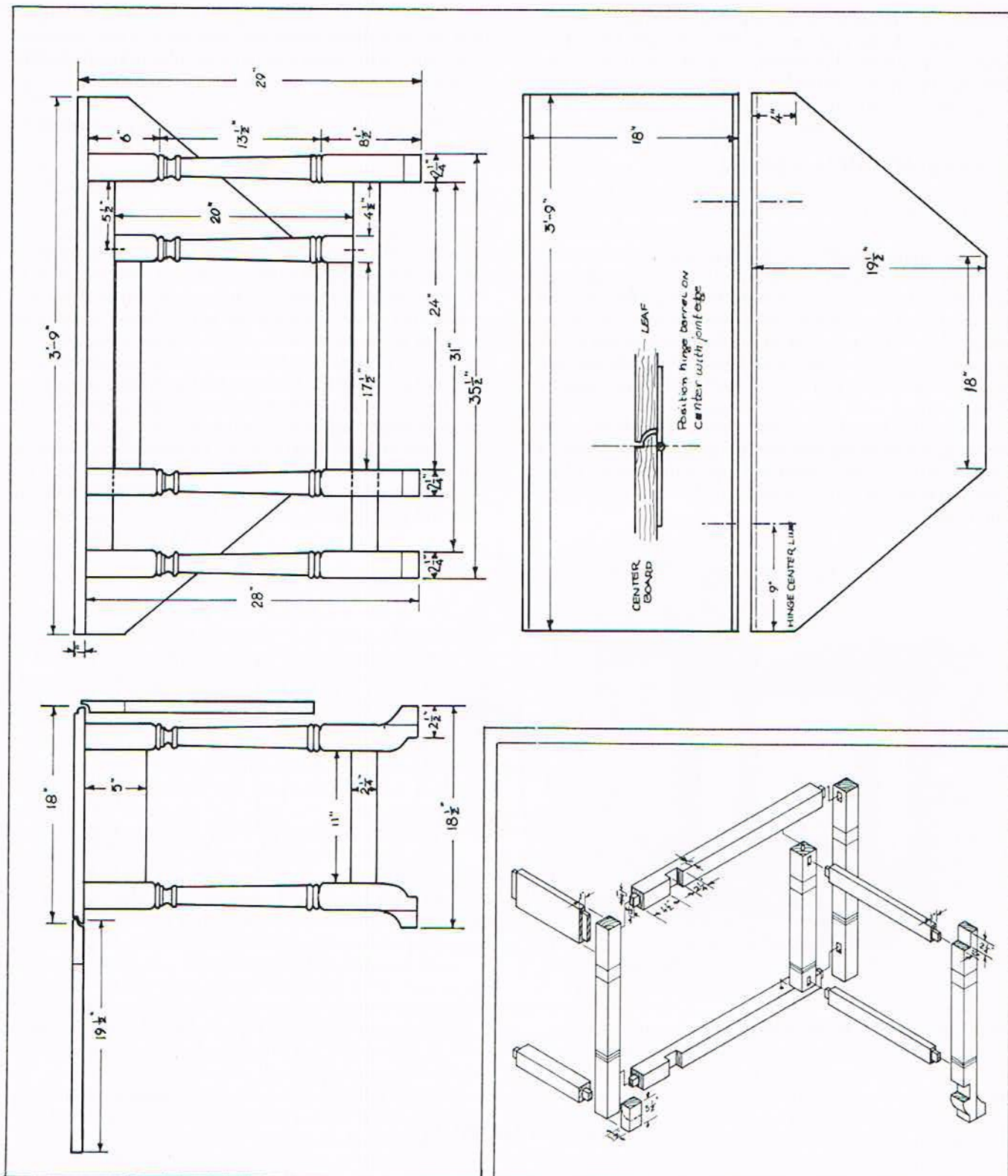


FIG. 3A - Gate Leg Table: Elevations & Top.

FIG. 3B - Gate Leg Table: Exploded View.

identical hole in both sets of side rails. Insert short .025 pivot pins in the ends of the pivot posts.

Before assembly glue a foot-block to the lower end of each leg (cf. exploded drawing). Mark and scroll-cut the foot on each leg and smooth with files and sandpaper. Assemble and glue the table frame, beginning with the two

gatelegs, next the side rails and legs (including the pivoting gateleg!), and finally the end rails.

Mark and cut the three table top pieces: center board and two drop leaves. Note that the dimensions in the drawings allow for the overlapping surfaces of the rule joints between leaves and center board. The outer edge of

the top is not molded. Cut the rule joint with shaper-cutters or modeling knife and jeweler's files. Locate the hinge positions as indicated in the drawing. Mount your hinges with epoxy on the underside of the top, positioning the hinge barrel as shown. Glue the top to the center frame of

the table. If a dark wood was used, a clear satin finish is all that will be needed; otherwise, stain and seal the assembled table with a dark oak or walnut finish, adding a mahogany or cherry wash to give a reddish cast to the finish.

## Oak Joined Stool (c. 17<sup>th</sup> Century)

The simple joined stool is a typically Jacobean piece and easy to build. Butt joints are used throughout (although mortise and tenons may be used instead). The rails and stretchers are centered between the sides of the turned posts. The plain carved pattern on the side and end rails is incised with the tip of a knife point and as in the original is rather crude: a foliage pattern within two semi-circular lines.

Turn the four legs to the pattern indicated in the drawing. Using an adjustable miter gauge, cut the top and bottom of the legs to an angle of 3°. Mark the position of the rails and stretchers on the sides of the four posts, centering them on the posts.

Mark the length of the rails on a piece of 3" x 1" x 3/32" stock wood but do not cut them out. First clamp the stock to the work bench and mark the incised pattern on the face of each length of rail. Carve the pattern on the four pieces with a hobby knife; then cut the pieces to length. (Note that the end rails and stretchers should be cut with a miter saw to an angle of 87° while the front and back stretchers and rails are cut to 90° angles.) Cut the four stretchers to length. Finish sand all pieces before final assembly.

Assemble and glue the ends: rails, stretchers and posts. The assembled ends should be exactly the same. Glue the front and back stretchers and rails in place. Cut the seat to size and glue in place. Stain and finish the assembled stool.



Oak Joined Stool (17th Century).

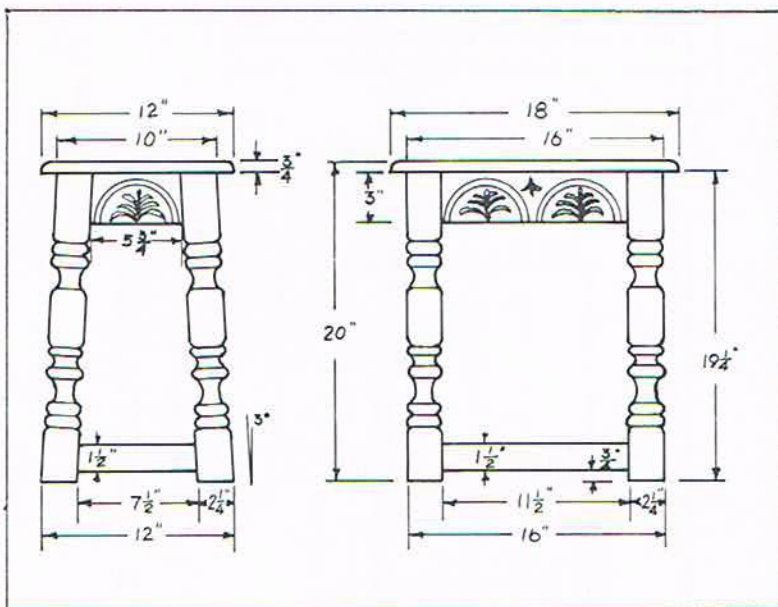


FIG. 4 - Joined Stool: Elevations.

### BILL OF MATERIALS

Leg	4	2 1/4"sq. x 19 1/4" (turn to pattern)	3/16" sq.
Stretcher:			
Front & Back	2	1 1/2" x 1" x 11 1/2"	3/32"
Side	2	1 1/2" x 1" x 7 1/2"	3/32"
Seat Rail:			
Front & Back	2	3" x 1" x 11 1/2"	3/32"
Side	2	3" x 1" x 5 3/4"	3/32"
Seat	1	12" x 18" x 3/4"	1/16"



## Charles I Wainscot High Chair (c. 17<sup>th</sup> Century)

The wainscot or panel back chair, designed after a piece appearing in **Antiques** magazine, takes its name from the similarity between its paneled splat and the rail and stile wall paneling of the Tudor and Jacobean periods. As is the case in this high chair the splat was often decorated with incised carving. While the adult version of the piece was a *chair of state* reserved for dignitaries, the forward-canted back of the high chair would not have bestowed the honor of comfort on its juvenile occupant.

Because of the 2½° slant of the four legs on two planes (ie., toward the center) the chair offers some special challenges to the scale modeler (cf. elevation drawing). The answer to this problem lies in the adjustable miter saw (a Miter-Rite or equivalent). With the saw set at the required angle (87½°), compound miters are cut on the ends of the four posts (ie., 87½° cuts are made on two planes on the end of each post). A simple miter (ie., on one plane only) at the same angle is used to cut the ends of all stretchers, rails and back panel components.

Turn the two front posts to the contours shown in the elevations drawings, noting that the sections where rails and stretchers join are square. Mark the position of the stretchers, rails and arms and lay the posts aside.

Cut the two back posts from square stock and taper the back face of each with sandpaper from 1½" to ¾" (as indicated). Carve the upper end to the required contours. Mark the positions of the rails, stretchers and arms. Cut out the four seat rails and four stretchers (87½°). Mark and cut out the seat (cf. exploded view), notching the four corners to fit around the posts as shown.

The two back rails have a beaded molding along each edge. Before cutting these two rails to length, prepare a strip of 1/16" stock by pre-cutting the beads. Clamp the workpiece to the bench and, using a T-pin or scribe, a straight edge and sandpaper, emboss the bead ½" in from the edges of the strip. Cut the two rails to a greater length than will be needed. In the same manner mark the panel pattern on a sheet of 1/32" stock and emboss the diamond pattern on the wood before cutting the piece out. (Again cut it to the correct height but wider than required.) Assemble and glue the panel and rails as shown. Then miter



Wainscot High Chair (Charles I, 17th Century).

cut the assembled panel to the required width and angle.

Assembly with this (and most chairs) begins with the back. Assemble and glue the two back posts, back panel, seat, seat rail and stretcher (as shown in the exploded view). Assemble and glue the two front posts, rail and stretcher. Cut and shape the two arms, and drill out the posts for the arm joints at the required angle. Finally join the front and back assemblies by adding the side arms, rails and stretchers. Finish sand, stain and seal the assembled high chair.

### BILL OF MATERIALS

Front Post	2	1 1/2"sq. x 28 1/2"	1/8"
Tapered Back Post	2	1 1/2"sq. x 33 1/2"	1/8" sq.
Stretcher:			
Front & Back	2	1 1/2" x 1" x 13"	3/32"
End	2	1 1/2" x 1" x 11"	3/32"
Seat Rail:			
Front & Back	2	2" x 1" x 11 1/2"	3/32"
End	2	2" x 1" x 9 1/2"	3/32"
Seat	1	12 1/4" x 14 1/2" x 1/2"	1/32"
Back: Rail	2	1 1/2" x 3/4" (cut to length as directed)	1/16"
Back: Panel	1	5 1/2" x 1/2" (cut to width as directed)	1/32"
Arm	2	3/4" dia. x 10 1/2"	1/16" dowel

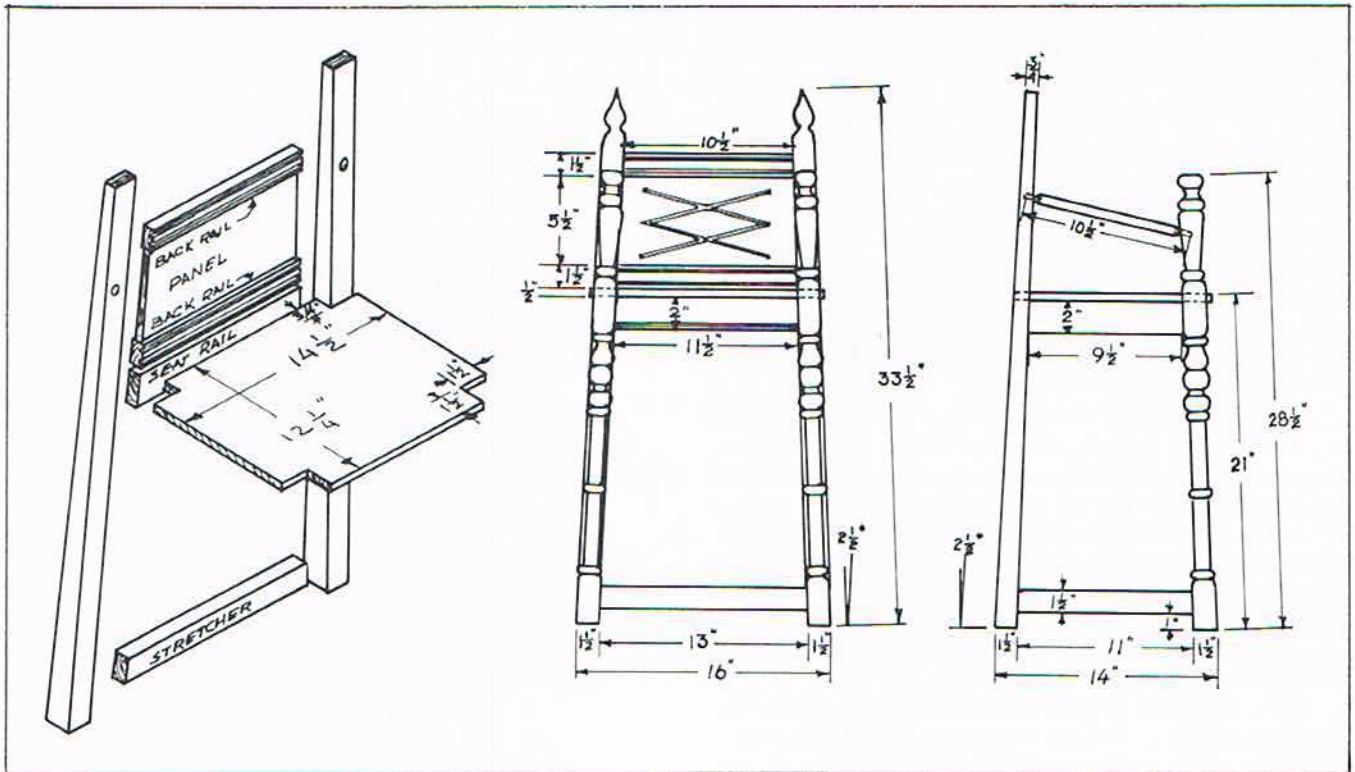


FIG. 5 - Wainscot High Chair: Elevations & Exploded View.

## Welsh Border Chair (c. 1650)

Of the range of furniture pieces designed for this country kitchen, perhaps none is either so English or so rural in origins as the Windsor chair or one of its predecessors the Welsh Border Chair. Dating from the mid-17th century, this simple chair with its straight stick legs and slab seat still suggests through its vertical spindles the grace of the later Windsors which came into vogue in the early 18th century in England and its provinces.

While no chair is easy to build (indeed chairs are the most difficult of all miniatures to do well), this is the simplest of the three Windsor-type chairs in this room. The heavy, rectangular slab seat offers a platform on which to mount the legs and back, both of which are relatively simple and straightforward. The original chair, which appeared along with the low-back Windsor in an issue of *The Fine Arts*, was quite likely made of yew, elm or ash. The prototype piece



### BILL OF MATERIALS

Leg	4	1 1/2"sq. x 16 1/2"	1/8"sq.
Seat	1	22" x 19" x 2" (cut and bevel to pattern)	3/16"
Arm	2	cut to pattern	1/16"
Arm Spindle	12	3/4" dia. x 11" (taper)	1/16" dowel
Back: Top Rail	1	5 1/2" x 24" x 1"	5/64"
Back: Splat	1	3" x 21 3/4" x 1/2" (cut to pattern)	1/32"
Back: Post	2	cut to pattern	1/16"
Back: Spindle	4	3/4" dia. x 22 1/2" (taper to 1/2")	1/16" dowel



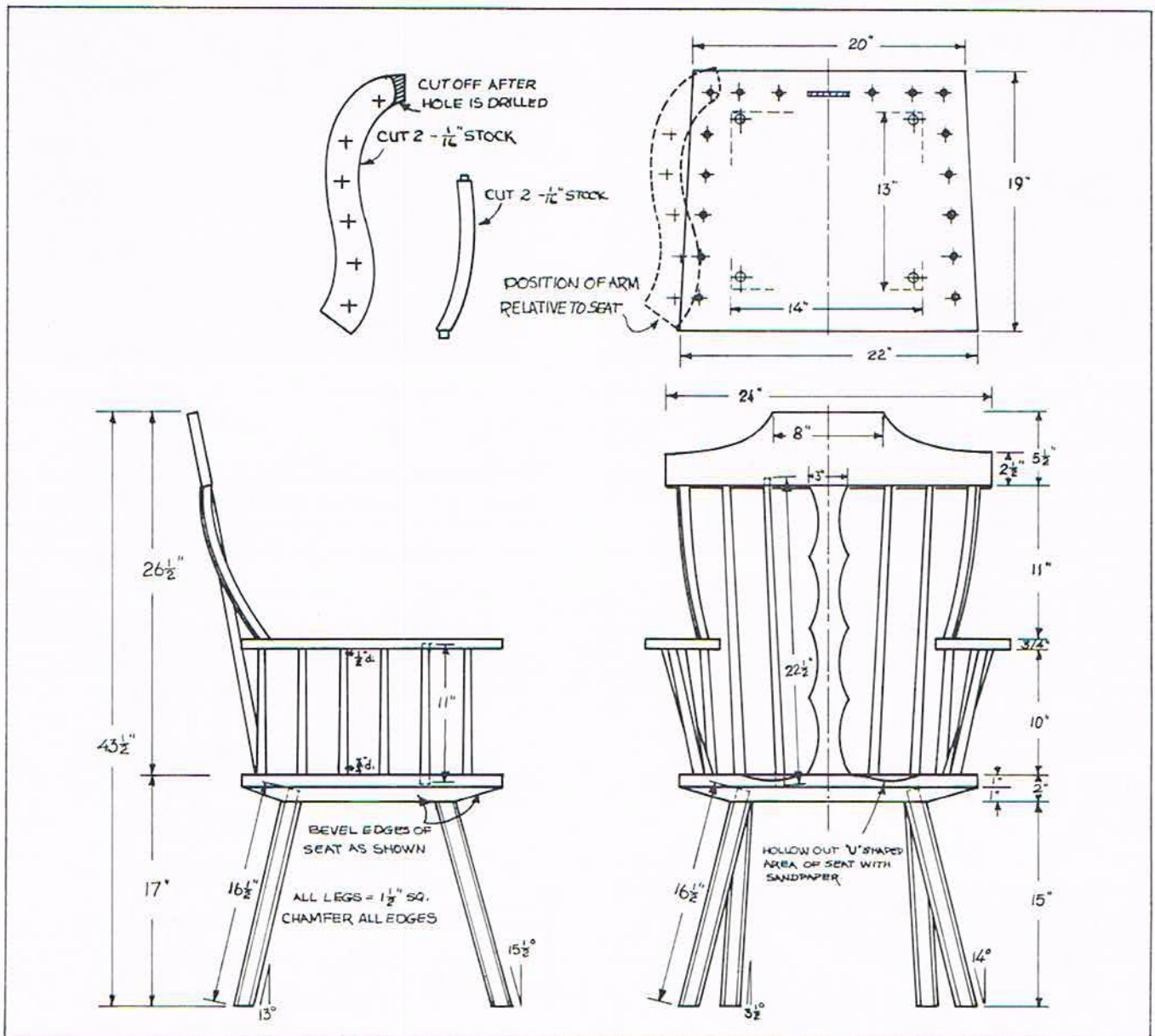


FIG. 6 - Welsh Border Chair: Elevations & Patterns.

for this pattern was made of basswood and maple doweling.

Wood stock for the seat, which is a scale 2" thick, can be obtained either by sanding a piece of 3/16" (.1875) stock down to scale (.1667) or by laminating pieces of 5/64" and 3/32" stock (.1718). (In a hobby which supplies most materials in fractional sizes of the full inch, exact scale dimensions are often hard to come by!) Mark and cut the seat as indicated in the elevation drawings. Mark the depth and width of the bevel on the four bottom sides of the piece and shape the piece with sandpaper. On the top of the seat mark the outlines of the U-shaped seat contour and sand this out by handsanding or with a small sanding disk on a flexible shaft or hobby grinder. Mark the position of the leg dowel joints and drill these at the angles required with a 1/16" bit. Mark the position of the spindle holes and drill these (1/16").

Cut the solid back rail, vertical splat and two curved back spindles from the stock indicated in the Bill of Materials. Lay out the two arm patterns on 1/16" stock.

Before cutting the pieces out locate and predrill the back hole in each arm (which is drilled through the piece and will be likely to splinter out if drilled later). Cut out the arms. Locate and drill the dowel holes to a depth of 1/32" on the bottom of the arms.

Locate and drill the six spindle holes in the back rail. Cut the arm spindles and back spindles to length.

Begin assembly by dry-fitting the seat, arm spindles and arms (positioning the arm as indicated in the drawings). When satisfied with the fit, glue the right and left arm assemblies to the seat. In the same manner dry fit the back rail, spindles and splat to the seat; glue, when the parts have been trimmed to fit.

Cut the four legs to length (including the integral dowel on the upper end). Cut the bottom ends to the required angles and shape a dowel on the upper end of each with a hobby knife. Trial fit the legs. Chamfer the four corners of each leg as indicated and glue the legs in place.

Finish sand the chair, stain and seal.

# Low Back Windsor Chair (c. 1706)

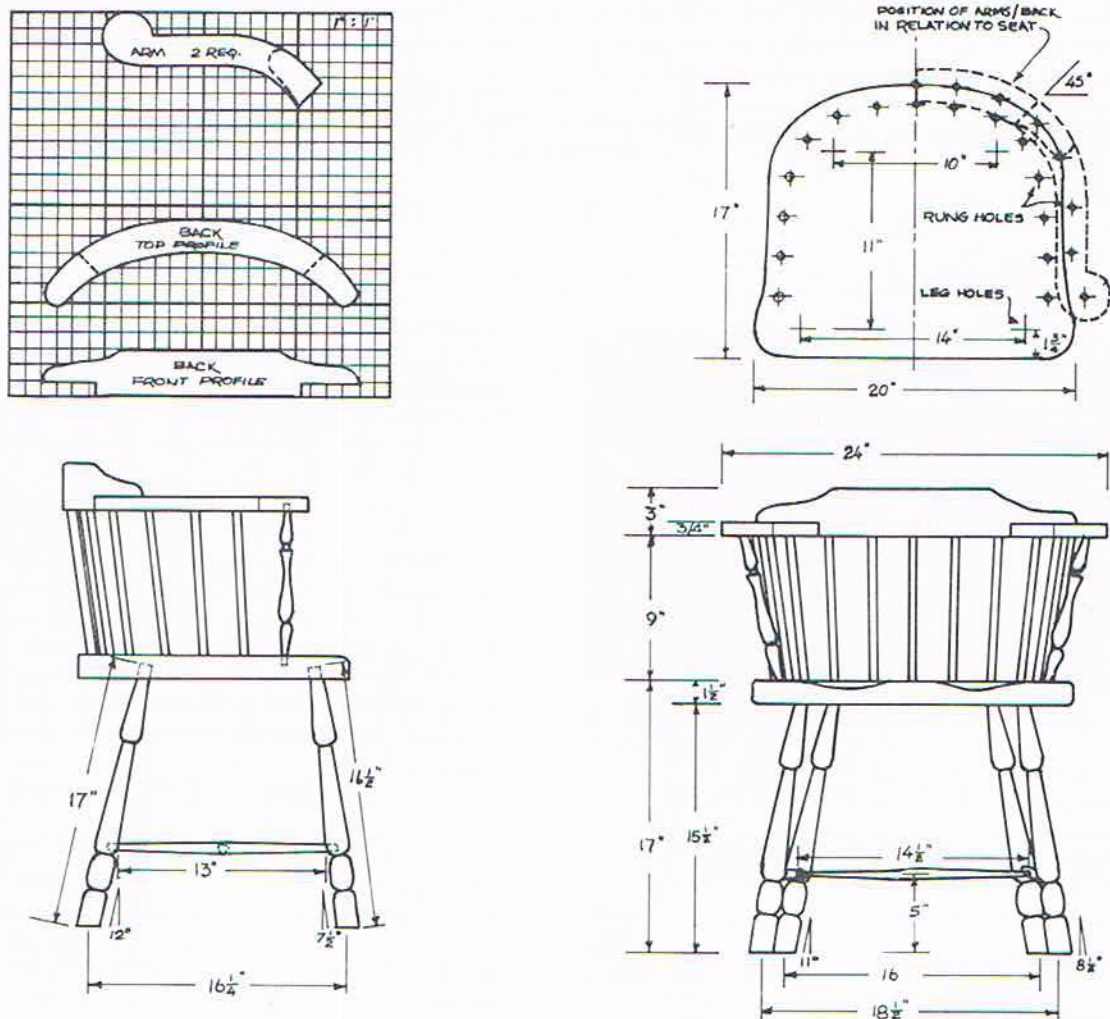


FIG. 7 - Low Back Windsor: Elevations & Patterns.

## BILL OF MATERIALS

Front Leg	2	1 1/2" dia. x 16 1/2"	1/8" dowel
Back Leg	2	1 1/2" dia. x 17"	1/8" dowel
Stretcher	1	3/4" dia. x 15" (taper)	1/16" dowel
Rung	2	3/4" dia. x 14 1/2" (taper)	1/16" dowel
Seat	1	20" x 17" x 1 1/2" (cur to pattern)	1/8"
Back	1	cut to pattern	1/4"
Arm	2	cut to pattern	1/16"
Back Spindles	13	1/2" dia. x 10"	1/32" dowel
Turned Arm Post	2	3/4" dia. x 10"	1/16" dowel



Of all the pieces in this kitchen none should be a more familiar sight than this low backed windsor. It is the forerunner of most "depot or captain's" chairs seen in the last century in so many railroad stations, lodge halls, and rural stores across the country side. This piece, originally made of yew with legs of turned ash, was probably made in Wycombe in the southeast of England from which so many of the early Windsors came. As with the Welsh border chair, the model was made from basswood and maple.

Cut the seat from  $\frac{1}{8}$ " stock to the contour shown in the pattern. Sand the contour of the seat top (U-shaped) as was done with the border chair. Locate and drill the holes for the legs ( $\frac{1}{16}$ ") and the spindles ( $\frac{1}{32}$ ") as shown in the pattern.

Turn the four legs to the required pattern and cut to the lengths indicated in the elevation drawings. Locate and mark the position of the rung holes and drill these with a No. 70 drill. Turn the two rungs and the stretcher on a lathe. Because of the small diameter a centerless turning is more feasible. (Clamp one end and then the other of a dowel into the lathe chuck and taper the turning spindle with sandpaper. The same end can be achieved by twirling one end the dowel between thumb and forefinger while holding a piece of sandpaper to the opposite end with the other hand.) Locate and drill the stretcher holes in the rungs. Dry fit the rungs, stretcher, legs and seat and trim to achieve a good assembly with the required leg angles. When satisfied, lay these pieces aside.

Cut the curved seat back or pillow from  $\frac{1}{4}$ " stock to the top and front profiles provided in the pattern. Cut a half lap on each end of the piece for the arm joint. Cut two arms as shown in the pattern. Mark and drill identical spindle holes in each ( $\frac{1}{32}$ " deep). Fit the arms to the back, achieving the continuous contour seen in the seat/arm pattern in the drawings. Glue the arms to the back. Mark and drill the spindle holes in the back.

Turn the two front arm spindles as indicated. Cut the 13



Low Back Windsor (c. 1706).

straight spindles from dowel. (These will need to be trimmed and fit to slightly different lengths as you trial fit the back assembly.) Fit the spindles to the seat and back/arm unit. The arm and seat should be parallel and should be offset as shown in the drawings. When satisfied with the fit, glue and assemble. Glue and assemble the legs and rungs to the seat. Finish sand, stain and seal.

## Comb-Back Windsor Chair (c. Mid-18<sup>th</sup> Century)

While the name "captain's chair" is usually applied to the low back Windsor, the term has been applied in the past to Windsors in general regardless of their design. Certainly this chair could properly carry such a name for it is patterned after the piece (from *Antiques* magazine) which Captain James Cook took with him on his final circumnavigation of the world which began in 1776. The Windsors were admirably suited for such purposes: sturdy, stable and light weight. (The English Windsors, however, are not as light and frail in appearance as the American Windsors.)

The *comb-back* chair, so named for the resemblance of its extended spindle back to a Spanish comb, offers some tough problems for the modeler. While the legs, seat, arms and arm spindles repeat the basic procedures used on the low back and border chairs, the extension of the back spindles from the seat through the back piece to the curved back rail is difficult. Because of the slight flare of the back, the compound angles of the spindle holes through the back piece vary slightly from inside to outside. The two center

spindles are vertical laterally, angling only toward the back. But as you move from these toward the outside spindles a second lateral drilling angle is added and this increases slightly with each spindle.

As with the preceding chairs begin with the seat and leg assembly. Cut and shape the seat as before, notching the sides of the seat for the arm posts. Turn the four legs and cut to length. Mark and drill the leg holes in the seat and the rung holes in the legs. Turn and drill the rungs and the stretcher. Dry-fit the leg assembly to the seat, making adjustments in lengths as required to achieve the angles required.

Cut two arm posts from  $\frac{5}{64}$ " stock and fit them to the seat with the slight flare indicated in the front elevation drawing. Cut the two arm spindles to length. Referring to the profiles of the back piece (top and front) scroll cut the back and cut the two lap joints indicated. (There is no escaping the fact that you ought to go ahead and cut three or four of these pieces; before you have found the right combination of angles for the spindle holes you probably





Comb Back Windsor (mid 18th Century).

will ruin at least two!) Cut the two arm pieces according to the pattern, but do not fit them to the back piece until you have achieved a back assembly that is correct.

Cut the top rail according to the pattern and steam and bend it to a  $1\frac{1}{2}$ " radius as indicated in the drawings. Cut the back spindles to length. Now the fun begins: drilling the holes in the back! Begin with the two center spindles and the two outside spindles. The goal is to achieve an assembly in which the back is parallel to the seat and the distance between the upper ends of the outside spindles (when assembled) is 16" center to center. As a general guide to the drilling, the hole angles in the seat and back for the two center spindles are  $90^\circ$  laterally and  $78^\circ$  front to back. The angles of the holes for the two outside spindles are  $86\frac{1}{2}^\circ$  laterally and  $81^\circ$  front to back. The angles of the two

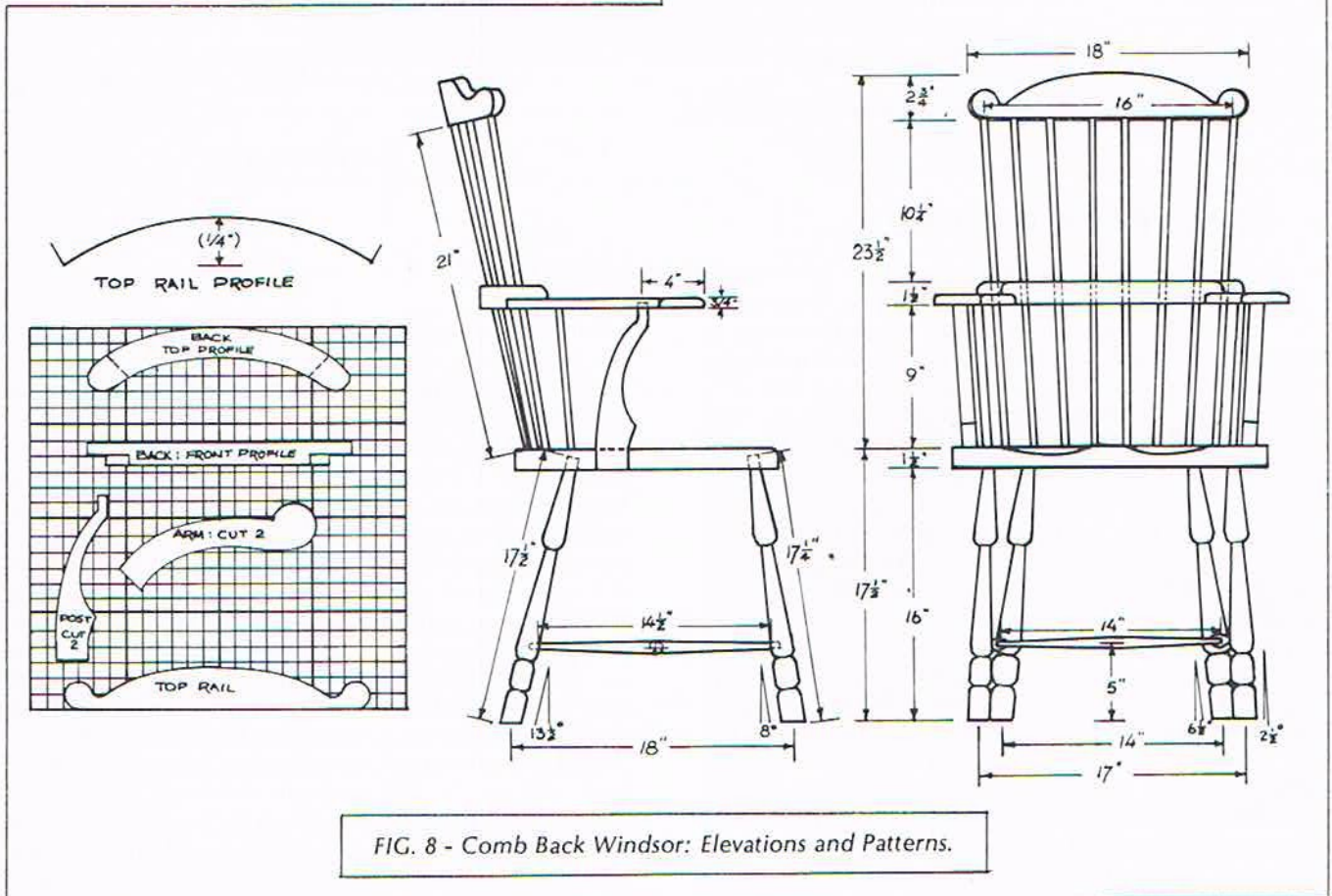
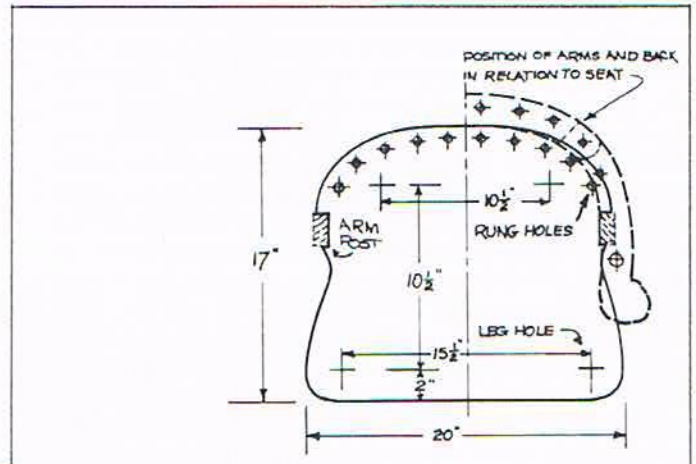


FIG. 8 - Comb Back Windsor: Elevations and Patterns.



## BILL OF MATERIALS

Leg: Front	2	1 1/2" dia. x 17 1/4"	1/8" dia.
Leg: Back	2	1 1/2" dia. x 17 1/2"	1/8" dia.
Rung	2	3/4" dia. x 15 1/2"	1/16" dowel
Stretcher	1	3/4" dia. x 15"	1/16" dowel
Seat	1	cut to pattern	1/8"
Back	1	cut to pattern	1/8"
Arm	2	cut to pattern	1/16"
Arm Post	2	cut to pattern	5/64"
Arm Spindle	2	1/2" dia. x 9 1/2"	1/32" dowel
Back Rail	1	cut and bend to pattern	1/16"
Back Spindle	8	1/2" dia. x 22 1/2" (vary length as required)	1/32" dowel

intermediate spindles on each side vary between these two extremes. Drill the center spindle holes first; then the two outside holes. Assemble the seat, back and four spindles to test the accuracy of the assembly. If the relation of back to seat and the distance between outside spindles is correct go ahead with the intermediate spindles. If not, make adjustments in drilling angle and start over with another back piece.

After the eight back spindles holes have been drilled in the seat and back, assemble the back and using the position of the spindle ends as a guide, mark and drill the holes in the

bottom edge of the top rail. With this hurdle cleared, disassemble the back and fit and glue the arms to the back. Drill the arms for the post and spindles and dry-assemble the entire back once more. If no further adjustments are necessary, pre-stain all parts of the chair and reassemble the back, arms and seat for the last time with glue. By now the glued assembly of the legs, rungs and stretcher should be child's play. Touch up the chair with sandpaper and stain. Apply a finish and you are done (at which time you will probably be willing or even eager to send the chair off on a five year cruise with Captain Cook).

## Candle Stand (c. 17<sup>th</sup> Century)

The candle stand, designed from a piece appearing in an **Antiques** magazine advertisement, illustrates a mode of laminated construction with file card stock which allow the modeler with no metal-working experience to simulate metal utensils. It is a mode which can be used as well in constructing the fireplace utensils. Modelers with metal-working experience may wish to fabricate these pieces from brass instead.

The original stand consists of an oak tripod base (turned post and three legs), upright metal shaft, and adjustable metal (spring-secured) lamp bracket. As illustrated in the enlarged drawing, the lamp bracket is built up with laminated layers of card stock cut to size and soaked in white glue before assembly. First the U-shaped bracket is made from 1" wide strips of cardstock. Allow the glue in each step to dry before going on to the next step. Next the two horizontal strips are added, then the 3" dia. candle base and 2" dia. candle stick, and finally the spring within the bracket. Drill the ends for the shaft (No. 69 drill). Sand the assembly lightly to smooth the joints and paint with flat black paint (model railroad engine black).

Turn the center post of the base from 1/4" maple dowel (cf. pattern) and cut the three legs to the pattern. Assembly and gluing of the tripod will be aided through the use of the simple cardboard template illustrated in the drawing. Flatten the three joint surfaces of the post with sandpaper; then glue the legs to the post, gauging their position with the template. Drill (No.69) the top of the post for the shaft, cut the shaft to length (.030 brass, 46" long) and glue into the



*Candle Stand.*

base. Slide the bracket on the shaft and cap the shaft with a small bead. Stain and seal the base; paint all metal parts flat black.

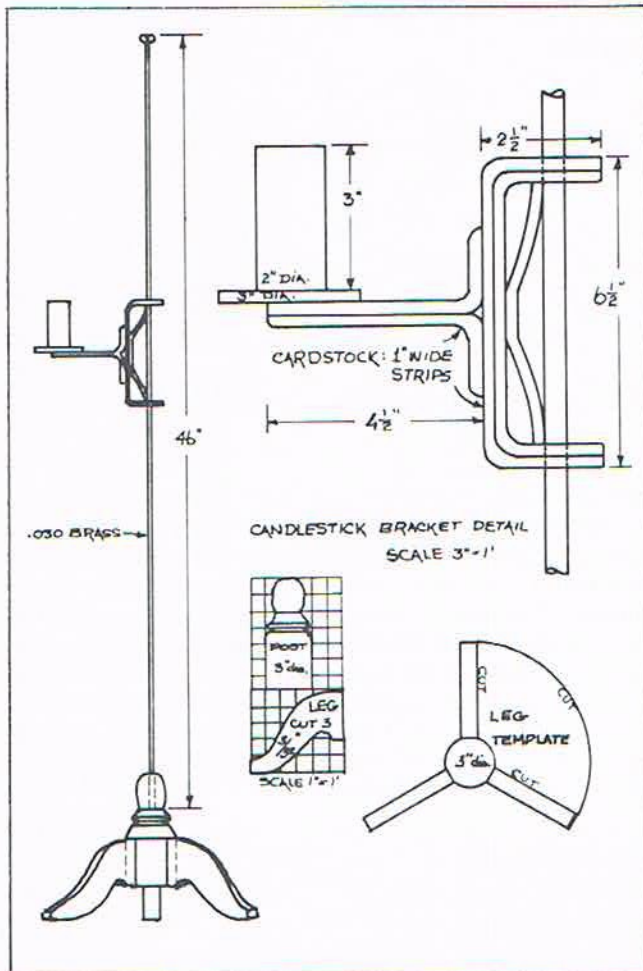


FIG. 10 - Lamp Stand: Elevation, Patterns and Cardstock Bracket Detail.

## Fireplace Fixtures

The fireplace fixtures (low fire dogs, high fire dogs and spit, fire screen, and a lark spit) are not exact scale models of prototype pieces; rather they were designed from photographs of the fixtures in the fireplace of the Tudor-period Mary Arden House, Wilmcote, England (four miles from Stratford-upon-Avon). The original pieces are all metal; however, while the models may be built up entirely of brass, the instructions which follow use a combination of brass wire, wood and file card stock.

The base in each of the four pieces is built of laminated cardstock (cf. candlestand text). In each case the techniques used are the same. A mold is scroll-cut from a scrap of 1/8" wood, defining the contour of the part to be fabricated (cf. patterns in the *Jig Template* drawing). The surface of the jig is coated with dry soap to prevent sticking. Strips of cardstock, cut to the required dimensions and soaked in white glue are pressed onto the jig, laminated and left to dry. When dry, the pieces are sanded and used as indicated in the elevation drawings. The base of the lark spit is hand molded to the semi-hemispherical shape required.

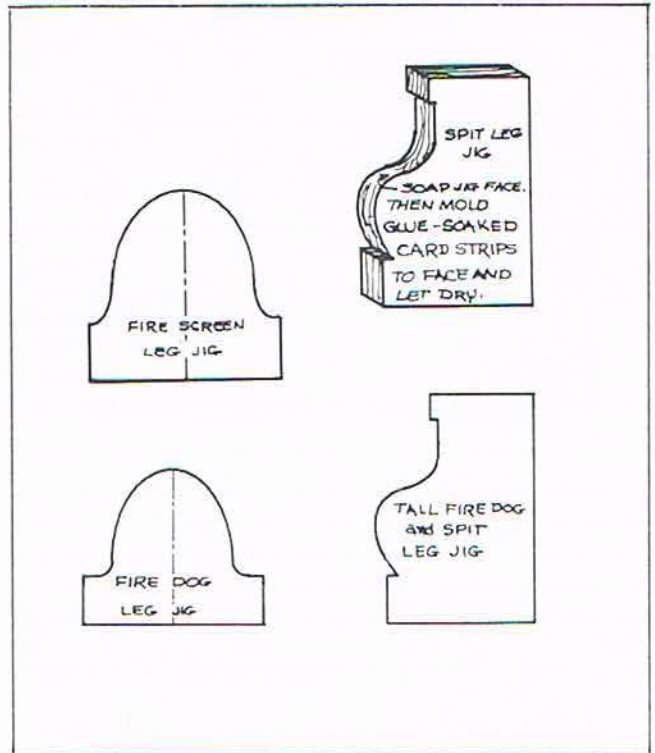


FIG 9 - Fireplace Tools: Jig Templates.



Low Fire Dogs.

**Low Fire Dog** (2 required). (Materials: 1/16" sq. basswood, 3/32" dowel, cardstock.) Cut two 1" wide card strips for the leg. Soak each strip in white glue; form one strip over the jig and then laminate the second strip. After the piece dries, slightly taper the ends of the legs with sandpaper. Cut a shorter brace strip and glue on the underside as indicated in the drawing. Cut and glue two strips of 1/16" sq. wood as shown. Turn the upright post to the pattern shown and glue it to the top of the leg. Glue the wood assembly to the back of the post. Face the joint (ie., reinforcing it) with a small inverted heart cut from cardstock. Paint the assembled fire dog with flat black paint.

**Tall Fire Dog and Spit** (2 required). (Materials: cardstock, 1/8" sq. basswood, 3/32" dia. dowel, .030 brass wire.) This piece serves three purposes: a fire dog, a bracket for the spit, and a torch bracket (top).



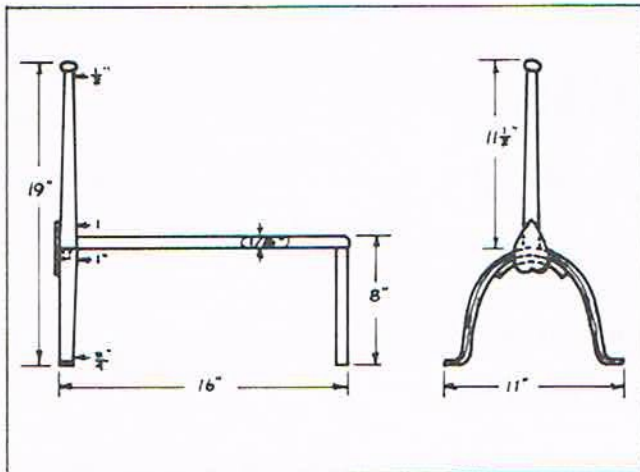


FIG. 11 - Low Fire Dog: Elevations.

Cut a jig and form two legs (each) of two-ply cardstock. Sand a taper in the bottom end of each leg when dry. Cut a piece of  $\frac{1}{8}$ " sq. wood  $17\frac{3}{4}$ " long. Notch opposite sides of the lower end as shown in the drawing. Turn a  $10\frac{1}{2}$ " length of dowel to contour (including a 1" integral dowel on the lower end). Flatten the top end to the angle shown. Cut and glue lengths of  $1\frac{1}{2}$ " square wood to form the back leg ( $67^\circ$  miter, one end).

Glue the legs to the sides of the post and secure them with a  $1\frac{1}{4}$ " wide strap of cardstock around three sides of the post. Drill the top of the post for the dowel joint and glue the turned post in place. Band the four sides of the square post with a strip of  $\frac{3}{4}$ " wide cardstock. Glue the back leg in place as shown.

The torch bracket is formed from two glue-soaked, crossing strips of  $\frac{3}{4}$ " wide cardstock, molded over the end of a rounded (soaped) dowel. The top plate is a ring of card (5" outside diameter, 3" inside diameter), glued to the ends of the four basket straps. When dry, the basket is glued in place atop the post. The spit bracket is a strip of glue-soaked cardstock, molded in the shape illustrated (around a length of .030 wire) and glued into place. The spit, extending between the two spit brackets is a shaped length of .030 brass wire. Paint all parts with flat black paint.

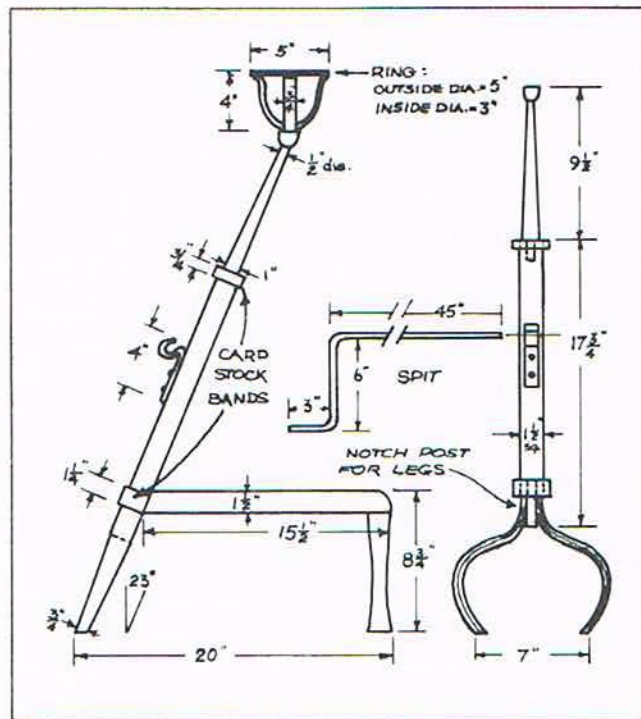


FIG. 12 - High Fire Dog: Elevations.



Fire Screen.



High Fire Dogs and Split Standard.

**Fire Screen.** (Materials:  $\frac{3}{32}$ " dia. dowel, cardstock). Form the base using the jig shown in the *Jig Pattern* drawing. Form a pair of two-ply base straps. Join the two leg pieces using a half lap joint rather than simply gluing one strip to the top of the other. Chuck a length of dowel in a lathe and taper the spindle with a piece of sandpaper. Cut the post to length and cut a  $\frac{1}{2}$ " long integral dowel on the bottom end (as shown). Drill the center of the base for the dowel and glue the post in the hole.

Cut a the reflector from cardstock, using the pattern given in the drawings. Mold the reflector until the edges of the dart at the top overlap and can be glued. Cut two short cardstock slide straps. Soak them in glue and mold to the contour shown in the drawing. Glue these to the back of the reflector. Paint the standard and reflector flat black and slip the reflector onto the post.

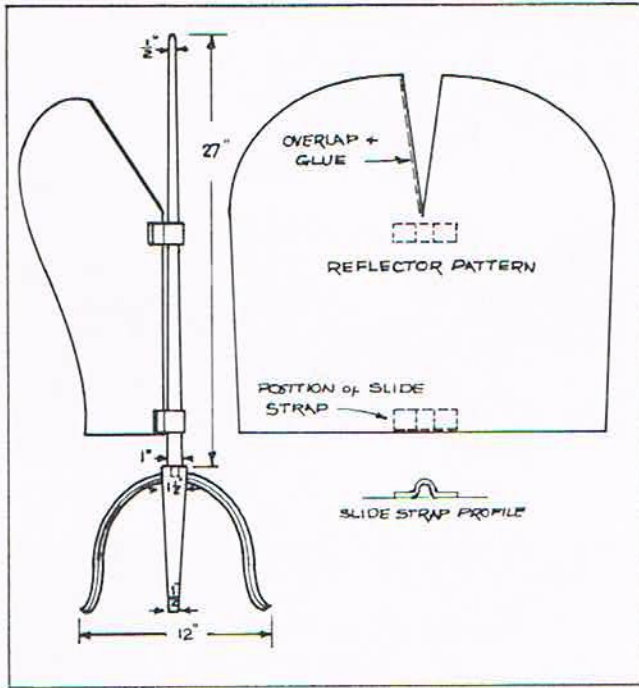
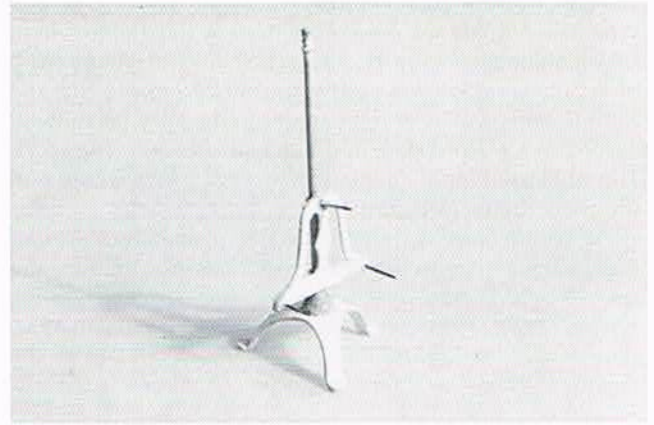


FIG. 13 - Fire Screen: Elevation & Pattern.

**Lark Spit.** (Materials: 1/16" dia. dowel, 1/4" dowel, cardstock, brass or steel pins.) Form the base of two glue-soaked pieces of cardstock cut to the pattern. (Form one piece to the proper contour and then apply the second to it.) Bend the feet as shown. When dry, trim and sand to a smooth contour. Turn a collar for the post from 1/4" dowel and center drill it (1/16"). Turn a length of 1/16" dowel to the shape shown in the drawing. Glue the collar to the base and the post to the collar. The spit plate is cut from a two ply lamination of cardstock (glue soaked and dried). Drill the three holes for the spikes (as shown), insert the pins and secure the pin with a small patch of card stock on the back side of the plate. Form two slide straps (as in the fire screen



Lark Spit.

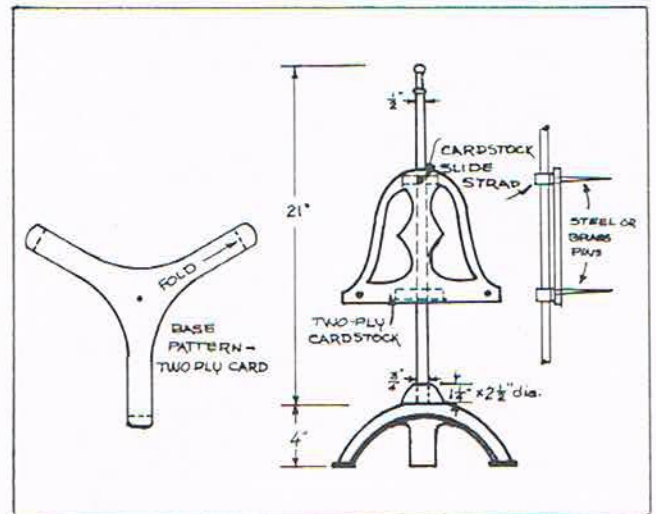


FIG. 14 - Lark Spit: Elevation and Base Pattern.

pattern) and apply them as shown to the back of the plate. Paint the standard and spit plate flat black and slide the plate onto the post.