



MAN CRATES
PROJECTS

MAN'S BEST FRIEND

DIY KNIFE MAKING GUIDE



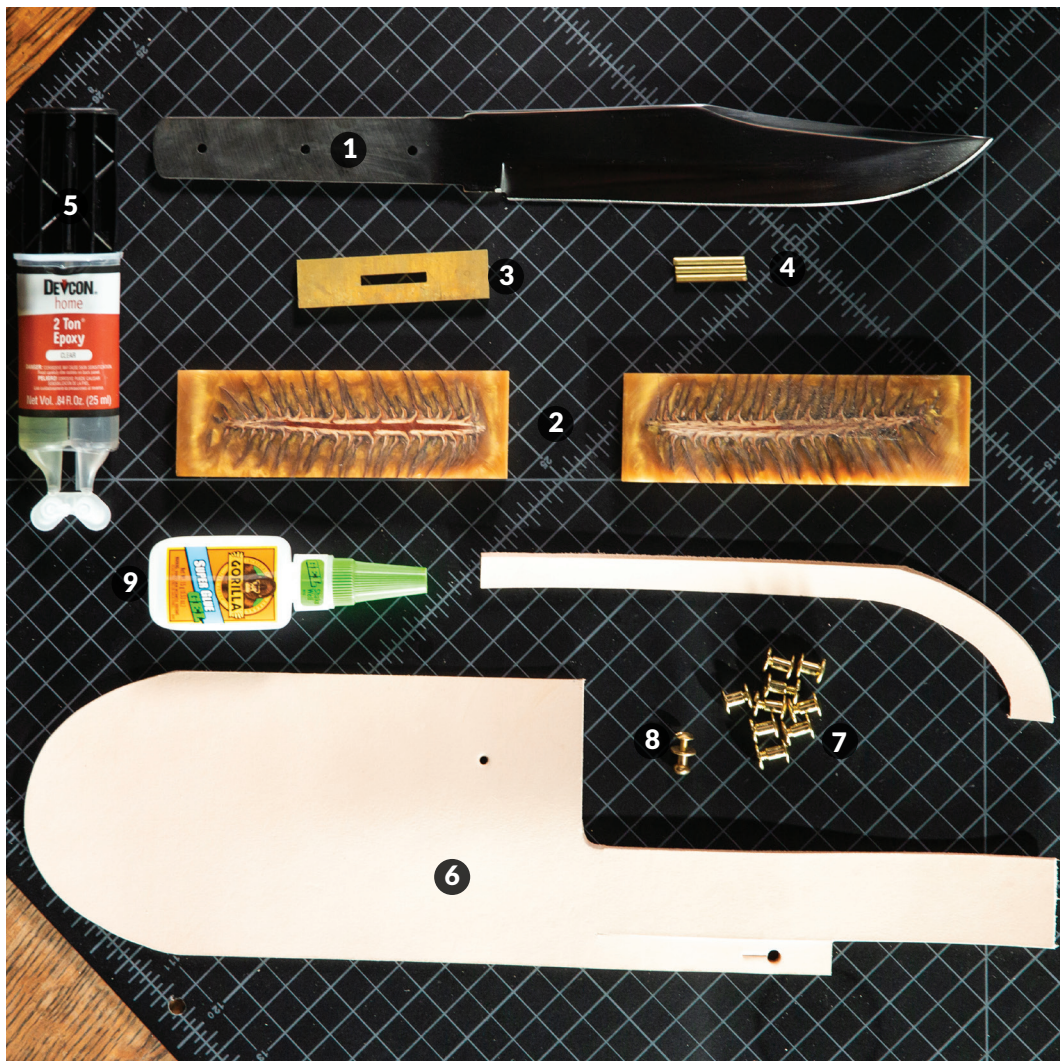
MAN CRATES

Despite what you might've heard from a certain popular 80s film, the Bowie knife isn't an Australian invention at all. It was made popular by famous knife fighter Jim Bowie in the state of Arkansas. Which shouldn't really be a surprise. It makes sense that a place with "saw" in the name would be known for the quality of their blades.

This Bowie knife measures 13" in length and clocks in at a solid 58 on the Rockwell Hardness Scale. That's longer than many human forearms and harder than The Rock's biceps. It's handle is made of gorgeous pine cone, stabilized in marbled resin, for a knife with a style as sharp and unique as its blade.

The Pine Cone Bowie Knife Making Kit gives you the chance to craft this beautiful knife with your bare hands. So...we call this a knife? Yeah, we do. But only because "high-grade, built-to-last, blade of glory" was a bit of a mouthful.





CONTENTS

- ① 8A Arkansas Bowie Blade
- ② Stabilized Pinecone Scales
- ③ Brass Guard
- ④ Brass Pins x3
- ⑤ 2-part Epoxy
- ⑥ Leather Sheath Pieces
- ⑦ Brass Screw Rivets
- ⑧ Brass Stud Rivet
- ⑨ Gel Superglue
- ⑩ Booklet

The Blade

This giant bowie blade is made from high quality 8A steel. This stainless steel is composed of carbon, chromium, and vanadium, which contribute to its hardness, durability, and edge retention. It will make for an excellent companion.

The Handle

The handle is the most intimate and personal part of your knife, so we took extra care to make sure it's handsome and strong. This full tang handle will be scaled with two halves of a stabilized pine cone. Each piece is unique and cased in colored resin, combining for a truly one-of-a-kind and beautiful handle. A solid brass guard will protect your fingers when chopping and provide extra leverage when carving.

The Sheath

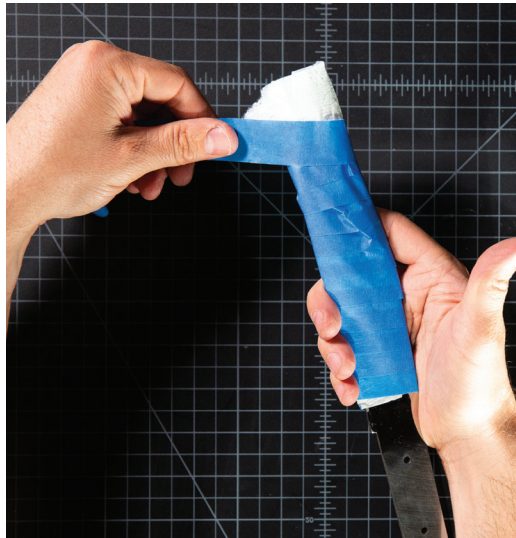
Your knife wouldn't be complete without the means to carry it. You'll get to make the sheath yourself, using pre-cut, vegetable-tanned leather, glue, and screw rivets. You're welcome.

*** TOOLS YOU'LL NEED:** You'll need a vice, rasp and file set, screwdriver, utility knife, sandpaper, and a drill with various drill bits to complete this kit.

Step 1: **ASSEMBLY**

Alright, MacGyver, time to get going.

Before diving in, let's take some safety precautions. Since you'll be handling the knife extensively during the process, it's best to use toilet paper and painter's tape to cover the blade of the knife. Wrap with 5-6 squares of toilet paper, then use the painter's tape to securely wrap the entire length of the blade. Don't skip this step, you'll thank us later.



Let's take a dry run and assemble the handle of the knife. We'll start with the guard. Slide the brass guard onto the handle until it's flush with the guard stop. If the fit is tight, you may need a hammer or mallet to tap the guard into place.

Place the tip of the knife against a block of wood, then tap down on the guard with a hammer, alternating sides until it's securely in place.

If necessary, use the epoxy to attach the guard in place. You'll need to allow time for the epoxy to fully cure, so be productive and do pushups or something.

Use a razor blade to remove any extra epoxy from below the bolster. This will allow the handle scales to sit flush. Next, epoxy one of the handle scales to the side of the tang. You can decide whether you'd like the core or exterior of the pine cone to face outward on the handle. Both are beautiful, but the pictured knife has the core facing outward.

After it cures (more pushups), use the holes in the tang as a guide to drill holes in the attached handle scale. Use a 1/8" drill bit to complete the holes for the pins.

Repeat this process with the other handle scale by attaching it with epoxy and drilling the holes.

Finally, again using epoxy, slide in the brass pins to finish assembly.



Step 2: SHAPING



There are a lot of methods you can use to shape the handle, so this is where your creativity will really shine through. Hand tools, like a rasp and file set, work well for shaping the brass guard, pins, and even the stabilized pine cone. If you have the means, a belt sander or rotary tool would make short work of this step.

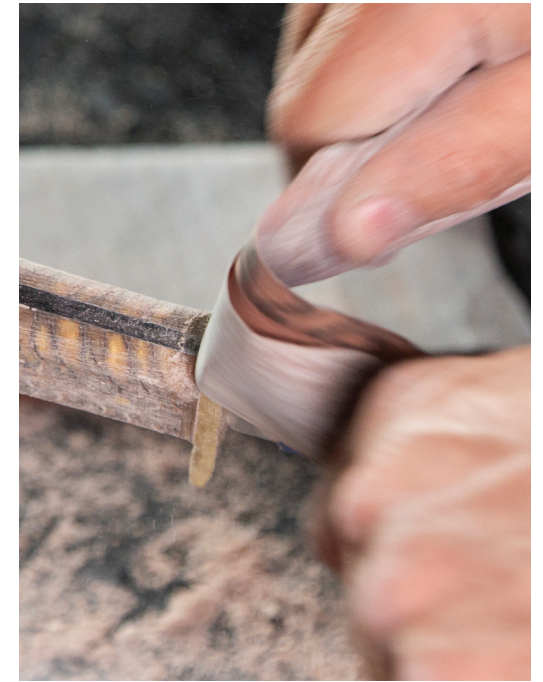
Use a file, grinder, or hacksaw to cut the pins flush with the handle scales.



PRO-TIP: The brass guard can also be shaped with the same hand tools. Rounding the corners and tapering the handle along the length can make it more comfortable and more functional.

Remove any excess material that hangs over the tangs until the knife profile is flush with the steel tang. Now, it's time to maximize comfort and character. Keep removing material until it feels comfortable in your capable, knife-making hands.

If you're using a course tool, like a rasp, be sure to leave extra material around the edges, so that you can work out the



deep scratches with a file before arriving at your final shape.

Woah there, cowboy. Don't start sanding until you've achieved the desired shape with your other tools. Be sure to file out any deep scratches in both the brass and resin parts.

Step 3:

SANDING



Before moving on to sanding, it's a good idea to wear some lung protection. A dust mask will save you from the infamously uncomfortable "pine cone lung."

Start with coarse sandpaper, somewhere around 80 grit, and sand until the material has reached a consistent level of smoothness. Work out any scratches you made from filing, then move on to a finer sandpaper.

Continue working your way up, all the way to a fine sandpaper, usually around 220 grit. Once you've sanded it smooth, wipe it clean with a damp paper towel.

If you still have deep scratches in the guard from shaping it, continue sanding with 220 grit sandpaper, and move up from there until your handle's smooth and fully formed.

PRO-TIP: You might find marks in the handle from bubbles made during casting, or cavities within the pine cone itself. If these imperfections bother you, whip out your epoxy and fill in the gaps before sanding flush again.



The stabilized pine cone doesn't require any special finishing compounds. The plastic itself, and even the pine cone through the stabilizing process, are durable and water resistant.

To achieve a smooth and transparent finish, use extra fine wet/dry sandpaper. Start at 400 grit, then work up to 800. At the higher grits, it's helpful to use a little water on the paper to keep it clean. Otherwise, the dust could build up and clog the sandpaper.



Give the same treatment to the brass guard and pins until everything has a smooth shine. If you'd like, you can use a buffing wheel or rag, with some buffing compound, to add a final level of polish to your new handle.

PRO-TIP: The stabilized pine cone is a fairly soft material while, as you've probably guessed, the brass is not. Plan to spend a lot more time working out the scratches on the guard than the handle.

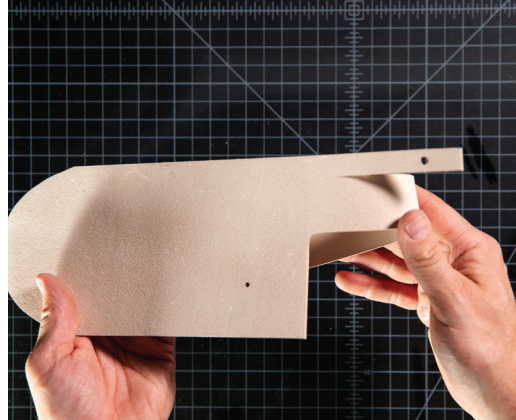
Step 4: **SHEATH**

The sheath kit includes two leather pieces. The panel and a welt. The welt is sandwiched between the panel when it's folded and provides structure while preventing the blade from either cutting the stitching or hitting rivets.

To begin, fix the button stud rivet into the hole on the front panel of the sheath. Use a screwdriver to drive the back screw into the stud, sandwiching the leather in between.

Next, fold the belt loop so the two punched holes line up. Then fix them with a screw rivet. If everything's going smoothly, the rough side of the sheath should be facing out on the belt loop.

Now, we'll use the gel super glue to assemble the pieces of the sheath. Apply a layer of glue to the welt, then press it onto the back panel of the sheath. The rough side of the leather should be inside of the sheath. You may need to wet the leather to make it pliable enough to fold before gluing. After wetting, allow it to dry before gluing.

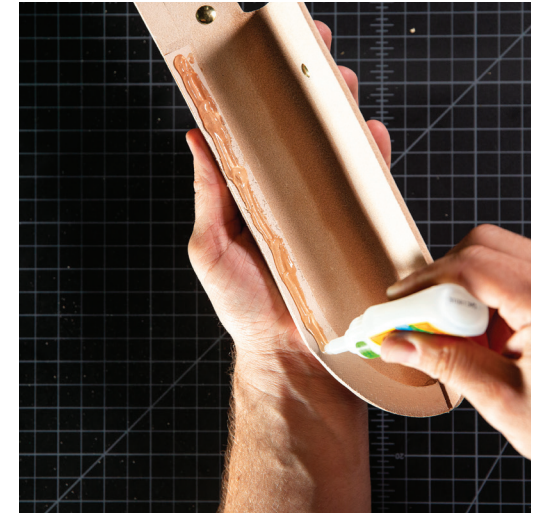


Take care to line up the sheath's outer edges as flush as possible. The glue doesn't require clamping, but you should use your hands to press the two pieces together for about a minute to allow the glue to set.

Repeat this process to glue the front part of the panel to the welt as well.

Evenly space out and mark where you'll drill holes to place the rivets. You'll need 7 rivets, spaced roughly over every inch. The holes should be made $\frac{3}{8}$ " in from the edge of the sheath.

Using a $\frac{1}{4}$ " drill bit, carefully drill holes through all three layers of leather. Use a razor to clean up the edges of the holes. Finally, install each of the rivets with a flathead screwdriver.



Step 5: **FINISHING**

You're almost done, but it's time to put on the finishing touches. To clean up the edges of the sheath, get your sandpaper back out. Sand the edges with coarse sandpaper to get them as even and smooth as possible, and to clean up any excess glue. As before, move up to a fine sandpaper and sand until the edge is smooth.

Use a bit of water to wet the edges of the sheath, then take a hard surface and burnish the edge of the knife. You can use a piece of wood, metal pipe, or, if you're feeling creative, even the bottom of a spoon to burnish the edge. Rub your chosen object against the edge to create a friction that will slowly compress and polish the leather. The finished edge should have a smooth and glossy finish.

Congratulations! You've finished your knife. Strap that sheath to your belt and wear it with pride, you know, as long as you're in a place where you can legally carry it.



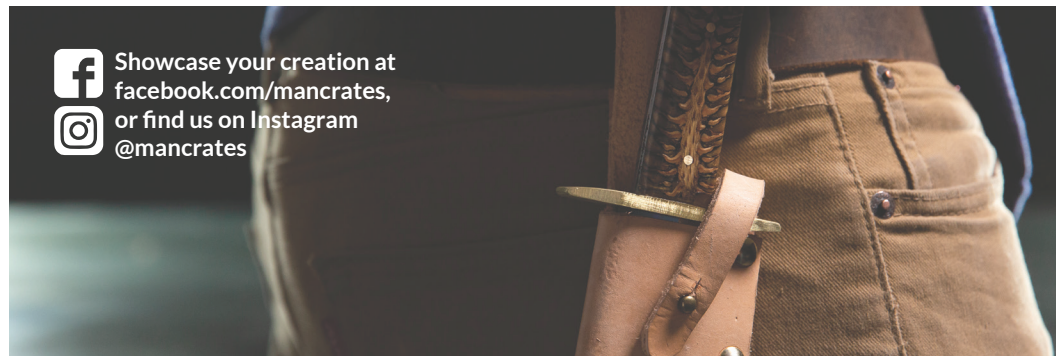
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