



STANTON TOOLS WOOD

OUTDOOR WOOD PROJECT

A STEP BY STEP GUIDE TO OUTDOOR
WOODWORKING PROJECTS FOR BEGINNERS.

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*“A Step By Step Guide To Outdoor Woodworking
Projects For Beginners.”*

By

STANTON TOOLS WOOD

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INTRODUCTION

Nothing quite equals the satisfaction of building a project that adds charm and personality to your yard. If it is a great design and built well, even a small planter, trellis, or other feature will be a nice touch that makes your outdoor space more of a pleasure to use. Special details that complement the house or landscape can help to unify your outdoor space. A home-made project tailored to your space can tie it all together, adding your personal signature in a satisfying way. Who knows? Maybe one day, your project may become a treasured heirloom.

Natural wood (and bamboo, though it is a grass) is the ideal material for a modest do-it-yourself project. Whether stained or left alone to turn a weathered grey, your new structure will effortlessly harmonize with leafy plants, colourful flowers, and nearby stone or brick surfaces. You also have the option of painting it a muted tone that barely asserts itself, or with bright colours that proudly announce its presence and make your yard a more whimsical place.

Working with wood is a pleasure with timeless appeal, as long as you approach it in the right way.

Reserve ample space for construction, and do most of the work on a flat patio or deck surface, on a board-and-sawhorse table, or on a shop table. Most of these projects can be built indoors, though you may prefer working outdoors, where you can enjoy your surroundings and won't need to worry about the dust. We'll help you select tools and materials that make it easy to cut straight lines, create tight joints, and drive long-lasting fasteners.

We'll also help you choose the right wood—wood that will last for a long time and will have a look you want. This sometimes means spending more for high-quality cedar, redwood, ipé, or even top-rated treated wood. Or, if you are after a more rustic look, more inexpensive options such as pallet wood have the worn and weathered appeal of reclaimed or recycled materials. The projects in this book are within reach of a homeowner with modest skills and some basic tools. Still, we've chosen sophisticated designs that add flair, rather than boxy objects that shout "beginner." Most can be accomplished in less than a day, but are stylish enough to keep for a lifetime.

At a home centre, landscape supply store, or garden centre you may find wood products similar to those shown in this book, such as planters, trellises, and furniture. You may be tempted to outfit your yard with ready-made

products. Yet take a closer look: Some of these planters, trellises, and furniture parts are constructed of small, flimsy wood and are assembled with less-than-secure staples; if you snatch the bits and wiggle, you can find yourself less than comfortable in their longevity. Many of these products have a cookie-cutter design that will give your patio or yard a ho-hum seen-that-before feel. And given the limited number of options, you may not be able to find a feature that neatly fits your space, or that feels at home with other parts of your landscape.

Building yourself lets you craft features that are more elegant looking, better tailored to your needs, and more interesting and original.

The first chapter of this book will prepare you for the projects that follow. We'll show you how to choose wood and fasteners, we'll talk about the tools you will need, and we'll also demonstrate basic techniques. The remaining chapters showcase specific projects structured by category: planters, trellises, furnishings, bamboo, and garden constructions.

In each chapter, there are between three and seven projects with complete step-by-step instructions.

We've also added a few project variations with general instructions. Using the information in this book together with just a little ingenuity, you will be able to build them all.

WHAT IS WOODWORKING?

It's the construction of artefacts from wood using hand or power tools. Woodworking is more complex than it first appears – it involves everything from rustic green woodworking to detailed and meticulous cabinet-making. Woodworking is the name given to this exercise by most people, but in the industrial sector, this refers more to the construction of institutional woodwork in housing construction which is usually carried out on site. People that make doors and windows and similar objects are called bench joiners and are usually based in a conference. A good woodworker knows how to get the best out of various materials, from natural timber to plywood or standard. It's not just about competency with tools, but also design and planning.



Wood is such a workable wood, with the smallest of devices, it might have been one of the first items people used to build shelter and equipment. There is a wide variety of tree types, which come in varying grades and for most traditional research must be dried to avoid movement after it has been worked. There are different specialist woodworkers, for example, chairmakers, barrel makers, wheelwrights, shipwrights, woodcarvers and instrument makers. -- art has its own specialised equipment – for example, chair makers have travishers for hollowing chair seats to make them more comfortable, and woodcarvers have a wide variety of gouges for cutting various shapes. Woodworking techniques enable us to create things as

diverse as houses, boats, furniture, shelves, doors, windows, animal accommodation, workbenches, utensils, picture frames, toys, containers and so much more.

Woodworking includes a large quality range too – a part of work can be held together with just nails, or exquisitely-made joints; wooden structures in houses are commonly held together with nails and screws, but a chair or an older house can contain mortice and tenon joints. Qualified woodworkers use a range of different joints for different scenarios, to resist the different pressure applied to the finished work. Examples of joints include mitre, bridle, finger, box, housing, dovetail, butt, tongue & groove, mortice & tenon, halving or lap joints. Some ligaments are easily fixed with hand tools, and others require power tools – such as biscuit or domino joints, which are designed to save time and are very strong.

What can I do?

To get going doesn't have to be costly. Wood is a readily-available commodity, and often free if you meet a nice landowner or tree surgeon, or if you recycle old parts. We 'd recommend that you stay away from MDF – it includes harmful additives like formaldehyde, and therefore there are safety hazards involved with cutting it. There are times when using other human-made materials like plywood makes sense – it's much more efficient for making box-type structures such as wardrobes, kitchens and other cabinetry. Using solid wood in that situation is a bit of a waste.

Participate in a woodworking course to gain skills and the confidence that you know the right way to approach a job. You don't need lots of gear – just start, and it will accumulate over time. You don't simply need a devoted workshop either.

What is a woodworker?

A woodworker is someone who creates a wide variety of items, such as cabinets (cabinet makers) and furniture (furniture finishers) made of wood and synthetic wood. Woodworkers can also be called carpenters.

There used to be two woodworker myths.

Luckily, these assumptions are no longer true. There is now more variety of woodworking than ever before, due to online communities and the availability of tools and materials.

In the last ten years, there has been a huge increase in the number of people making woodworking a hobby, first of all, women. It wasn't that long ago that a female woodworker was unusual. Women woodworkers are commonplace today. There's nothing that someone can't do with woodworking.

The second huge demographic change was among the millennials, the men in the 20s and 30s. I hear from people who work in Silicon Valley all the time, or just have some kind of office work, and feel the need to do something with their hands.

Despite the abundance of plastics, metals and other resources, wood products remain a significant part of our daily lives. Many of these items are mass-produced, including most chairs, kitchen cabinets, and musical equipment. Other products are custom made with special equipment in small shops.

How does a Woodworker do?

Woodworkers usually do the following:

- ✓ Read comprehensive schematics and blueprints.
- ✓ Prepare and set up equipment.
- ✓ Lift wood bits onto devices, either by hand or with hoists.
- ✓ Operate wood-making and cutting machines.
- ✓ Pay attention to unusual sounds or detect excessive vibration.
- ✓ Ensure the goods follow requirements, make modifications where necessary.
- ✓ Use hand tools to cut parts or mount products.
- ✓ Remove and cover rusty saw blades.

Although the word “ woodworker ”can evoke the image of a craftsman who builds ornate furniture using hand tools, the modern woodworking trade is extremely technical and relies on specialized equipment and highly skilled operators. Workers utilize automatic equipment, such as computerized numerical control (CNC) devices, to do most of the work. While skilled artisans typically use a range of power tools in their jobs. Many of the research is performed in a high-production assembly line plant, but there is still some research that is specialized and does not lend itself to being produced in an assembly line.

Woodworkers are working in any aspect of the secondary wood goods sector, from sawmill to finished product, and their tasks differ. They set up, run, and manage all forms of woodworking equipment, such as drill presses, lathes, shapers, routers, sanders, planers, and wood-nailing devices. Operators set up the equipment, cut and shape wooden parts, and verify dimensions, using a template, calliper, and rule.

Once wood parts are made, woodworkers apply fasteners and adhesives and attach the pieces to create a full assembly. They then sand, stain, and if necessary, coat the wood product with a sealer, such as a lacquer or a varnish.

Are you trained to be a woodworker?

Woodworkers have distinct characteristics. They tend to be artistic individuals, which means they're creative, intuitive, sensitive, articulate, and expressive. They are unstructured, original, nonconforming, and creative. Some of them are often observational, indicating they're analytical, introspective, and inquisitive.

Will this look like you? Take our free job check to find out if woodworker is one of the best career matches

What is the workplace of a woodworker like?

Job arrangements differ based on different work tasks. Often, workers have to carry big, bulky materials, and they experience a lot of noise and dust. Staff will also wear earplugs, boots, and goggles to cover themselves. Many work full time outside daily business hours.

What's The Difference Between A "Maker" And A "Woodworker"?

A maker is a relatively new term that has cropped up in the past decade or so. It's an all-encompassing term for people who like to dabble in various crafts. This could include a little woodworking, metalworking, epoxying, concreting, computer programming, telecommunications, 3D printing, baking, weaving, spinning, jewellery making, sculpting, ceramics, robots, and playing with Legos. And essentially, we are all producers.

A woodworker is a builder who is mostly interested in learning and improving the art of building products out of wood. Sometimes we bring other equipment into our projects, but the focus is on the wood. It's an economical, durable material that's easy to create with.

What's The Difference between Cabinet Making and Furniture Making?

Again, there is no straight line between these two words because to me, and cabinet builders construct items that are permanently built into place, such as the kitchen cabinets and are more concerned about the surfaces that would be noticeable.

Furniture can be placed wherever the owner wants, and then further sections of the finished product can be available.

Cabinets might use plywood more than most furniture and are constructed using screws and other mechanical fasteners, while furniture often uses solid lumber and is usually constructed with better joinery and glue. Furniture making might demand higher precision.

But there is a lot of overlap here. I've built plenty of furniture with plywood and screws, and I've seen some amazing cabinetry that rivals high-end furniture.

SECRETS FOR OUTDOOR WOODWORKING

When you 're trying to create a porch, gazebo, swing set or some other outdoor wooden project this season, you might be heading for sorrow without even knowing it. I remember as I've endured plenty of heartache studying how to stop loss the hard way. Finishes that don't last, joints that break apart and corrosion-stained surfaces are all typical and painful fates that afflict many outdoor wood ventures. Popular, indeed, but not unavoidable – at least not if you obey my field-proven design and construction tips.

Stay dark and dry: Moisture and sunlight are foes of wood, and dealing with them appropriately begins at the early part. This is why cedar is a premium choice for outdoor projects. It's rot-resistant and long-lasting, but cedar still has drawbacks. It 's especially soft, and this has consequences about how you construct.

Remain round: Cedar dents quickly, so that's one explanation it makes sense to round corners with a router. Plain edges still don't carry a surface as well as rounded or curved ones, so a failing surface on corners can extend degradation to adjacent areas.

Wide wood screws: Big diameter wood screws – I like # 10 – fit better with cedar because the wood's so good. But even these should always be accompanied with a weather-resistant glue, and not just for power.

Get the excellent glue: Ordinary wood glues – including those graded as water-resistant – go mushy during wet, dry conditions. That's why glue makers sell type II and type III wood glues. They are third-party designations put out by the American National Standards Institute (ANSI) to ensure the glue joints stay solid, even after weeks of rainy weather. They were using just adhesive for one of these marking for outdoor ventures. Apply cement on both fixed, hammered and installed joints on your outdoor furniture makes the final project even more stable. Yet glue also makes it longer-lasting because of its effect trapping out water.

Glue to keep bugs at bay: All that has an impact on how glue can be used to outdoor ventures. Aim for complete coverage of the joint region – not just a few dabs here and there. Additionally, when you plan outdoor furniture,

remove as many minor holes between pieces that you can. For certain parts in Canada, these spaces provide an open invitation to insect pests that leave behind mounds in small, rough, black droppings that retain water and encourage rapid rotting because of the nutrients they provide. However, who wants to lie on a lawn chair filled with insect manure?

First choice fasteners: Fastener preference is another important problem. While most screws and nails are painted with some sort of silver, golden or green coating that suggests corrosion protection, few metal fasteners effectively prevent both corrosion and staining long-term. This reality is why I'm a major fan of stainless steel screws and nails. Those used to be nearly difficult to discover, but not anymore. Screws, finishing nails, and even frame nails are also readily available in corrosion-resistant stainless. For outdoor furniture joints that need bigger fasteners, use heat dipped galvanized carriage bolts. Such have a mottled, rusty grey finish that works just as good as stainless steel. Whatever you do, make careful to remove sparkling silver electroplated screws, nuts and washers. They are more popular than heat dipped galvanized, and they cost less, but they do corrode and stain wood at alarming intensity. Attention to fastener composition is particularly relevant if you 're using pressure-treated lumber. The preservative additives make this substance ten times more corrosive than raw wood.

The Secrets You Need To Know When Using Wood In Wet Spaces

Who said wood and moisture don't fit well together?

It's almost counter-intuitive, the exercise of putting a material like wood — which has issues with humidity and expansion — in a place that's constantly getting wet, like a bathroom, kitchen, or even the exterior of a building. Yet with a thorough inspection and a good collection of suitable plants, wood will actually be an appropriate material for virtually every place, wet or dry. Here, we take a look at five locations where the use of wood may seem controversial at first, and we'll dive into why wood is really a good option for that room or venue.

Wood shingles and siding



You've never seen wood siding on the outside of residences before, and if you really scrutinize the custom, it may seem strange. Why put wood on the outside of a building, and not even coat it with paint? How does it avoid rot and die when it's continuously being subjected to rain and snow? The fact is that not all forests are suitable for exterior siding, but the category of wood species we refer to as cedar is a common exception.

Cedar is basically a combination of more than a dozen different species of trees that represent different families, and they wanted to follow similar characteristics of being resistant to rot and decay because of the "resins" or "extractives" in the wood, which are naturally occurring chemicals produced by the tree. It ensures that there's no need to dye, paint, or pre-treat the wood and keep it immune and rot, although the wood can age and shift in colour, ageing to a more greyish shade as compared to the reddish or brown colours the shingles start their lives with. This doesn't guarantee this unpainted wood shingles can never rust, but in combination with proper decoration and construction, including spacing each shingle such that water flows down off the shingle rather than collecting water underneath it, cedar siding will last decades.

Wood roofing



Using wood siding or shingles on the roof can seem even more counter-intuitive than using wood siding. Nonetheless, certain guidelines apply here too: you want to make sure you 're using a form of wood that's immune to moisture, and that the wood is mounted or handled in the proper manner.

Wood roofs are less popular than wood siding, but in colonial America, they were the most common form of roofing material. Today, they 're still used, particularly in projects that want to create a traditional-meets-modern look or in places where cedar is simple to access and fairly inexpensive. Wood roofing is often considered as more sustainably focused than other products. It is because wood is a natural resource and cedar roof shingles have a fairly long life of more than 60 years (when provided for and maintained). Of starters, if a wood roof does start to show signs of mildew or moss, you can purchase exterior spray applications that can be applied to fix the problem.

Wooden kitchen countertops



Compared to more sturdy materials like concrete, wood countertops may appear insufficient and even unsafe, particularly if they 're used in a sink region, where water is continuously splashing around the edge and pots, and pans start to pile up. Nevertheless, countertops built out of wood like butcher block (a laminated sheet of hardwood) have widely been used for decades. Wood countertops, whether they 're constructed of solid wood like broad slabs of walnut or a traditional maple butcher block, can produce a dry, natural look in a kitchen and can reduce the noise of pots and pans falling on the countertop.

Yet this doesn't mean that all types of wood make for decent countertop surfaces, or that there's little or no upkeep involved. Softer types of wood, including oak, usually don't make for perfect countertops because of how easily they crack and scrape. Although it's possible to use sandpaper to refinish wood that's been scratched, refinishing an entire countertop that's been dented or broken may be difficult and prevented if tougher woods like birch, beech, or maple are picked. Additionally, wood countertops can be oiled once a month if the surface is unfinished, or refinished every five years if it arrives pre-finished from the factory. This should shield the wood from certain stains and water abuse, but it does involve regular maintenance.

Wood surfaces in the bathroom



With the persistent humidity in a bathroom, it's obviously not most people's first option when it comes to choosing a finish for this space, particularly when ceramic tiles and other non-porous surfaces are available in a broad range of colours and prices. Nevertheless, because of its fresh, natural look and warmth to the touch, as opposed to the cold feel of tile, wood has become a more popular option in bathrooms?

When wood is used as a wall, floor, or ceiling finish in a bathroom — especially one with a bathtub or shower — you'll want to make sure you have a fan installed for proper ventilation. This would also prevent the wood from warping and reduce the risk of mould or mildew from rising. Another smart thing is to be sure that the wood is wrapped with some sort of sealant, maybe boiling linseed oil and urethane, to shield it further — and make sure you have all the end grains sealed too, even though they won't necessarily be visible. Experts often recommend adding a sheet of tar paper (usually used under roof shingles) before building the wood for an extra layer of insulation and safety.

Wooden bathtubs



Finally, we arrive at the biggest mystery of them all: a wooden bathtub. A bathtub built out of wood looks like it will either leak non-stop or puff up so much that it loses its form. But several communities around the globe have been successfully making wooden bathtubs for centuries: the Japanese have used aromatic woods like cedar and hinoki to create soaking tubs named ofuro, while teak and other woods have been used in tubs in Scandinavian countries.

The key to having a wooden bathtub work is — like other uses of wood — to make sure that the right varieties of wood are picked from the outset, and that the wood is consistently maintained. Teak, for example, was mostly used on the decks of ships and functions well as a bathtub material because of its resistance to rot. Some professionals argue using several coats of sealant on wooden bathtubs to offer continuous security from the wet-dry cycles that the tubs go through, which will also render the wood more textured than it originally was, allowing hair or skin to get trapped in it.

Inwood that's historically been oiled rather than sealed, like Japanese hinoki, sealing the woodcuts off its legendary smell, which causes it to continuously cure and then swell, eventually creating leakage and staining. It's better to hold the bathtub out of direct sunlight, add sunflower oil to any of the tub surfaces, and maintain the moisture amount steady by putting a filter or cover over the pool while it's not in use.

TOOLS AND TECHNIQUES OF OUTDOOR WOOD PROJECT

The projects in this book appear to be small, so most can be constructed using cheap timber, basic screws or bolts, and a circular saw or even a handsaw. So even only a small expenditure boost or an hour or two of preparation will result in completed goods that look fantastic and keep looking that way for a long time.

Of starters, smaller grades of wood can have high moisture content, which ensures they can weaken, causing unsightly holes between the joints as well as warping and cracking. This chapter describes how to pick boards that will maintain their good looks and energy. We'll also cover fastening equipment that holds more securely and look better than standard nails and screws.

If you have a basic handyman-type set of tools, including, say, a circular saw and hand mitre box, you can build most of these projects. But to make the jobs go more nicely and to generate cleaner-looking results, you may want to spend a few bucks on a minor upgrade, like a pocket-screw jig, a straight-hole accessory for a drill, or a better quality hand mitre box. Or you may choose to spend more on techniques that make you feel like a pro, such as a power mitre saw or a table saw.

No matter which resources you use, you will possibly get better outcomes by studying and using tried-and-true construction methods. Most of these techniques can be learned quickly, and will increase construction time by only minutes, but can be the difference between an obviously inexperienced product and one that looks like it was made in a woodshop.

Choosing Wood

Given the growing use of vinyl and synthetic products for outdoor buildings, the inherent charm of wood resonates with most of us.

Synthetics just can't match the one-of-a-kind grain design found on might board of real wood. Wood surfaces — even though they are a little scratched or warped — have their own peculiar warmth and appeal and make an outdoor room seem more like a fun break from the workaday environment.

Still, while we may not need excellence, we do want forums that will retain their opening remarks without obvious wrinkles. Too many planters and trellises start to look untidy after only a few years.

Picking the right lumber and perhaps implementing a quick coat of finish every year or so will keep that from occurring.

Wood Species

Doing an outdoor project out of raw oak, fir, or hem-fir is feasible, but wet rot would almost inevitably occur unless you add copious quantities of preservative, mortar, and paint or polish and leave the wood covered with holy zeal. The plants we suggest have inherent tolerance to rot, but most of them do function well if held sealed.

Cedar and redwood

Western red cedar is accessible for fair prices in most parts of the world. (Other types, such as eastern white, incense, and northern white, are only locally available.) It is fairly soft — you can often dent it by pushing hard with your thumbnail — but hard enough to be used for decking. It's somewhat prone to cracking, but this is usually not a big issue if you select boards cautiously and drill pilot holes before driving fasteners near board endpoints. Its dark-coloured heartwood is very permeable to rot, but the lighter-coloured sapwood is less so. If necessary, choose the dark boards. Still, cedar should be stained and secured to keep it from rotting.

There are a good number of possible cedar grades. Look for words like “heart” and “tight knot.”

The top-end cedar, “clear heart,” has no knots and is quite expensive. Boards labelled “S4S” are smooth on all four sides, while other boards may be rough on one side.

Boards labelled “5/4 decking” are 1 in. thick and 5 1/2 in. wide. These can be an ideal and inexpensive choice for many projects. They have rounded edges that can create easily noticeable lines when two boards are butted together.

Redwood can be bought in most of the world. When your lumberyard does not have it, they will possibly order it. It is highly robust and prone to splitting, and relatively sturdy, rendering it superior to cedar; but it is typically often more costly. As with cedar, the dark heartwood can withstand rot even more than the lighter sapwood.

There are several potential redwood types, but your local retailer would typically stock just a handful at most. Some that contain the term “common

”include at least some sapwood; different “ heart ” or “ all heart ” categories would be darker and longer-lasting. The top-grade, Clear All Soul, is potentially too pricey;

Heart B has a few connections and is more economical.

For a pleasant knotty appearance and good rot resistance, perhaps choose Construction Heart or Merchantable Heart.

Dog-eared fencing

At the home centre, you will almost always find “ dogeared fencing, ”6-ft.-long boards with slight angles cut off the corners at either end. Such happens to be 5/8 in. Thick (though the thickness varies) and 5 1/2 in. Wide. Dog-eared protection is accessible as pressure treated or cedar. The cedar is rough-surfaced, whereas the handled boards are relatively smooth.

Quality varies widely from board to board. Some may have noticeable breaks and other imperfections, including bowing or cupping. But often you will find boards that are amazingly solid and good-looking. Choose boards that are lightweight over heavier boards, which retain a good deal of moisture and may crack when they dry out.

Because they are lightweight, they won't be incredibly heavy but should be sturdy enough for tiny containers and other ventures. Furthermore, their thinness often takes special caution while operating fasteners. But carefully picked boards to look fantastic, and you can't beat the size.

Ironwoods

Brazilian hardwoods, sometimes called ironwoods, are the highest-priced natural wood choice. The most famous species is ipé, which is also named Pau Lopé ®. Ipé is incredibly durable (it also has a fire ranking comparable to metal) and impervious to rot. Many animals go through a bewildering array of alternative names, like garapa, cumaru, and tigerwood.

Both are very strong and rot-resistant, although some are a little weaker and less costly than ipé.

It-be worth your time to check at available choices, as they differ in appearance. For examples, ipé is usually black, with subtle colour variations and near, thick grain; tigerwood has distinct grain lines that differ greatly in width and colour; garapa tends toward a sweet, honey colour; cumaru has a slightly reddish tint; and so on.

Since it's so rough, dealing with ironwood calls for proper equipment: You'll

need a machine saw with a decent carbide edge, and you'll need to predrill pilot holes before pushing all the fasteners. It slows the process down but is worth the extra work.

Ironwood is commonly accessible as 1×4, 2×4, 5/4×6, and 2×6. Local lumberyards may not have it in stock, but they should be able to order it.

You may cause ironwood to go grey, but after wasting all that money, most people want to offer the wood a simple application of stain/sealer once a year.

Pressure-treated lumber

Greenish or yellowish treated timber is mostly used for structural components rather than for noticeable items. But high-quality treated timber may be a decent option for small ventures. Treated boards are inexpensive and very resistant to rot.

For certain areas of the world handled timber is Southern yellow pine (SYP), a relatively strong wood that embraces the liquid application readily. In certain places, fir or hem-fir is used instead. Douglas fir is very solid and secure, but it doesn't tolerate the medication well, and it is incised with a series of slits (for administering the drug), so such slits do not fall away over time. “Hem-fir” may literally apply to a variety of animals. Many of them are robust and solid, while others are vulnerable to shrinking, warping, and cracking. Consult with your lumber supplier to learn how well you can expect your hem-fir to perform.

Treated lumber can be made surprisingly attractive — in a rustic sort of way — if you apply stain and sealer.

The best quality processed timber is also called KDAT, meaning following kiln-dried service. Many designations, such as “select” or “no. 1” often imply good efficiency.

Composites

Composite timber is not natural wood, but it does include wood fibres, so it deserves mention here.

Composite decking and fencing have grown in popularity in many parts of the world. The better-quality composites are still just as costly as ironwood. Its benefit is significantly reduced maintenance: The finest composites do not change their nature during decades of usage, and can be hosed or rubbed off once in a while.

Be conscious, though, that certain lower-cost composites may melt in the light, they will develop mildew or mould in moist weather, and they can even

warp. Consult with local builders or people with structural decks to see which items remain gorgeous for years in your area.

Pallet wood

Often a rustic, roughed-up look is just right for an outdoor project. And sometimes you want to build something out of dirt-cheap materials. Pallet wood may meet both of these goals.

In most cities and major towns, you can find stores that purchase, shop, and distribute pallets, which are designed to be toted around with a forklift. Some of these places will be happy to sell you pallets for a small price; others don't want to bother with people who just want a few pallets. Pallets are frequently left scattered about in alleys or behind shops, where you can be able to scavenge them for cash.

Pallets usually range in size from 36 in. By 36 in. To 48 in. By 48 in. Most have three 2-by stringers, which are notched to accommodate the forklift, making them useless for most projects.

The deck boards are generally about 5/8 in. Thick.

Pallet boards are mostly fir, but it is not rare to see oak and other plants. You can't rely on pallet wood to remain rot-free for decades, but if you add a decent stain/sealer or paint they will last a very long while. Pallet boards are mostly fir, but it is not rare to see oak and other plants. You can't rely on pallet wood to remain rot-free for decades, but if you add a decent stain/sealer or paint they will last a very long while.

Moisture Content

Freshly cut timber produces different levels of moisture. When the wood dries out, it may weaken, and it will even experience warping and cracking. Wood begins to dry out during the milling process; it will typically dry out when processed in the lumberyard; then, if it is already damp when you purchase it, it will begin to dry until you have installed your house. When wood is processed in wet or damp environments, it can actively accumulate moisture. Pressure-treated timber requires solvent water pumped into it, so that too will be dried out for a board to remain durable.

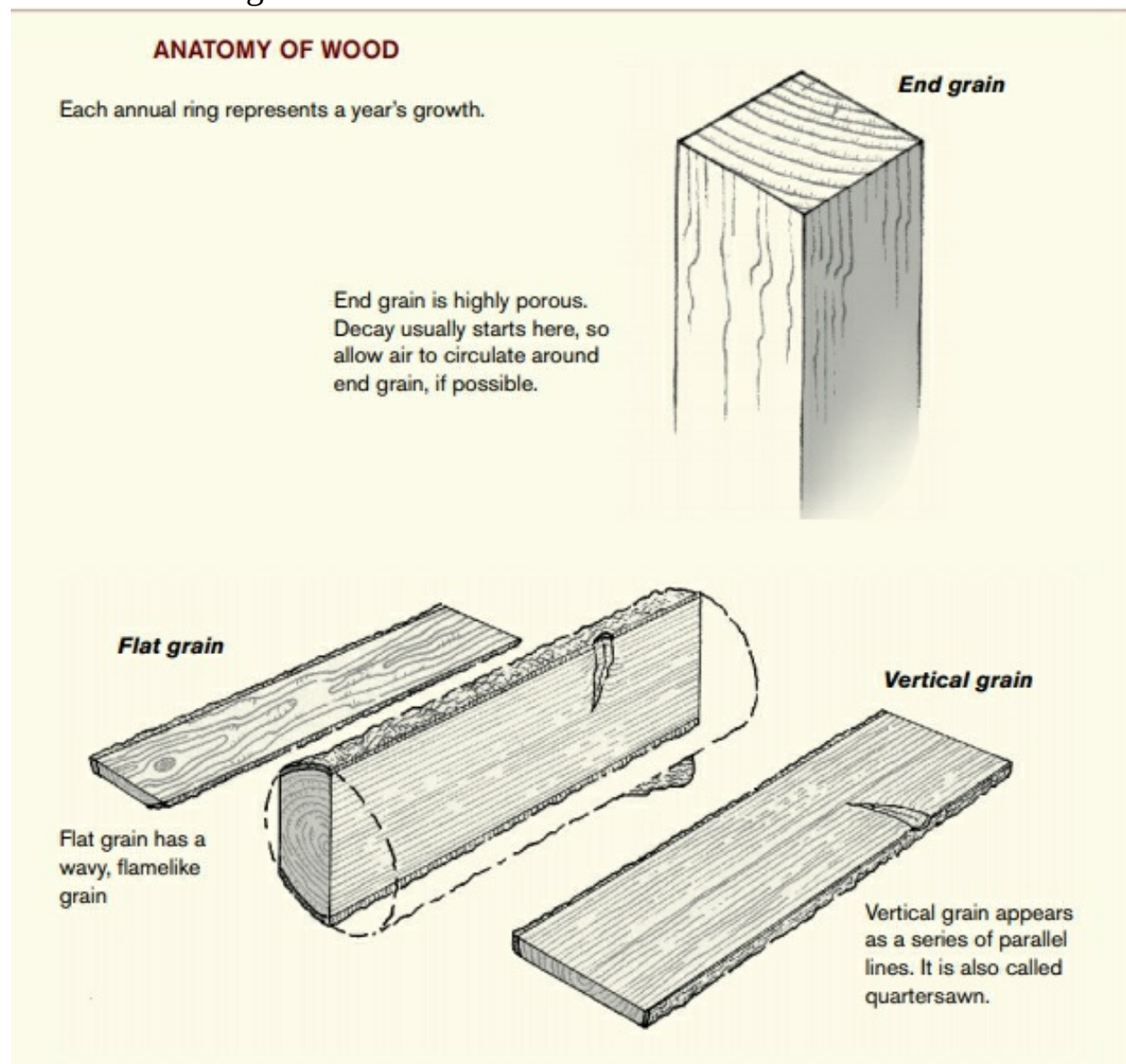
In principle, a board's moisture content would match the ambient air humidity. But in fact, even in all but the most humid locales, you should obey a basic rule: The dryer the wood you purchase, the less unexpected surprises await you after constructing.

A stamp designation of S-DRY, meaning “ surface dry, ”will have a low

moisture content. Consider boards that are over 20 per cent (many are marked with S-GRN, indicating “ surface green ”); boards under 12 per cent are the most secure.

Wood Grain

As a general rule, the broader a board 's grain pattern, the more robust the board would be. Ring diameter is a function of two variables. First, trees that grow have wider rings. (as you would recall from elementary school, each ring represents a year of development.) plants with limited growth rings are denser and stronger.



Second, it varies where the board was removed from the log (see the diagram

above). Boards cut perpendicular to the rings are also called quartersawn, and have vertical grain — a basic sequence of closely-spaced grain lines. Boards split parallel to the rings have smooth grain — a more complex pattern of broadly spaced, wavy lines. As you may think, the narrow-grained wood is less likely to warp.

Most boards have a mix of vertical and flat grain; the more vertical grain, the stronger.

Avoiding Wood Defects

In addition to selecting the kind of lumber to use, take time to test and pick each piece.

Select boards free of significant flaws that might trigger complications in years to come.

For each board look at the face and edges that will be noticeable. (Usually, one hand would be hidden.)

Pay careful attention to the ends, where harm is more likely to occur. Instead, pick up one end and look down the length of the piece, to see whether it has curves or twists. Below are several may defects to look for:

Crook or bow

When a board bends over its length but is otherwise smooth, it has a crook. No boards are completely equal. If the bend is only slight, that is called a bow — a common procedure that can usually be straightened out as you build. A more extreme crook, though, might be difficult to straighten, so pick another wall.

Twist

If a board has numerous spins, so it can not lie down, it is contorted. Perverted boards are challenging to flatten, and then you should not decide to purchase one.

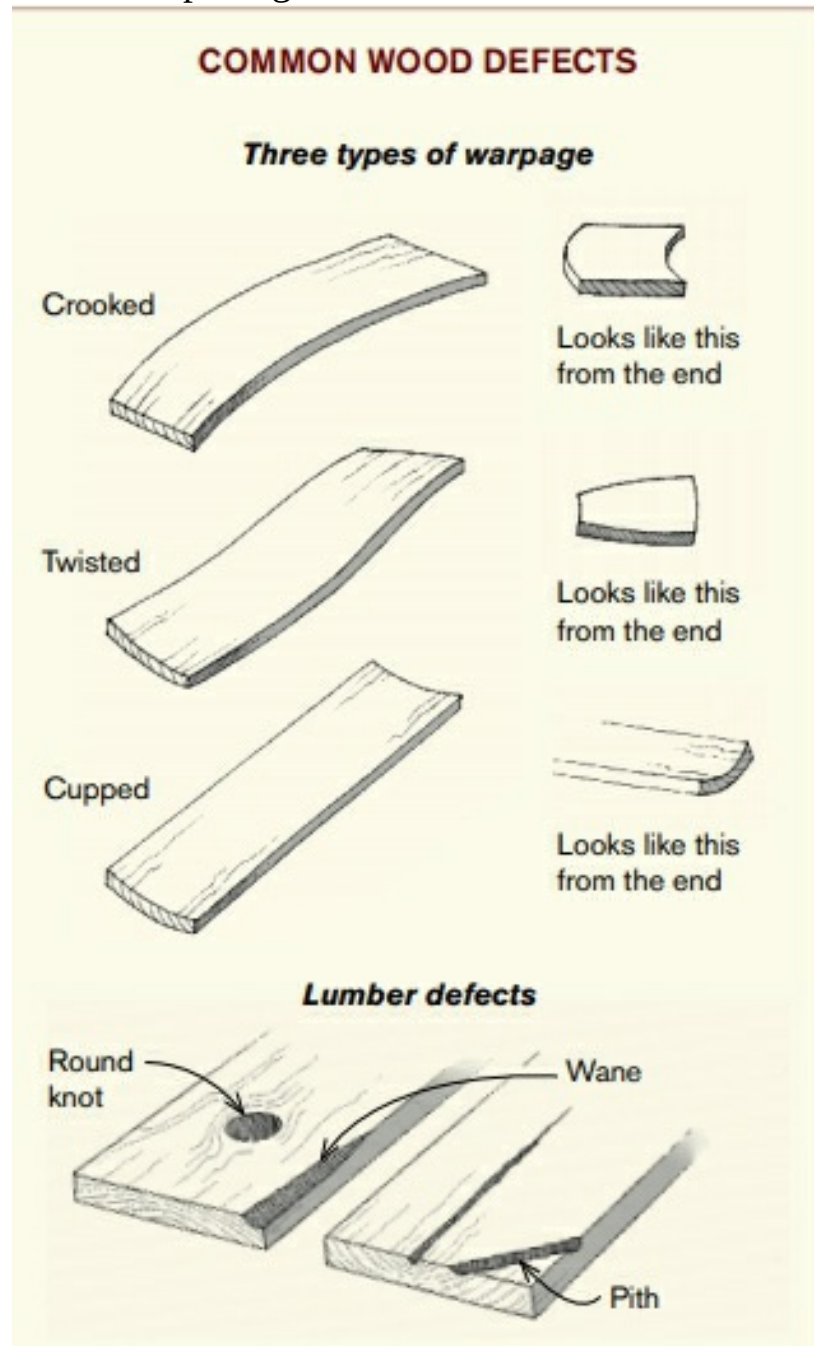
Cupping

A board that is angled along its width is cupped.

Any mild cupping may typically be fixed before you add the board, but if the cupping becomes really visible, the board can crack when you use fasteners to straighten it.

Knots

Where a knot is shorter than 1 1/2 in, in diameter and firmly fixed in the plate, it is a decorative rather than a technical issue. Knots can be beautiful or bad, depending on your point of view and your project objectives. When a knot is wide, and you can see holes between it and the remainder of the board, it can well fall out with time, so pass on to the next board because you prefer the odd knot opening.



Wane

Wane applies to broken wood or noticeable bark, typically around a street. If

the wane is a will, this is an aesthetic matter only, so you will be able to place the board, so the wane is not apparent as the project is installed.

Pith

Pith is identical to wane but is typically a thin strip in the centre of a plate. It can peel off until the board completely dries, so stop using the board unless you can cover the pith.

Checking

Testing is a series of very small cracks on the side of a wall. It is a beauty issue only — and some people really like the feel.

Splitting

Since a board sometimes dries more quickly at the ends, you can notice splits there. Splits can develop longer with time. However, if your project enables you to cut the board to take away the divides plus an inch or more, then the board will likely be fine.

THE DIFFERENCE BETWEEN WOODWORKING, CARPENTRY, AND JOINERY

Carpentry is described as being the trade of cutting and joining timber in order to create houses or other structures.

Woodworking is defined as the crafts of carpentry, cabinet-making, and related skills of making things from wood.

Joinery is described as frame and panel construction, or, otherwise, as the job of the joiner — the manufacture and installation of fittings in houses.

This chapter is devoted to recognizing the slight distinctions in each of these crafts. To the lay individual who was maybe finding a “carpentry class, ” or a “ joinery course,” they may actually be planning to find woodworking courses, or they might be aiming for something else entirely. It's not our job to differentiate between the two, particularly since woodworking beginners don't usually have the professional skills to understand the distinctions that's why they are looking for us, after all.

That being said, we offer a variety of woodworking classes for beginners to experienced woodworkers. We have our own open workshop, a variety of woodworking and power equipment, and professional teachers who can help people at any skill level develop their art whilst getting motivated.

Our goal is to inspire our students with the knowledge, resources, and room to create it amazing, as you may have seen in this novel. You may have even noticed the quotation that it isn't about what you make; it is about the pleasure of making it yourself. For those people who are looking to try their hand at something new, maybe to test yourself or get in contact with a particular aspect of your personality, we can't inspire you enough to check out our woodworking courses at The DIY Joint.

The purpose why we began The DIY Joint in the first place was to build a platform for people who were trying to get in contact with what we have mostly missed as a culture – creating something with our hands. The physical familiarity. The physical struggle that's so challenging in the moment. The pure pride of conquering your doubts and making something physically,

beautiful, and useful in the process. We are producers at heart. So we don't want to waste too much time blabbing about culture, technology, millennials, our problems, and more, so we'll just leave it at that for now.

We digress because we have a planned blog subject to get to! Continue reading if you are involved in really getting into know the distinctions between joinery, carpentry, and woodworking in a more detailed manner.

The Difference

Let's be realistic and imaginative at the same moment. Suppose you need some building work completed, so you know you aren't searching for a woodworker, but you don't know that you will be searching for a joiner or a carpenter for this construction job. Were they interchangeable?

For the more common context of trades, joiners usually produce the timber products in their own store, while carpenters take certain timber products and put them on location. For e.g., a joiner could build a specific door for a shed in their own store, while a carpenter might be building the whole shed on site. The carpenter will mount the door that the joiner has created, and it blends in with the rest of the project properly. Carpentry may also require more construction-based elements in order to complete a job, which may involve joisted floors, stud-work, and the like.

When you are trying to distinguish between the two choices for a specific project you have in mind, just start for who is strongly recommended and then base the choice around their background of related projects. In fact, there is a lot of overlap between the two words in day-to-day operations.

The DIY Joint

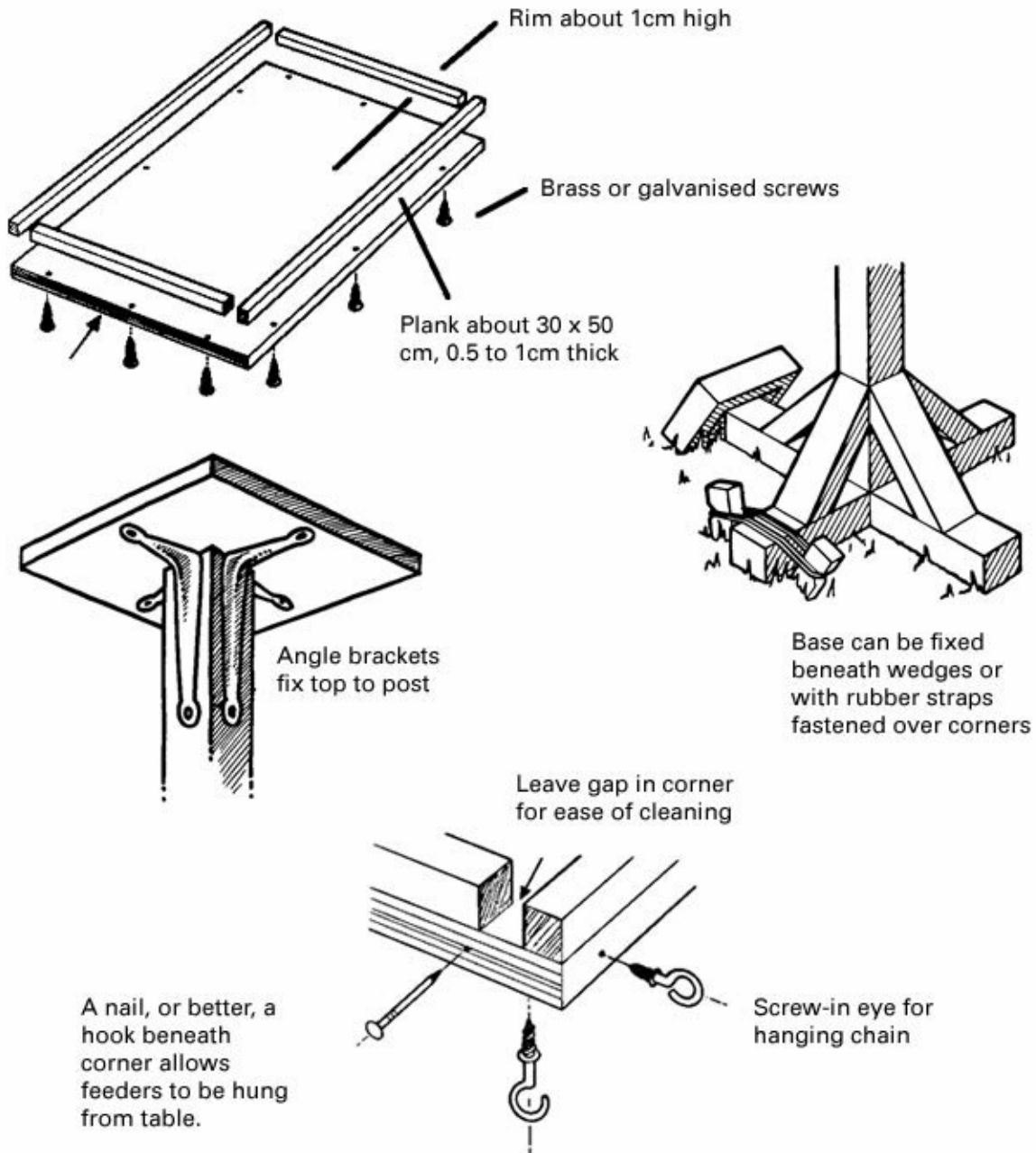
There is a verbal convergence as people toss such terms about very loosely. We don't care, as long as people find what they are searching for at The DIY Place. We give those wanting to start a new passion the opportunity to fall in contact with a different part of them. Yet above that, you'll be able to take something home which has meaning and elegance. It's up to you whether you want to gift it away or introduce your work as a trophy of sorts in your own home.

30 STIMULATING FURNISHING PROJECTS TO BE CREATED FROM SCRATCH

You don't have to be a professional woodworker or use specialist equipment to embark on either of these outdoor woodworking ventures for learners. Every one of the small project included here features step-by-step plans and tips for success.

BIRD TABLES

A bird table does not need to be elaborate, or complex-the birds are just interested in a good supply of food in a dry, enclosed location.



Use wood that will not split or disintegrate when wet-exterior quality plywood from a renewable resource, 0.5 cm-1 cm thick, is ideal.

Any piece of cheap or solid timber makes an excellent bird table.

There is no maximum size, but don't make the table too simple, or the birds will squabble, and the shyer species will be kept away: 30 cm x 50 cm is about right.

A rim about 1 cm high across the edge will help stop food from being whacked or blown off. Leave gaps at the corners to allow rain to drain away

and to make cleanup easy.

Before assembly, sand it smooth to remove crevices that can hold dirt and disease. It is better to keep the table untouched. If it must be used to extend its life, use a water-based preservative and make sure that it is dry before usage.

A few nails or hooks in the sides of the table can be good for hanging nut or seed feeders or fat balls.

A roof provides some protection to feeding birds (from cold, snow and shooting sparrowhawks). Some birds may even roost at night on a table with a roof. This also offers a dry spot for seed hoppers and nut pots. A roof may, though, discourage the shy and larger animals from visiting and, in certain situations, an open table is actually just as nice.

NESTING BOXES



If you'd like to support the birds in your backyard, why not have a go at building your own nestbox?

Step-by-step guide.

- ✓ Natural nest holes don't come in 'normal' measurements, but please use the following measurements as a reference.
- ✓ Use a board between 150 mm long and 15 mm thick. Cut-segment as per our schedule, which you can access from this website.
- ✓ The interior of the package must be at least 100 mm wide, and the bottom of the entry hole must be at least 125 mm from the surface. Unless it is fewer, young birds may be scooped out by a pet.
- ✓ Use galvanized nails or screws. The inside front surface will be rough-that should allow the young birds to clamber up. A drainage hole in the base will also help to stop the box getting damp inside.
- ✓ The entrance hole size depends on the type of bird you want to attract: 25 mm for coal tits, marsh tits and blue tits

-- 28 mm to great tits and tree sparrows.

-- 32 mm to nuthatches and house sparrows.

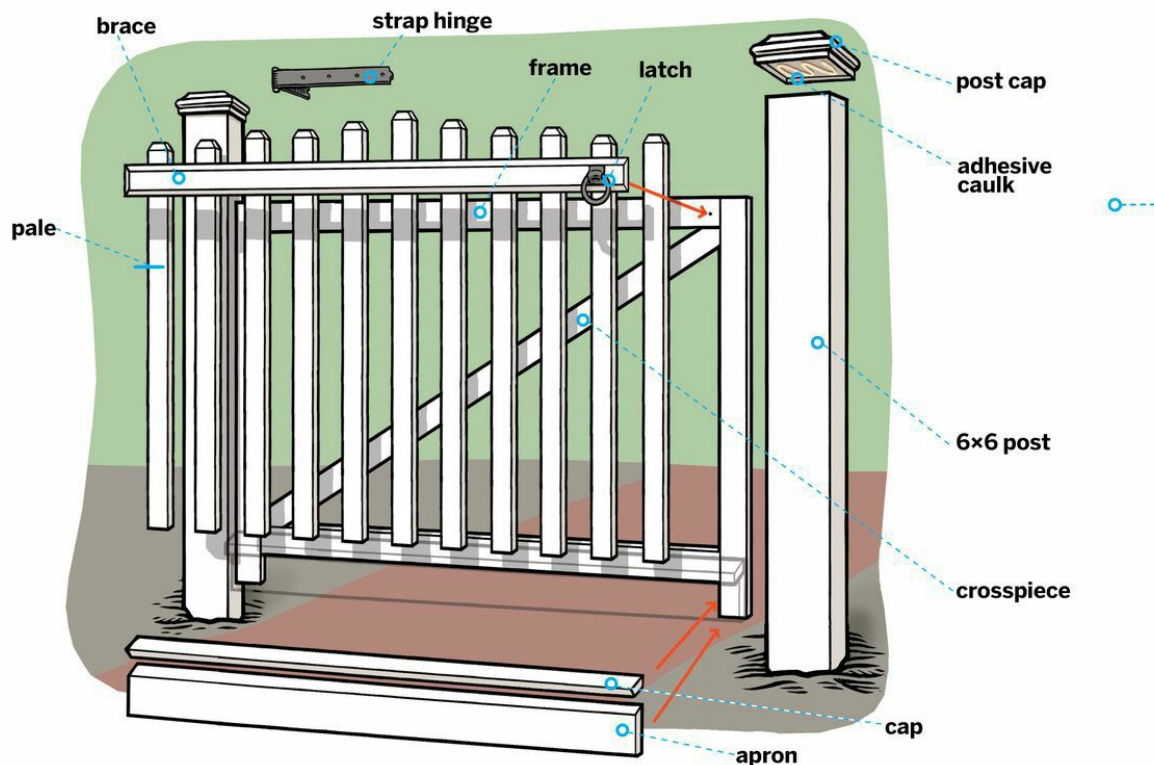
-- A starling box ought to be 25-30 per cent wider for an entrance 45 mm across.

If you cut the top half of the front door, the same sort of box may draw robins, pied wagtails or wrens to nest. Spotted flycatchers favour an even deeper, open-fronted box.

Whatever you use, make sure the package dries and airs properly before placing it out.

GARDEN GATE

This DIY garden gate might be too large or too tiny for your own yard, but the basics of the design will stay the same. It's pretty simple to adjust the cuts to make it suit your room.



How To Build A Garden Gate

Dig the Postholes

Using stakes and a mason line to map two holes equally on each side of the walkway such that, middle to bottom, they build a line perpendicular to the road. Dig each hole 6 inches below the frost line or far enough to sink one-third of a post, whichever is deeper. Consider the diameter three times the size of the pin.

Wrap and Set the Posts

To avoid rot, cover the pieces of a post to be buried with self-adhesive lighting, from near the edge to just below ground level. Using the posts to press 6 inches of drainage stone into their holes; position them, then apply another few inches of stone to make them plumb. Load dry concrete mix into one of the openings, filling it to just below the lighting. Apply water until the mix is moist, then swirl it with a knife. When positioning the second post,

using a board and a level to ensure sure the posts reach the same height. Hold the board up to their faces to make sure they 're not twisted. Allow the posts to sit undisturbed overnight, then sand and prime them.

Assemble the Frame of the Gate

Rip a 2½-inch-wide crosspiece off a 6-foot plate and prime it. Place a centerline at either end of the crosspiece, slide it under the frame running from the latch spot to the lower opposite corner, and mark the centerlines at the corners. Then clearly draw the inside of each corner on the crosspiece.

Cut the Crosspiece

Using the circular saw, slash around the corner points—Prime the bare sides. Fit the crosspiece into a frame and use a drill/driver to transfer 3-inch stainless-steel screws through edges and into the frame.

Install the Apron

Cut the apron to the width of the tag. Set the circular saw blade to 5 degrees and cut a 1½-inch strip from one side. This cut provides the bevelled apron and a slanted hat for it. Position the apron on the front of the frame, drain with the bottom of the stiles, and drive one 5/8-inch stainless-steel trim-head screws through it and into the frame. Place the cap with its bevelled edge against the frame and its narrow side against the apron's bevel, as in the illustration at right. Screw it into the apron.

Create the Pales

Cut the face bevels. You'll bevel all four sides of the tips to form the gate's vertical slats, or pales. At the rim, create a hash mark ¼ inch in from each bottom. Set the mitre-saw blade to 45 degrees and through a pale on edge against the fence. Place the blade with the target and cut the bevel; turn the board, and do the same on the opposite side, as seen. Split all the pales the same way.

Cut the Edge Bevels

Put each board flat on the saw. Retain the blade at 45 degrees, line it up with the point where the bevel matches the edge, and clip the corners. When you've formed all the points, cut the pales to height by beveling the bottoms at 5 degrees, to line up with the slanted top of the apron. Select the pales.

TOH Tip: Using a hybrid square with the blade depth set to ¼ inch to create precise cut points easily.

Install the Pales

Centre the highest point pale on the slot, with the bevel at the underside mirroring that of the apron cap but not quite reaching it. Leaving a tiny gap is critical to staving off end-grain rot; a paint stick makes a perfect spacer. Using a drill/driver and one 5/8-inch stainless-steel trim-head screws, connect the centre pole to the top and bottom rails. Then take two of the shorter pales and mount them flat at each end of the picture. Evenly place the remaining pales in decreasing order between the middle pale and the ends. Cut a block equal to the distance of pales and using it as a spacer. Connect the pales. Finally, screw a filler block between the first two pales for the catch.

Finish the Gate: Secure the Brace

Place the shield over the pales, bevelled-side forward, in line with the top board. I am using a hammer and one 5/8-inch stainless-steel siding nails to mount it. Next, paint the gate, posts, and caps.

Add and Secure the Post Caps

Using a caulk cartridge, add adhesive to the post caps and push them in place on top of each nail. When there's some action, make sure to focus the caps.

Shim and Level the Gate in Place

Prop up the gate on scrap blocks between the pillars, at least 2 inches above the highest point in its course, apron-side out. Shim it up, and use a standard to test your job. Make careful to hold an equal distance on each leg. Base the gate on the posts, then shim it in place between them.

Position the Hinges

Keep the brace hinges and their lower pin cups up to the back of the roof, in line with the upper and bottom rails. Label their screw holes on the gate and post.

Attach the Hinges

Place the gate open, then match the brace hinges with their names. Drill pilot holes into the plate, then lock the straps in place with their required fasteners. Mount the lower pin cups on the post and insert the pins into them to attach

the bolt. Confirm to see that it stays level through its swing; if it does, configure the upper pin cups to lock it in place.

Add the Latch and Stop

With the gate closed, but the stop on the post below the shield. Drill pilot holes and connect it to the frame. Working from the rear, place the lock assembly on the top rail and post, identify their hole positions, and drill a hole for the spindle and pilot holes for the fasteners. Finish by removing the lock and related hardware.

RAISED PATIO PLANTER



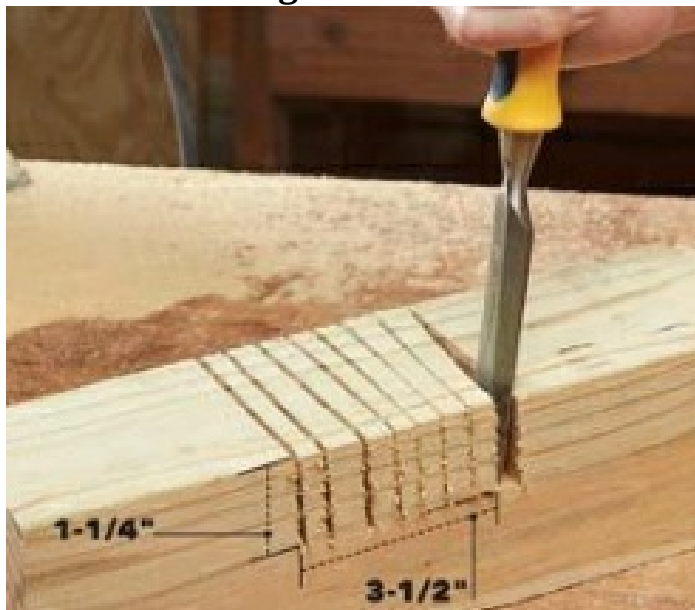
Our planter is tops for timely identification, sturdiness and accessibility. Plus, the curves and trim make it a pretty option to your deck or patio. You'll get about eight sq—Ft. Of planting field.

Most of the supplies are accessible at every home store. The legs and planter box are constructed from modified dimensional timber. The extension shelves, bottom shelf and accent boards are constructed from what's

generally known as '5/4 decking material' or simply 'deck boards.'

Take note: Treated timber is more flexible in width and thickness than normal dimensional lumber. We find 2x12s varying from 11-1/8 in. To 11-3/4 in. Wide at our home centre. And we noticed two forms and thicknesses of handled decking material: The 'premium' stuff was about 1-1/4 in. Thick while the standard was barely 1 in, bear this in mind as you construct and change the dimensions accordingly.

Cut the lower leg notches



Cut the four legs (A) to length, then mark the positions of the upper and lower notches. Adjust the saw depth to 1-1/4 in., then make a sequence of cuts no deeper than 1/2 in. Apart. Push a chisel through the wounds and pry; the little fingers can shear off. Flatten the leftover nubs with a chisel. Take a 2x4 scrap and make sure it falls into the slot.

Cut the upper leg notches

Set the saw depth to 2 in. And make a series of cuts near the end of the notch (to create a square bottom). Kick out the fingers as seen in Photo 1. To complete the notch, make the long line. The saw won't pass entirely into the leg, and you'll have to turn the leg over and slash on the other foot. Note: The notches should be as long as the 2x4s and 2x12s are big.

Mark the shelf supports

Cut the long box sides (B) to half, then use a rectangle, a paint can and a washer to label the shelf supports. Give the straight cuts with a circular saw and the curves with a jigsaw. Loosen the cut ends with sandpaper or a router and round-over part.

Assemble the box

Enter the sides to the ends with 3-in. Exterior pins. Drill pilot holes and push the screws until the heads are partially sunk into the wood. You may cover the heads with external wood filler or leave them uncovered.

Add the legs

Place the leg positions 1 in. From the ends of the sides use a framing rectangle. Place the legs and attach them to the box side with 3-in. Screws.

Install the rungs and supports

Flip the planter upside down and mount the bottom support frames. Those help the plywood bottom and have a decorative brush. Place the rungs in the leg notches and secure them with 3-in. Screws. Place the bottom supports (E, F), and they reach around $\frac{5}{8}$ in. Within the package and lock them in place. The overhang will be the same for both sides.

Install the shelf slats and bottom

Place the planter up straight and fix the slats for the bottom shelves. Space them about $\frac{1}{4}$ in. Apart and notch the corners of the outer slats as needed. Drill three or four 1-in. Drainage holes about $\frac{1}{2}$ in. Up from the bottom of each end board. Plop the $\frac{3}{4}$ -in. Plywood bottom into position and protect it with a few 1- $\frac{1}{4}$ -in. Screws. Range the shelf slats equally and screw them into order. Notch the end slats to go across the hips. And mount the planter edge.

Build the lattice panel trellis

The lattice panel trellis is an optional but excellent function for anyone wishing to raise plants needing assistance.

Start by tearing a $\frac{5}{4} \times 6 \times 10$ -ft—board in two. Construct the panel frame (L, M, N), then rip $\frac{5}{4} \times \frac{5}{4}$ stops (P, Q) out of scrap material and secure them to the frame. Cut the lattice to fit, put it into the frame and use 3d nails to nail it to the stops. Secure the lattice panel to the rear by driving the screws into the planter box through the panel legs.

Cap off the planter

Screw shelf boards to the shelf support; the inner ones will reach only a little beyond the internal edge of the panel. Mount the side accent, making those edges stretch somewhat inward, too.

CLASSIC CEDAR AND COPPER TRELLIS DESIGN



Climbing plants like vines and roses add a lot of beauty to an ordinary landscape, particularly when they're winding up a trellis as breathtaking as this one. And its quality only grows stronger as the wood turns grey and the copper produces a perfect green patina.

Choosing materials

One of the best things about this trellis is that it's easy to develop with just hand materials and off-the-shelf materials from your local home centre. We used cedar for our trellis, but any filth-resistant wood will do. The scrollwork is made from solid copper wire (the kind used for grounding electrical panels). It's pricey, though — about \$100 for enough to produce scrolls on all four hands. Nonetheless, you can save \$75 by having scrolls just on the 'show' leg, which reduces the cost of the trellis to \$125.

The legs and centre posts are 2×2 cedar, and the horizontal rungs that link them are 1/2-in—copper pot. You can make the cap as we did or purchase one designed for deck and fence posts.

Start with the legs and rungs

Cut the four legs to length, put them on sawhorses and tie them all together so that the tops are level. Measure, mark and drill 5/8-in.-diameter holes 28 in., 41-1/2 in. And 59 in. From the edges. Every hole is drilled 1 in. deep at a 10-degree angle. Use a guide block cut at an angle to help lead your drill bit (see Photo 1). You can cut a guide block by setting your mitre saw at 10 degrees. If you don't have a mitre saw, pick up a protractor (about \$10) at a home centre. The drill should 'lean 'toward the tops of the legs. Now flip every leg 90 degrees, lock them together again and repeat the process.

Using a pipe cutter or hacksaw, remove six bits of 1/2-in—copper tubing of reach for the rungs. Remember in the Cutting List that two sides of the trellis have marginally longer rungs (C, D and E). Cut some now. Temporarily assemble one side of the trellis — two legs and three pieces of pipe. Tap the legs to get the pipe seated. The tops of the legs should be almost even.

Make the centre posts

Cut the middle posts to thickness, then use a mitre saw to remove points on the sides. Place a middle post on the rungs, which are made from copper wire, and label the rung holes directly on the post. Make sure the post is aligned top to bottom and side to hand.

After cutting the centre posts (B) to duration, using a mitre box or mitre saw to remove points on the ends of the centre posts. A line drawn across all four sides should direct you (see 'Cutting Pointed Ends,'. Place the middle post on top of the mounted side (see Photo 2). Make sure the article is focused. Mark the post for the pipe holes, then move the marks to the other three centre posts and drill the holes at 90 degrees. Dig from one side until the juncture of the spade bit pokes through, then stop and dig through from the other side. This will give you cleaner holes.

Assemble two sides

Construct two sides of the trellis. Place the longer sets of pipes (C, D and E) through the holes in the centre posts, get them based, and then place the ends

of the pipes in the legs. Lay a gathered side on sawhorses with the ones left holes in the legs facing up. Put a bolt or old screwdriver in each hole and whack it with a hammer. That will destroy the end of each pipe, locking it into place and making space for the adjacent pipe. Cut the remaining pipe rungs (F, G and H) and then attach the rungs and remaining centre posts between the two installed sides to shape the full trellis framework. Tighten some weak joints by inserting a piece of epoxy in the pipe opening.

Bend the scrolls

The wire scroll bending jig is a discarded wooden piece with a replica of the scroll pattern attached to it. The copper wire is captured by two finishing nails in the centre.

Create a bending jig out of 2 à 12 or at least 11 in a replacement piece of plywood. X 18 in. X 18 in. Expand the patterns in Figures B, C and D to the copier and tick the pattern of the jig (see Photo 3). Nail two 10d finish nails to secure the wire on both sides of the scroll form.

Cut one wire to length. Measure the point between the two drop nails from one end (see pattern drawing), mark that point, and place the wire on the jig, so that your mark lies between the two nails. Bend the wire to the shape on the pattern with your hands only (Photo 4). There should be a few additional inches of wire on each end to hold something for you.

Snipe the end when you have the first half bent to form. Put on the part you made weight or a clamp and bend the other side. Use one for each of the three separate scrolls before cutting the remaining cable. When you have issues, break the wire a little bit, and you'll have to deal with it.

Install the trellis in your garden

Push the bottoms of the legs into the earth to make the trellis plumb. You'll have to do that pretty much by hand. If your place is windy, anchor the bottoms of the legs in the ground. One way is to bend a couple of 3-ft. Blocks are measuring 1/8-in. Rod into a U-shape so they can be driven in around the legs. Then tighten them to the legs with fence staples and cover with soil or mulch.

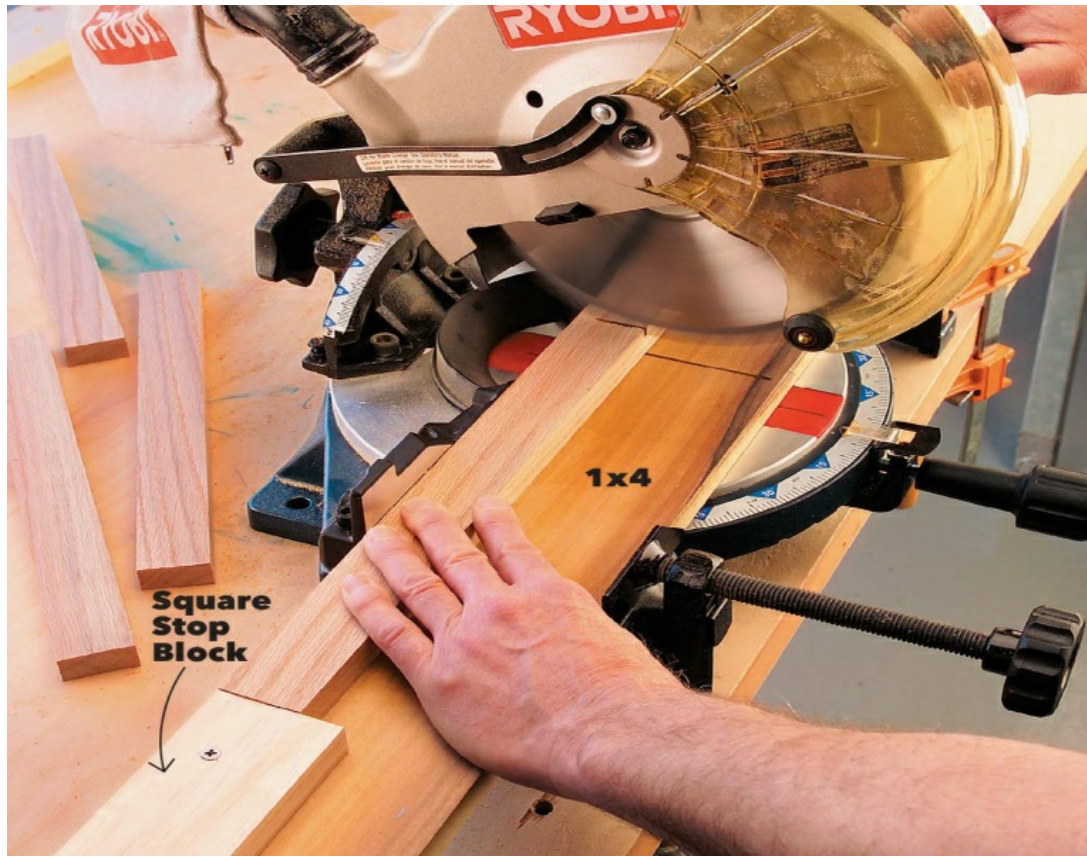
STONE-TOP PATIO TABLE



Tile makes an instant tabletop that's simple, inexpensive and sturdy. This stone top patio table project is easy enough for a beginner to create and costs less than \$30!

Stone Top Patio Table Project instructions:

Cut the parts



Screw and Glue the Shelf Supports to the Legs

The shelf endorses and legs must meet at 90 degrees. You can place them with a cube, but if you're constructing more than one bench, you can speed up the job by creating an assembly jig. This jig is constructed from 1x4s screwed to plywood.

Add the Tops Supports



Screw the top supports to the legs.

Install the Slats

Place the slats use 1/2-inch spacers.

Glue on the Top

Base the table on the lower part of the tile and trace its position. Then extend building projects adhesive and set the top in place. Set the weight on the slats if needed. We completed our table with two coats of spar urethane.

CONSTRUCT A CLASSIC WOODEN CART

You will love this easy cart if you enjoy gardening but not doing several trips to collect seeds, fertilizer, flats, mulch, garden tub and a weed bucket. It's easy to manoeuvre and fast, but it acts as a heavyweight. This is sufficiently large to bear a full weight of soil and plants and a bunch of gardening equipment. It's built to distribute the weight well around the axle, not on your shoulders. And the large wheels allow you to roll loads easily over bumpy ponds and up and down paths.

In 20 years, we have built this cart to look just as fine. It consists of white ash, a harsh hardwood used traditionally for handles, boats and furniture for garden tools. We assembled it with half-lap joints, screws and external glue for extra strength and durability.

Gather the materials

Look for ash at any hardwood supplier. However, other species — white oak, elm, Douglas fir, or even pine or cedar — work well too if you can't find ash. No matter which you choose, stick with knot-free wood for the best results. Ash and other hardwoods typically come in different widths, but we cut it all to fit before we began. (See Cutting List and Figure B in Additional Information below.) But doesn't worry if you don't have a table saw; most suppliers will cut the wood for you for a small charge. Or they'll direct you to anyone who will. (Some mail-order vendors can even cut defined measurements for you.) We include exact sizes in the Supplies Guide, so when you purchase the wood already ripped and planed to fit (S4S), add around 30 per cent extra to compensate for waste.

Cut the lap joints



Cut all the cart parts to the appropriate size and gather the router jig. Align the jig guide for 1-1/2-in. Half-laps, clamp the bases and performs in place and cut the half-laps. Reset the guide for the 2-1/2-in.-wide half-laps and rout the leg joints.

Cutting correct half-lap joints is the trickiest aspect of this mission. But if you own or have full rights to a table saw with a dado blade, you can get equally

great results much faster. If you have a level head, you can also cut the laps with a circular saw and sharp chisel. But don't expect the half-laps to be quite as tight. Whichever system you use, cut a pair of test parts first to verify the precision of the jig and the size of the half-laps.

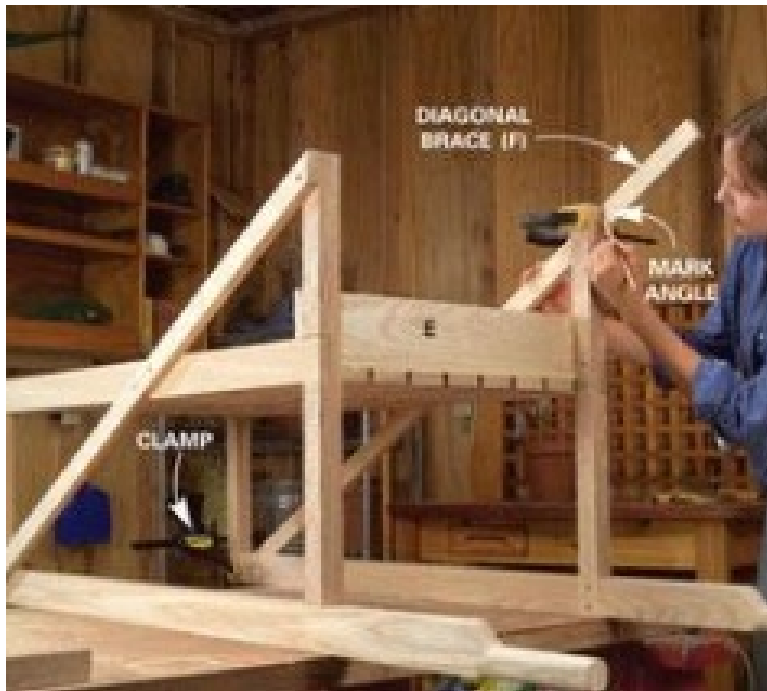
Shape the handles and construct the frame

To make the handles comfortable, cut and round each handle's end. When you turn over the edges, clean any screwing braces and burn marks with sandpaper and lighten any rough edges.

Dry-fit all the side parts to ensure that it fits well and use your jig to keep the frame square when you assemble it. Resist the temptation of driving screws without drilling. The ash is going to break. Choose a little bit of countersink for the screws. Enable the next few turns with a screwdriver to avoid driving them too deeply. If you split the frame unintentionally, press adhesive in to the crack, move the screw back, so the crack stitches up and lock it securely. When the glue dries, drill the void with a much bigger bit to prevent the screw from tearing away the wood.

Add glue and 2-inch screws to the lower ledges, bringing the ledge up to the bottom of the foundation. Make sure you leave a 13/16-in. The break from the ledge to the leg (C) in order to fit the rear cross brace (E). Cut a 3/4-in off. S 1-1/2-in. P-2. Knot at either end of the rear cross brace (E), so the top edge is parallel to the top of the bottom edges. Place the two sides of the cart upright on the table and click on the cross rests and the rear cross rest. Clamp temporary supports on the back in order to protect and square the whole structure. You don't have to wait to let the glue dry; when you start working, the screws should keep the joints tight.

Bracing strengthens the cart



The diagonal braces (F) help hold the cart square and stable. Cut the braces to length and attach and lock them to the frame and legs. Bevel the front edges somewhat to smooth them. And round around the bottom edges of the legs with the sander to avoid rough corners that could snag and splinter.

Attach the side rails (K) before removing the front rail (L) to length to make sure it positions the side rails precisely parallel with the outside edge of the front legs. Pre-drill the screw hole into the back leg precisely enough that it hits the middle of the sidewall. Fasten it with a 2-1/2-in—screw. Fasten the front rail to each front leg with a single screw. Then screw the side rails to the front rail. Pre-drill with a larger countersink bit so the fragile end grain won't split. It is using tape and 1-1/4-in screw and-tighten the screws to prevent overdriving them.

Install the hinged top

Attach the two ledges (M) with glue and five 2-in. Screws each, then attach the three fixed slats. Assemble the hinged top against the square jig on the worktable, again pressing the screws in from underneath to hold them covered. Let the glue set for an hour before mounting this cover, to hold it completely straight. Then fasten it to the top slat with hinges. Provide space on the sides, and it won't brush against the handles as you unlock it.

Install the axle and wheels

To position, the wheels, turn the cart upside down on the worktable and install the axle supports. If you have access to a drill hammer, you may first drill 9/16-in—holes in each axle help for the threaded rod axle. If you have to use a hand drill, it 's easier to line up the hole with the axle supports in place. Use a 9/16-in. A bit to allow you a little wiggle room as you put the 1/2-in—threaded rod bolt.

Now is the best time to apply an exterior finish. Brush on a couple of coats of exterior penetrating oil. You'll want to rebuild the finish after a few years.

Push the axle through the holes; ream out the holes a bit with your pump if the fit is too tight. Then split the axle to match. Dab a little varnish on the cut end of the axle to avoid rusting, and bring the wheel on. The wheels will rotate freely; if not, back off the locknut a quarter degree.

TIMBER FRAME GARDEN ARBOR



Creating it is fun too. The central system comes together like an old-

fashioned timber frame of tenons and notches you carve through wooden 6x6s using your circular saw and handsaw. The key posts are grounded in the earth with mortar, and the roof and sides are constructed of dimensional engineered lumber bolted to the finished 6x6s. Our project took about three days to develop with plenty of break time. Upon waiting for about three weeks to dry out the wood, we used an outdoor oil stain.

Shopping for treated lumber

When you're shopping for lumber at the home centre, make sure to seek out 6x6s that are relatively dry and clear of twists and wide cracks. The same goes with the other treated dimensional lumber you'll need for this build. But, don't be distracted by the 'green' colour of the wood at this point. A quality semi-transparent oil stain will give you a nice, warm wood colour.

Cut the 6x6s to length and then cut the notches in the tops with your circular saw

You may want to reserve a 10-in—circular saw.

You will carve the notches into the 6x6s with a regular 7-1/4 in. Circular saw with a sharp handsaw, with a 10-in. Circularsaw will make fast work of it. Be aware, however, that these saws are heavy and a bit awkward to handle. If you decide to use the smaller circular saw and handsaw, use the handsaw to get the extra depth you can't get with the circular saw and clean up the notches.

Screw, temporary 59-in. long 2×4 crossties to the posts

Screw emergency 59-in. Wide 2×4 crossties to the posts at the top and 16. Up from the edge.

Attend the front posts as a pair, then do the same with the rear. Stand the rear assembly (get a friend to help) and stick the bottoms of the posts into the rear holes. Now hammer those stakes into the ground as one individual retains the assembly. Plumb the posts with temporary braces fastened to the stakes and poles, and level the horizontal links at the edge with shims. Once this module is ensured, insert the front post assembly into the front post holes and fasten it to the rear assembly with the 2×2 horizontal side supports. With the front protected to the rear assembly, make sure the front posts are at right angles to the rear posts, and the diagonal measurements between the posts are equal. Add additional braces if necessary.

Tip and drop the rear assembly into the 16-in. Deep x 12-in. diameter holes

Tip and drop the rear assembly into the 16-in. Wide x 12-in. Diameter holes. Screw temporary aids to stakes and then to the assembly to plumb it. When the rear assembly is straight and plumb, lower the front assembly into the holes and connect it to the back assembly with temporary 2×2 horizontal supports top and bottom. Square the legs by weighing and having the diagonals balanced for opposite sides.

Mix concrete and pour it into each hole around the post

Stand the two end assemblies and pour up the concrete

To get this structure to behave and end up square, measure the holes carefully and dig each one about 16. Deep and 12 in. Wide with a posthole digger. Tip: What do you do for the excess dirt? I just put a tarp right next to where I 'm working and pour the dirt straight into it. And I can move it around to every place on the lot that requires a bunch of filler.

Combine the concrete for your posts in a tub or wheelbarrow. Mix no more than two bags at once and then mix more as needed. We used only three 80-lb. Packs, but the volume depends on the hole diameter and width. Dump the concrete into each hole and then pack it around the posts with a scrap 2×2. Bring the concrete up to grade and then berm it slightly to keep water from collecting at the bottom of the post every time it rains.

Remove your braces, cut your circular saw and handsaw in your side lintel tenons.

Adjust the braces, cut the side lintel tenons with your circular saw and handsaw, and lower them into the front and back post notches. Screw the joints together with 3-in. Boat bolts.

Cut the notches in the front and back lintels with a 10-in. circular saw

It's easier to cut the notches in the front and back lintels with a 10-in. Circular heard. You can hire one for a day and allow fast work of the post cutting.

Break out the chips and clean the bottom of the notch with a sharp chisel

Shake out the chips and clean the edge of the notch with a small chisel. Finish smoothing it with a coarse script.

Lift the lintels in front and back to the tops of the posts and shake them back until the posts are flush

Lift the front and back lintels onto the tops of the posts and push them back until they're flush with the posts. You might need to reassure it a little with a hammer and a block of wood. Screw the lintels into contact with 3-in. screws pointed in from the edges.

Split the brackets with a puzzle

Cut the post struts with a jigsaw and then clean the bends with your belt sander (80-grit works best).

Screw the brackets to the posts with 3-in. deck screws

Lock the lintels along with 3-in. screws

The tenons and mortises are traditionally held along with dowel pins, but because this structure is exposed to the weather, it's best to lock them into place with 3-in. Galvanized screws are driven at angles from above. When you put will lintel, you can note that you'll need to either pinch or split the top ends of the posts a little to get them to fall into position. It is because one or more of the articles could be marginally out of plumb—screw in the brackets (D).

Cut and assemble the parts for the centre beam

Make the centre beam from 2x4s and a 2x8

Screw the 2x4 parts (E) to the centre 2x8 (F) to create an I-beam that'll run from front to back and promote the roof members. Get the beam positioned 1-1/2 in From the outer edge of both front and rear lintels. Screw it into line with 3-in. screws. Then cut the ridge supports and the peak and fasten them. The top ridge has a 45-degree bevel on rising top lip. Allow a line 7/8 in, Down from the upper portion of the 2x4 ridge board on each side. Temporarily nail the ridge to the sawhorse tops, adjust your circular saw at a 45-degree bevel and trim along the line on one side. Then pull the nails and reconfigure it to cut the other side. Screw the ridge to the ridge supports, making sure it rests 3/4 in, Down from the top of the bridge supports.

Fasten the 2x6 seat slats to the braces with 3-in. deck screws

Fasten the 2x6 seat slats to the braces with 3-in. Boat bolts. Set a 1/2-in.

Space between the platforms and round around the outside edge of the inner slat with a 3-in. Radius split.

Rip 5/4×6 decking in half and round over the edge with a block plane and sandpaper

Split 5/4×6 decking in half and ring around the bottom with a block plane and sandpaper. Screw the vertical lattice to the side lintels and the back of the seat. Finish the lattice by screwing the horizontal lattice pieces to the inside face of the vertical pieces with 1-5/8 in—boat bolts.

Clean the arbour to get rid of rough edges

‘ Sand it? 'you say? Okay, this isn't a perfect piece of furniture, but you do have a few rough edges and corners that might send you splinters. Only go around and study the corners and edges and clean them flat with 100-grit sandpaper. You will have to wait a week or so to sand if your treated wood is already damp then it would only gum up the file. Once the project is dry to the touch, find an oil stain that suits your taste and brush it on. Have a rag or two handy to catch the drips and runs, and use drop cloths if you 're staining over a walkway. One coat will be appropriate, and you'll need to recoat your arbour in around three years.

TIERED PLANT STAND



Show off your planting expertise with this basic tiered plant stand. It's easy to construct from seven 8-ft.-long 1x2s.

Tiered plant stands overview and assembly



If you're as hungry for spring as we are, maybe this simple plant stand will help. You create it from boards that are split into only two pieces, placed into

squares and nailed together. You'll only need seven 8-ft. Wide 1x2s, external wood adhesive and a couple of hundred galvanized 4d finish screws. We used cedar for its looks and its durability outdoors, but any wood would do. Split the 1x2s into sixteen 20-in. Blocks and twenty-seven 10-3/4. Parts.

Don't fret about the assembly; it's really quite basic. Just watch the images for the correct alignment of the two lengths and the number of layers. Change the distance size with scrap 1x2s, and then make sure it is square when you line up each board. When it looks fine, solder the bits together using one solder and a dab of glue at any intersection. Hold the nails 3/4 down. Away from the ends of the boards to prevent splitting. Once the plant stand is full and all the outer edges and add an external stain or preservative. And keep running in the blooms.

ISLAND DECK



Constructed with wooden decking and concealed fasteners, this maintenance-free backyard deck is built to fall together fast and to blend in anywhere in the yard, without exterior walls or ledger boards.

Tools Required

- ✓ Circular saw
- ✓ Clamps
- ✓ Cordless drill
- ✓ Drill bit set
- ✓ Framing square
- ✓ Hammer
- ✓ Level
- ✓ Line level
- ✓ Miter saw
- ✓ Safety glasses
- ✓ Spade
- ✓ Speed square

Place the footings and beams: Layout and levelling

Lay a simple base with minimal digging by placing concrete blocks on gravel—scale from high to low points with a strong point.

Line level

Stretch a mason's string between stakes at the high and low stage, then hang a line level on the string and push it up and down to create tension.

Attach angles

Screw on angle brackets at each joist location instead of toenailing, which can split and weaken the joists and knock the beams out of square.

Rest out the two beams parallel to each other, 9 ft. Apart. Screw on temporary 1x4 stretchers over the ends of the frames, overhanging them each the same width, and check diagonally to ensure sure the frames are parallel to each other. Label the position of the gravel pads (see Figure A) by cutting the grass with a tractor, then push the beams out of the way and dig out the sod where the gravel would go.

Fix maximum and lowest points with a line and line level and get an overview of how far and how much of the gravel can be used to keep the blocks on the ground floor. Tamp the dirt with a block and then disseminate the gravel. Place blocks and level them in both directions (Photo 1); add or scrap gravel when necessary. If you stack or use 8-ins, use building projects

adhesive between 4-in.-thick blocks. Blocks. Blocks. If your site pitches that one side is more than 2 ft away from the floor, then help it on frostbite on a 4x4 post-it looks better and is safer.

Place the beams over the floating deck blocks and bring them to each other and hold them parallel and square by using the same 1x4 stretchers. Show them with plastic shims if the beams are not entirely straight (sold in home centres).

Mark the joist positions on the frames, starting with a joist on each end of the beam. We used twelve spaced, 11 joists. In the middle, we used the composite deck to settle down over time, but the wood deck can be spaced 16 in the centre.

Cantilever the joists on all sides

Connect the middle and the end joists, then press the jackets and secure them with clamps (or a helper).

Add corner blocking

Place the corner between the last two joists and then nail the rim jersey from both directions for clear links on the corners. Place the two outer joints and the middle joist on the beams in the direction of the metal angles. Extend the sleeves on one side by 10-1/2 in, but leave them on the opposite beam for a long time. Trim it to exact length when the deck is nearly finished so that the last deck board can not be torn away.

Fasten the joists with deck screws to the angles. Screw on both jacks – after you trim the jacks, you have to cut off the second jacks and add it again, so that the jacks are kept straight, and the outer jacks are kept straight. The deck must hold the external jackets until the external jacket is later removed.

On the boards position the other joists and connect them to the frames and surface joists. Strengthen external corners with additional blocking. Finally, mark the middle of the jacks and block every pair of jacks. Let the 1/2 block in. On the side of the middle stage, it alternated side by side to avoid blockage between the deck boards.

Add steps

Next, model the floating platform steps. When hanging strings from metal angled deck joists or 2x4s, extra legs can be avoided. The thickness of the deck does not exceed 8 in above the ground on which you must walk. When

it's near, just create the floor or install concrete floors. Please add a step otherwise.

To cantilever up the steps, extend the stairs under the four-deck joists and then add floor joints and stair strings with strengthening angles (as we did) or wood 2x4s, which is less costly—using a screw first to secure the angles or 2x4 blocks and finish repairing them with nails with higher shear power.

The 5/4 (nominal) deck used for the staircase provided a maximum spacing of 9. In the middle, but the strings 16 can be spaced if you're using solid wood in the centre.

Attach decking

Attach deck frames. Deck frames. If you use hidden fasteners, floating decks look better, but deployment is slower. When done, trim the deck boards flush with the bottom jacket.

Screw on the skirting board

Wrap the roof with skirt boards that match the wall, leaving the head twists beneath the spacer sheet.

Finish the steps

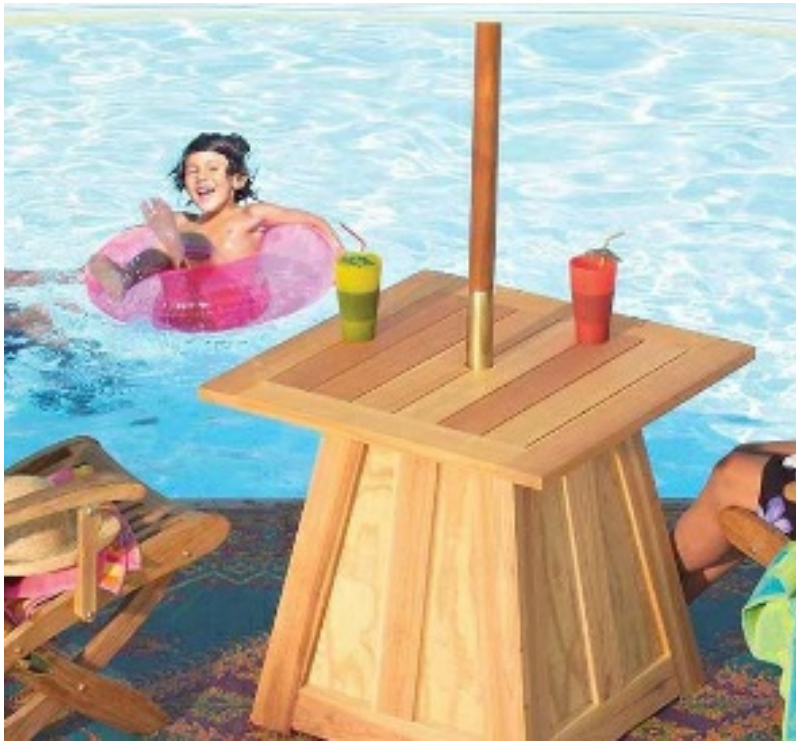
Draw skirt boards on the sides of the steps for your floating deck to finish with a final touch, then measure, cut and attach the board on the face of the steps. We connected the deck boards with concealed fasteners (see List of materials below). Many secret fasteners are available, or deck screws can be used, which produce tons of holes that save time and energy.

Begin with full board on one side and align it with the rim joist edge. Hold the boards on both sides long and trim them back at once, so that the edges are clean. Using 4 1/4-in. Spacers between each pair of boards, but after all four boards, test the distance from the border and adjust the spacing if necessary.

Replace the rim joist and label on the next board and cut the jacks off so that the last deck board is linear with the rim joist bottom. Remove the jacket and attach the last boards.

1/4-in nail. Spacers are cut to the rim every 16 years from treated wood. And water won't be filtered around the joist surface—two screws at each spacer on the skirt boards. Attach the deck to the steps after you fasten the skirtboards.

UMBRELLA TABLE



Here we'll teach you how to create this umbrella table step-by-step. The tapered base may look like the work of a skilled craftsman, but the entire project — including the angled parts — is super simple. If you've done a few woodworking ventures in the past, you can finish this one in a weekend. If you have only a little experience with woodworking skills and equipment, this is a good learning project.

Cut the parts

The foundation of the umbrella stand is simply a tapered, trim-box. Cut 4 x 4-ft four side panels (A). 5/16-in piece. 5/16-in. Plywood 'T1-11.' T1-11 is a common form of outdoor rough-sawn plywood available in most lumberyards.

Your cuts must not be flawless – behind the rails and stiles, they will be covered.

Build the base

Screw the angle cleats (B) at two lateral panels with four screws on each side.

Toss the other two lateral panels onto the cleats for the base of the table.

The corner styles, which act as the base legs, follow. Two of the sizes (D) are 1x4s (3-1/2 in. width) in full breadth and two (C) in full breadth 2-5/8. Big. Big. Cut the styles in half, then glue them together and pinch them together. Let the glue be set for an hour before you add the designs with glue and 1 inch on the corners of the frame. Screws. Screws. Use plenty of glue to make sure the rough plate is closely connected.

Cut the stiles to length

Clamp the mitre saw and avoid the workbench. Set the saw to 10 and cut the designs.

Base assembly

Set the base to 2x4s. Stick together and tie the styles (C and D). Then spread the glue onto the models and screw them from inside to every corner.

Mitres without a compound mitre saw

The ends of the styles (C and D) don't match evenly when they are ground to 10 degrees. This is no problem; just sand flushed the protruding corners, and nobody will ever know. But you can cut styles which suit perfectly if you prefer excellence rather than simplicity and have a compound mitre saw. Turn your saw to 10 degrees, tilt it to 10 degrees.

Add decorative rails and stiles

Tilt the table and tear the top edges of the lower rails (E) by 15 degrees.

Bevel the top edges of the bottom tracks. Then cut the top and bottom rails to length, then mitred at 10 degrees on the ends of the rails. Test them, then glue them and attach them to plywood with inside-driven screws.

Add the centre styles to complete the base. Cut a bevel of 15 degrees on one end of each style centre and cut a square on the other end. Make every style approximately 1/8. Check too long and shave your mitre saw of the smidgen until it suits perfectly.

Centre the stiles

Add the rails (E and F) with glue and inside screws. Mark, your centres, place and fasten the centre styles (G).

Assemble the top

The laths (H) have to be precisely the same length so that they can be cut off using the stop to remove the corner styles. Do not depend on the measurement (22) "given in the Cutting List if you cut the short frame sides (J). This ratio can be modified by minor differences in slat width. Place the six laths instead of 1/8-in. Measure the total slat row width and add 1/4 in spacers between them. Then cut the short frame sides, lay them in place and take the long frame sides (K) measurements. Mark the pocket hole side with all pieces put with their best side faces down, and then drill the pocket holes.

Pocket screw assembly

Join a corner with screws of glue and pocket. Place the 1/8-in slats (H). Spacers and add them. Clamp the piece onto which you are screwing for flush joints. Then add the laths to the other two sides of the frame.

Fasten the cleats

Position the foundation on a tabletop and screw two digits (L) onto a 2-in tabletop. Screws. Screws. Do not drive the screws over or they're going to poke through the top. Move the screws in the cleats through the upper rails (F).

Boil a 3/16-in. Drive a 2-in via every upper (F) board. Screw every cleat. No cleat. You may easily remove the tabletop by removing these four screws, making it easier to stop, push and store the table. Drill a hole with a hole saw through the middle of the rim. Our parachute pole required a 2-in. Crack. Crack.

Dab exterior wood glue onto the end grain at the bottom of the legs before ending. Apply the outside oil finish inside and outside the table. Outdoor teak oil was used.

Anchor the umbrella with a heavy base

You can create a simple but stable base with a 5-gallon, 60-lb bucket. Beton mixing bag and 2 ft. PVC tubing. It takes 1-1/2-in or 2-in. Pipe, depending on the umbrella pole diameter.

In the tank, combine the concrete and water. Cover with duct tape the bottom of the pipe to keep the concrete out. Place the pipe in the concrete and move it to the bottom of the bucket. Hold a line against the pipe to make sure it's upright. Drill a 3/8-in after the concrete hardens—pipe and pole through the hole. Cover the pole with a 1/4-in—a bolt of the eye through the opening.

Drill a hole at the concrete level through the bucket to allow the rainwater to drain.

LATTICEWORK PORCH TRELLIS

Build a lovely privacy partition for your front porch.



This lacework trellis, like lace curtains on the window of an interior, offers the best of both worlds: it gives the illusion of privacy but also allows for a connection between outdoors and indoors. And its elegant pattern fuses with every setting beautifully.

First of all, maybe you ask, "Why not use the key structure with ordinary diamond lattice?" While it would be simpler to assemble this porch lattice project using ordinary overlap garden trellis, it would look clunky and out of proportion. The porch shaft is constructed with flat, even surface lap joints and its large rectangular openings complement the tall oval cut.

Measure the height of your porch opening before you start. You may need to tailor our measurements to your circumstances. While it works best for homes with front porches, it can even be used in smaller front entrances or as a garden trellis.

Because this porch lattice project is going to be finished, you can use almost any kind of wood. But we recommend a naturally decay-resistant wood, such as cedar, redwood, cypress or treated pine to guarantee its longevity. We used cedar since cedar was accessible locally. Once you decide on wood, buy straight, knot-free pieces of wood. Knots, particularly at the lap joints, will weaken the lattice.

This project takes time. Plan a day to do the jig, route and cut the pieces, plus several hours to assemble on the next day. You'll be sanding, priming and painting for the third day.

Different router bits, basic tools and router expertise are needed. Before you pursue this project, you should have some router experience under your belt. In fact, it's simple to install the pieces, like constructing a fence.

The type of bit we used will be shown or defined for each pictured router operation. There is also a table saw, puzzle, router and dowel jig (or cracker) and other simple carpentry devices including a hammer, hand screw, circular saw, framing block, tape measure and drill.

WOODEN BENCH FOR LESS



Assemble this powerful 2x8 table, glue, and a set of screws. A beginner will finish in a couple of hours.

Wooden bench design: bench and mounting materials



Cut the angles

We are starting with a 10-ft end. Table, make the 22-1/2-degree cut to four legs five times.

Do you need to sit outdoors in a hurry? This simple bench, based on the classic design of author and ecologist Aldo Leopold, can be built in a few hours. It just takes two boards and 18 screws for less than \$25.

Cut the legs in 2 lbs x 10 lbs—rot-resistant wood component (Photo 1). Cut the 8-ft seat and backrest. 2 pp8.

Spread out and mount the sides as a mirror image using the orientation seat and back (Photo 2). Join the legs in 3 2-1/2-in. Deck screws and adhesive construction. Predrill all the screw holes with a counter-sink bit so that wood is not separated. Eventually, parallel the sides and glue and lock the seatback in place. Finish the bench with an exterior oil or paint coat.

For additional detail, a cutting list is available below.

DIY GARDEN CART



A DIY garden cart weighs more, is more loadable and holds more loads than a wheelbarrow. We're going to show you how to create it in a few stages.

When I added this cart to my outdoor equipment collection, life has been simpler. Two wheels mean they don't tip; big pneumatic tires means they're easy to push; a huge box lets me hold ten bags in one cargo; and since the front tilts down for packing, my back tilts. I'm still using my trustworthy wheelbarrow to mix concrete and carry the super heavy thing, but I "cart" almost everything else these days.

I have made this cart as sturdy and reliable as any cart that you can buy at any rate, except the materials rate a hundred dollars. It's one of the wisest investment you can make in landscaping.

Assemble the box

Cut the bits.

A homemade straight jig makes a precise plywood slicer for your circular saw.

Cut the bevelled edges

Place a spacer at the fence of your jig and line the edge with your trim as you would with a regular trim. Then make long cuts of 45 degrees.

Build the box

Use building adhesive and 2-in to connect the panels to each other. Screws. Screws. Drill pilot holes in order to prevent separation of the splintering edges. Flip-up the cart and add three lower braces (E).

Lay the plywood flat. Begin by cutting the plate into 14-in lengthwise, 30-in. And 3-1/2-in. And 3-1/2-in. Strips (Picture 1). After each cut, squeeze or screw the jig into place. From the 14-in, cut off the angled sides (A). Strip and 3-1/2-in bottom braces (E). Strip. Strip. Cut off 30-in from the front (C), bottom (D) and back (B). Strip. Strip.

When you use your straight-cutting jig like this, you can cut the 45-degree bevels on the jig itself and make them unusable for potential square cuts. Modify the jig briefly by screwing a 3/4-in. The wooden strip on jig's fence (Photo 2), place the guide edge on the line (like a square break), then break your 45-degree cut.

Drill one hour and eight in—around 3/8 in holes. Apart from the sides (A), spaced approximately 4. Split. Apart. Then 2-in protect the edge. External torches in the sides through the pre-drilled holes. Note: Use construction stickers on all ties, including metal corners, to ensure maximum robustness. Mount the flush bottom (Photo 3) on the sides (A). Ensure that the bent front of the bottom is in close contact with the lower front edge (C). Remove the back (B) to complete the package. When it is correctly cut and assembled, there will be a 3-1/2-in. Cavity to fit machine rack at the back of the case. No big deal whether it's a little larger or smaller.

Install the wheel assembly

Set up a washing machine, wheel, washing machine and locknut on one side of the rod. Measure the excess of the wheel, add that length to the other end and cut the rod down to its length—Mount the braces and cover of the cart axle.

Switch upside down the cart case. Set the lower braces tight. Protect the middle bottom strap so that the middle of it is 20-3/4 in exactly. She was removed from the back of the lower brace. If you don't get this position right, the cart balance will be affected.

Place this assembly on one side of the cart snugly and calculate the amount of space it requires. Switch this measurement to the rod's other end and mark the pin. Cut the rod and mount the other wheel. Tip: Twist a standard nut over

the cut mark before cutting the rod to length. Twist the nut after making the cut; it "recovers" any damaged thread so that the lock-nut can go on easier. Apply glue to the cart axle braces (F), snuggle closely with the axle and lock with 2-in onto the middle bottom brace (E) Screws. Eventually, remove the cover of the axle. Note: To improve wheel assembly for holding heavy loads, use oak on the centre of the bottom frame, two-axle braces on the cart and cover.

Install the legs, handles and tool rack

Add two adhesive beads to the frame, tighten the legs and seal them with screws. The spacer block places the leg, leaving space for the tool rack.

Strengthen the corners

Cut the stock of aluminium angle to length and then drill hole and counter "dimples" for the heads of the screw. Using construction adhesive and screws, install the corner braces.

Install the handlebar

Secure the handlebar by driving the tubes at the end of the rail through each handle. Attach the L-brackets to reinforce the connection.

Add a tool rack

Break three tool pads and boil the tool handles. Change the size and distance of the holes to match your instruments. I am using the slats adhesive and screws.

Cut the legs and pull them to the ends. They were using the spacer block so that the legs will match the top tool rack. Cut and mount the handles (J), leaving space for the angle of aluminium at the end.

Split two aluminium angle lengths. Just hold them in place and mark them for cutting. Do not try to measure them; Drill hole and box "dimples" for the nesting heads of the screws. Mount aluminium with 3/4-in adhesive. Screws. Screws.

Attach the handlebar (P) and the L-brackets in order to strengthen the handle. Finally, mount the three slats of the machine rack.

Remove the wheels and apply a high-quality exterior cover, followed by two outer paint coats. To keep the cart in good shape, put it inside. When the cart is outside, turn the cart upside down on a few 4x4 scraps.

PICNIC TABLE

An elegant style for comfortable dining outdoors



What is needed to build?

While this is not a complicated project, it is more complex than the traditional A-frame picnic table. You need a puzzle to cut the round top, and your circular saw needs to be a little more accurate. A power sander allows you to clean the edges. You will need a hacksaw to cut the rod down to the length of the thread, a socket to tighten the nuts and a few 14-in. Capacity clamps. Capacity clamps. You have to buy a 16-in to drill the long holes for the threaded string. S 1/2-in wide (or longer). Night. Night. Bit (picture 3). This form of a bit is known as a "bell hanger" or "installer," and is available in house centres.

For our table, we used clear, vertically grained, rot-resistant wood just because of its beautiful look. If you build the table from cedar or redwood, the cost will be much lower. You may use pressurized wood for the base, but we suggest you stay with redwood or cedar or other natural rot-resistant wood to prevent potential food contamination. If you choose pressurized wood for your table, make sure you use plates and cutting plates to avoid direct contact of food with the wood.

Dado the base pieces

Make a large cut in the base pieces to overlap in the "X" shape. Then make the two initial reductions, then multiple reductions. (You can even make these cuts with a router or table saw).

- ✓ Choose the four parts forming an x-shaped foot and top (parts A, B and C) to the lengths specified in the Cutting List. The smoothest cuts are provided by a blade crafted for decorative work. Draw a line in the middle around each wall.
- ✓ Lay the four boards on a pair of the sawhorse and twist them around so that the lines you drew before all line-up. Draw where the half-lap cutout will be on all four boards. The cutout allows the boards to overlap and create a "Y."
- ✓ Use scraps to test your circular saw, so it removes exactly half of your boards' thickness and then sees a sequence of removes for wood removal in the half-lap cutouts. You may use a square to direct the saw to more precision on the external edges of the cutout. (It can also be made with a router and given bit or with a table saw that has a given blade.) Use the scrap two instead to check that the cutout is wide enough before you remove the clamps. Using a chisel or rasp to clean the cutout.
- ✓ Four Now brace yourself to cut the bevelled ends on the four boards. Thanks to the fact that each half-lap joint is mounted upside down, you have to flip part A or part B over (not both) and flip over part C before cutting the bevelled ends. Line up the board ends, align and cut the angled ends. It works best if you mark the cutting line on the ends of the boards so that, when you are cut, the boards support the greater part of the saw frame. (A mitre saw can also be used for the bevel cut) After the cut, turn over the boards and sand all of the cut surfaces at the same time. Then remove the clamps, and at the other end, repeat the cycle.
- ✓ Up to Mark and boil 1-in. Parts A, B and C holes. Make sure you boil them on the sides of the boards without the bevelled cuts. Boil the 5/16-in. Rows. Rows.
- ✓ Cut the four parts of 4 to 4 made of the pedestal legs (part D). Label a line on all four sides and then cut from opposite sides if you are using a circular saw. It is more critical that the ends are smooth, square and all four pieces are the same length as that defined in the

Cutting List. And if you have to cut it a little, go ahead.

- ✓ Towards Dig a 1/2-in. Take the middle of each pedestal leg and walk halfway to each end. Look carefully to make sure the bit goes parallel to the leg. By the way, do not attempt to remove a spade bit of an extension – it will cut so deeply that both your muscles and your workout will flame out.
- ✓ Fuck Sand all the pieces you've been working on up until now. Screw the nut onto the threaded rod and then cut the threaded rod with a hacksaw into length. Smooth the cutting end and screw the nut off the cutting end to machine the thread. Assemble the two basic components (C) to generate an "X" and support it on sawdust or blocks. Stand the 4-to-4 legs on the base, place parts A and B on top and attach the threaded rods together to support the unit. Tighten both ends of the nuts. Foot lock (E). Lock. Fill the holes with brown caulk where the nuts are.
- ✓ Continue making the top by cutting the F, G and H boards to the lengths defined in the cutting list. Next cut the longest part (H), then cut the F and G sections. Draw a line in the middle over the back of every wall. Assemble a clamping jig from 1 to 8. Place the boards upside down, with aligned and 1/8-in centre lines. Among them, cardboard spacers. Strengthen the wedges on the jig to hold the boards in place.
- ✓ THERE Put a nail in the middle of the board and draw a circle on boards. Use a compass wire. Remove the boards from the jig, cut the arcs out with a puzzle and mount the top again on the clamping jig, including the spacers. You need a wedge block repositioned.
- ✓ Place and screw down the upside-down pedestal assembly on the boards. Break out the cleat boards (J and K) and screw them flat. Flip over the table, remove the spacers, and sand the edges. Apply a finish to the outside, and you're done.

GARDEN BENCH



Make the garden bench attractive and comfortable. We teach you how to make it with easy biscuits.

Cut out and drill the parts

Wear a 1/2-in—Forstner bit for the screws to fill recesses. You will fill them later with wood plugs to cover the screws. The depth of the hole is easily managed by boiling until the surface of the top of the cutter is clear.

Start by inspecting your boards and scheduling cuts to use the node-free pieces. To cut the boards to the right width, use a table screw. Rip about 1/4 in for smooth, clean tops before you tear them to the final width, from the edge of the frames. You can have to cut several boards to estimated length to manoeuvre around knots before ripping them. When ripping is finished, cut the pieces to length. We've been using 1/4-in—round-over bit and router to ease seat board edges. If you have a router table setup, it's a great job.

First, measure and mark the centre of all the holes of the screw and boil 3/8-in for 1/2in-depth holes. Steel tubes. Steel tubes. I used a bit of Forstner to create clean, flat-floor holes.

Cut the biscuit slots

Label the centres on the masking tape of the biscuit slots. Then cut the slots in the narrow side of the legs with the plug recesses facing up. Hold the carpet and leg close to the top of the bench when you carve—using tape to avoid wooden marks and to track the orientation of the pieces.

The final step in the preparation of the assembly components is to cut the biscuit slots. If you have read my previous story about the plate menu, you know that I'm a supporter of a method I call the reference system for the bench. You just put the workpiece and the base of the biscuit menu against the top of the bench instead of using the adjustable fence to position the slots. Type "biscuit joints" in the search box above to find the story.

The only downside to this approach is that the slot is not always oriented on the component, so you have to be very careful about the orientation when you cut the slots and mount the bench. You will see how I keep track of the orientation with masking tape.

Assemble the garden bench with biscuits and screws

Put a cookie in the slot and dry-fit the leg and seat to ensure that the track is properly oriented. It will concentrate on the leg. Spread the glue in the slots and on the cookie and press together on the leg and seat rail.

Biscuits attach the legs for extra strength to the rails. Disseminate wood glue on the outside of the slots and biscuits. Then secure the pieces until the glue is fixed. Wear 2-1/2-in. Deck screws for attaching legs (photos 7 and 9) to the braces. If you do not use self-drilling screws, drill your pilot holes to ensure that parts are not split. Connect the top slats with 1-5/8-in to the window.

Step 4: Complete the garden bench

I plugged the 1/2-in screw holes. Flat-top birch plugs, but you can make your own 1/2-in cedar plugs with a drill press—plug cutter.

I completed the Cabot Australian Timber Oil bench. This penetrating oil finish leaves the wood intact but must be applied again annually. Sikkens Cetol SRD or spar varnish may be used for a lighter, more lasting finish.

GARDEN STORAGE BOX



Build your garden with this simple storage cabinet. This is an appealing feature that keeps the garden tools secure and dry. Build it out of an 8-ft single. 1x11.

Assemble the garden box



Design a rustic tree branch door handle. Nail the crosspieces to the door with brad nails and fasten the back of the handle so that it lies flat and clasps.

Keep this small storage house with tools and supplies right next to your garden. It takes only a few hours to build and costs \$35 for the rough sawn cedar we use if you use pine or \$70.

Cut the lengths in the cutting list smooth, dry 1x12, which are available in additional detail, below. Nail and glue the sides together, base and back, then fasten rafters and gables.

Fasten on one side the shorter roof plate, leaving 7/8: front and back overhangs. Caulk the top edge, then fasten on the long plate.

Break the hinge into the door and hang the bolt. Stick or paint the wood in and out for screening. Using the handle's green roots, nail them in place.

Garden box details



Cut all the parts from an 8-ft. 1×12.

PATIO CHAIRS

A modern layout reinvented for comfort and ease of construction



It is as easy to sleep in hours at a time, the arms are wide enough to have a drink, and you're reclining enough to relax, but not as much as you're going to groan each time you get up (unlike other Adirondack chairs). This accepts a common form of an outside chair cushion, which is available in any home centre but needs no one. It is light enough to travel quickly, and you can match it without distortion through a doorway. Therefore, it's cheap and easy to install.

Skills, tools & lumber

This is a mid-level project for beginners. If you have just a little machine experience, you can do it. You're going to need a 7/16-in orbital or random-orbit sander: knuckles, six clamps and a case. You can cut sections with a circular saw and push nails with a hammer, but with a mitre saw, an air compressor and an 18-gauge brad nailer you can produce better performance.

I've designed both this pine and cedar style. Growing pine chair costs approximately \$60. Rising cedar is about \$90. Cedar is best if the chairs spend a lot of time in the rain. You can find it difficult to buy 1 to 3 cedar so you can break 1 to 6 in half. Note that rough cedar is usually 3/4-in thicker, while pine boards are available in the 3/4-in standard. Thickness. Thickness. Keep these different thicknesses in mind when constructing the seat and back.

Build a prototype

I've learned this over many decades of chair building: every chair is a compromise, and no chair is perfect for everybody. For, e.g., this chair is mid-size and may not be comfortable for big people. I therefore strongly encourage you to construct a prototype before you settle on that or any other design. Use scrap pine or plywood and do not bother to sand the pieces.

The greatest advantage of a prototype is that it is easy for you and your family to check. You can also shop for covers and put them on the chair. Thicker cushions greatly improve the look of a chair. A prototype is also a lesson to build: once a chair has been built, you can pull others quicker, better and flawlessly.

First, cut and sand the parts

Start cutting all but G and H parts (Photo 1). When you use cedar on one side, which is rough, you have to cut every portion so that it faces smoothly.

This means that you have pieces A, D and E on both left and right sides. In other words, make sure that the angled cut goes in one direction on each side and the other in another direction on each pair of pants. This allows you to mount the chair on the smooth face of the cedar.

As you cut, label the pieces with masking tape. Parts G and H are removed after the chair has been assembled so that they match perfectly. The length of cedar is expected to be around 19-3/4 inches—rather than 20. Sand them once pieces are cut. You don't usually have to sand finer than 120 grit. Sand only the smooth face for cedar parts.

Cut the parts.

To make more than one chair means to cut many pieces to the same length. You can cut a bunch without measuring and labelling each board by a stop block.

Assemble the seat base.

Screw the front to the bottom, then attach the seat supports and screw the bottom onto them. If required, lift or lower the seat slightly, so the space above it matches the slats' thickness.

Build up the back supports.

Screw and paste the back of the house. Place the backrest to match the backrest thickness.

Bolt-on the back.

Place the back with galvanized carriage bolts on the seat side. Instead, the back strap is attached to the back supports.

Attach the legs.

Tighten the legs on a flat, level surface to the seat and back. Review the legs for the feather and the seat for level and bolt on the legs.

Nail on the slats.

Place the end slats first for both the seat and the back. Then detach the others (usually 3/8 in. apart).

Mark the arm for a notch.

Keep the arm in place and mark the back angle on the bottom.

Cut the notch with a handsaw.

When the end of the long cut is reached, angle the saw to match the angled cut. Any handsaw can, but it's easier to be smaller.

Mount the arms.

Screw guns. Screw weapons. A tape or sandpaper round the corners and sharp edges. Offer it all a quick sanding, and you're ready to finish!

CAMPFIRE BENCH

Fast, strong bench for a long



Easy enough for babies, hard enough for hiking, good for your yard!



How to build it,

Screw together the leg units

Screw two 3-in parts together. Each joint's deck screws. Draw instructions for the other legs along with the 4x4s. Place the base piece and flush the front top 4 to 4 square on the back of the seat support. Roll over the assembly and install on the other side of the legs the second base component and the seat support.

Cut all of the bits to length after Figures A and Images 1 and 2. Then assemble the legs before using the screws. You should do it on a flat surface in your shop or workshop.

Place a plate wood scrap under the first set of legs and position the 4x4s after measurements in picture 1. Design those places so that you can use them to make sure the other legs match perfectly. Hold the screws away from the middle of the 4 kilograms, so you don't strike them as you hammer hold bolt holes.

Drill and bolt the seat supports and 4x4s together. You can buy special 1/2-in.-day. x 12-in.-long spade bit or extend with a magnetic bit holder a regular spade bit length bit.

Brace the legs

Cut the three 2x4s into 4 ft. Unprocessed and mount them to the two ends of the feet and to the seafront. These act as temporary braces as the bench and backrest boards are connected.

Place the legs on a level surface, separating them by 4 ft. and momentarily straighten both ends of the base sections and the front of the 2x4s bench. It should hold it together with the right distance as the seat and back panels are

connected. Replace the braces once they are put on.

Attach the seat and back

Cut the 72 in skateboards. Spread the ends of the seat boards equally from the ends of the thighs. Screw the boards to the 3-in supports of the bench—deck tubes: two square tubes every two and three square tubes each 1 square. Place the boards with the pencil of a carpenter.

Place the seatboards uniformly from the edges of the supports of the seat and screw them with 3-in on both sides. Deck screws: the 2x4s two screws in each and the 2x10s three. Deck screws: Place the crayon between the boards to space them. Flip the bench upside down, centre the backrest and add 3-in to it. Screws. Screws. Run them at a corner so that they do not penetrate the seat and back (or your seat or back).

Dig the trenches and add the concrete

Place and mark the trenches and dig around 8. Big. Big. Rest in the trenches the table. Check the bench for height and level, remove it then and adjust the soil levels as required. Pour 1-1/2 concrete bags blend together with each base and cover with soil. Pour over the dry mix a few gallons of water and fill up the trenches.

Place the bench to the exact position you want and draw the trenches around each base. Then set aside the bench and begin digging. Your target is to have a seat level bench about 15 inches on the front of the field, the standard height of the benches. Yet if you do, just lie on the table. You may like it lower, higher, or a little more reclining. Just have it as you want it.

Then mix up three bags of concrete mix and fill the gap between them with half of each base. Throw any additional over the rim. Then the holes will be filled up, the campfire will be set up, and some hot dogs and marshmallows will be roasted.

CLASSIC WOODEN CART



Gather the materials

Seek ash from any hardwood supplier. Nevertheless, if you cannot find ash, other plants — white oak, elm, Douglas fir, pine or even cedar — are working well as well. Whatever you pick, stick to the best results with knot-free wood. Ash and other hardwoods typically come in random widths so before we began, we ripped all to scale. But don't worry if you don't have a table-saw; most providers cut the wood for a small charge for you. And they're going to refer you to someone who can. We list exact sizes in the materials list; however, when you buy wood that has already been ripped and planed to fit (S4S), add approximately 30 per cent extra to compensate for waste.

Cut the lap joints

Cut all cart components to exact dimensions and suit the router jig. Align the 1-1/2-in jig guide. Half-laps, pinch in place the bases and handles and split half-lap. Place the 2-1/2-in.-wide hemispherical guide and route the leg joints.

The most tricky aspect of this project is to cut correct half-lap joints. But you can also get good results much quicker if you own or have access to the table saw with a given blade. You can also cut the laps with a circular saw and a

sharp chisel with a constant eye. But don't expect the half-laps to be as short. Whatever system you use, you can first cut out a pair of test pieces to check the accuracy of the jig and the depth of the halves.

Build a half lap router jig

Assemble the jig by screwing two lengths of 2 to 2 (1-1/2 in. x 1-1/2 in.) in one corner of each table at a right angle (90 degrees) to each other. It is a squaring design, which you can also use to mount the cart sides later. These sections will have a length of at least 2 ft. And 1-1/2 in. The ash handles and legs are thick, the same thickness. Render 2x2s and 1x3s of the router guide. Hold both bits in the right position. The base of the router glides against the two 1x3s parallel. Screw one into position and lock the other temporarily when checking joint widths. The temporary component is screwed in two ways, one for a 2-1/2-in position. Repeat and repeat for 1-1/2-in. Wait. Wait. The 2-to-2 fence screwed on the table secures the handle and leg, and also provides the router bit with an input point. Test and tinker until accurate cuts are made.

To trim the half-lap joints with the jig router, you position the ash against the squaring template straight and then lock it in place with the two diameter fence screwed to the worktable. Put in the 1-1/2. Wide x 3/4-in. Widespread. Sliding the router guide to the appropriate location and screwing in the handle (A) and base (B) first. Clamp the workpiece down. Otherwise, the router would move it out.

We used in our router a sharp, carbide-type 1/2-inch, straight bit, but smaller straight bits will work as well. For both cases, take your time and cut out in two passes (3/8 down, then 3/4 in.) The router can kickback if you attempt to remove too much material too quickly.

Suppose the exact 3/4-in is found. Using this piece to set the router depth for subsequent cuts on your test piece (unless your router is stopped at a distance).

When the 2-1/2 pieces are finished, reset the guide and insert 2-1/2 pieces. Wide x 3/4-in. Widespread. Front and back half-laps (C and D)

Screw on axle supports

Apply glue to the axle supports (S) and four 2-1/2-in. Screws. Screws. 9/16-in drill. Axle holes on both sides at the middle stage.

Flip the cart upside down on the table and position the axle supports to secure the wheels. When you have access to a boiling pump, you can boil 9/16-in

first. Holes for the threaded rod axle in each axle help. It is easier to fit the hole with the axle supports if you need a hand drill. Do use a 9/16-in. A bit to give you a space with a wiggle while adding 1/2-in. The axle of the threaded rod.

The best time to add an external finish is now. Brush on some outer coats of penetrating oil. After a few years, you'll want to renew the finish.

Push the axle through the trousers; pull your trousers out a bit if it is too tight. Mount one entire wheel assembly and mount the other to the same axle length, except for the final locknut. Cut the axle in order to match. Take a little rust on the cut end of the axle, and place on the wheel. The wheels should spin freely; if not, a quarter turns from the locknut.

PATIO PLANTERS



Give outdoors or inside your potted plants a nice, stylish home.

Before You Get Started

We give you two planters of different lengths, but you can change them to suit your specific space. You can adjust the width also by nailing a two to2 treated on the side of the two to12 base portion to fit a slightly larger bowl.

Buying the right lumber

You will notice that the legs are pine, not cedar like the sides and the top of the apron. Treated pines are less likely to divide along the grain (a nasty cedar problem). Pick 2 by 12 for the legs with a few big knots as possible. You can cut knots on a single board so you can take a tape measure when you select the wood. Choose a straight cedar on the sides and remember that here some knots can add beauty to the whole.

Feel free to use other wood species, such as redwood, Cypress or even tropical plantation-crown wood such as ipe.

Trace the planter outlines

I am using a full-size Fig template. A, trace the contour of the planting legs on two pine boards treated with pressure. Sand the edges with a sanding finish, followed by 100-bit hand-sanding to soften the edges.

Make straight cuts

Using a 12-in to make straight cuts. Speed square held firmly behind the 2/6.

Plane edges where the sideboards meet

Place just the edges of the C and D side decks. This chamfered edge would be about 3/8 inches. When completed, big. Clamp a board at the edge of your workbench to stop your part from drifting as you stroke the board's edge with the aircraft.

Cut base to length

Cut the length of your two by 12 bases and screw the bottom (C) to the base. Place the base and the sides so that the bottom side is smooth—Pre-drill with a pilot/countersink hybrid bit for every screw. Then the ends are attached to the bottom.

Shim the base

Shake the floor 1-3/4. Use scrap pieces of wood on each side and tighten the legs one at a time to the sides (C). Screw the sides 2-1/2 in at the knees. Boat torches. Using three-leg screws.

Clamp sides to legs

Clamp the tops of the legs parallel to the sides. Before drilling and screwing

this part, ensure that the upper and lower ends are aligned. Having 3 2-1/2 in again. Deck screws per hip. First, vibrate the top of the panels (D) to the rest of the sides. Be sure that each side of the chamfers faces each other.

Rip deck boards to make top apron frame

Rip the boards of 5/4 x 6 to 4-1/2. To make the frame for the top of the apron. Choose your circular screen with rip guides or a tablet screen if you have one. Flat and sand cut out edge to match the deck board's factory-machined bottom.

Glue and nail side apron pieces

Wash and nail the bits on the side of the apron (E) and the sections C below flush. First, remove the end sections of the apron to the end panels (D). You will note that the inner edge of F is around 1/4. From the inside of the planter, cover the tops of the legs properly.

Using all paints, stains or variations

For legs and apron bits, we selected the exterior enamel to accentuate the deck oil stain/sealer on the base and sides. A stain is a better option for the foundation and the sides than paint, as it exposes the legs and the top to moisture. This picture demonstrates excellent results by staining the entire project with an external oil plate.

PLANTER AND TRELLIS



Build four frames

Glue together the frames on the planting box ends. Clamp a framing square to the workbench to help the pieces fit.

Rip four 8-ft.-long 1x6s into strips on the table to begin with. You need two 2-3/4-inch bands for the top of the belt, two 1-3/4-inch bands for the cleats and legs, and four 2-1/2-inch bands for the legs, rails and styles. Stick together the rails and designs to make frames. Sand the frames and round the inside edges with a 1/4-in router. Lot round-over. And cover the frames around.

You must cut approximately 120 laths to fill the frames. Clamp a stop block next to the saw of your member to prevent weighing them all. Mark guidelines 1-1/4 in with the slats cut. Slats between them from the top and bottom of the frames. Place down the best side of each slat. Alter thin and thick layers, and the tapers in direction — one end up narrow, the other down.

While waiting for the adhesive to harden, stick the planting legs together. A 1/2-in round the bottom. Lot round-over.

Assemble planter box. Assemble planter box. Take diagonal corner-to-corner measurements to ensure that the box is square until you screw the boards with pressure to the cleats. Fill the planting box with rim boards, twisted and secured onto the bases. We completed a 1/4-in round the edges of our rim material. Until cutting it to length, round over bit. The rim is 1/2 inch over

the interior of the case.

Finishing details

We finished our deck stain planting box. Once done, cut the masking tape around the frames of the box with a tool knife and peel off the tape. Attach plastic glides in the legs to avoid moisture in the wood. We used a 12-1/2-in. X 27-in. X 27-in. Plastic planter. Plastic planter. Instead, you could use two or three smaller pots.

ADIRONDACK CHAIR



Easy construction, full comfort – that's one of the best designs for your Adirondack chair!

Choose the best timber

Plug in one of the strong wooden chairs, and the comfort of this traditional style will be appreciated. Neither must you be an expert to create it. The components of this solid, stylish Adirondack chair can be trimmed with a

circular screw and puzzle and then fitted together with a drill with some clamps and glue. Also, if you're a beginner, you can follow our plan drawing and direct images step by step. We also have a shopping list (see additional details below) so that you can spend less time scratching heads and build more time.

We made our yellow poplar chair. Poplar is lightweight, strong, cost-effective and easy to use, plus it takes good paint. Alder, aspen, maple and white oak are excellent choices for hardwoods and cedars, Cyprus, fir and pines are good choices of softwood. Bear in mind that hardwood is more sturdy, but softwood for this project is definitely strong enough; however, if the chair is most of the time outside, coat before painting with a painting wood preservative.

Traditional Adirondack chairs are painted, but if you prefer, you can choose a clear outdoor deck finish.

Pass the grid patterns for accurate arms and leg curves.

Split out the curves.

Draw grids in full size on the legs and back and follow the curves with the puzzle.

We find that it's easy to expand the grids directly on the chair board or create a full-size paper pattern and move the template to the wall.

Follow the lines with a puzzle when the outline is drawn (Photo 1). For the first leg and arm, parts write "patterns," and use them to create the others. If you make more than one chair, now is the time to trace every piece of the arm and leg for every chair. Note: The right arms and legs are mirror images. Therefore, trim the small part of every arm (C), to make the armrest (K) on each leg.

Cut the conical parts with a circular saw.

The two tapered back pieces are difficult to cut, so removing from a larger board is the easiest way to do it. Nail each end of the board to the tops of sawdust, position the nails out of the way of the saw. Use a No. 4 finish on each end and flush it with the surface. Place the depth of the circular saw in 1/8. Deeper than the surface size, cut the taper off from the broad end to the

narrow end. First, draw a line on the bottom of the piece to identify and cut the second piece. Note: Clean all bits and ease the edges with 100-grit sandpaper before you start assembling By 150-grit.

Assemble the back first

Using lattice spacers

1/4-in break. The gap between back laths while you are screwing the horizontal backrests (G, L and N) into the laths. Pre-drill and counter each hole and apply glue to each joint that is weatherproof.

Place the back pieces on your workbench face down. Place the bottoms up and add 1/4-in—spacers between the lattices. Cut your 1/4. Cut your 1/4. Waste board spacers or 1/4-in waste. Plywood. Plywood. Screw each horizontal back supports G, L and N to 1-1/4 inch slats. Outside deck torches. Every screw hole is predrilled and countersunk.

You must cut a bevel on the top of the horizontal backrest (L) bottom. A table screw works best, but the same circular screw method you used before to cut tapered slats on the side (h) may be used. Adjust the bevel to 33 degrees on your round sight, fasten 1 to 6 onto the sawer, mark the width and make the cut.

Check the back laths and horizontal supports on a framing plate such that they are aligned 90 degrees to each other while the mounting is fixed and tightened.

After the back has been mounted, turn over the back, mark the top radius and trim the back with a puzzle.

Screw the chair frame together on a flat, level surface

Build the front leg assembly

Cut the front legs (E) and stitch them with a puzzle. Keep on the front seat brace and screw into the notches.

Cut the notches in pieces E using your puzzle. Glue the front seat frame and screw it (D) to the front legs (Ph. Then, position the front assembly vertically on the workbench and glue it, and squeeze the back legs B towards the front legs. Boil the pilot and the countersink holes for each of the tubing legs once again.

Place the arms on top of the front legs, and the bracelet (K) supports. Ensure that the weapons hang in 3. On the front knee and in 1/4. Over each leg's

inside edge. Make sure they are until you mount the weapons parallel to that.

Screw the back leg support (M) on each leg and then put the back of the mounting in the frame. Ensure that the back of each arm is $\frac{3}{4}$ in. Right-back support (L) past the middle back support. Fix each joint and pre-drill, screw the assembly together, and remove the clamps.

Pre-drill and counter-sink holes at the ends of the seat laths for finishing assembly. Place them about $\frac{1}{4}$ in. As seen, screw them apart to the back legs. For tight areas, you may need a hand screwdriver.

CEDAR POTTING BENCH



Everything you need to get started

In this, we show you how to build this cedar potting bench along with the planter bench plans in one weekend. This bench has been built to be solid without complicated joints. An accomplished woodworker is able to complete this bench in one day. When you are a novice, allow 2 or 3 days to pursue these plans.

Simple carpentry tools such as tape measuring, small and large squares and a chisel are needed. You could make most of the cuts with a circular saw for this potting bench. A mitre saw ensures perfectly square end cuts, and a table saw is nearly essential to cut the ribs. If you haven't seen a table, please ask a friend, a neighbour, or a lumberyard staff to cut your pieces. You're also going to need a box of pieces and a puzzle.

Using the shopping list below for the purchase of your products. For our table, we used cedar, but pine is cheaper. Consider using a pressurized pine if you leave the bench outside. Both of these are available in homes and woodworks. But make sure you pick straight boards with at least one nice hand. A few small flaws may be covered on the back or bottom of the seat. In addition, avoid boards with large knots to weaken key components and make cutting notches more difficult.

Cut the items in size using the cutting list below when you get your materials home. Many pieces, such as 1 x 1-in. Grate slats and the 2-1/2 in. Broad legs, the board length must be removed. This method, called ripping, is possible with a circular screw, but with the table screw, it is much faster, simpler and more precise.

Cut kerfs in the legs

Mark the position of the legs with the dimensions. Make a 3/4-in series. Around 1/4 in, deeply saw kerfs, apart from making notches.

Images 1 and 2 demonstrate how the horizontal cross members are notched in their hands. Notching seems to be difficult, but it's easy if you follow these main steps: first tighten each leg pair and use the size of the Fig. A (in the Additional Information), mark the bottom of each ranking. Using a square to draw lines on these points around the surfaces.

Instead, align the correct horizontal board with this line and mark the opposite side to obtain an exact distance. The use of the boards to map the width of the notch is more accurate than calculation.

Once you saw the notch, cut the crayon line to the unused side and leave the line on the wall. You can always widen the board to accommodate a notch that is too small, but you can not shrink a notch that is too large. Sticky joints reinforce the bench and therefore look better.

Assemble the leg sections

Spread in each step a little bead of building adhesive and put the horizontal pieces in place. Use a framing square to ensure the members are at a right

angle to the legs and then move a couple of 2-inches. Each joint's screws Select the best look of the boards and make sure that they are facing the front of the bench. Drill 5 / 32-in before you screw the horizontal pieces on your legs. Clearing holes across the cross members to prevent splitting and let the boards draw tightly to the legs by screws.

Use just 1-1/4 in. Screw on the front legs to mount pieces F and G. Position the screw so that the 3-in does not interfere. You are going to install screws to protect the leg assembly. Apply a 3/4-in. Cross members align spacer block (E) before you drive in 3-in. Screws. Screws.

Use stainless steel screws or corrosion-resistant deck screws, if you are leaving your bench outside. Place a small amount of building adhesive on each joint to improve its strength and longevity before screwing the parts together. To hide the 3-in. Using 3/8-in screws to protect the front legs. Boil 1/4-in brad point drill bit. Before you boil 5/32-in, dark recesses. Holes transparency. Holes transparency. Then 3/8-in ring. Once you screw the pieces together, wood buttons into recesses, keep a framing square handy when mounting the legs and bench frame and use it to ensure the assemblies are quadratic before tightening the screws.

Cut out the opening with a jigsaw

Track the 3/4-in waste bin. Plywood. Draw around 1/2 in a second section. Inside the outline you traced. Drill a one-and-a-half-in. Start hole and cut a jigsaw along the inner lines. Screw the benchtop support (L) and cleats (T) onto the bench and screw in the plywood.

We have used a plastic wastebasket, but every lip container works. Follow the shape on a piece of splinter and cut the hole a bit smaller so that the splinter supports the lip.

The top of the bench is 1-in. Thick bullnose decking of cedar. Join two pieces in cleats to make the dirt container removable. Fix 1 x 1-in. Slats and waterproof wood glue form the rubber. Until drying, brush off excess glue. Then let the dry glue overnight until the grill is sanded and flush the ends. Screw cleats to the bottom of the grill, so that they are placed and removed quickly.

Depending on the size of your cover, the width of the end sections (P) varies. In order to decide the distance, centre the grate first, removable cover and three more boards on the top of the bench. Then measure the distance to the outer edge of the rear leg from the last board and cut and mark the end pieces.

Fix 3/8-in wood ends By 1/4-in. Deep recesses for the covering of screws keeping in place two end sections (P) and lower shelf boards. After the glue dries, the sand flush. Full the potting bench with one to 8 rack and 2-in them. Horizontal screws 1 to 4 shelf rails (H). To protect the ends, we used black metal shelf brackets.

WOODEN PLANTER BOX

A plain planting package, all curves and circles.



Potting hole

Mark with a compass the 6-in.-diameter holes. Then bore 1/2 in. Then. Start holes and cut out the jigsaw openings.

You can put this basic window planter together in less than an hour. You're going to need three 6-in for each planter. Clay pots, each with 3 ft. 1 to 10 and one to 3, and 2 ft. 2 to 8.

Split the duration of 1 pour 10 and one pour 3. The diameters of the pot differ, so scribing and cutting a 6-in will fit the hole. Circle the carton to make sure the pot sits on its bottom. Continue to test until you find the size. Then set out the holes and cut them.

Using a cap of 5 gallons to write the bracket curves. Be sure that the grain

runs for strength parallel to the shelf. Glue the raw edges and paint the parts before assembling – especially if you want to look two-tone. Screw the components with 2-in. External torches.

Attach the shelf at the wall by screwing into the wall framing via the hanging strip.

WOODEN PLANTER BOX PLANS



Plastic planters are perfect

It is lined with a regular plastic planting box, the kind you can get for approximately \$10 in any home or garden centre. This means that one plastic box can be lifted and placed in another plant that switches instantly. For example, you could start the growing season with spring bloomers while the other plants grow elsewhere. You will drop in the next collection of plants when the spring plants reach their prime.

The internal plastic box also provides practical advantages. This removes the wet soil from the wood planter, which prevents the wood from humidity issues, such as redness and peeling. And since this planting machine is just a plastic container, it is much simpler to create than a traditional planting

machine. When you use cedarwood, it will cost you approximately \$100. Constructed of pressurized or untreated wood, this will cost around 80 dollars.

Build the box

Cut the sides of the plywood into size and glue and stick together. Using clamps to secure the ends.

The centre of this planter is a 3/4-in package—plywood CDX or BC. Most home centres and wood-proofing companies will sell you a partial plate of splinter and cut it into handy sizes to take you home. Cut plate pieces with a table saw into the final size or fasten a straight line to the spreader and cut it with your circular saw. Assemble the box with waterproof wood glue, and 6d galvanized box nails or outside tubes.

Add the braces

Predrills the drainage holes around the planter sides and locks on either end with a plywood brace. Center the belt. Center the belt.

Apply plate braces within the long planting plant to square the box and straight on the long sides. We based our braces, but if they block the liner, you can drop them down. If you make sure they are square after you mount them, the other two planters require no braces. Test a framing square and add braces if necessary.

Assemble the legs

Rip 5/4 of the cover and cut it off to the leg length. Clue a 3-in and nail. A 2-in piece. Piece. Piece. First, purchase your plastic planting boxes and adjust the planting size if necessary.

We used 5/4 T 6 cedar cover for the legs (1-inch x 5-1/2-in. real dimensions), but you can add other 5/4 cover. Rip the deck boards to 5-1/4 in first. Remove the rounded edge corners. Then run the squared edge against the table, as you rip the legs, 3-in.- and 2-in.-wide. Cut the bits to order, stick and nail with 8d galvanized case nails.

Attach the legs

Place the spreadsheet on a flat surface and screw the legs. Make sure the legs with the top of the planting box are clean.

Sand the screws from the edges of the board until you twist the assembled

legs into the frame.

Bevel the cap boards

Rip a 20-degree bevel with a table saw on 2x4 caps. Using a feather board for extra protection and push stick.

Rip the bevel on the top cap 2 to 4 may require the blade guard to be removed as we did. If so, be careful to keep your fingers far from the blade. Make sure the blade is tilted. Place a plumbing board and use push sticks for the cut. Start the cut by pushing your backhand, holding the board down on your forehand with a push-button. Hold a second push stick easily available. When your hand reaches the rear edge of the table saw, take the second push stick and use it together with the front push stick to push the board clear behind the screw blade. Hold your attention concentrated at all times on the saw blade. Shut the saw off and wait for the blade to stop before the bevelled board is retrieved.

Assemble the cap

Cut the duration of the cap pieces with 45-degree mitres on the extremities—Drill pilot nail holes. Then stick the mitres together and screw them together.

Attach the cap

Drill the pilot holes and stick to the planter box with the lid. Measure to ensure that the overhang is on all sides.

Mount the frame to the box, centre it around with an even surface, and nail it with 12d galvanized cabinet nails. Measure 5/32-in and drill. Pilot nail holes, make sure that they are centred on the top edges of the plate.

Cover the box

Cut bits H and J in length and screw them to the box's top and bottom. Break the beadboard into bits and glue it with the building adhesive onto the plywood.

Beadboard is perfect for a traditional planter. Planning ahead and cutting first and last plants in equal width for the best look planter. Start by fastening the top trim (H) to the 4d galvanized case box. Use a precut beadboard length as a spacer to precisely position the bottom board. Be sure to leave 1/8-in when you glue in the beadboards. Space to make space for expansion at each end. Before painting, fill the space with caulk.

Lap siding planter

We side the 1/2-in tall case. X 2/2-in. X 3-1/2-in. You are siding the cedar chest. Just cut the siding between your legs. Rip 1-in. Rip 1-in. Strip off a siding piece's thin edge for a starter. Nailed the starter strips on the bottom of the plateau (under the first row of siding) to place the first piece of siding at the right angle. 1/16-in predrill. 3/4 in holes. From the end and from 5/8. To prevent splitting from the bottom of each piece. Nagle with 4d galvanized box nails on the siding. The top cap on this planter fits flush to the inside edge of the plate box, which may interfere with the plastic planter by causing the nails to emerge from inside. If so, bend it flat or clip it off. You can save time by making a simple spacing jig. This planter was completed with a transparent stain on the floor.

OUTDOOR TABLE

The elegance and hardness of stone at a premium



Main top materials for the table

The top is made of a building grout, dyed with a dye. The grout in the tile creates dark veins.

Like many of my other designs, the one was inspired by an adhesive shock. As I walked through a garden centre, my eye caught a stone bench. It was lovely and poorly maintained and would last a lifetime. The only problem was the price: 650 dollars (on sale!). As normal, my answer was to make one.

My version isn't true stone, but most people are stupid and have all stone toughness. My overall material costs were less than 150 dollars, about 110 dollars for the top and 40 dollars for the pedestal. Many home centres have everything you need.

Another kind of grout

Construction grout is used mostly for heavy construction projects like anchoring steel columns. But it's also perfect for casting projects because it has a creamy consistency that takes on the shape and texture of the form almost perfectly. Use a smooth form, and you 're guaranteed a smooth, uniform tabletop. Some home centres hold a 50-lb building grout. Bags that cost approximately \$13. If the other is not the case, go to quikrete.com or sakrete.com to find a dealer. (Quikrete Precision Grout and Sakrete Construction Grout are two brands.) By applying a cement dye to the wash, I darkened the grout.

Build an upside-down form

Assemble the shape and spray on the lubricant. Cast upside down, the surface of the tabletop turns out to be as smooth and flat as the melamine.

Plastically coated (called "melamine") particleboard is perfect for shaping because it is cheap and smooth. Cut the base shape to 31-1/2 x 31-1/2 in. Cut 2 x 32-in, then—strips for the sides of the form. Attach the sides to the base. The overhanging sides encourage the demolition of the form; you can simply knock it off with a hammer. Coat the shape with the lubricant spray. Important: Use a lubricant that dries rather than leaving an oily layer. Liquid Wrench Dry Lubricant is one brand. It's like "leaves a dry movie."

Then, grab a pencil and draw a random pattern on the shape that outlines the areas that are covered first. The pencil lines are used to determine where the dark veins appear on the top. Set the shape on a robust working surface and level the shape with shims. The building grout is slushy and overflows when the shape tilts. Spilt grout leaves stains, covering the floor with cloths of

plastic falling.

Mix one bag at a time

Add grout to the dye-mixed water. Transform a bucket into a giant measuring cup so that you can use each bag with the correct amount of coloured water.

The process of combining and pouring the building grooves is three phases: You will use most or all of the first bag for a pattern, the second one to fill in the pattern, and the third one to fill in the form completely.

Turning a bucket into a giant cup would allow the three bags to add equal amounts of water and cement colour without every measurement. Next, calculate the exact amount of water in the bucket (I use 4.5 litres per bag) and show the bucket water level. Test the other two marks (at 9 and 13.5 litres) in more volume.

Then empty the bucket and add the cement dye. Much is going to stay in the bottle. To wash, pour a little water, shake and pour again. Repeat until the entire dye is washed out. Fill the bucket with water and tinted water, pre-measured in three equal quantities. The dye tends to settle down to the bottom and before use, mix the coloured water.

House grout hardens rapidly. It will be hard to work within just 15 minutes in warm weather. Minutes of error will destroy the project by cutting the wire mesh or searching for a tool. Therefore, everything must be ready before you start mixing. It's best to have an assistant, too. Use cold water only to slow down the hardening process.

Mix the building grout in a plastic cement pan. Don't pour the water directly in the mixing bath from the bucket; it is too difficult to control the flow—ladder water instead of into the bathroom with a smaller container. Dump the bag in about half and thoroughly mix it. Add the rest of the bag slowly as you blend. If you can use the blended grout, rub it to preserve the slushy consistency. When it gets too steep to mix, toss it. The tabletop only needs 2-1/2 bags, so some can be wasted.

Pour a pattern

Sketch a pattern on the shape and fill the areas outlined with building mounds. This pattern appears at the top of the table.

Do not forget to reduce the pressure of your compressor to about five psi before blowing your tile grout. Slice 2 x 2-ft. Bolt cutter meshes part. Wire cutters are not going to do the job.

Seal the tabletop

Bring out the sealer colour. Ease the sharp edges with 80-grit sandpaper before applying the sealer.

Resist the temptation of tearing off the shape once it is difficult. The longer the grout stays wet, the better it gets. Consider it three days or more. It's even better for a week. To remove the form, get a helper and reverse the form. (Don't let the top tip out of the form!) Then knock with a hammer on the sides of the shape and raise the shape from the edges. Don't get upset when the boring, grey top is revealed. The sealant deepens the hue and highlights the black veins. Until the grout has cured for at least 28 days, most sealants can not be added. Try it on the underside before you apply a sealer to the top to make sure you like the look. I used a genius sealer of "stone and tile" to render the most light. A matte-finished sealer has a subtler look.

PATIO CHAIR

The ultimate easy chair: Easy to build, easy to tote, easy to set up and store.



If you are watching a parade on the street, head for the woods for a weekend, or just trying to catch a few rays, you'll love this chair's portability and comfort. When used, the two pieces are held together by interlocking legs and gravity. And when the time comes to take the stakes, the seat tucks inside

the back carefully. A handle cut in the top layer makes it also easy to carry and store.

Tools Required

- ✓ Belt sander
- ✓ Carpenter's square
- ✓ Combination square
- ✓ Drill/driver - cordless
- ✓ File
- ✓ Jigsaw
- ✓ Phillips bit
- ✓ Screwdriver
- ✓ Table saw
- ✓ Materials Required
- ✓ 1/8-in. X 24-in. X 48-in. Hardboard (for templates)
- ✓ 1x6 x 8 ft. cedar boards (2)
- ✓ 2-in. galvanized screws
- ✓ 2x6 x 8 ft. cedar boards (2)
- ✓ Thompson's Water Seal finish (1 pint)
- ✓ Wood glue

It is light, but we made our chair from cedar, but you can use cypress, fir, treated or other decay-resistant woods. We did not want knots that weaken the legs of seats, and therefore we have spent about \$75 for "D-grade" knot-free cedar.

PATIO PRIVACY SCREEN

This wooden privacy screen is a fence-like barrier to your neighbour's patio or deck.



Planning your privacy screen

We have built our privacy screen on a level website, but on almost any path you can build a similar screen. To look the most comfortable, hold the rails up and follow the direction with vertical pickets that are a steady distance from the ground.

Build any length of your screen you want. However, the longest material that you can purchase is 16 ft., so split rails, and top caps are required for longer displays. If splicing is needed, plan it so that the joints fall near the centres of the post and split opposite rails and top-cap-layers on different posts. Add or delete posts to the desired position, but stick to our postal system using chunks of 2/6 posts and 2/2, to ensure correct spacing. However, keep the post less than 4 ft, apart for a wind-resistant, highly rigid screen.

We don't recommend the construction of a higher screen, particularly in high wind areas. But lower screens are occasionally preferable when you want to see more privacy while standing over the top. Construct a shorter screen using the same distance techniques as the upper and lower rail. The top cap for a shorter screen could require a milder curve because without breaking wood, it will be difficult to bend. Try a test bend, try a test bend.

If you hear the wood crack or you have to bend too much energy, just cut off the middle posts shorter until the wood bends smoothly. If you want to not

fuck the bend or match other horizontal elements in the yard, simply consider cutting the posts and screwing on a solid 2-piece flat-top cap.

Mark the post and picket locations

Clamp the four 2 x 4 tracks together and mark the location of the post and picket. Cut the rest of the ends off 6 in after the last message.

Layout and wrist all four horizontal rails before digging the postholes. You use these rails to position, spacing and fasten the posts, and then place the two pickets.

By measuring 6, layout the rails. Using the two bis6 block as a guide to mark the first post notch from one end, using a 2-five-block to mark a gap and a picket, another gap, etc. Mark the next post and identify the rest of the pickets and posts. Measure six additional inches after the last move and cut the rail to capacity—description 1, at the end of this tale for more assistance. Cut corners on both ends of each board at 45 degrees and then cut out the notches.

Drive stakes to mark the postholes

Placed the postholes in the privacy panel by putting a rail on the ground and pushing two stakes. Then two stakes push. The postholes are located away from the centres of the post.

Put the straightest track on the ground and shift it to the best position of the screen. Then drive stakes to keep and mark the postholes. Set aside the rail and dig 3 ft. X 8-in deep. Postholes diameter at each point and pour approximately 6 in—single hole of gravel. First, construct the treatment wood part of the posts. Meter the depth of the hole and then cut out the outer 2x6s to project about 6. Enable two bis4 centre posts to extend full length past the top of the hollows. Later on, you are going to cut all post sections to capacity. Preassemble 3-in. Deck screws onto the treated posts.

Keep 8 in the attachments. Or else underneath the top of the 2x6s to avoid hitting them with a saw blade later if you cut them to length. Reset the guide rail and use it and place it on each hole to plumb the posts. Keep it in place with temporary screws on the guide rail after each post is placed.

Cut the 2 x 6 above grade

Pour into every cavity dry concrete until it's 3 in. Below grade. Below grade. Label and cut around 3 in the 2x6s. Above grade. Above grade.

To stop having to set up the concrete, you should mix dry concrete around the

posts and not pour wet concrete. You will begin the rest of the carpentry work and maybe complete the project in a day's time. Hold a few inches below the top of the hole on the surface of the dry concrete. If you're finished working the day, just flood the top with the garden tube and the cement will be set up overnight.

Don't be concerned about saturating the mix. Over time, the underlying concrete absorbs sufficient moisture from the ground to be fully cured. The best mixes to choose are called "post," "easy" or "hot." But if all you can find is regular pre-premixed concrete, it'll work well.

Tip: Press two screws through the 2x6s above the cut marks until you cut off the post tops. They're going to hold the pieces in place so that you don't get the cutoffs mocked.

Make the posts perfectly plumb

Lock the cedar 2x6s to a side of the 2x4s, then level the two rear rails and lock them in place using the height information in figure A. Plumb the posts in both directions and brace them.

You will be astonished at how quickly the rest of the screen goes together. This is because you cut the notches for the posts and marked the picket places. It's mainly a matter of screwing together all of the parts. It also helps to prefinish all pieces before laying the rails and installing them. Upon cutting, we painted everything with two robes of strong stain and marked the notches and freshly cut ends for even more security prior to assembly. This reduces paint within gaps and cuts in, particularly if you have a two-tone colour scheme like ours.

Break the 2x6s in around 3, screw on one side of the 2x4s the two bis6 cedar external posts and screw two rails on one side of the posts by means of height.

Level the tracks and see them make sure they're right before they are stuck to the middle two stations. Pull the two end posts in both directions and keep them. The rails should be fitted with the centre posts, but if you have stubborn ones, you should mount them and brace them. The dry concrete mix helps you to make small changes.

Cut the two picket caps to length so that they securely fit between the 2x4s. Then the 5-ft screwing. Long pickets are going to go easily. Move them to the top picket cap and use the rail marks to direct their location. Screw the other post bits and walls, eventually. You must fudge a bit to match the 2x6s

to the rail notches. You can need to pull an assistant away from a Simpson episode to help and wiggle the two lanes in place.

Mark the top cap locations

Place temporary blocks on every end post and add a long 1, 4, 16-in to each end post. Between them, block halfway. Mark the heights of the post.

To simulate the top curve, bend the top 1 bis4 board to determine where the posts are to be cut. Centre a screw on the finishing blocks so they can pivot while bending. It's good to have the Simpsons fan there too.

It will be difficult for you to hold the 1/4 spring-loaded in place while you reach and write all four posts. Transfer the marks to the other side with a square and cut the posts with a circular screw and a hand screw off.

Centre a top cap one bis8 and dissipate it with a pair of 2-in in each post. Boat torches. Center and chuck the top 1 to 6 and 1 to 4 caps into the posts, inserting screws wherever there are gaps.

WOODEN BOARDWALK



A wooden path makes the garden trail appealing and accessible, safer and less retrogressive than a stone or concrete trail, which works well in the sloping or wet areas.

Tools Required

- ✓ Adjustable wrench
- ✓ Belt sander

- ✓ Circular saw
- ✓ Cordless drill
- ✓ Drill bit set
- ✓ Framing square
- ✓ Jigsaw
- ✓ Level
- ✓ Miter saw
- ✓ Posthole digger
- ✓ Router
- ✓ Safety glasses
- ✓ Sledgehammer
- ✓ Spade
- ✓ Speed square
- ✓ Materials Required
- ✓ 16-ft. X 12-in. hardboard siding
- ✓ 2-1/2-in. stainless steel finishing screws
- ✓ 2x6 joist hangers
- ✓ 2x6 x 10-ft. (treated) boards
- ✓ 3-1/2-in. deck screws
- ✓ 4x4 x 10-ft. (treated) post
- ✓ 5/4x6 x 8-ft. deck boards
- ✓ Joist hanger nails
- ✓ Mason's twine
- ✓ Pea gravel
- ✓ Spray marking paint

Wooden Boardwalk Overview

The roads made of concrete, stone or pavers are costly and intensive in operation. They need a lot of excavation, transport of tons of material and the disposal of tons of soil. For an easier path, consider a wooden path, especially for wet or sloped sites. The wood building is much less backbreaking. You will have a few holes to dig, and instead of stone, you will be carrying wood. It's a lot less costly, too. The shown walkway with a cedar deck cost about \$400. (It would have cost less with treated wood decking.) Also, a wooden walkway moves much further together; this 40 ft. Two of us took two days to create the road. But enough chitchat – here's how you can build your own way!

Project step-by-step

- ✓ Anatomy of a Boardwalk
- ✓ Plan Your Walkway Path
- ✓ Buy the Materials
- ✓ Start at the Bottom and Mark the First Joist
- ✓ Dig Postholes
- ✓ Level the Joist
- ✓ Mark the Next Joist
- ✓ Add the End Joists
- ✓ Add the Other Side Joist
- ✓ Add Center Joists
- ✓ Install the Decking
- ✓ Mark Curves for Cutting
- ✓ Cut the Opposite End
- ✓ Decking Tight Curves

CONCLUSION

The use of wood for outdoor projects can lead to very attractive furnishings and structures. It can take your compound's outlook to a whole new level. But this is only possible if the wood can withstand the test of time, especially because it is exposed directly to the elements.

The best choice is to shield the wood from the weather before it is used outdoors. Luckily, this book gives you all the knowledge you need on wood for outdoor purposes so all of your furniture and structures can avoid the assault of the elements.

Do Not Go Yet; One Last Thing To Do

If you enjoyed this book or found it useful, I'd be very grateful if you'd post a short review on Amazon. Your support really does make a difference, and I read all the reviews personally so I can get your feedback and make this book even better.

Thanks again for your support!