

# CANNON BALL BEDSTEAD

*by Carlyle Lynch*

*Photographs by Roy Early, Illustrations by Jennifer Chiles*

Visitors to Fort Harrison, a Dayton, Virginia house museum, admire the crisp turnings on the maple posts of this eighteenth century bedstead thought to be from the area of Philadelphia, Pennsylvania. The balls are so perfect that a template would have to be used to reproduce them. Perhaps the thought has occurred to you, as it has to me, that the cannon ball on bedposts was an expression of patriotism like that of the American bald eagle carved and gilded on the top of mirror frames.

The posts were turned in one piece on a long bed lathe more commonly found in furniture shops two hundred years ago than now. The turning shows evidence of a man thoroughly familiar with deep cove cuts. Those of us less skilled can approximate that work by taking light cuts with really sharp, round nose turning chisels, and patient sanding. The post design is such that we can turn them on our 36" long lathes in three sections, as suggested by broken lines showing large dowels turned on the top and middle (octagonal) sections to fit holes drilled in the sections beneath them. (See drill press set up for drilling central holes in columns.) Remember to cut sections at least 2" longer to make the 1" to 1½" diam. dowels. Turn the dowels a bit oversize and leave centers on for fitting snug to the holes when those have been drilled. This will mean turning a plug from scrap for the hole in the top of the octagonal section. Make the posts in sections; cut the pieces for each from the same length of 4" stock and match mark them to preserve the grain pattern. Remember that flats of the octagons must line up with the square sides of the bottom sections. Before gluing sections together, carve three tiny lateral v-grooves in the dowels (120° apart) to allow trapped air to escape. Have clamps ready.

Cut rail and headboard mortises after posts have been turned. All of these joints are dry, the parts held securely by eight bed bolts engaging nuts inserted in the rails and held there by wood plugs whose grain runs with that of the rails. Side rails of the original are slightly above the end rails, perhaps an oddity of the long ago builder that we need not follow. Two more things about the rails: First make short tenons—5/8" is shown but ½" is not too short. Long ones tend to snap off when setting up or taking down bolted beds. Make the mortises 1/8" deeper than tenons are long to be sure bolts can pull rail shoulders tight to posts. Second, the rails of corded beds must be heavy (wide and thick) to withstand the inward pull of the cords when the bed is occupied. Notice also that the tenons on the headboard are full thickness of that member.

The bolts on this bed have large flat slotted heads without washers so that a large screw driver, rather than a special wrench, can be used. The heads fit into shallow sockets to be flush with post surfaces. One must therefore bore the shallow hole for the bolt head before boring for the bolt, and this is true for any style bolt whose head you want flush or below the surface.

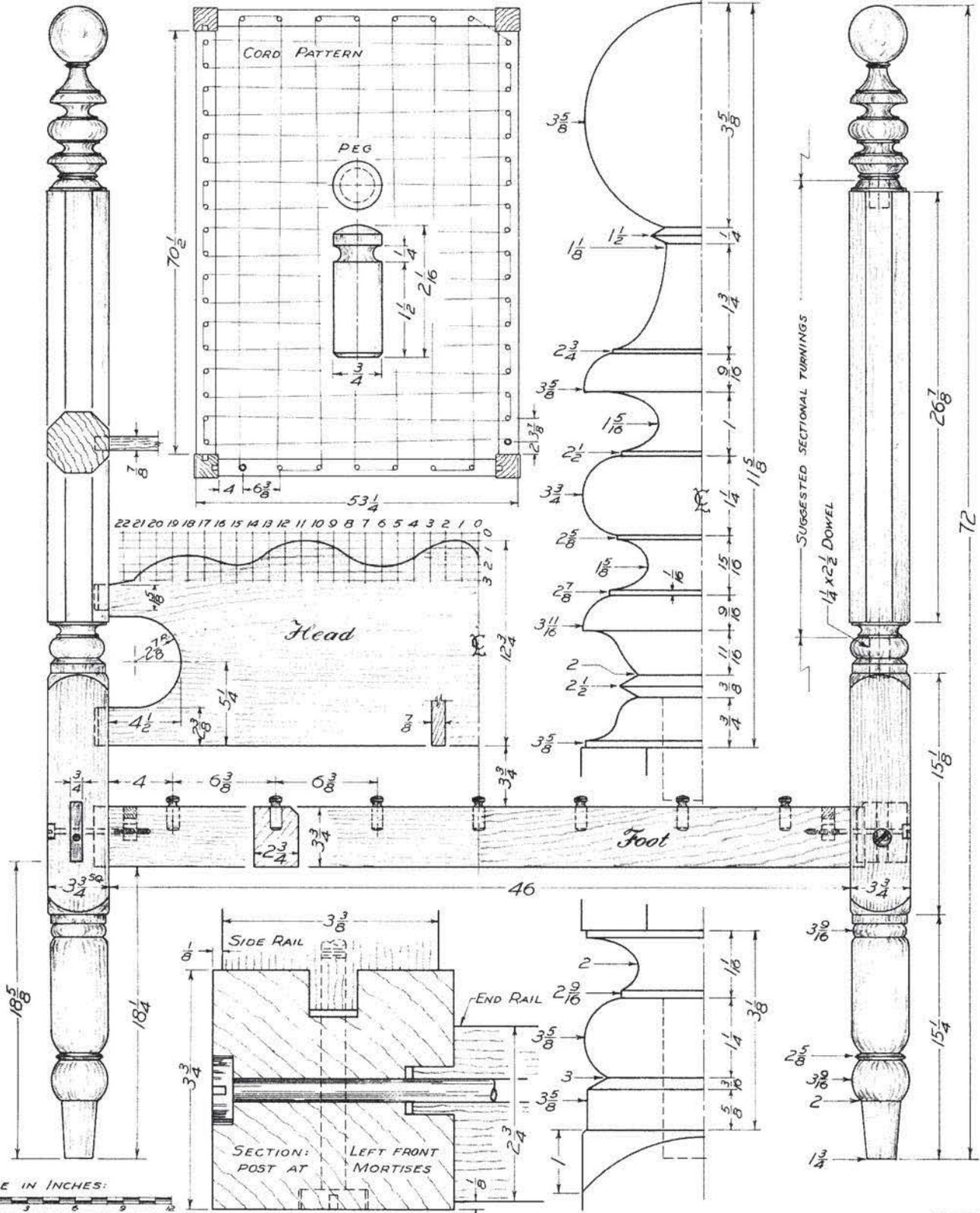


Maple

# CANNON BALL BEDSTEAD

Fort Harrison Museum Collection  
Dayton, Virginia

About 1800



© E. B. Lynch 1985

Measured & Drawn by Carlyle Lynch



After boring the posts so the bolts will cross over each other, insert each marked rail tenon into its mortise and use a pointed bolt to spot where to drill the rail. Set up to drill the posts on a drill press. Then the holes through the posts can act as guides for drilling the rails. Bedstead builders often use a cold chisel to stamp posts and mating rail ends with Roman numerals to aid identifying parts.

Unless you can find bed bolts at reasonable prices, you may choose to make them, using regular  $3/8"$  x  $6"$  or  $7"$  hex-head bolts and flat washers. These should be turned, filed, or ground to about a  $60^\circ$  point to aid finding the hole in the nuts. Better nuts than regular hex nuts are ones made from short piece of mild steel flat bar to obtain a rectangular nut. For a  $3/8"$  bolt, the nut should be made from a piece of steel  $3/8$  x  $5/8$  x  $3/4$ . Drill a  $5/16"$  diam. hole and use a  $3/8$ -16 tap available from hardware stores. Of course, the nut sockets are cut in the rails after the bolt holes are made. Sockets out of sight are made from inside or from the bottoms of rails. The bed has some from the top and others from the front sides, but each is covered by a neatly made plug.

To be correct, bedding should be as wide as the rails, so that covers hang straight down. The size of this bed as shown is almost our standard, double bed size of  $54"$  wide x  $75"$  long rails. If you choose to cord the bed, with a slight increase in width and length, (see materials list), a standard innerspring mattress will rest on the side rails and allow the covers to hang straight. Cord pegs (which are driven in dry holes) have rounded tops and stick up just enough to hold the cord and so do not interfere with a mattress resting on them. If you have room for a queen size bed, increase rail sizes to allow a  $54"$  box spring to rest on angle irons and come flush with rail tops. Get a custom made mattress cut out around the front posts to rest on the front rail. The bed would then be  $61\frac{1}{4}"$  x  $79\frac{5}{8}"$ . Angle irons should be set flush into rails about  $14"$  from posts and secured with  $1"$  x  $12"$  flat head screws.

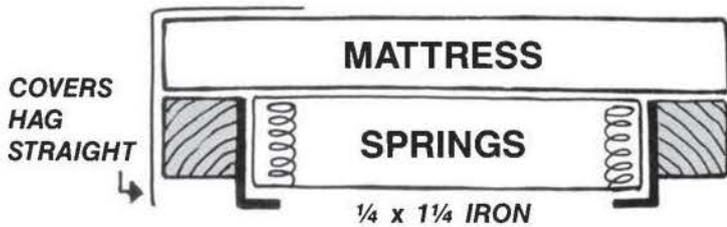
The rich color of the maple appears to come from aging rather than stain. Naturally finished woods darken noticeably in a few years, so my choice for finish is one of the antique oil finishes which are penetrating, protective, clear, and very easy to apply.

### STANDARD BED SIZES

- Single - 39" wide x 75" long rails
- Double - 54" wide x 75" long rails
- Queen - 60" wide x 80" long rails
- King - 76" wide x 80" long rails

### SUGGESTION

Use a standard 54" box spring and 62" wide custom innerspring mattress cut out around the foot posts.



### Material List:

*All wood parts are hard maple. (shoulder to shoulder = s-s)*

4 Posts	3 3/4 x 3 3/4 x 72 1/2	1/2" allowance for lathe center
2 Side rails	3 3/8 x 3 3/4 x 71 3/4	70 1/2 s-s (or 76 1/4, 75 s-s)
2 End rails	2 3/4 x 3 3/4 x 47 1/4	46 s-s (or 48, 46 3/4 s-s)
1 Headboard	7/8 x 12 3/4 x 47 1/4	46 s-s (or 48, 46 3/4 s-s)
50 Cord Pegs	3/4 x 3/4 x 2 1/2	allowance for center

### Supply Source

8 Bed bolts with nuts and special wrench, 3/8" x 6" or 7". Available from Ball and Ball, 463 W. Lincoln Hwy., Exton, Pa. 19341 or Horton Brasses, Box 95, Cromwell, CT. 06416.

150 feet Cotton sash cord, 5/16" diam., braided; available as window weight cord from hardware stores.

Superb quality bedding made to order can be had from Sunset Mattress Co., Box 35-L, Ossipee, NH 03864, 603-539-6256. This is an unsolicited recommendation.

### ABOUT THE AUTHOR:

Carlyle Lynch is a retired teacher and cabinetmaker. He is a frequent contributor to *The American Woodworker*.

Drill through the center of a piece of 3/8" rod or dowel and thread four or five feet of fish line through it. Tie one end to a plumb bob. Chuck as shown and use to align plumb bob with pointed piece in drill table center hole. Clamp table in that position. Replace plumb bob with 1", 1 1/4" or 1 1/2" spade bit. Support column to be drilled by placing its lathe center point on aligned point. Start drill and engage bit point with the top lathe center point and drill the column for the dowel.

