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CHAMPION

THE LUMBER HORSE

All photos © Mike Abbott, except main picture above © Penny Rose.

Mike Abbott describes how to make a modern shaving horse from recycled wood, so you can ride off into the sunset and get green woodworking!

After thirty years or more of using shaving horses, the occasion arose to have a total rethink of their design. I had always based my shaving horses on a 1.2 metre (4ft) length of log, about 30cm (1ft) in diameter, but I was aware this is not the sort of thing that most people have lying around the workshop. For some time I had wanted to come up with a design that used easily obtainable materials – for people without access to woodlands. While recently erecting a new workshop I discovered the effectiveness of using cordless drills to drive modern coachscrews into softwood beams. I had also

spent a few hours that summer chatting to Owen Jones, a swill-basketmaker, while he was sitting astride his shaving horse designed for gripping thin slivers of oak. It had a central arm slotted through a horizontal platform and I had been interested in exploring this design. Despite my lifelong mission to persuade people of the advantages of cleft, unseasoned hardwoods, I ended up with a design made out of softwood beams. It needed a name and when I used the term 'lumber horse', it rung a bell from my childhood TV viewing – Champion the Wonder Horse – and the name 'Champion the Lumber Horse'

Above: Here's one we made earlier. Champion the lumber horse in use at the Sustainability Centre.

Below: Mike Abbott.



has stuck. It consists mainly of four 2.4 metre (8ft) lengths of sawn, seasoned 100mm x 40mm (4 x 2in) softwood. The only other ingredients are a 50cm (20in) length of roofing batten, a 40cm (16in) length of hazel rod and 35 M6 turbo coach screws, 90mm long (although ordinary screws or nails would be possible but far less fun). It can be made in less than a couple of hours by almost anybody, as can be seen by the photos taken at a session of our youth club in our local village, Bishops Frome. In future, I intend to use locally grown Western Red Cedar, which should work as well, if not better than the stock



Stage 1: Fix a bed section to front leg, riser and spacer.



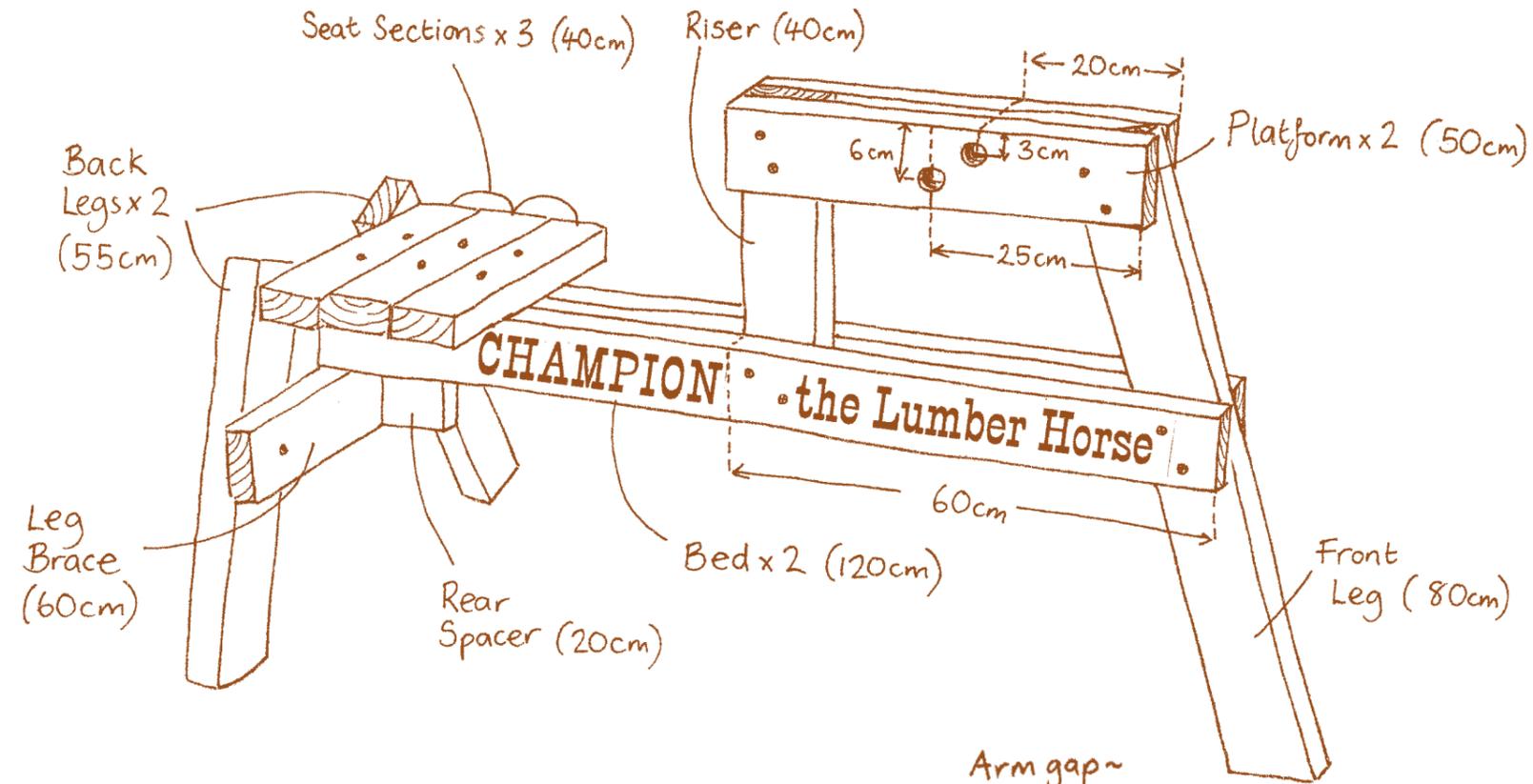
Stage 2: Fix the first part of the platform.



Stage 3: Fix second part of the bed and platform.



Stage 4: Fix the rear seat section.



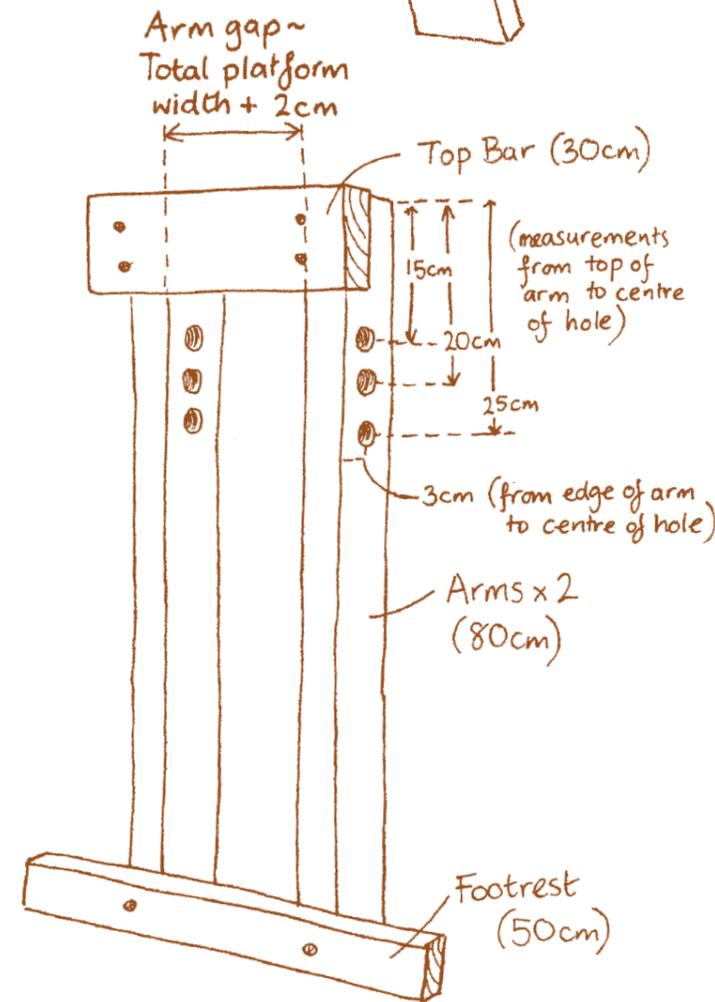
from the timber yard. My assistant Tom assures me that a ten minute sortie through the skips along most urban streets would easily yield sufficient raw materials for the job. There are no precise joints needed and the only woodworking skills involved are the ability to wield a hand-saw and a drill. I suggest you use the sequence illustrated but there's no reason why you shouldn't assemble it any way that takes your fancy.

MAKING CHAMPION THE LUMBER HORSE
Pre-drilling the holes:

You are going to need several 25mm (1in) holes in the platform and arms of the horse. If you have the use of a pillar drill and/or a bench vice, you will probably find it easier to drill the holes before assembly, in which case drill two holes in each section of the platform and three in each arm as illustrated. You may rather drill these holes once the horse has been assembled,

which is fairly easily done with an electric drill, a brace and bit or a bar auger.

- Assembling the main body:**
1. Fix one section of the bed to the front leg, the central riser and the back spacer, using just one screw at each joint.
 2. Fix one of the platform sections to the tops of the front leg and the riser so that it is about parallel with the body section. The holes in the platform should be positioned as illustrated.
 3. Turn the whole assembly over and lay it down with the riser about square to the bed and with the front leg sloping. Fix the other sides of the bed and the platform with a couple of screws at each joint. Take care that the screws are not right at the end of any components, as they would be likely to split the wood.
 4. Fix the rear seat component to the back of the body.



Stage 5: Fix the rear leg brace to the rear spacer.



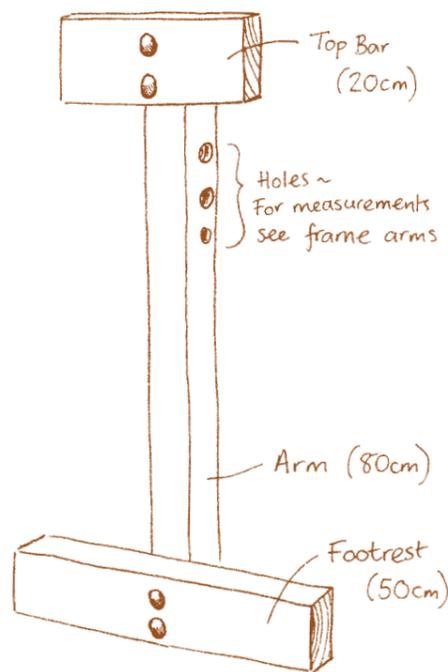
Stage 6: Fix the rear leg brace to the rear legs.



Stage 7: Fix the rear legs to the seat.



Stage 8: Fix the remaining seat sections.



8. Fix the remaining seat components into place.

9. Screw the top bar onto the arms so that the gap between the arms is about a couple of centimetres wider than the width of the platform. Now fix the footrest (which could be another 50cm length of 4 x 2in, a strong length of 2 x 1in or anything in between).

10. Lift up the front of the horse, slide the frame into place and pivot it with a short hazel rod, a length of broom-handle or a specially made 21mm (7/8in) wooden pin. This should be tapered at one end to make it easier to poke in when adjusting the gap.

And now you can ride off into the sunset, ready to make a whole host of wooden artefacts.

NOTES

▶ An alternative is to use a single arm (see illustration top left), best held together with strong bolts partly for strength and also so that it can be taken to bits to fit into the platform. The arm will also need to be planed a few millimetres thinner to move freely.

▶ Another alternative is to pivot the arms with a metal pin or large coach screws, in which case the holes in the platform

and the arms should be smaller than 25mm.

▶ If you need to transport the horse, the rear leg assembly can be easily removed by simply removing the few screws that hold the tops of the legs to the seat and the leg brace to the rear spacer.

▶ You could trim the angles off the tops and bottoms of the legs but the tops of the back legs can be very handy as a bench-stop when the horse is in use.

TOOLS NEEDED:

- ▶ An electric drill, mains or cordless (or a brace or a bar auger)
- ▶ 25mm (1in) drill bit
- ▶ 8mm (5/16in) hex nut driver (or a hammer if using nails)
- ▶ Handsaw
- ▶ Tape measure
- ▶ Pencil
- ▶ An accomplice (Roy Rogers) to hold things, or a good cramp
- ▶ A couple of low benches

Mike Abbott runs regular green woodworking and chairmaking courses (see advert page 64). He is the author of 'Living Wood', a book which details many of his improved woodworking devices and projects. It is available from The Green Shopping Catalogue, price £16.95 + p&p. 01730 823 311 www.green-shopping.co.uk

5. Fix the leg brace to the rear spacer against the underside of the body.

6. Stand the horse up in the air onto the two back legs with the tops of the legs just protruding above the seat and fix the leg brace to the legs with one screw at each joint.

7. Stand the horse on its feet and fix the top of each leg to the end of the seat component. Then making sure the legs are splaying equally, drive another screw through each leg into the leg brace.

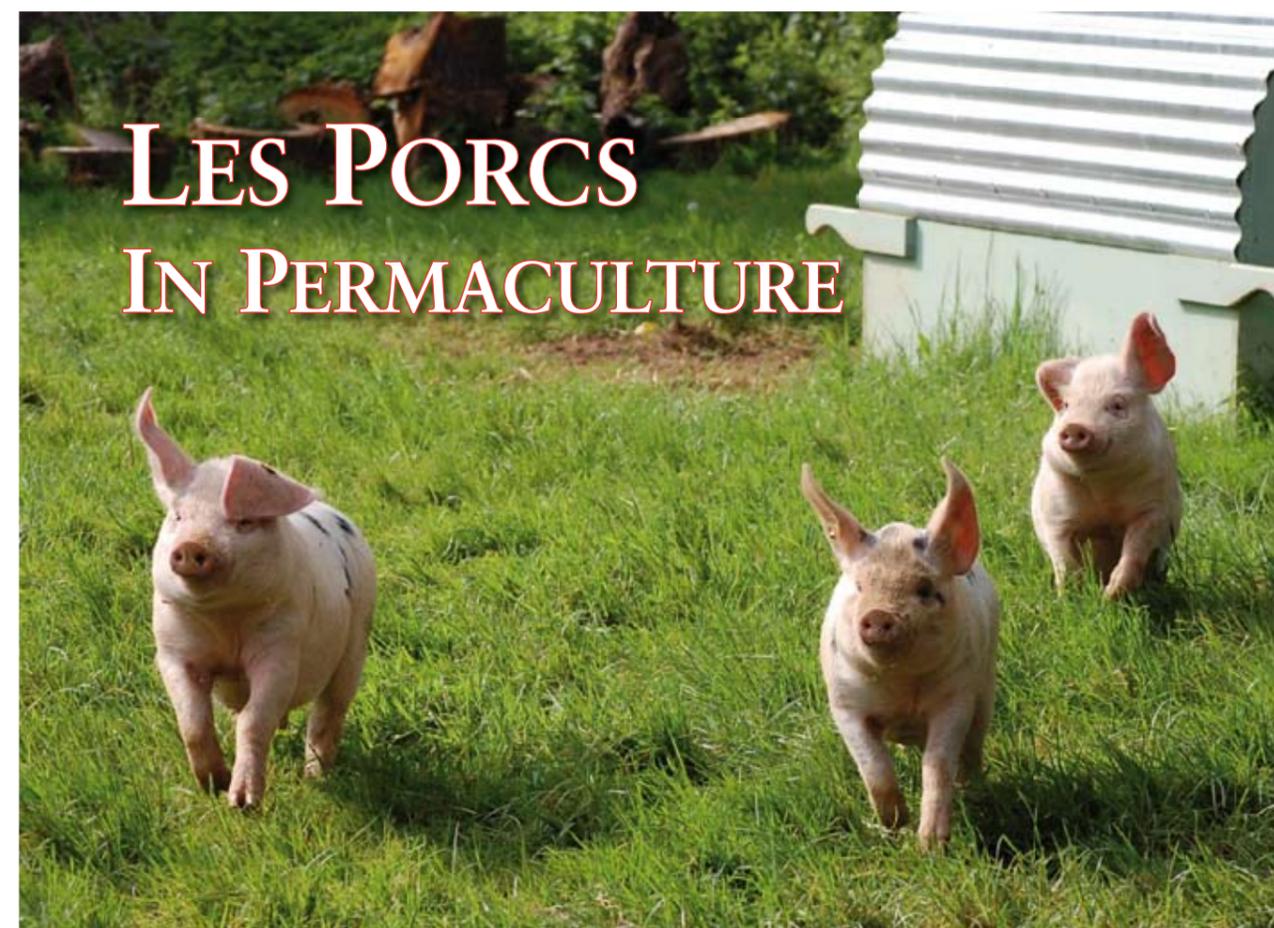
Previous page: Main lumber horse frame construction diagram and standard twin swinging arm diagram.

Above: Alternative single swinging arm construction diagram.



Stage 9: Fix the top bar and footrest to the arms.

Stage 10: Pin the arm in place and you're done.



All photos © S & G Anderson

Stuart and Gabrielle Anderson share their experience of raising pigs and how you too can be as happy as pigs in permaculture.

Have you a place for pigs in your permaculture plan? As meat eaters ourselves, we want our food to have been as ethically, sustainably and humanely raised and slaughtered as possible. Whilst local organic and free-range meat is available we've taken the next step and now keep our own animals. As well as enabling us to be responsible for their raising and slaughter, it's given us a deeper understanding of all that's involved in putting meat on the table and learning how their needs, habits and outputs fit into our permaculture design.

Raising animals doesn't inevitably require acres of land. Both chickens and rabbits can be humanely kept in a town garden and the responsibility for larger animals could be shared with others in terms of both time and space. Pigs are the archetypal smallholders' beast – could you imagine yourself going the whole hog?

GETTING STARTED

As permaculture pigs, they'll be out working the land, rather than cooped up in concrete barns, so they will need a bit of rough pasture, which could be rented, rather than owned. You must have a minimum of two as they are social creatures and need company. To their list of other essentials add housing, fencing, shelter and shade from wind and sun, drinking water and a place to wallow. Stock fencing can be expensive and hard work but many of the other items are easily created with a bit of imagination and improvisation. In return, you will get some of the best pork you've ever tasted.

Assembling a network of knowledge and assistance is invaluable and a good vet essential. In Europe, it's obligatory to register with the local office of the animal health and welfare organisation (DEFRA in the UK) even for a private person keeping just a couple of farm

animals. These two provide a conduit for dispensing official advice and information and coordinating action; absolutely essential when you consider epidemics like foot and mouth. There are some good books, such as *Starting With Pigs* by Andy Case and *Black's Veterinary Dictionary* but we have still been faced with many questions and we've benefited from forging friendships with other local pig keepers, including farmers.

INPUTS & OUTPUTS

To justify including pigs in our permaculture design, we should analyse their inputs and outputs honestly. The most difficult aspect is their diet, as pigs are conventionally fattened up eating cultivated cereals. As we enjoy pork and bacon, our challenge is to reduce the pig's reliance on such food.

For beginners, buying weaners is the way to go. We take delivery of ours in the spring, so over the months that