

How To Make A Stitching Horse

REPRINTED

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This article by Randy Steffen is the first that we have reprinted in *The Craftsman*. It is being done in answer to popular demand. Although more than 50,000 copies of the issue from which this was taken were printed and distributed, this issue has become a collector's item. Still, we know of no other source of a good set of plans and instructions for making a stitching horse. Meanwhile we get pictures from subscribers who have reproduced this item, or have made it with some changes, and still other craftsmen ask us for this instructional material. Five years later, the remarks by the author in his first two paragraphs about the scarcity of stitching horses still seem to be timely — and true.

— The Editor.

By RANDY STEFFEN

A stitching horse is almost as essential to the all-around leather craftsman as a good wood vice is to the cabinet maker. Yet I'd venture to say that not one in a hundred serious leather workers owns a stitching horse. This is easy to understand . . . for as George Gobel would say, "You just can't hardly get them no more!"

The stitching horse is really as scarce as the old time harness maker, and one is rarely seen outside of a saddle shop. The only reason the saddle shops have them is because they bought theirs many years ago. A few years ago one of the well known saddle and western wear houses in the Rocky Mountain region advertised a number of brand

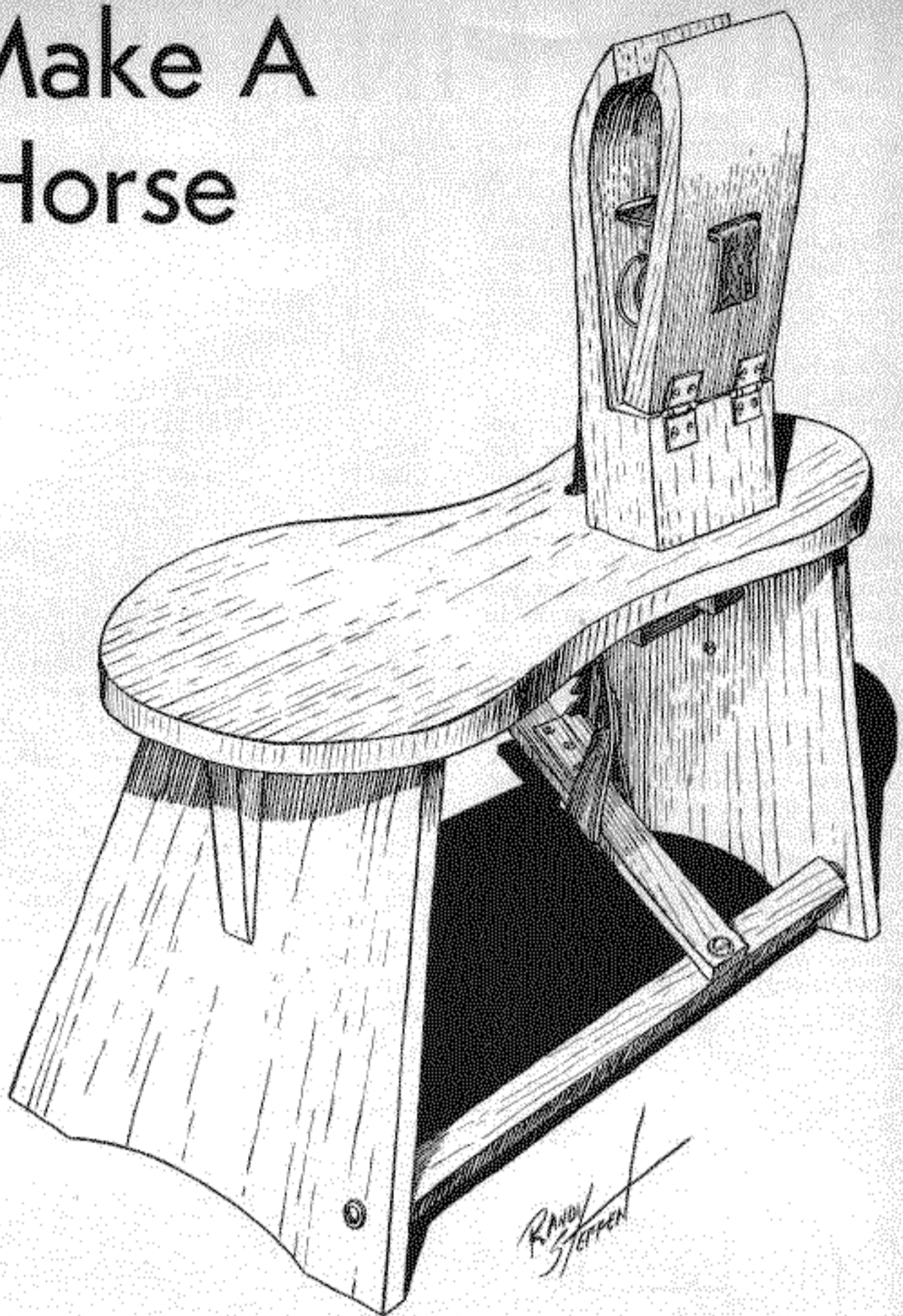


Fig. 1 — Author's sketch of the finished stitching horse.

new surplus government stitching horses for a very low price. These went like hotcakes and to my certain knowledge there are no more to be had anywhere. At times a man will run across one in an antique shop, but that's about the only way they can be found today.

I have one here in my studio . . . one that I've had for quite a long time, and it had seen many years of hard use when I picked it up. But it's still just as useful as it was when

it was made . . . probably fifty years ago. Since there have been many requests for plans and specifications, I simplified the leg construction somewhat, but otherwise, these drawings and instructions are for a stitching horse exactly like the old timer I use from time to time.

The materials needed should be available at a neighborhood lumber and hardware dealer's. A bill of materials listing everything is included. Let me explain now that lumber has

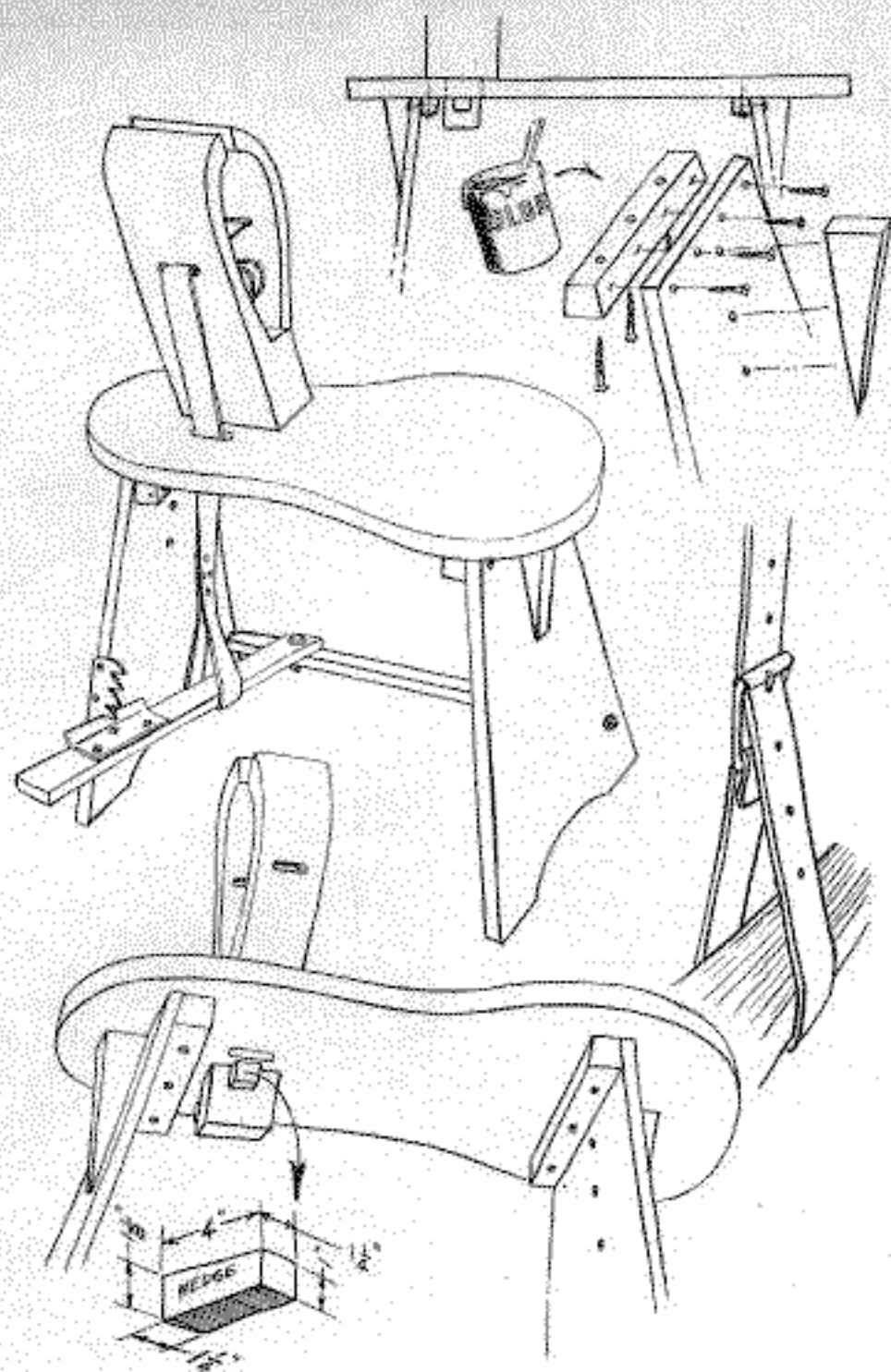


Fig. 6 — General assembly of the stitching horse.

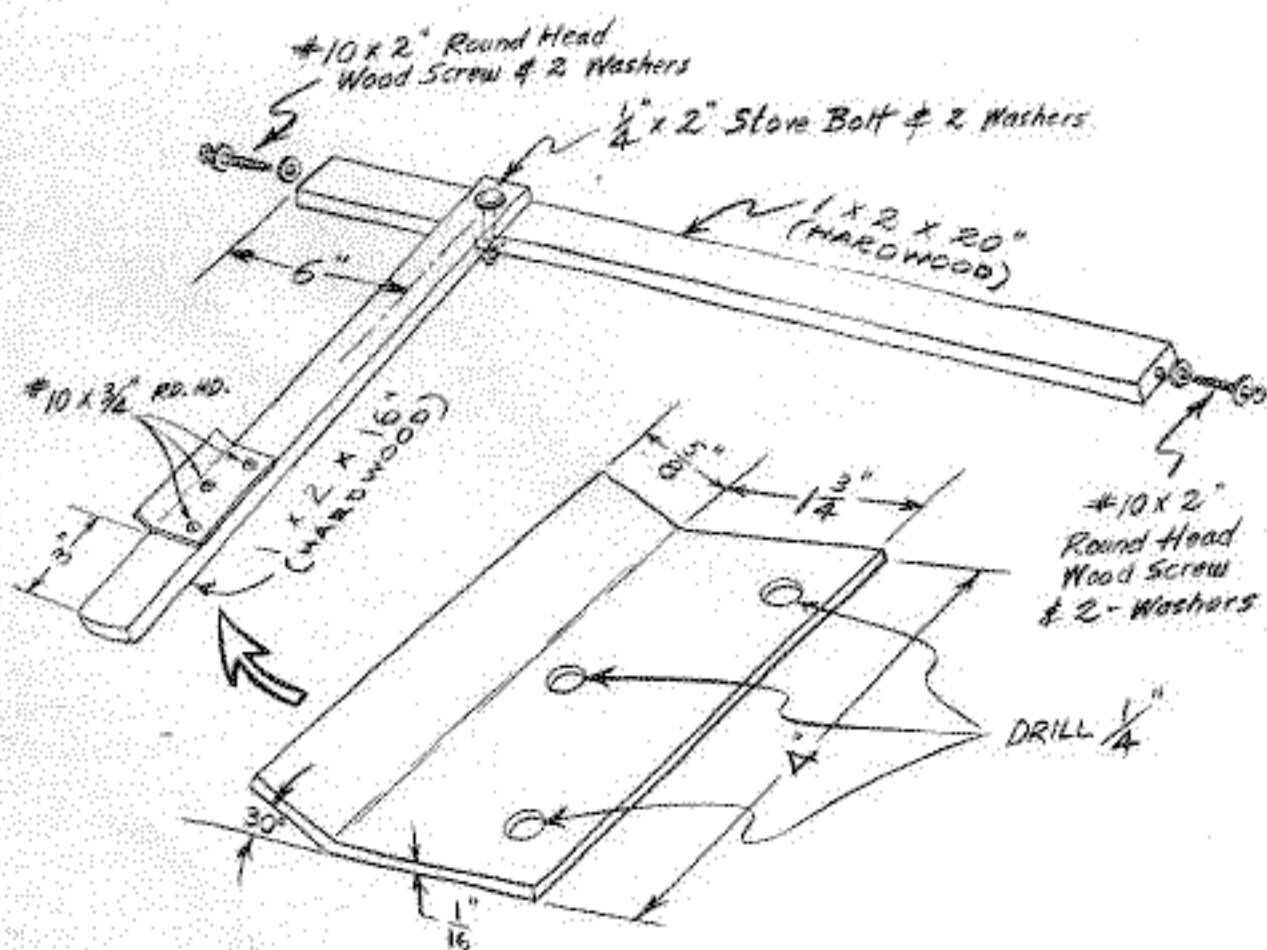


Fig. 7 — Front lever assembly.

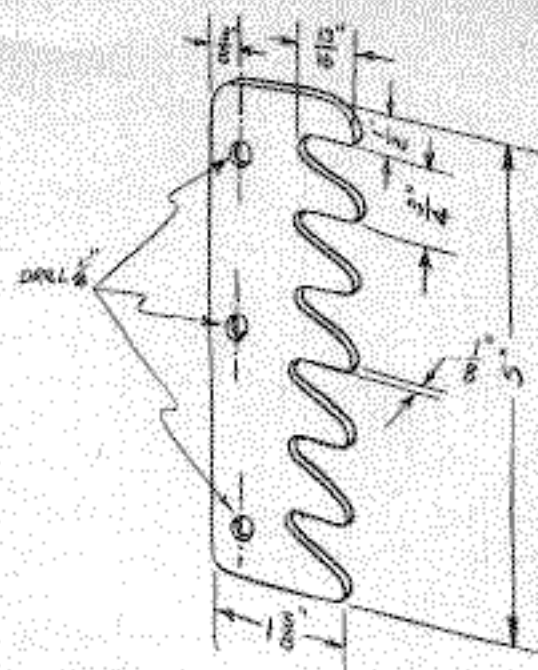


Fig. 8 — Lock plate. Use 3 - #10 x 1" round head wood screws to fasten leg lock plate to front leg. Locate bottom of plate 5" from bottom of leg.

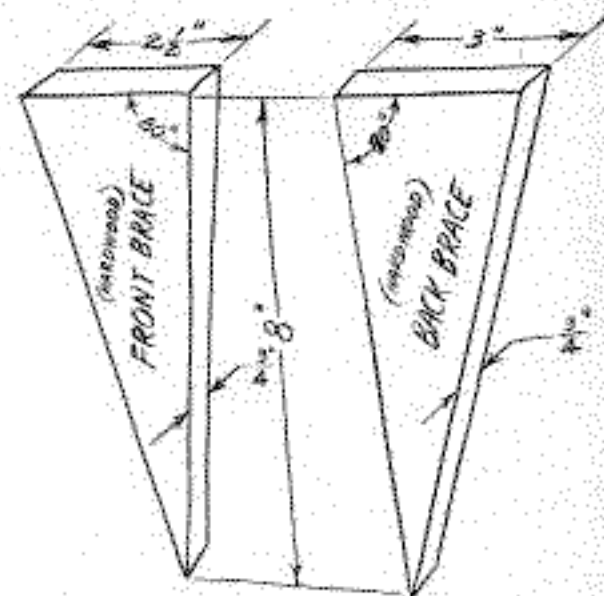
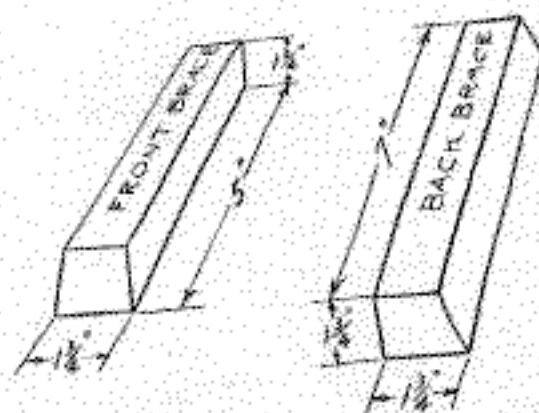


Fig. 9 — Triangular leg braces.

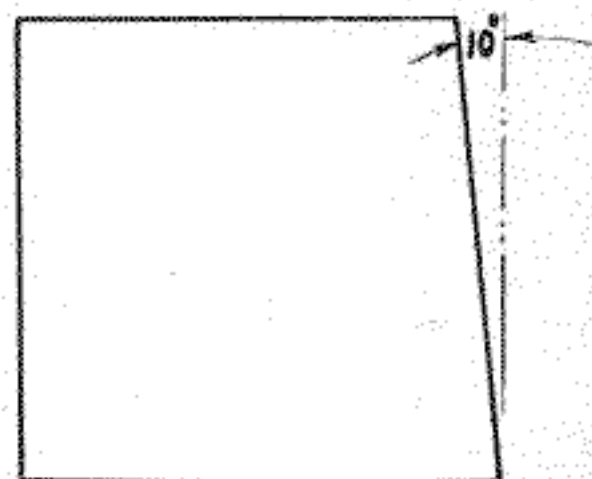


Fig. 10 — Full-size template for cross-section of leg braces.

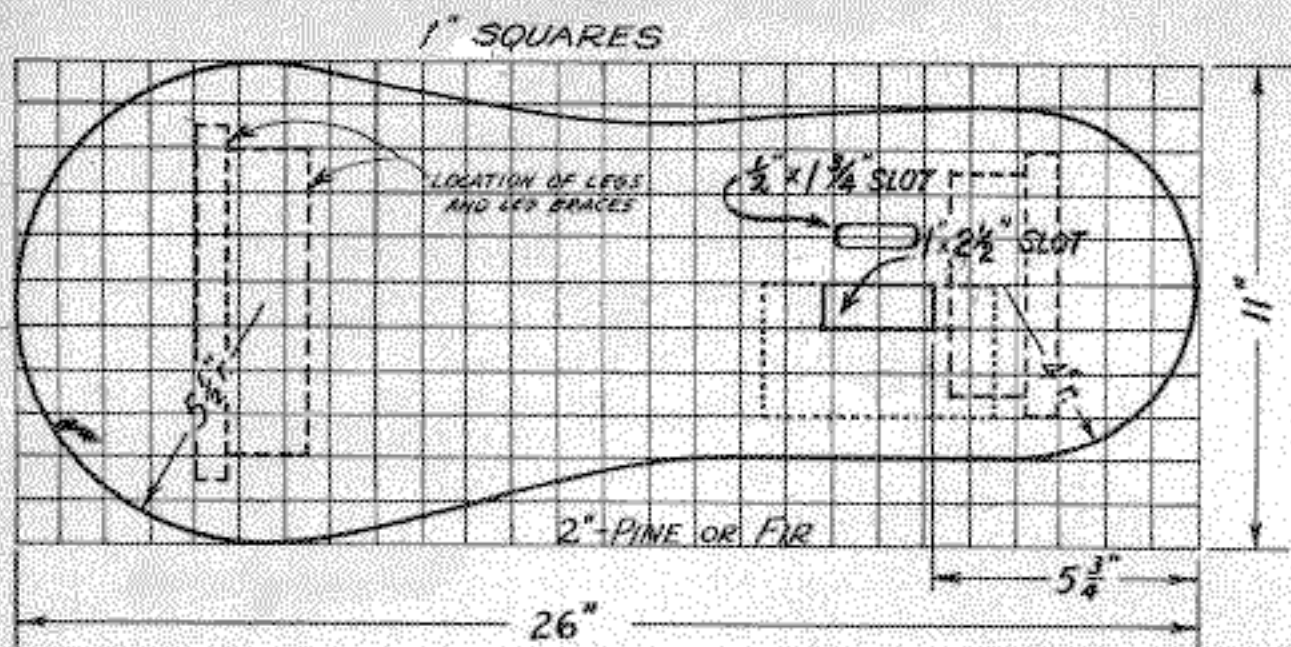


Fig. 2 — Seat layout, showing location of legs and leg braces.

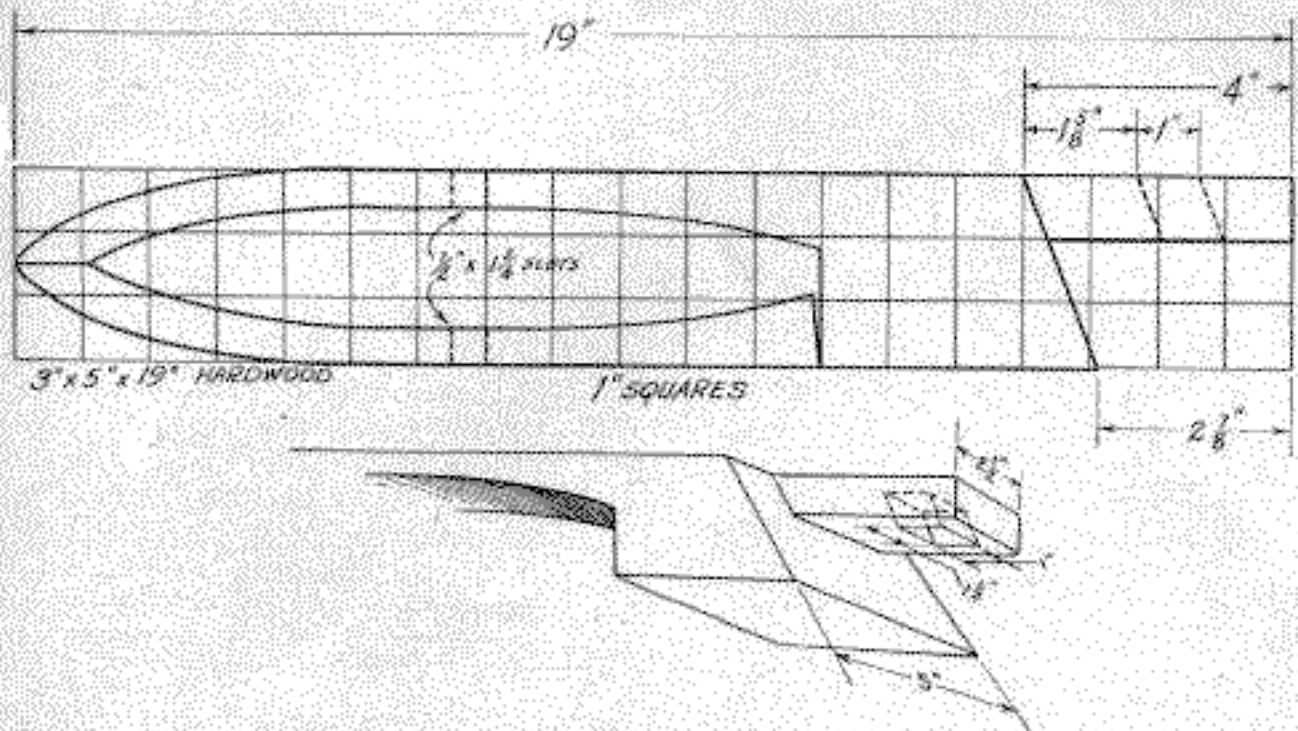


Fig. 3 — Layout of vice. Use care to get the full-size layout accurate.

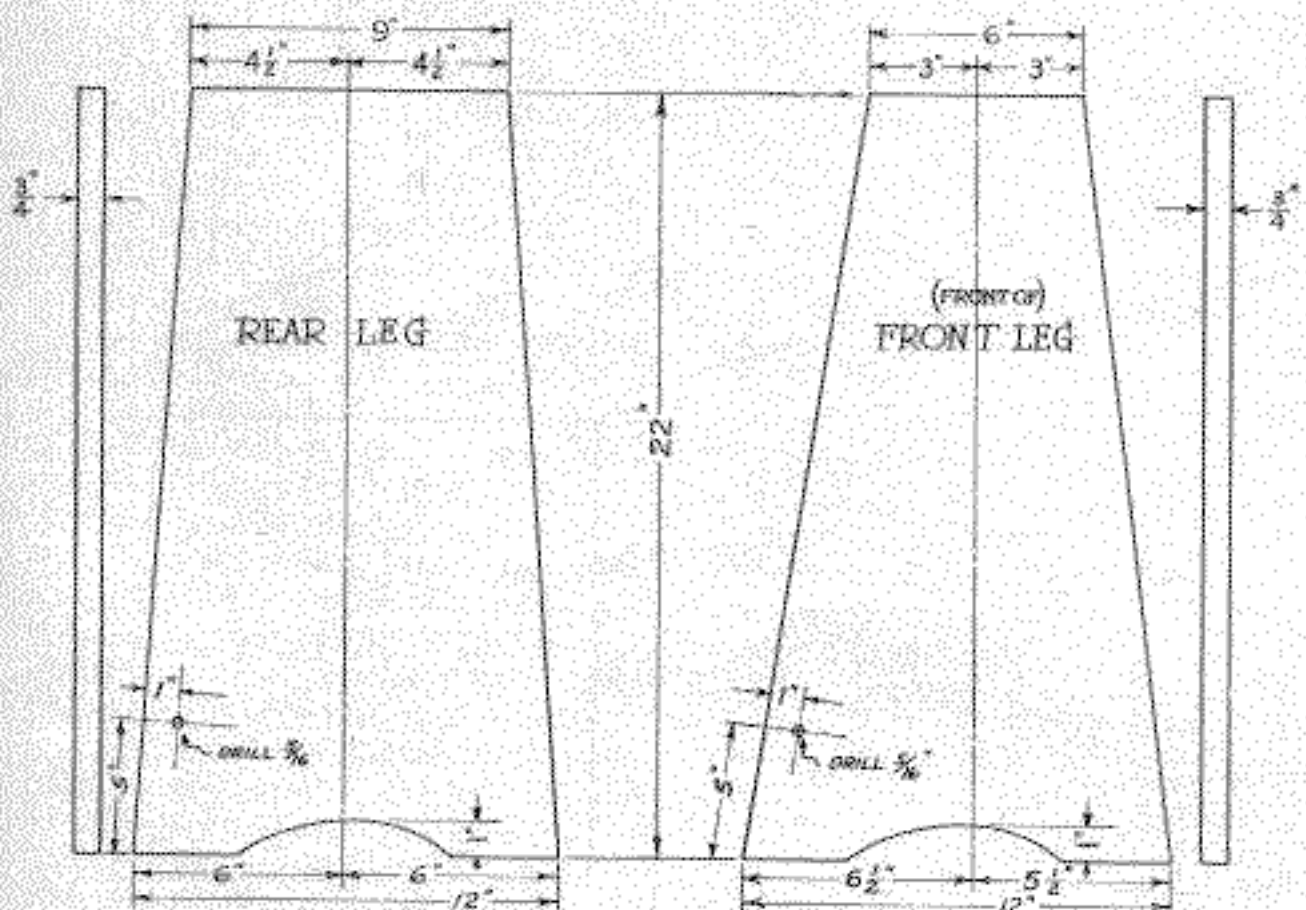


Fig. 4 — Front and back legs made from $\frac{3}{4}$ " plywood.

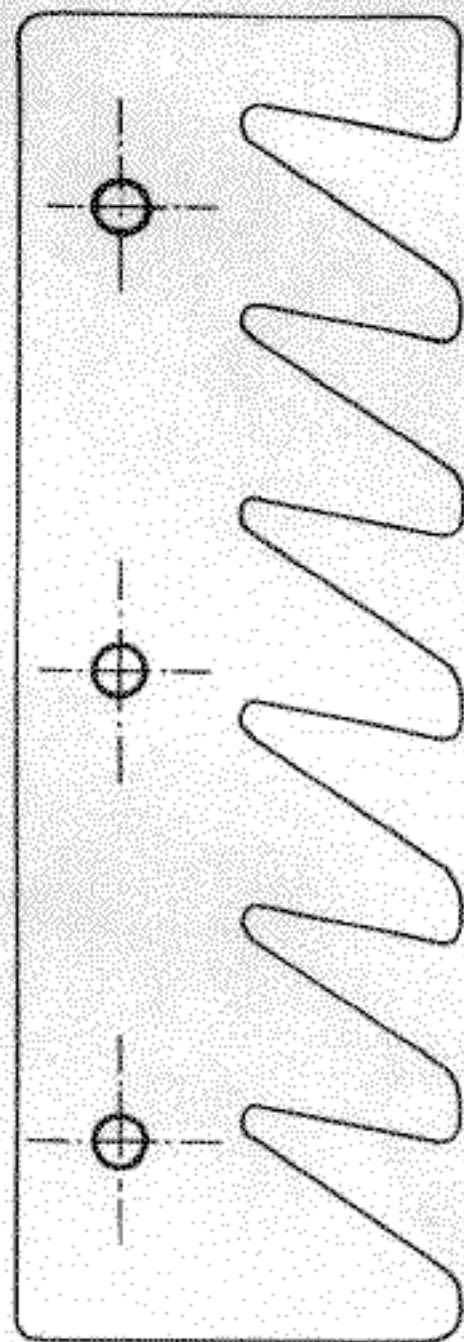


Fig. 5 — Full-size pattern for leg lock plate, made from $\frac{1}{8}$ " black iron.

been grouped together whenever possible, and it is listed in stock sizes that should be readily obtainable everywhere. When hardwood is specified use almost any close-grained hardwood — poplar, oak, maple — and a good grade of pine will do for the other pieces.

If you're not too handy with tools yourself and might be a little hesitant about tackling this project, there should be a wood-hobbyist in your town that would be glad to do the job for you, and the cost should be small for this is a comparatively simple project.

Unless you have a fairly heavy-duty bandsaw I would advise you to take the vice blank to a planing mill to have it sawed to shape, for a light blade on a light-duty bandsaw may wander in the thick wood and leave a lot to be desired in the finished product. After all, the vice is the heart of the stitching horse, and great pains should be taken to make sure it's made right!

You'll notice I've laid out both vice and the seat on a grid of one
(Continued on page 35)

inch squares. This should make it simple for you to make a full-size template.

Take particular notice of the angle at which the base of the vice is cut. It's very important that the bottom surface of the vice be smooth and flat so that it doesn't rock on the seat while you're working with your awl and needles. The square hole that is mortised through the part of the vice that projects through and below the seat must be done accurately. I suggest drilling a number of small holes through this piece, being careful to keep the drill at the proper angle and using a sharp chisel to clean up the hole and keep the sides straight and true. It's important that this part of the vice be laid out exactly the way the drawing shows.

The small hardwood wedge shown in Fig. 6 must be made accurately, so it wedges the vice to the seat without too much motion or play. A little play is okay, but excessive play will leave the work unsteady in the vice, which will prove a nuisance when sewing.

The seat should be easy to lay out using a grid of one-inch squares. Be sure your fir or pine piece for the seat is well seasoned and without large checks or cracks. Locate the two slots accurately, and use a small drill and chisel to cut them into the seat. The dotted lines show the locations of both the flat bottom part of the vice and the legs and leg braces.

The cross-section of the hardwood leg braces must be beveled as shown if the legs and the other assemblies are expected to fit. Make a template from the full-size template shown in Fig. 10, and set your power saw to duplicate this section from your 2" x 2" hardwood. When assembling the legs to the seat, use #10 x 2 $\frac{1}{4}$ " round head wood screws to fasten the leg braces to the under side of the seat first; then fasten the legs to the leg braces with the #10 x 1 $\frac{1}{2}$ " round head wood screws. Fasten the triangular braces last. I highly recommend the use of a good glue in assembling the braces to the seat and the legs to the braces.

When you're ready to assemble the foot lever control strap, use some $\frac{3}{4}$ " nails with good heads to fasten the end of the leather strap to the outside of the movable vice jaw. Fig. 6 shows the use of a roller bar buckle in making the strap adjustable—it may stretch enough to have to take it up every once in a while. This buckle arrangement beats riveting the strap as shown in the assembly sketches.

The small coil spring is necessary

to pop the vice jaws open after releasing the foot lock. A section of an old automobile seat spring, or a chair spring should be satisfactory. Use several small staples to fasten the spring between the vice jaws *below* the strap slots, as shown in the drawings.

If you're not equipped to make the iron parts, your local sheet metal man should be able to knock them out for you in no time. Make a template from the full-size drawing of the lock plate (Fig. 5), and lay out the lock plate with the template. Be sure to round all the corners so you won't snag your clothes.

BILL OF MATERIALS

- 1 pc. $\frac{3}{4}$ " plywood 24" x 24" (legs)
- 1 pc. 2" fir or pine 12" x 26" (seat)
- 1 pc. hardwood 2" x 2" x 12" (leg braces)
- 1 pc. hardwood 2" x 2" x 4" (wedge)
- 1 pc. hardwood 4" x 6" x 20" (vice)
- 1 pc. hardwood 1" x 4" x 16" (triangular leg braces)
- 1 pc. hardwood 1" x 2" x 36" (foot level assembly)
- 1 pc. 1/16" black iron 2 $\frac{1}{2}$ " x 4" (lever stop)
- 1 pc. $\frac{1}{8}$ " black iron 2" x 5" (lock plate)
- 1 coil spring 2" dia. x 3" long
- 1 $\frac{1}{4}$ " x 2" stove bolt and nut
- 6— $\frac{1}{4}$ " washers
- 6—#10 x 2 $\frac{1}{4}$ " round head wood screws (leg braces)
- 14—#10 x 1 $\frac{1}{2}$ " round head wood screws (leg braces)
- 2—#10 x 2" round head wood screws (swivel bar)
- 3—#10 x $\frac{3}{4}$ " round head wood screws (lever stop)
- 3—#10 x 1" round head wood screws (lock plate)
- 1 pr. 1 $\frac{1}{2}$ " butt hinges with screws
- 1 pc. 1 $\frac{1}{2}$ " x 48" heavy strap leather
- 1—1 $\frac{1}{2}$ " roller bar buckle