

# *Build Your Own Barrel Chair*

*Barrel Stave Chair Kit*



# COMPONENTS

Everything needed to build your own barrel chair



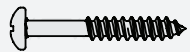
Short Staves (Rungs)

**x 12**



Long Staves (Legs)

**x 4**



Wood Screws

**x 50**



T-nuts

**x 8**



1/4" Bolts

**x 8**



1/8 Inch Drill Bit

**x 1**



5/16 Inch Drill Bit

**x 1**



5/8 Inch Drill Bit

**x 1**

## The Barrel Staves

These barrel staves come from genuine French Oak wine barrels and have been used to age fine wine. Now that they're retired from the wine game, you can give them a second life as a comfy throne for your derriere.

Each stave will show unique signs of genuine wear to add to the unique character of your chair. Small surface cracks, discoloration, and nail holes should be expected, but don't use any major cracks that might compromise the structural integrity.

Each set comes with an extra short stave just in case.

## Barrel Chair

Follow these instructions to transform mere oak staves and screws into a sturdy, stylish, and comfy chair. The chair easily folds up for storage or transportation, making it perfect for the patio or the beach.



**This project takes on average  
4 hours to complete**

**You will also need:** A drill and driver, a sander, and your choice of wood finish.

# SANDING

*Sanding all your pieces before assembly*

*Sanding is much easier when the pieces are not yet assembled. A power sander will make quick work of the task at hand, but hand sanding is also fine.*

*If you'd like a more rustic look to your chair, you can skip the sanding and/or finishing stages. We recommend sanding with at least 80 grit paper to remove splinters, stains, sharp edges, and crystalized sugars from the staves.*

**1 Safety First!** Wear a protective dust mask and eye protection when sanding (Fig 1).

Start with 80 grit paper and give all the staves a once over, removing splinters and edges (Fig 2). If you have a power sander, whip that out and put it to use (Fig 3).

**2** Proceed to 120 grit paper, and give extra attention to the purple inside of the stave where you'll be sitting.



**3**

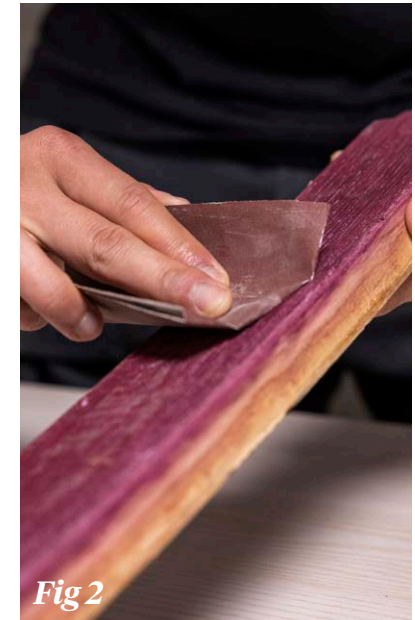
Determine your final level of sanding based on your intended wood finish.

***An unfinished chair will eventually turn grey when bleached by the sun. If you intend to use this outside, any finish should provide UV protection.***

Unfinished - 80 grit

Deck Stain & Seal - 120 grit

Spar Urethane - 220 grit



## **Pro Tip:**

*If sanding by hand, use a block sander or glue your sandpaper onto a block of wood. The sandpaper will be easy to hold, and the flat pieces will turn out much more consistent.*

# PLANNING

Selecting staves for the back and seat



**Fig 4**

- 1** Set aside two of the thinner staves as supports for the bottom of the chair.
- 2** Separate the short staves into groups that will make up the seat, chair back, and supports. The staves will vary in width, so it's up to you to create a balanced aesthetic.  
Use four to five staves for the chair back and five staves for the seat. Set them aside in order and mark them accordingly (Fig 5).
- 3** Pair the longer leg pieces into 2 sets that match most closely in length, width, and curvature.



**Fig 5**

## **Pro Tip:**

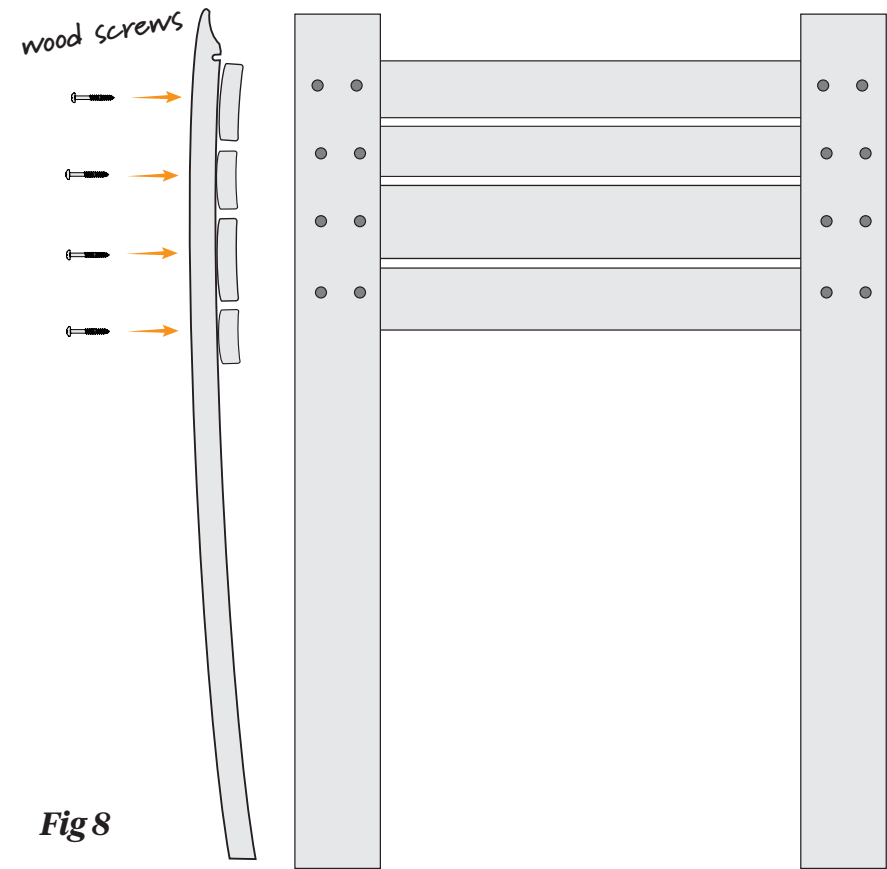
*These staves create a fairly wide chair. If you'd like a more narrow chair to suit your frame, cut even amounts off each side of all of the short staves. Make sure they all come out the same length.*

# CHAIR BACK

Assembling the backrest of your chair

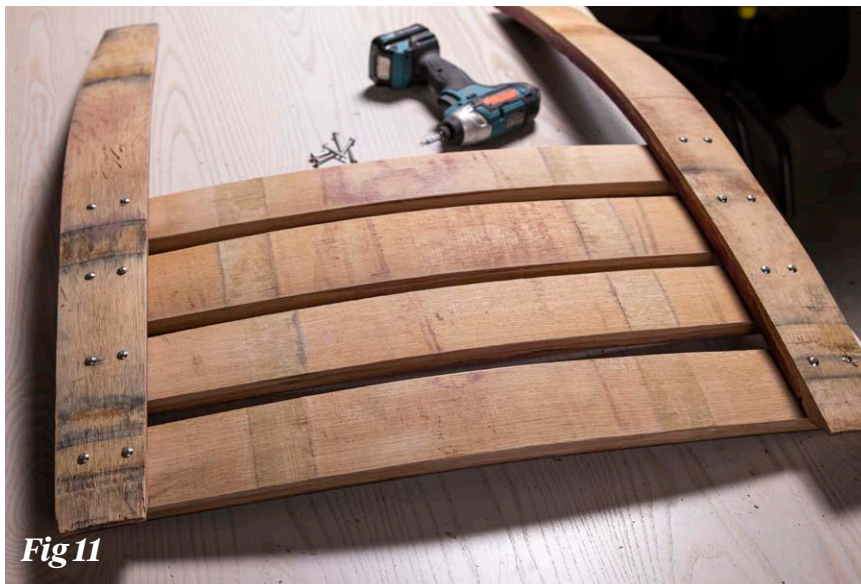
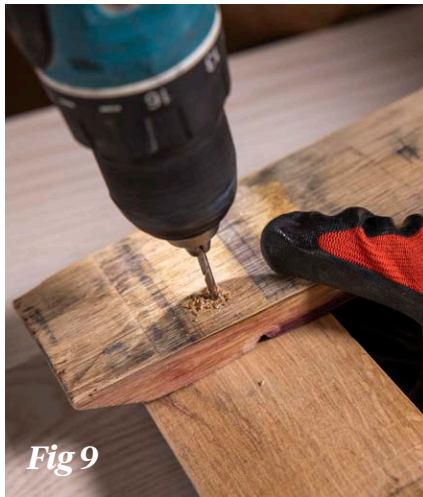


- 1 Lay out two of the long staves, then arrange the short staves across to visualize the back rest (Fig 6).



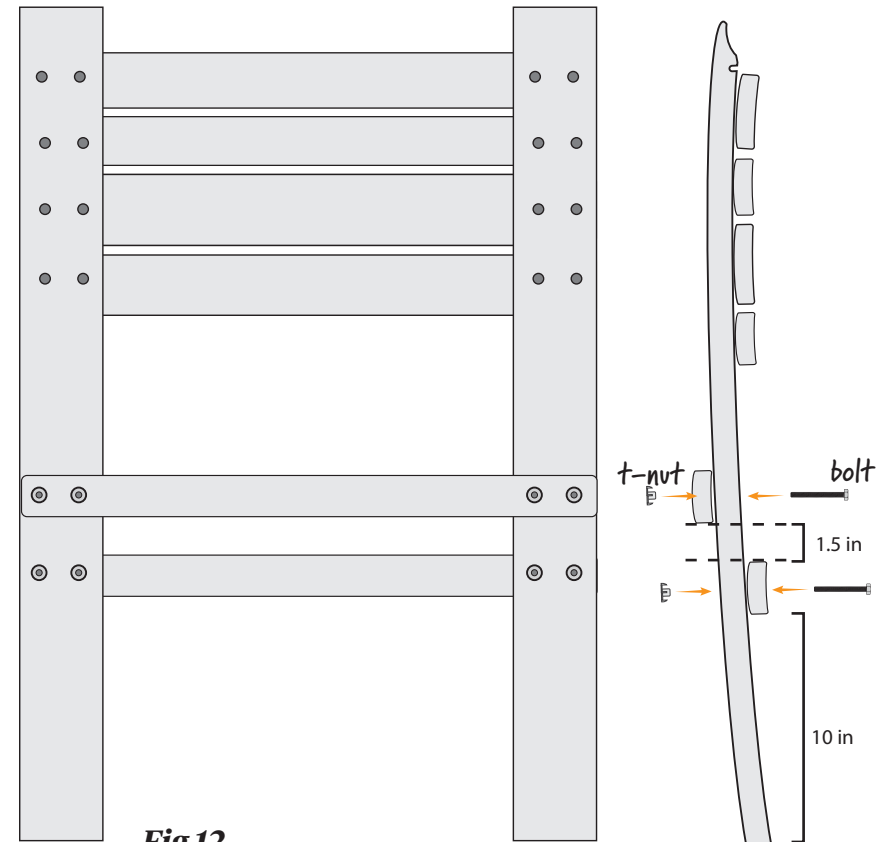
- 2 Next, flip the staves over so they resemble the diagram above (Fig 8). Prop spare staves beneath the curved area to prevent wobbling. You can also set a stave at opposite ends of the longer pieces to keep things square while drilling the back rungs into place.
- 3 Use the 1/8" drill bit to drill pilot holes for each screw. This will prevent a hard wood like oak from splitting while driving the screws. Set to the right depth in your drill chuck so that you go into the second stave without going through it (Fig 7).

- 4 Drill two holes and drive two screws into each of the chair staves. Start with the top stave, and fasten it in place (Fig 9).
- 5 Check to ensure that the legs are still parallel and square. Adjust as necessary.
- 6 Leave a 1/2 inch gap between each stave of the chair back. Start from the top and work your way down until all four staves have been attached (Fig 10, 11).



# FINAL ASSEMBLY

*Attaching supports for the seat.*

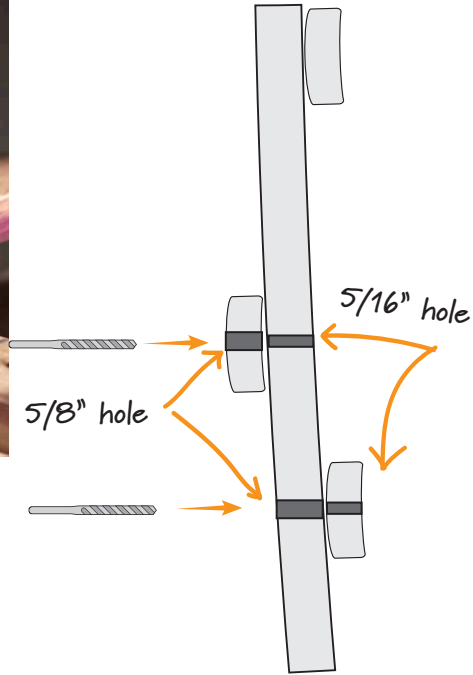


- 1 Measure ten inches from the bottom of the legs, then take one of the thinner staves you'd set aside at the beginning, and place it across both legs on the same side as the back rungs. Use your 5/16" bit to drill the first of two holes through both the leg and stave.
- 2 Next, widen the hole on the leg with the 5/8" bit (Fig 13). Then, use a mallet to set a t-nut into this hole (Fig 15).
- 3 Use a 1/4" bolt to fasten the brace stave to the leg (Fig 12). Once the bolt is secure, repeat the process until you have two bolts and t-nuts on each side.



**Fig 13**

**4** The second thin brace attaches on the opposite side of the legs. Measure to ensure a 1 1/2" gap above the first brace (Fig 16).



**Fig 14**



**Fig 15**

**5** Repeat the process of steps 2-4 to drill and attach the t-nuts and bolts to fasten the brace in place (Fig 17). In this case, the larger hole for the t-nut should be on the brace rather than the legs (Fig 14).

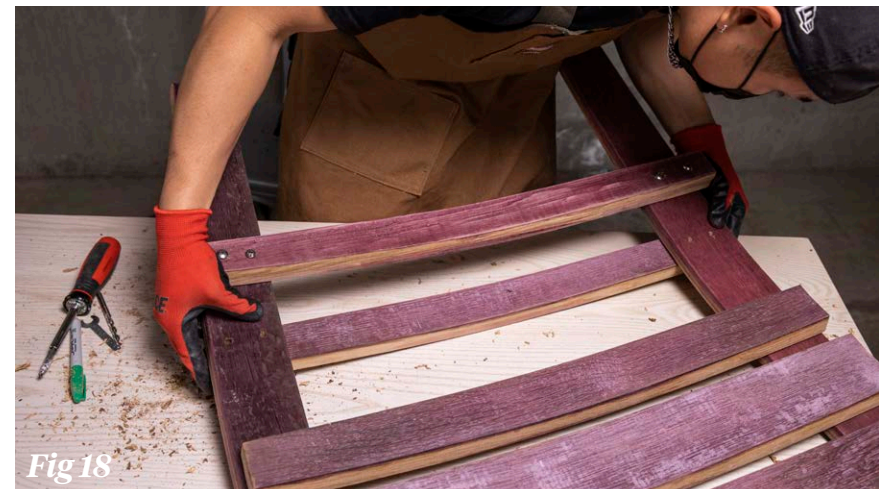


**Fig 16**



**Fig 17**

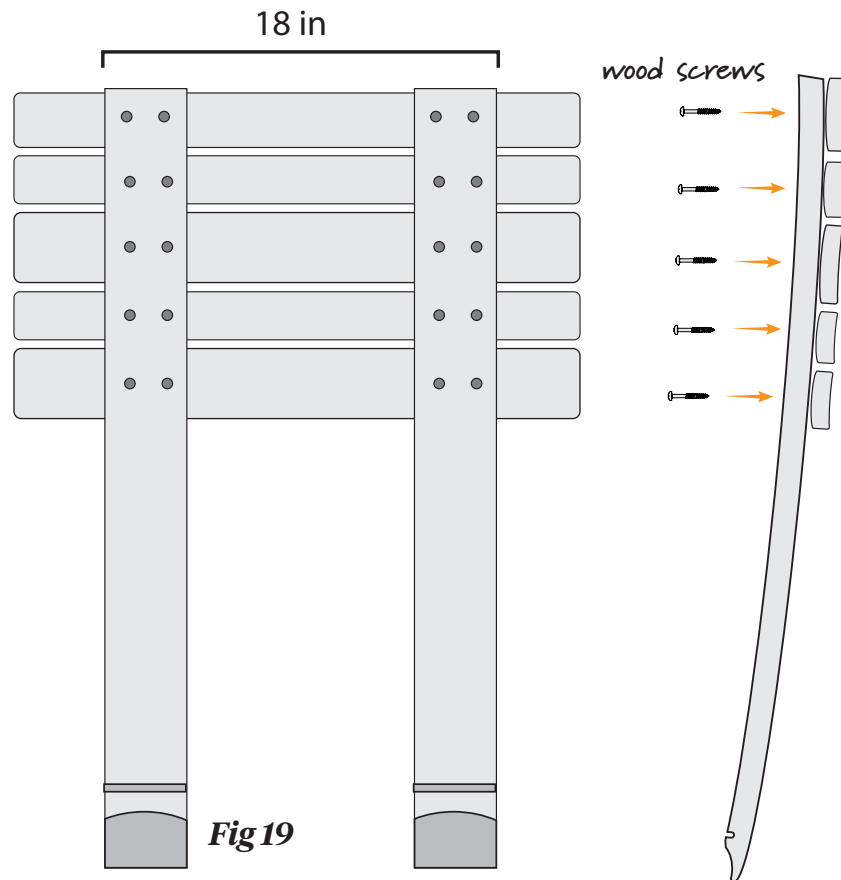
**6** Tighten all bolts. These will be supporting your weight when sitting, so make sure they're snug (Fig 18).



**Fig 18**

# SEAT ASSEMBLY

Building the seat of your chair



**Fig 19**

- 1** Lay out the remaining legs and short staves to form the seat of the chair. Measure the distance between the legs, and ensure it is less than the gap between the supports on the chair back. This should be approximately 18" (Fig 19).
- 2** Use the extra staves to prop up the legs so the top of the legs can rest in place on the first short stave that makes the seat (Fig 20).
- 3** Drill 1/8" pilot holes and fasten the first stave in place with the wood screws (Fig 21). Once this is held in place, measure the bottom of the legs to ensure the gap is the same and the legs are parallel (Fig 22).



**Fig 20**



**Fig 21**



**Fig 22**



- 4 Continue the same process, adding one stave at a time until you've finished the seat. Leave approximately a 1/2" gap between each stave of the seat. Continue to measure the gap between the legs as you go to ensure they stay square and parallel.
- 5 Assemble your chair by slotting the seat legs between the braces, then give it a test sit. Make sure it's comfy before moving finishing.



Fig 23



Fig 24

# FINISHING

*Adding a wood finish to your chair*

*About 8 oz (1/2 pint) of whichever finish you choose should be enough for your chair.*

*For a clear finish that preserves the wood grain and color, we recommend Spar-Urethane. It provides both UV and water protection.*

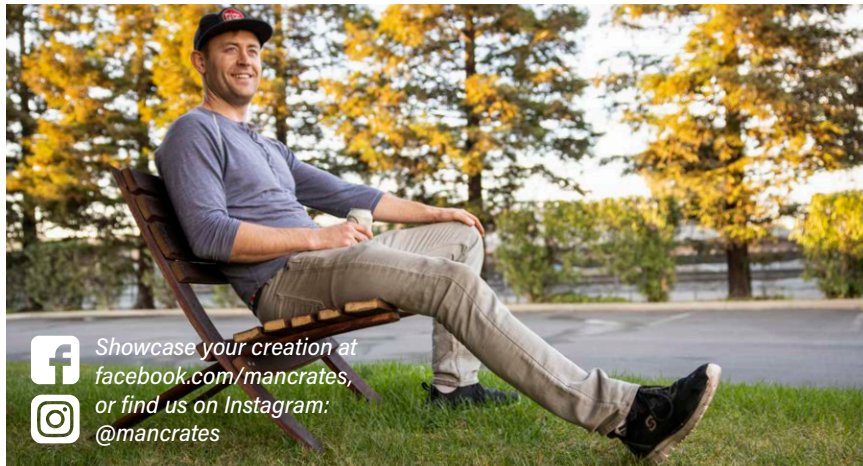
*Deck finishes that combine an oil-based stain with a penetrating finish are also a good option. The wine-stained purple color will fade over time.*





Fig 25

Since you've already sanded, you can jump right into finishing. Use either a brush or spray finish to coat all sides and parts of the chair according to the manufacturer's recommendations.

*Even with the help of a waterproof and UV protective stain, storing your chair in the shade or a shelter will greatly prolong its life and look. Thankfully, it packs up without a problem.*



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