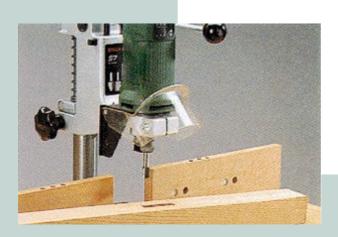






To derive lasting pleasure from garden furniture, it must be robust and weatherproof. Since indigenous woods can only offer limited resistance to moisture, fungus and putrefactive bacteria, plastic garden furniture is extremely popular. However, after a few years even the most attractive synthetic material can become unsightly and brittle. It is only a question of time before the smart accessories land on the rubbish tip. For the DIY enthusiast who wants to build his own garden furniture, a type of timber is available which is absolutely weatherproof and which is particularly easy to work on: American Red Cedar. Throughout North America, this material is traditionally used for open-air applications. Its natural weather-resistant qualities make it just as durable as the precious tropical woods, whose supply is endange-red. Red Cedar is also considerably lighter and less expensive. (Environmentally conscious importers guarantee the buyer that the timber originates from regenerative forest stock in Canada.)



We have used this material to build a bench in classical English garden furniture style. The seat and backrest can be shortened to create a comfortable armchair. American Red Cedar is available from timber merchants with a wide range of stock in the form of planed timber in a wide variety of dimensions.

Using a straight bit, the slots for the structural wood joints can be produced without any problems on the stationary router.



If individual parts have to be glued, this is no problem if water-resistant glue is used. Please refer to the material list and the printable drawing for the dimensions of the individual parts required for the garden bench or armchair.

A rabbeting bit is used to produce the tenons. Always remove material in several steps to prevent tool wear.



The parts are joined together using the traditional handicraft slot-and-tenon system. First, cut all straight parts to size with the table circular saw or with the hand-held circular guided at the stop. The desired shape of the backrests (1) inclined to the rear and the curved cross members (6) are achieved with a band saw or jigsaw.

Prior to assembly, all edges of the workpiece are provided with a smooth curve produced by means of a beading bit with thrust washer.

> When all parts have been prepared, the stationary router with the rabbeting bit comes into use. It is used to cut tenons out of the material. Dimensions can be found in the material list.

Material is removed from the ends of the workpieces until a 15 mm long tenon remains. It is approx. 1/3 as thick as the material, i.e. in the case of longitudinal beams (4), approx. 10 mm. The edges of the respective tenons are now rounded off with a rasp.

The seat boards of the garden bench are bolted from below to the curved cross members. Use rust proof screws for this purpose.

> For the thickness, select a dimension for which you have suitable straight bit. After all, a slot corresponding to the tenon has to be routed into the counterpiece.





First, mark the positions of the slots on the workpieces. Now the appropriate straight bit is inserted in the router. At the starting point of every slot, the router plunges into the wood, the workpiece is then pushed along the stop until the slot end is reached. This task can be made easier by clamping two auxiliary stops on to the base plate of

The backrest is composed of two longitudinal beams with the mortised rungs. Use supports when gluing to avoid pressure marks in the wood. Wipe off excess glue immediately.

> the router stand. The piece can be moved back and forward between these stops. The best way to work is in several graduated routing steps until the desired slot depth has been attained.

Before joining the individual parts together, all edges of the workpieces must be rounded off with a beading bit. Then the wood must be thoroughly sanded and the parts, initially dry, stuck together in order to check the accuracy of fit.

Then water-resistant wood glue is applied to all joints before they are firmly pressed together with G-clamps. Glue the side sec-

If you shorten the seat and backrest in accordance with the dimensions stated in the material list, this will result in a garden chair instead of a bench for two.

> tions first, then insert the prepared backrest and the front longitudinal beam and then place the seat surface loosely on the transverse beam.

The cedar wood does not require surface treatment and can remain out of doors throughout winter without any problems.



GARDEN BENCH

Item	Qty.	Designation	Dimensions in mm	Material
1	2	Back supports	900 x 90	Red Cedar
2	2	Front supports	565 x 70	42 mm thick
3	2	Armrests	545 x 70	
4	3	Longitudinal beams	1234 long	Red Cedar
			551 long	Red Cedar
5	2	Transverse beams	440 long	64 x 30 mm
6	2	Cross members	380 long	Red Cedar, 48 x 19 mm
7	5	Seat boards	1265 long	Red Cedar, 66 x 24 mm
			587 long	Red Cedar, 66 x 24 mm
8	10(4)	Rungs	410 long	Red Cedar
9	2	Transverse beams	440 long	44 x 19 mm

Waterproof wood glue; Numbers in brackets apply to armchair

With items 2 and 3, a 15-mm long tenon is included in the length in each case with items 4, 5, 8 and 9, two 15-mm tenons are included in the longitudinal dimension in each case

