A Period Rope Bed

Figure 1

Some time ago, several of our Mirkfaelin friends told us about a period picture one of them had found, a period ivory showing a rope bed (Figure 1). I have now made several versions of that bed. Figure 2 shows the second, built for my 68 lb son. It turned out to be ridiculously easy to make–about half an hour for me to build the bed, plus another hour or so for me and my lady wife to lace it. It is also light and disassembles and assembles easily.

One problem with rope beds is that, unless the rope is very taut, they sag. The solution is to have the mesh of ropes fasten not to the foot of the bed but to a horizontal dowel a little above the foot. You wrap a rope six times around the dowel and foot and pull. This pulls the dowel towards the foot with a mechanical advantage of twelve to one (minus considerable losses from friction), tightening the bed. The result is satisfactory for one person, although it still sags enough to provide a couple with more togetherness than they may want, especially in hot weather.

The basic construction is very simple. For the small child's version, which was the first one I made, the legs are oak, 1 ⅝" x 1 ⅝". The sides are oak dowels, 1" in diameter. Each leg has two 1" diameter holes drilled into it at right angles to each other, one a little above the other. The ends of the dowels fit into the holes.

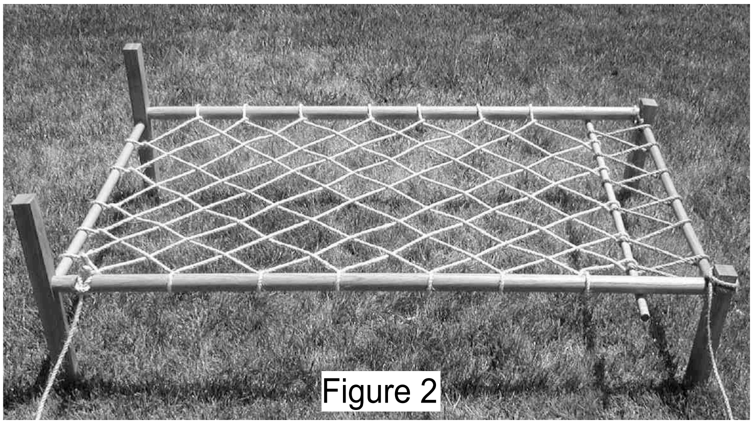
Materials for the bed
(small child's version)

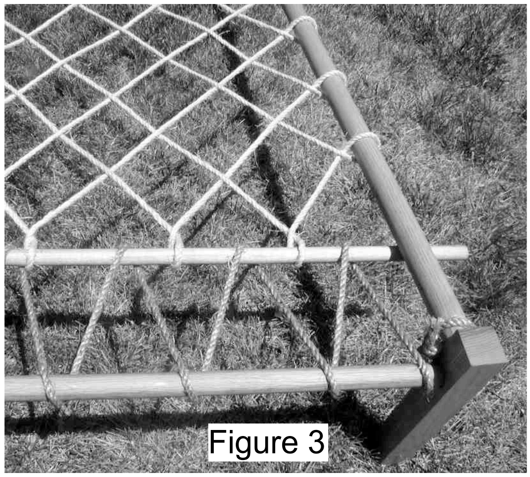
2 legs, oak, 9"x1 ⅝ " x 1⅝"
2 legs, oak, 18"x1 ⅝" x 1 ⅝"
2 sides, 1" oak dowels, 4' long
2 ends, 1" oak dowels, 2' long
1 end piece, ¾" oak dowel, 26" long
¼" manila rope: 50' (for the web)
¼" rope 7' long—ideally a different color

Total cost: approximately $60 (some years ago)

That bed was not quite adequate for our son; it would hold him, but the dowels at the sides bowed in more than I like. Figures 2 and 3 show the bed I made for him. The end pieces are still 1" oak dowels but the sides are 1 ⅜". I made a slightly larger version for his older sister, who weighed about a hundred pounds; it would be adequate for a small adult.

Larger dowels raise a problem, since the hole they fit into has to be significantly smaller than the width of the piece of wood it is drilled in. I solved this problem for the second bed by tapering down the ends of the 1 ⅜" dowels to fit into 1" holes. The ideal tool is a spokeshave, but if you don't have one a knife should do.





For the third bed, I got my lumberyard to cut the legs as 2" strips from a 1 ⅝" plank, giving me pieces 2"x1 ⅝". I drilled the 1 ⅜" holes for the side dowels into the two inch sides of the legs and the 1" holes for the end dowels into the 1 ⅝" sides. That way I could do the whole thing without having to taper any dowels.

In addition to being smaller, these beds differ from the one shown in Figure 1 in four ways.

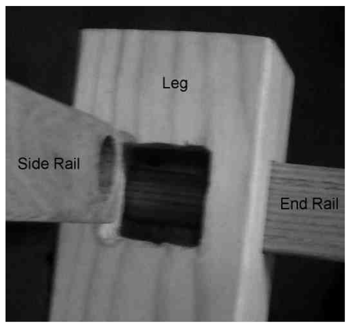
1. The legs are plain instead of ornamental.

2. The legs are proportionally shorter than in the picture–because it is intended to fit inside a tent at Pennsic.

3. The legs at the head extend higher than at the foot. I did it this way with the idea of eventually adding some sort of headboard.

4. The holes the side dowels plug into are a little higher on the legs than the holes that the end dowels plug into. I did it that way because I couldn't get sufficiently deep holes at the same height without having the two holes run into each other. I don't know whether the fact that the original appears to have sides and ends at the same height reflects shallower holes, thicker legs, or artistic license.

When I first wrote this article, my kids were little. Currently one of them is bigger than I am so I have now built an adult size version of the bed, shown in Figure 4. The legs are softwood 4x4's (actually about 3 ½ x 3 ½). The side rails go into square sockets in the legs. The end rails fit into square sockets but have rounded ends that go through holes in the ends of the side rail then through a hole in the leg, coming out to be pegged on the outside of the leg. Thus the whole frame stays together even without the tension of the ropes, making setup easier than in the version described above. The figures show details.



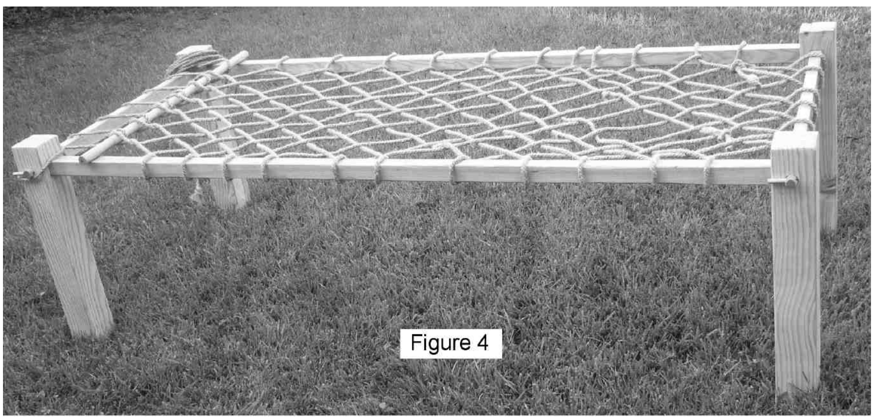
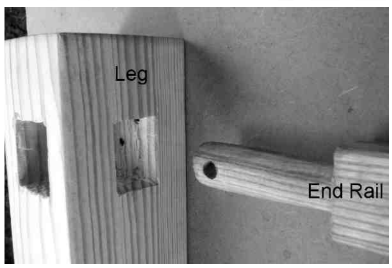


Figure 4



Interlacing the Rope

Figure 1 is not detailed enough to show how the rope is interlaced. I succeeded, however, in working out a pattern that looks right; it is consistent with the figure and ropes consistently alternate between going over one and under the next. Figures 2 and 3 show the pattern.

For Transport

To disassemble the bed, unwrap the rope at the foot and slide the end piece up towards the head of the bed. Run the rope through the loops of rope around the end dowel, use it to tie them into a bundle, remove the end dowel. Repeat with the loops of the rope mesh at sides and head. You now have four bundles of loops. Disassemble the frame. When you reassemble it, slide the wooden pieces through the loops, untie the rope holding the bundles together, assemble. You may want to leave the loops around the frame pieces for transport to simplify reassembly.

Possible Variants

The friends who first told us about the ivory on which our bed design is based did a slightly different variant. In theirs, the robes of the mesh are tied together wherever they cross, giving an effect rather like a fishing net. That should save some of the time we spend adjusting the positions of the ropes to make the mesh reasonably even when setting the bed up.

All of the variants of the bed we have made were for one person; we still use our old two person slat bed, described in a later article, for Pennsic. A number of people have asked us about a two person version. The obvious problem, aside from the greater weight, is that the mesh sags in the middle, which might impose a forced proximity—sometimes pleasant, but perhaps not in hot weather. We have not actually tried building a bed sized for two, or even the simpler experiment of putting two children on one adult sized bed—we should, one of these days. It might turn out that the problem was less in practice than in theory.

One approach to the problem that I have had described, based on an out of period rope bed, is a line of hanging feet down the middle, designed to touch the ground only when forced down by the weight of the occupants. A simpler version might be a rope running lengthwise from the middle of the head of the bed to the middle of the foot. If you try any of these, or other approaches, let us know how they work. One concern is that they might reverse the problem of proximity.

Concerning Dimensions of Wood

Readers who are not woodworkers may be confused by the distinction between the nominal dimensions of planks (2x2, 2x4, 3x3) and the actual dimensions. The nominal dimension measures the size of the plank as originally cut. The actual dimension is less because some of it is lost in the process of planing the wood smooth. So a 2x4, which is nominally 2" by 4", is actually about 1 ½" by 3 ½". Dowels, on the other hand, are usually labeled with their actual diameter.

To add additional confusion, hardwood is often labeled by its nominal thickness in quarter inches. Thus 4/4 is four quarter inches–a nominal thickness of an inch and an actual thickness of about ¾". 8/4 is a nominal thickness of two inches, 12/4 of three inches.

When in doubt, measure.

References

Figure 1 is the Andrews diptych, an ivory panel currently in the Victoria and Albert Museum. It used to be labelled “13th c. Byzantine” but currently (as of a few years back) is identified as “Carolingian?” The scene is of Jesus telling a man to take up his bed and walk.

Starving Student Version

Materials are:

Two 6'7" 2x4's
Two 4' 2x3's
1 8' 4x4
1 4' hardwood dowel at least 1 ¼", or a thicker softwood dowel
~70' rope, at least 3/8" sisal or manila
Total cost of wood about $20. The figure below shows how the pieces are constructed.

Aside from using cheap softwood instead of expensive hardwood, this version also has a simpler joint design that is easier to make. To make construction even easier, replace the 2x3 pieces with sufficiently strong dowels—1 ¼" hardwood or perhaps 1 ¾" softwood. That way half of your holes are round instead of square, which makes them easier to make.