WYOMING LOG HOME MANUFACTURING COMPANY

Creating A Log Queen Size Bed Frame

Marc Veillet

1/2/2011

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Creating the Queen Bed Frame

Preparation

Wood Selection

In North America, young lodge pole pines have been and still are used in most log furniture construction. They are straight and strong, with small diameter and branches, aren't too hard, and have a lot of character; perfect material for an enthusiastic do-it-yourselfer to use in building furniture that lasts a lifetime.

Standing-dead wood is ideal, and ready to be shaved and used. Fire kill is also good, but its scorch marks can be messy. Fresh-cut poles must be sorted then dry for at least one year. Fresh poles should be peeled to reduce drying time, and will need to be peeled again once dry, because unprotected wood turns amber then grey as it ages.

Check wood for rot shoving a nail into pole ends. If it goes all the way in, the wood is rotten. Rot is a distinct reddish color. Not all red is rot, but its presence is a reason to examine the wood carefully—not much is more frustrating than finding rot in wood you've already prepped.

Tools

- □ Drawknife. (To remove the bark.)
- □ 3” planer. (To remove the bark.)
- □ 2” tenon cutter. (A set of chisels and a hammer will work be labor and time intensive.)
- □ 2” wood boring bit. (For the drilling of the mortises.)
- □ 1/8th” wood bit. (For the drilling of the pilot holes for the fasteners.)
- □ Rubber mallet. (This is for hammering parts into place.)
- □ Two ratchet straps. (To tighten and hold pieces together.)
- □ Screw gun and the appropriate bits.
- □ Paint brush.

Parts and Finish

- □ 18 lag screws 8” to 10” in length.
- □ Wood glue.
- □ Stain or clear coat.

Removal of the bark

Use a drawknife or a 3” planner to remove the bark. Simply peeling off the bark is not good enough. Remove the outer bark, the inner bark (phloem), and the cambium cell layer (the thin layer of green under the bark). Peel the wood down to the sapwood (xylem).

Cutting the poles into rails and spindles

Cut poles for the straightest possible spindle length. Imperfections will give spindles and the bed frame their character, so incorporate them to your advantage.

Shaping rail and spindle ends (tenoning)

Use a 2” mortise, set to 2” deep, to create ends that will fit into rail holes. Keep the spindle and the mortise straight—if the spindle end is angled, it won’t fit right. With the spindle held tight be a wood clamp, use an extra pair of eyes so they can watch the drill’s horizontal axis, from the side, while you watch the lateral axis, from the top.

Drilling holes (mortising)

Snap a line along the rail’s axis. Mark measure and mark hole centers along the line. Drill holes 2” wide and mark the bit so holes are 2” deep. Using a drill press is ideal, but a hand-held drill will work as long as a partner can help make sure the drill stays vertical on all planes.

Sanding

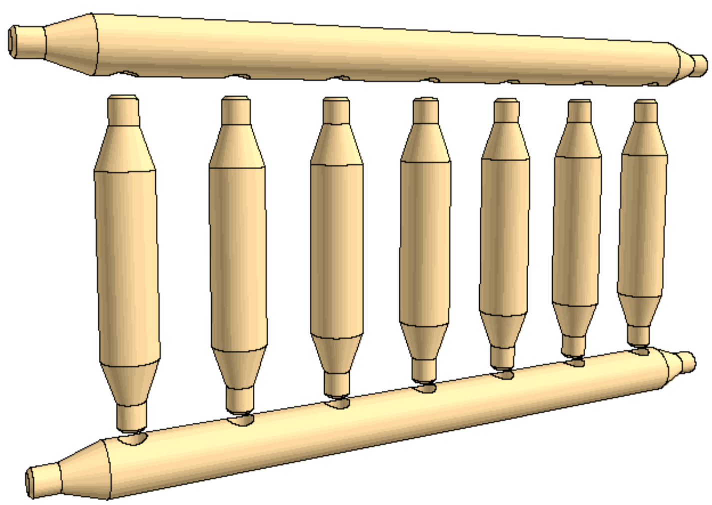
Use 40-grit paper on exposed ends, and 80-grit on rails, spindles, and exposed spindle tenons. Eliminate tool marks, but don’t sand away any unique character.

Round spindle corners and lightly sand spindle ends. If top tenon corners are radiused (rounded), they will fit into mortises more easily. Rough spots on tenons can be knocked down with light sanding or by spinning them in a gloved hand, but be careful: taking off too much tenon material will cause a sloppy, wobbly fit.

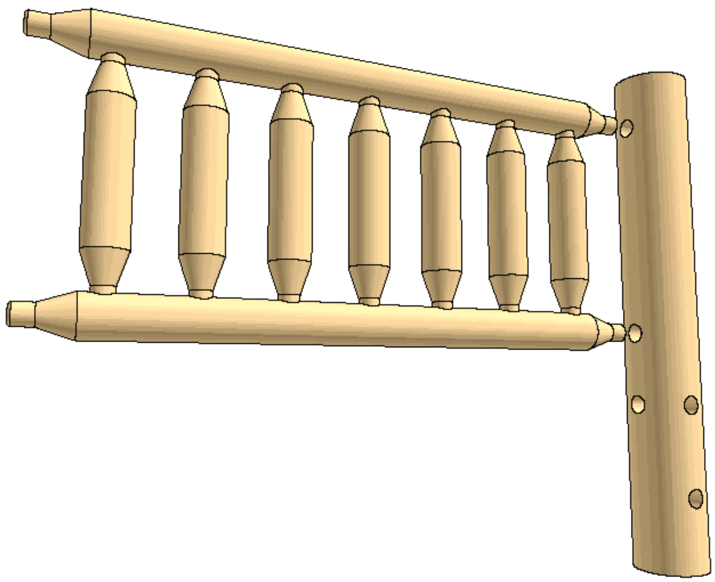
Assembly

Headboard

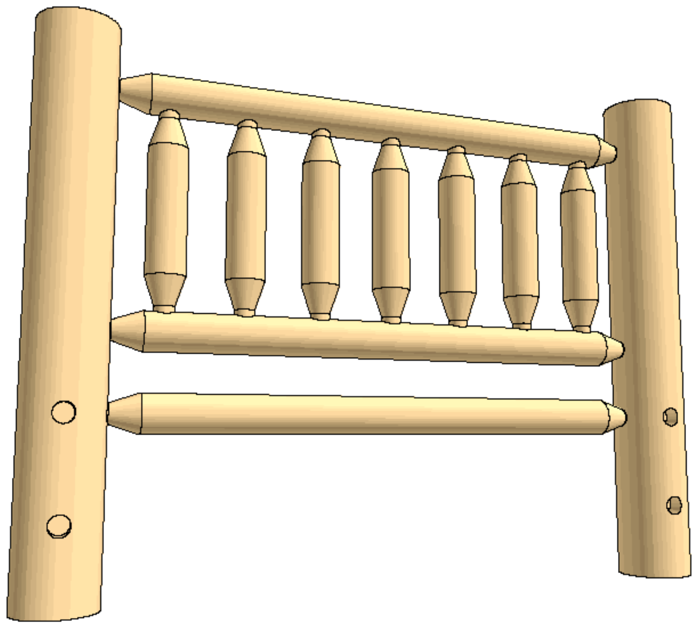
Very important: don’t glue or fasten anything until these directions say to do so.



Assemble the headboard first. Start by fitting spindles into the lower piece. Using a tapping block (to avoid letting the mallet head hit frame pieces), tap on the top piece spindle by spindle. Once the headboard is together, use one ratchet strap around each end spindle to keep it all together.

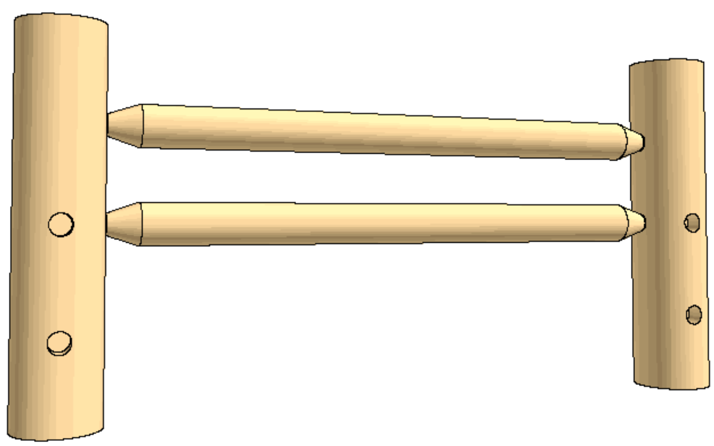


Strapping the headboard in spots without spindles could cause the rails to crack when the straps are tightened. If a spindle seems crooked, or fits improperly, give it a spin and it should settle, unless there was a major tenon-construction error.



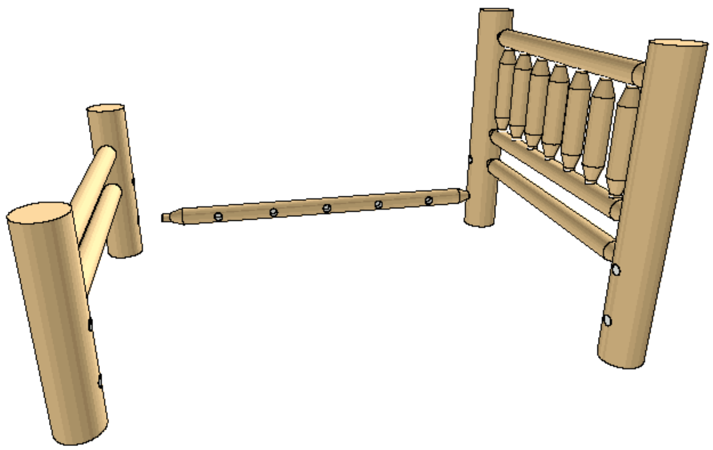
Check to see how the headboard-rail tenons fit into the headboard posts. Make any necessary adjustments. Disassemble the headboard, keeping careful track of which spindles went into which rail holes. Put glue into all the holes. Reassemble the headboard and re-strap the end spindles. Once the headboard is assembled—including the lower rail—remove the straps. Do not glue or fasten the headboard or the lower rail to the posts.

Foot Board

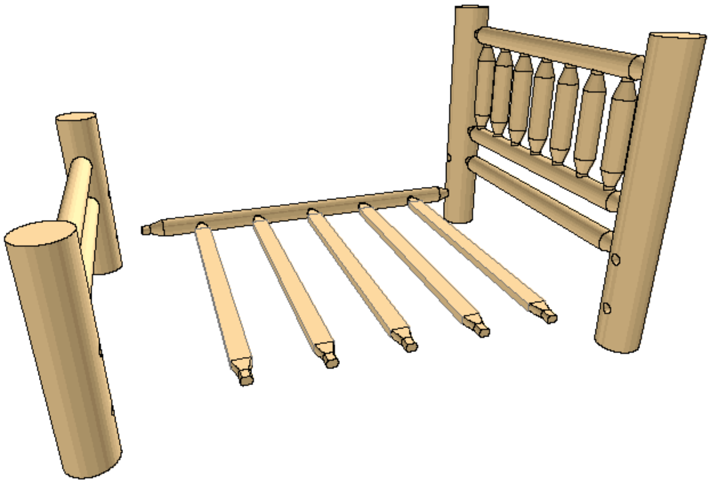


Dry-fit the footboard rails and posts. Use a ratchet strap the hold the assembly together. Do not glue or fasten.

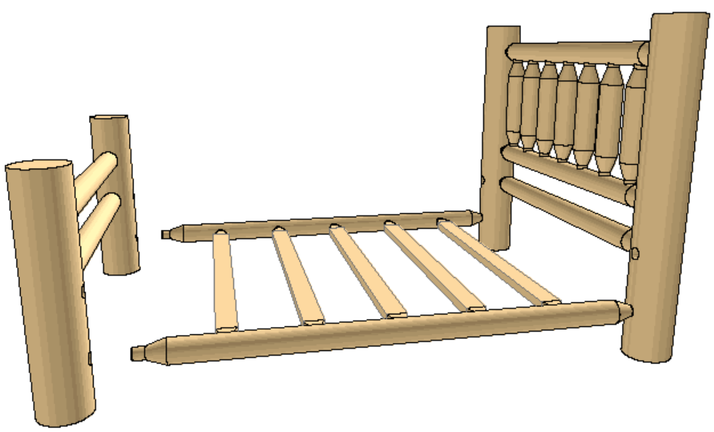
Lower Bed Frame



Fit one lower sideboard rail to the headboard posts.

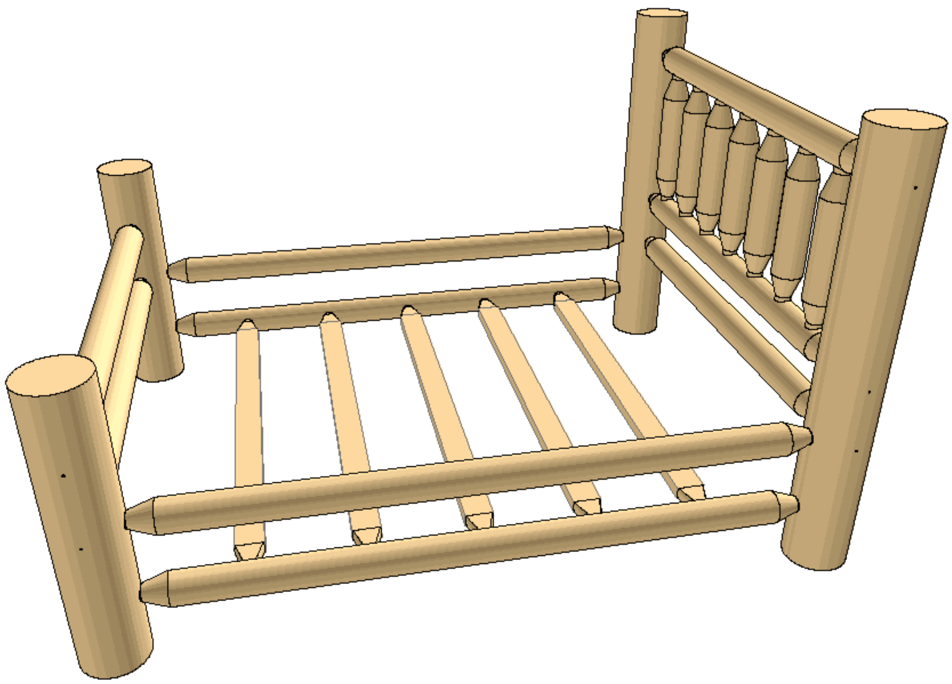


Fit slats into the assembled-side rail. Slats never will be glued or fastened.

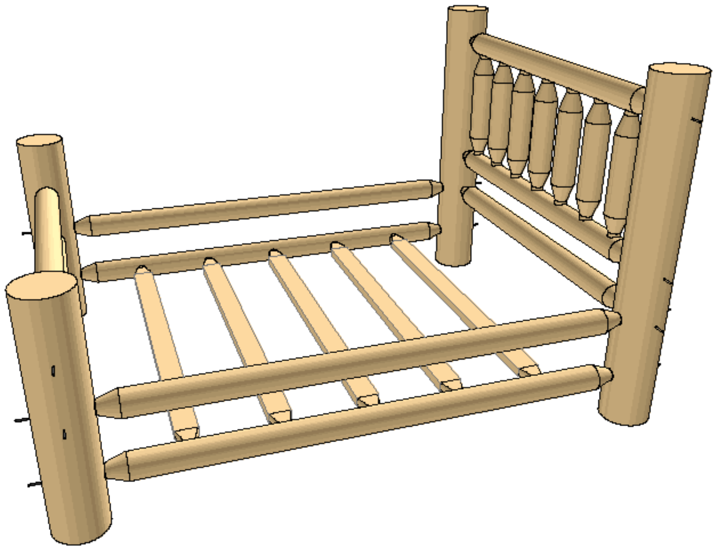


Fit the other side rail into the headboard, and onto the slats.

Bed



Fit both top side rails into the headboard posts, then fit both top and bottom rails into the footboard posts. Ratchet-strap the frame along both sides, drawing the headboard and footboard toward each other. Use a mallet to seat tenons into mortises if necessary, but remember to use a block, and never to hit the frame directly with the mallet head.

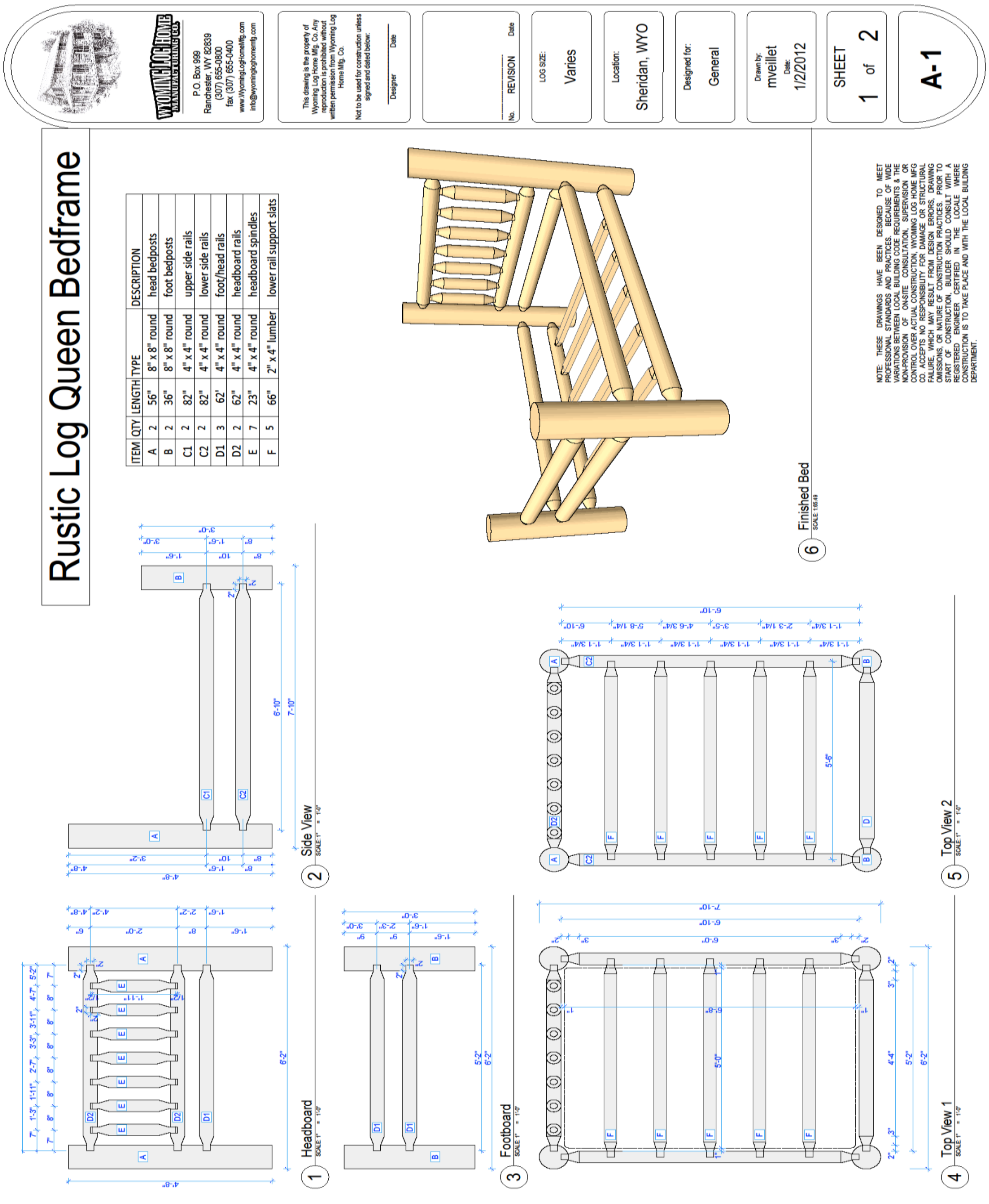


Pilot holes just large enough to accommodate the lag screws should be drilled into the back of each mortise. Insert the screws—if they don't have big heads, use appropriately sized washers—and expect to hear some cracking and popping as everything gets tight. In spots where intersecting screws could run into each other, angle one slightly up and one slightly down.

Parts Call

ITEM	QTY	LENGTH	TYPE	DESCRIPTION
A	2	56"	8" x 8" round	head bedposts
B	2	36"	8" x 8" round	foot bedposts
C1	2	82"	4" x 4" round	upper side rails
C2	2	82"	4" x 4" round	lower side rails
D1	3	62'	4" x 4" round	foot/head rails
D2	2	62"	4" x 4" round	headboard rails
E	7	23"	4" x 4" round	headboard spindles
F	5	66"	2" x 4" lumber	lower rail support slats

Plans


Rustic Log Queen Bedframe
ITEM QTY LENGTH TYPE DESCRIPTION
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B 2 36" 8" x 8" round foot bedposts
C1 2 82" 4" x 4" round upper side rails
C2 2 82" 4" x 4" round lower side rails
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D2 2 62" 4" x 4" round headboard rails
E 7 23" 4" x 4" round headboard spindles
F 5 66" 2" x 4" lumber lower rail support slats
P.O. Box 999
Ranchester, WY 82839
(307) 655-0800
fax (307) 655-0400
LOG SIZE: Varies
Location: Sheridan, WYO
Designed for: General
Drawn by: mveillet
Date: 1/2/2012
SHEET 1 of 2
A-1
1 Headboard
2 Side View
3 Footboard
4 Top View 1
5 Top View 2
6 Finished Bed