Butterfly Table *from the* Berkshire Museum

For a superb example of the famous and ever-popular butterfly drop-leaf table Mr. Lester Margon went to Pittsfield, Mass., in the Berkshire Mountains where, displayed in the Berkshire Museum, he found a table truly representative of the type made throughout New England during the Pilgrim Century. With its plain stretchers, double-bottle turnings and graceful leaf support this charming piece is distinctly American and as such is a splendid model for reproduction at the hands of today's craftsman

A PIECE of furniture more generally useful than a butterfly table would be hard to find, and certainly there are few pieces that would offer the craftsman more fun and experience in construction.

Work on the butterfly table should be started with the legs. These members are made of four pieces of cherry or maple stock, 1⅝" square and 25½" long. The end of each leg should be cut at an angle of 79° as shown in Fig. 2.

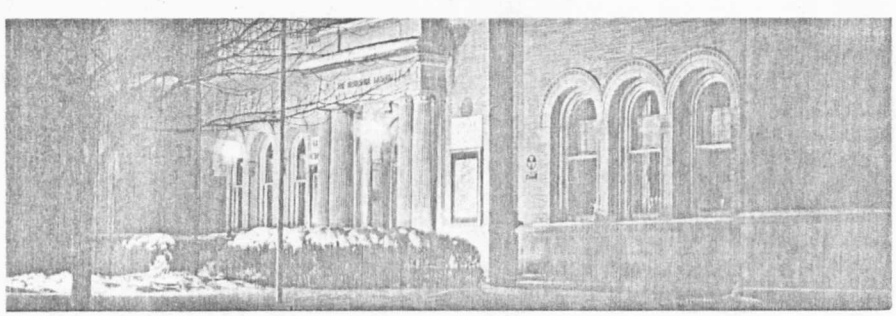
The legs should be arranged in their relative positions and each surface marked. Mortises to take the aprons are laid out ⅜" wide and 3" long and are located ½" from the outside surfaces of the leg. Mortises for the end aprons are located 1 1/16" from the highest point of the upper end, while those for the side aprons are placed 1" from the lowest point of the upper end.

Mortises to take the end rails and side rails, or stretchers, are located 15¾" below the bottom of the mortises for the aprons. For the rails the mortises are to be ⅜" wide and 1¼" long and are located ¼" from the outside surface. The mortises that are to take the side rails and aprons are cut square to the face of the stock, while those for the end rails and aprons are cut at an angle of 79° to the surface of the leg as in Fig. 2.

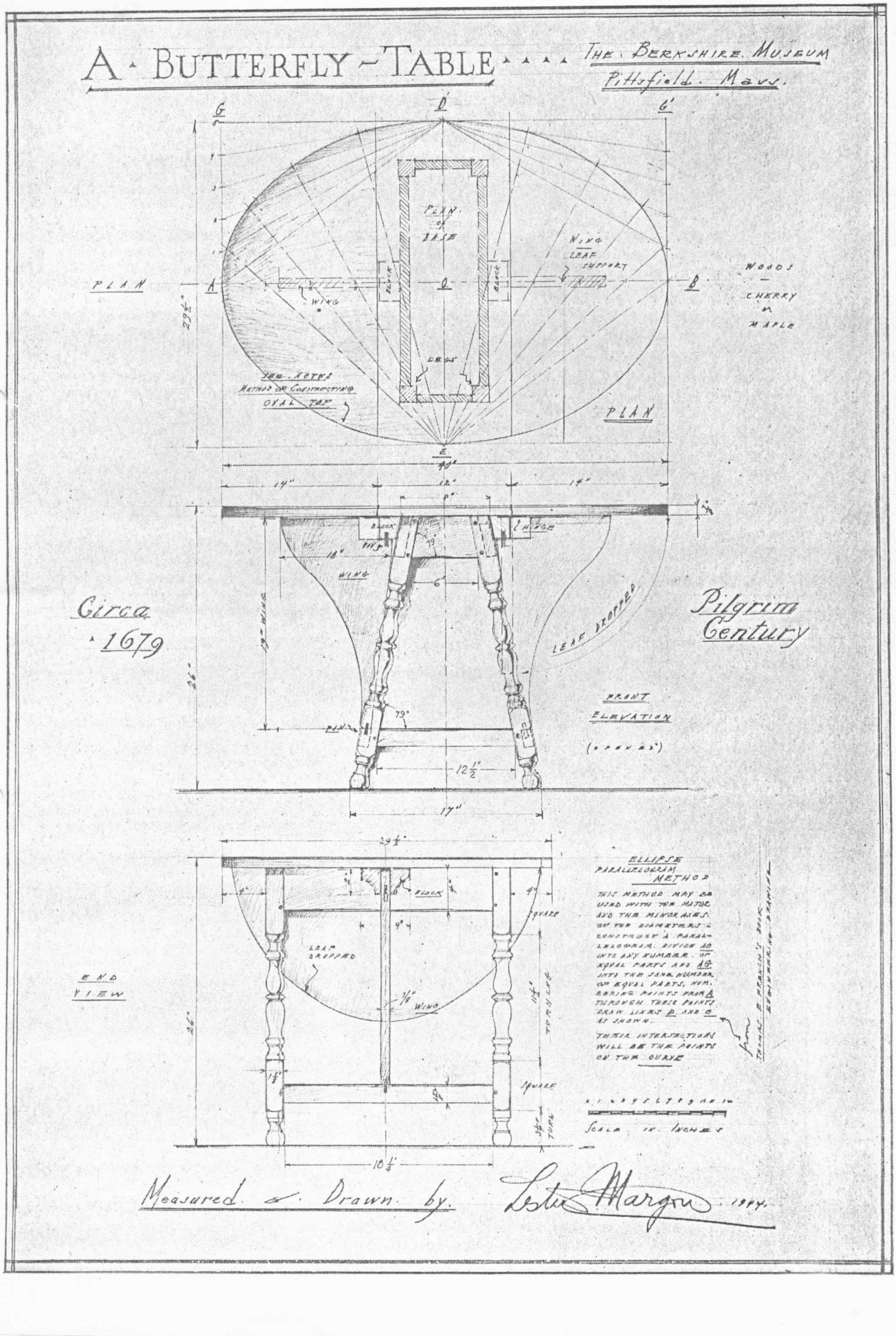
After the mortises have been completed, the legs can be turned to shape in the lathe. To insure accuracy in producing the four identical legs, a full-size pattern or template should be prepared on paper or cardboard.

The sections that are to be turned should be roughed to an outside diameter of 1 11/16" with the gouge and finished to 1⅝" in diameter with the skew chisel. The beads and coves are marked off and are then cut to their ultimate depth with the parting tool. The skew chisel and roundnose chisel are used to complete the turning. While in the lathe, the leg should be sandpapered with a No. 1 sandpaper and with finer grades down through No. 00.

The aprons are made of ⅞" stock. End aprons call for 4" x 8" stock, while side aprons need 4 1/16" x 20¼" pieces. The end aprons shown in Fig. 1 have each end of the stock cut at an angle of 79 degrees. A barefaced tenon is laid out on each end to fit the leg mortises. After being cut and fitted to their corresponding mortises, the end of each tenon is cut at an angle of 45 degrees.



Present home of the Early American butterfly table illustrated in this article is the Berkshire Museum in Pittsfield, Massachusetts. Pictured above, the museum is outstanding in its permanent collection of furniture and art and enterprising in its special exhibitions. It fosters cultural activities, sponsors art classes, lectures and concerts and inspires the art talents of a community which is the business and cultural center of the Berkshires.



A · BUTTERFLY – TABLE
THE · BERKSHIRE · MUSEUM
Pittsfield. Mass.
PLAN
PLAN OF BASE
WING LEAF SUPPORT
WING
BLOCK
LEGS
SEE NOTES METHOD OF CONSTRUCTING OVAL TOP
WOODS — CHERRY or MAPLE
29½"
14"
12"
14"
BLOCK
HINGE
PIN
WING
6"
LEAF DROPPED
Circa 1679
Pilgrim Century
26"
FRONT ELEVATION
(OPENED)
79°
12½"
17"
END VIEW
LEAF DROPPED
BLOCK
WING
SQUARE
TURNING
10¼"
ELLIPSE
PARALLELOGRAM METHOD
THIS METHOD MAY BE USED WITH THE MAJOR AND THE MINOR AXES OR THE DIAMETERS – CONSTRUCT A PARALLELOGRAM. DIVIDE AO INTO ANY NUMBER OF EQUAL PARTS AND AG INTO THE SAME NUMBER OF EQUAL PARTS, NUMBERING POINTS FROM A THROUGH THESE POINTS DRAW LINES D AND E AS SHOWN.
THEIR INTERSECTIONS WILL BE THE POINTS ON THE CURVE
from THOMAS E. FRENCH'S BOOK ENGINEERING DRAWING
SCALE IN INCHES
Measured & Drawn by Lester Margon 1944.

The side aprons have tenons of the same size laid out and cut on each end. These tenons are cut as shown in Fig. 3. The end of each tenon is mitered to butt against the tenons on the end aprons.

The side and end rails are made of 7/8" stock, 1 5/8" wide. The end rails shown in Fig. 1 require two pieces of stock 14 1/2" long. The ends of these members are cut at an angle of 79° in the same manner as was done with the end aprons. The tenon on each end of the rails is 3/8" thick, 1 1/4" wide and 1" long; it is located 1/4" from the

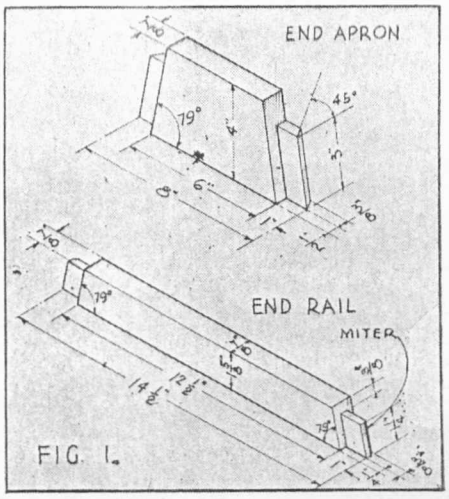


FIG. 1.

outside face of the rail. The fitted tenons are mitered as shown. The side rails require two pieces of stock 20 1/4" long as shown in Fig. 3. The tenons on the ends of side rails are the same size as those on the end rails.

The wings require two pieces of stock 7/8" x 10 1/4" x 19 1/4" as shown in Fig. 4. A full-size pattern of this member should be drawn on heavy wrapping paper for tracing on the stock. The shaping of the wings is done on the band saw or jig saw. Sawed edges are sanded.

The laying out and boring of holes for the pivot dowels must be done accurately. The 3/8" holes for the dowels are located 1/2" from the edge of the wing and are bored parallel to this edge for a depth of 3/4". Dowels 3/8" in diameter and 1 1/2" long are glued in these holes.

The block in which the upper pivot dowel swings is made of 2" stock, 2" wide and 4" long. It is shaped as shown in the end view of the main drawing and in Fig. 4. The 3/8" hole for the pivot dowel is bored at an angle of 83° to the face as shown in Fig. 4. The pivot hole in the lower rail is bored to a depth of 5/8" and at an angle of 86° to the edge.

Assembly of the table can now be undertaken. The side aprons and rails are glued to the legs and set in clamps. After the glue has set, the assembled end units are joined together by placing the side rails and aprons in position. The upper edge of the side aprons should be planed flush with the upper end of the leg. The upper pivot blocks for the wings are fastened to the side aprons with 1 1/2" No. 8 flathead wood screws driven through the apron and into the blocks. The wing should be inserted between the block and rail before the block is fastened in place.

The table top is made of 7/8" stock. The center section is a piece 12" wide and 29 1/2" long, while each drop leaf requires a piece 14" wide and 29 1/2" long. These three pieces should be fastened together temporarily by means of cleats fastened to the underside while the ellipse is laid out and cut as suggested on the main drawing.

Gains are cut as in Fig. 5 to take hinges which attach the leaves to the

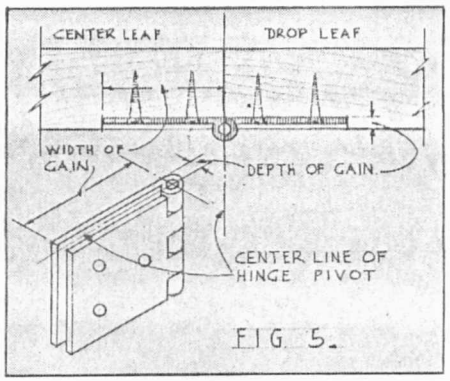


FIG. 5.

center section. Cleats made of 3/4" x 3/4" stock are fastened to the inside face of the aprons with wood screws and the table top is then fastened in place by driving 1 1/4" flathead screws up through the cleats and into the top.

Maple stain and wax comprise one of the best finishes that can be applied to maple. If cherry was used a hand-rubbed oil finish can be undertaken by rubbing in a number of coats of hot linseed oil.

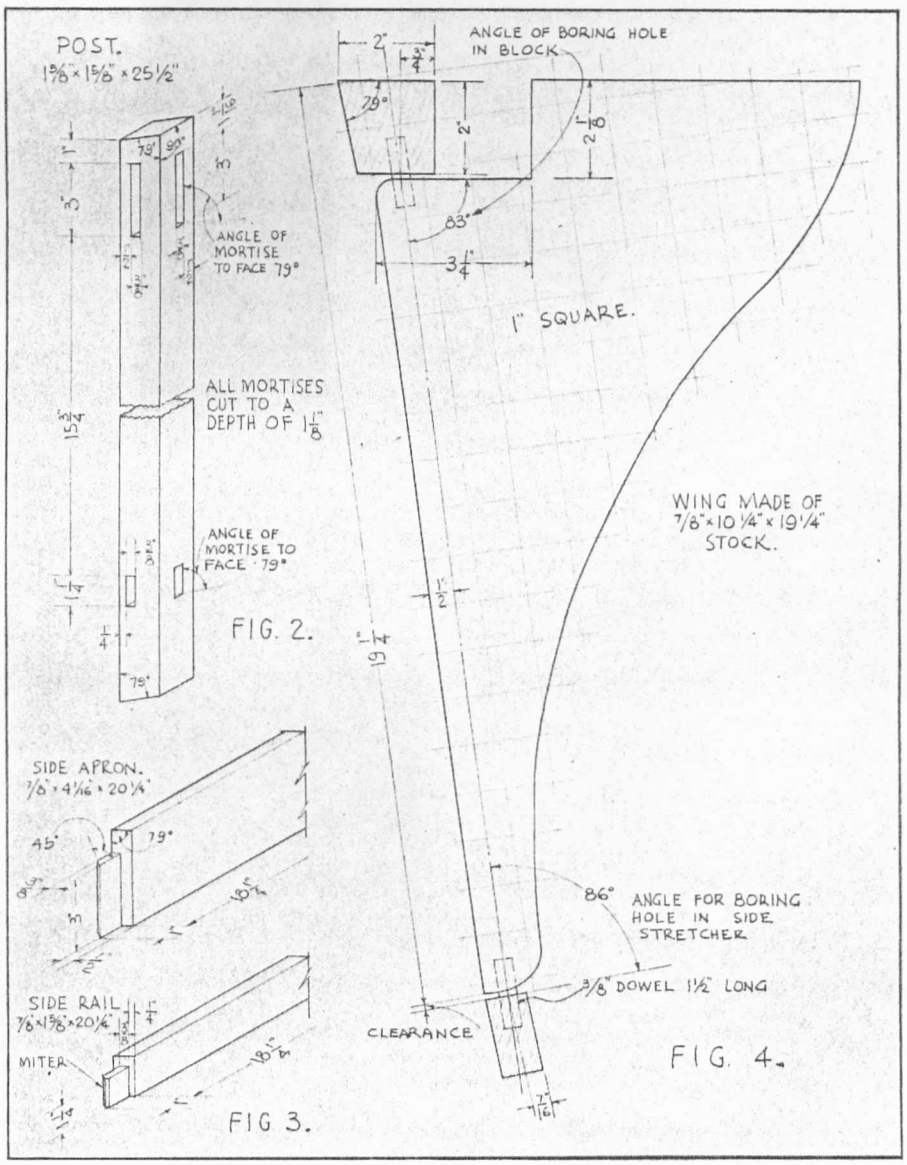


FIG. 2. FIG. 3. FIG. 4.