



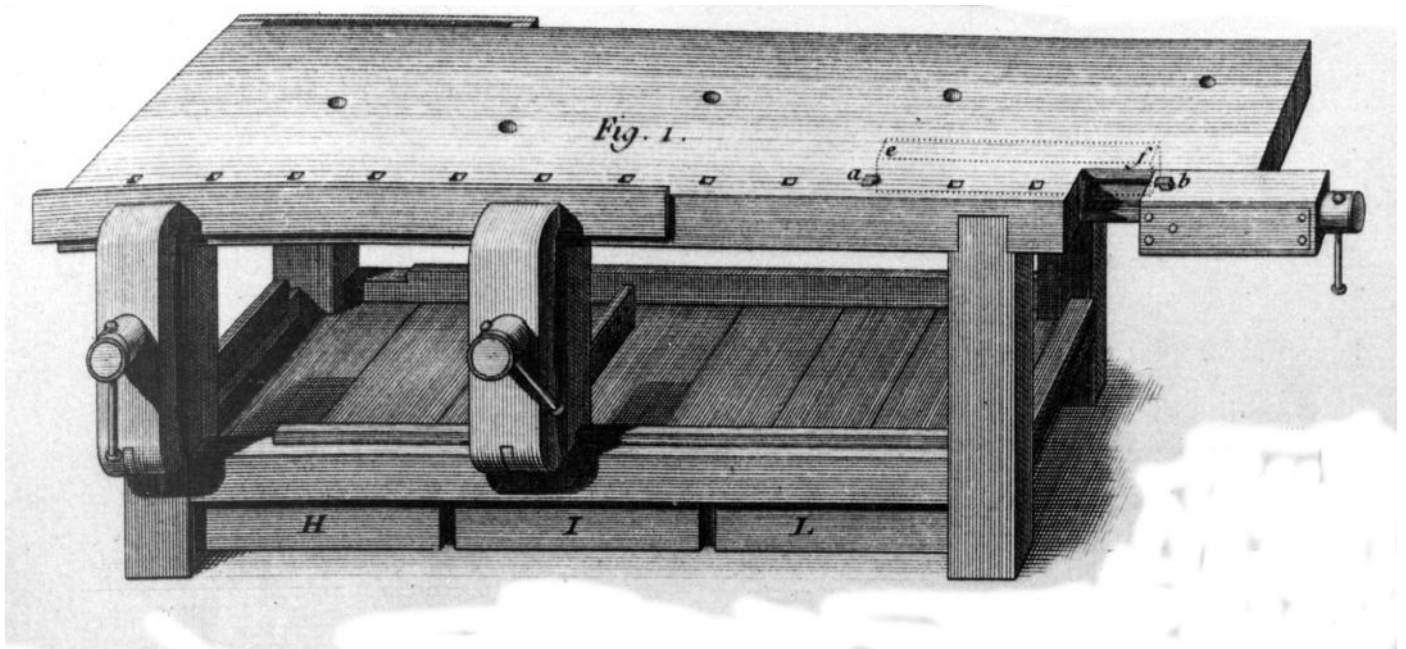
SPLIT-TOP ROUBO BENCH PLANS

Design, Construction Notes and Techniques



Effortless Workholding

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Roubo's German Cabinetmaker's Bench from "L'Art Du Menuisier"

~ Design ~

The Benchcrafted Split-Top Roubo Bench is largely based on the workbenches documented by French author André Roubo in his 18th-century monumental work "L'Art Du Menuisier" ("The Art of the Joiner"). The Split-Top bench design primarily grew out of Roubo's German cabinetmaker's bench documented in volume three of Roubo's series. Author and bench historian Christopher Schwarz, who has re-popularized several classic bench designs of late, and most notably the Roubo, was also an influence through his research and writings. We built a version of Roubo's German bench and it served as a platform from which the Split-Top Roubo was conceived.

We were attracted to the massive nature of Roubo's German design and were interested to see how the sliding leg vise in particular functioned in day-to-day use. From the start we opted to do away with the traditional sliding-block tail vise, with its penchant for sagging and subsequent frustration. In the process of the bench's development the Benchcrafted Tail Vise emerged and it has proven to be an excellent workholding solution, solving all of the problems of traditional tail vises without sacrificing much in terms of function, i.e., the ability to clamp between open-front jaws. For all the aggrava-

tion that the Benchcrafted Tail Vice eliminates, that feature isn't missed all that much. In building the prototype bench and using it daily through several projects both large and small, the better features of the bench began to emerge.



The distinguishing feature of Roubo's German bench is the sliding leg vise. When we built our version we decided at the outset that the bench should have a sliding leg vise, just like the Roubo. This vise has one major advantage. It excels at holding large or long workpieces very securely.



Think of the sliding leg vise, coupled with the stationary leg vise, as a widely-adjustable twin-screw vise. You can slide the vise all the way to the left for narrow work, or move it to the right for working the ends of wide boards. It holds the work rock solid, and eliminates having to lift a large, heavy panel high into the air to place it between the jaws as with a twin-screw. The sliding leg vise has one major drawback however. When you're not using it, it gets in the way. The chop and protruding hardware are always front and center, knocking into a leg or hip, frequently needing to be slid away from the work area. Since the vise was built to be easily removable, its mostly kept stored away.

Later, a sliding deadman was added to the bench to compare its function with the sliding leg vise. The deadman has many of the same functions as the sliding leg vise when coupled with a clamping accessory. It works well with the Veritas Hold Down and Surface Clamp, and the Gramercy Holdfast or other holdfasts. The deadman serves quite well compared to the sliding leg vise. In fact, since building the deadman, the sliding leg vise has been gathering dust. The deadman never gets in the way since it's completely flush with the front of the bench. We include a sliding deadman in the Split-Top Roubo design instead of the sliding leg vise for these reasons. It's a more refined accessory, and fits in better with the principle of "effortless workholding".



The sliding deadman

Quite satisfied with the Benchcrafted Tail Vise and its ergonomic hand wheel and quick, easy action, we developed the Benchcrafted Glide Leg Vise with the same operating principles in mind. The prototype was tested for several months. The Glide took a permanent position at the front of the bench and we couldn't be more pleased with its function.



Having refined the three major workholding elements of the bench, we built the first version of the Split-Top Roubo: a 6' bench with knock-down joinery and a two-piece, removable top, all intended to make the bench easy to move while still providing a robust structure. A 4" thick top in any species is a bear to move around. Splitting the top into two pieces makes the task more manageable. The gap is sized to be wide enough to accommodate a parallel-clamp head in order to hold work or cabinetry down to the top. This is a feature found on many modern workbenches.



Split-Top Roubo, 6' version w/o shelf or sliding deadman

We then built a larger, 87" long version of the Split-Top Roubo with a more robust base (the legs are 5-3/8" x 3-1/2"--modelled after Roubo's original 6" x 3" legs), a sliding deadman, shelf, and a new accessory, the "Gap Stop", to further take advantage of the gap between the tops. This is the bench these plans are based on.



Split-Top Roubo, 87" version w/ shelf and sliding deadman

The Gap Stop fits snugly between the tops (but still slides out easily) and serves as a planing stop, or for any time you need to work across a board. It rests on the tops of the short upper rails and can slide down to either end of the bench to be used as a bench hook for cutting stock to length.





The Gap Stop has its own gap running down the middle. This is a handy spot for storing tools without cluttering the bench top. It also prevents tools from rolling between the gap and falling to the shelf. Additionally, the Gap Stop flips over, engages the upper short rails (see the notch) and becomes flush for an uninterrupted top surface.

We've designed the base with knockdown joints on the long rails using our own knockdown hardware. Benchcrafted Barrel Nuts makes construction and assembly quick and easy. This knockdown joint is as robust as a permanent joint, plus it makes moving the bench easier. The tops are also easily removable, unlike Roubo's original. The tops key onto four massive, well-fit tenons and lock to the base with four high quality lag screws. It effectively makes the tops and base one unit, and offers the option to tighten things up should they tend to loosen with seasonal changes.

Roubo's German cabinetmaker's bench itself is quite simple and can be interpreted in various sizes to suit the individual woodworker's needs. What makes the Benchcrafted Split-Top Roubo Plans unique, apart from the Split-Top and Gap Stop features, is that we've drafted the plans around our own vise hardware, making the vise installation clear and straightforward, in a length that works perfectly for furnituremaking. -BC



~ Construction Notes and Techniques ~

Tackling a project of this size requires knowledge and skill in basic woodworking processes and techniques that fall beyond the scope of these notes. If you are just getting started in woodworking, get some experience under your belt first by taking some classes, or learning from a friend or local club. Please feel free to contact us at jameel@benchcrafted.com if you have any questions about the plans or the bench.

· Important note about safety ·

With any woodworking project using hand or power tools, your own personal safety should be your first concern, and is your own responsibility. Under no circumstances should you perform an operation or technique if you feel unsafe or unsure of yourself. Use guards and safety measures at all times. Keep in mind that the parts for the bench, once assembled, are very large and very heavy (especially the top sections) and take a bit of effort and strength to move around the shop and process through machines. Get help if you think you'll need it, and make your physical well-being your first priority. You are responsible for how you work, and what happens in your shop.

· *Choosing wood* ·

The prototype for this bench was built using soft maple. We think this is an ideal wood for benches. It's easy to work, heavy enough, stiff enough, inexpensive and readily available. However, we also have built benches from hard maple and ash. These are all excellent woods. Hard maple, although expensive in many areas, is the traditional choice. The abundance and low cost of ash have made it a popular choice lately. It's stiffer than hard maple and it makes a very beautiful and functional bench. Softwoods like yellow pine and douglas fir are also considerations. These are probably the least expensive choices, but not everyone likes the idea of a softwood bench. The dimensions of this bench mean its going to stay put regardless of species, so using a softwood might make sense--it has some "give" in the top surface, meaning that its less likely to damage a hardwood project part than a harder bench. Beech, if you have it in your area, is also an excellent choice. No matter what wood you choose, get it in the shop and let it rest for a bit before starting the bench.

· *Ordering lumber* ·

You're going to need about 150 board feet of rough 8/4 lumber for the bench. If you're able to pick through the lumber at your local yard, try to find boards for the top that are either around 5" wide or at least 10" wide. This is usually enough to straight-line rip and joint the boards for the top. If you end up with a bunch of boards around 6" or 7", you'll end up with a lot of waste when you rip the boards for the top, and you might find yourself short on stock as the project moves along. When we build this bench we order 200 board feet of 8/4 stock, straight-line ripped and skip planed. We do have some leftover, but this comes in handy for building accessories and other projects. The best way however is to make up a rough list of what you need from the measured drawings and pick through the stack at the yard for the best boards.

· *Get all your stuff in one place* ·

Don't start to cut wood unless you have everything you need to finish the bench. This includes the knockdown hardware, the vises, and any accessories you intend on adding to the bench after its built, like holdfasts for example. Also, read completely through the Glide and Tail Vise instructions before starting the project. This bench, if built correctly, will last the rest of your life and those of future generations. Don't take any shortcuts, and don't rush it.

· *Working from the measured drawings* ·

The measured drawings are comprehensive and include some dimensions that you won't necessarily need, but are included for reference. For example, the locations and dimensions of the leg mortises on the underside of the top are given. These mortises are scribed from the tops of the legs during the assembly process, the tops being positioned relative to the actual base, not by an arbitrary number. Likewise some aspects of the vise installations. Follow the sequence outlined in these notes, and in the vise installation instructions, and the reference dimensions will become apparent.

· *Build the base first* ·

If you have a shop without a lot of extra room, you should build the base first. The top is much larger and heavier, and if you build it first chances are you'll have to move it around the shop while you build the base. Ideally, you'll want to glue up the tops as the last step before installing the Benchcrafted Tail Vise so you can marry the top to the completed base when its done. Moving around the finished base components while you build the top will be much easier. Of course, if you have a shop large enough it doesn't much matter what you build first. The bench is 35" high. If you'd like to adjust this to your taste, the easiest way would be to add or subtract from the legs below the rails. If you do alter them, you will need to keep this in mind as you refer to the measured drawings, since many of the dimensions are taken from the "floor". Also be aware of the placement of the Crisscross hardware if shortening your bench from the plans. The Crisscross and Glide are drawn in their lowest possible position in the plans.

The base parts are made from 8/4 stock milled to 1-3/4" thick. The legs are glued up from two 1-3/4" boards to make a 3-1/2" thick leg. The base joinery is basic mortise and tenon work. We've used a number of techniques to cut this joint. Use whatever method you are most comfortable with. To join the four short rails to the legs we use drawbore pegs. This is an excellent technique which locks the base parts together using pegs driven through slightly offset holes drilled through the tenons. You can learn more about drawbored joints in various books and websites. Try a web search on "drawboring".

· *Knockdown joint technique* ·

If you decide to build the long rails with knockdown joinery, you'll need a long bit to drill the hole for the bolt. We use a brace and bit, but a modern auger bit and power drill will work

just fine. It's important to drill as straight as possible so the hardware engages easily. Cut the mortise and tenon joints first, then drill the counterbore in the leg for the bolt head and washer on the drill press. Counterboring here is optional, and entirely cosmetic. If you opt to eliminate the counterbore, you'll need to move the position of the barrel nuts towards the tenon shoulder by 1/2". Next, drill the hole for the shaft on the drill press as deeply as possible (newer drill presses probably won't have enough quill travel). Finish up with a brace and bit or power drill and auger. Assemble the joint and use the hole in the leg to guide your long bit into the end grain of the long rail. Drill as deeply as possible, then disassemble the parts and finish drilling until you meet the hole for the barrel nut. Use a slightly larger bit and re-drill the hole so the bolt slides in easily. You can also rasp the hole to slightly enlarge it. If you'd like a permanent joint for the long rails, use drawbore pegs as on the short rails. The tenons on the back long rail are sized for a permanent joint, but feel free to use shorter tenons and shallower mortises if you're using the knockdown option. If permanently drawboring the long rails to the legs, you'll need to make longer tenons on the thicker front rail that only extend at the back of the rail, so you don't encounter the Crisscross mortise. We recommend using the knockdown joints illustrated in the plans.

The dimensions for the through holes and counterbores on the measured drawing are typical. You should however check the hardware itself before drilling any holes. Some manufacturers use slightly different tolerances when making fasteners, in addition to the difference between fine and coarse grades. It doesn't much matter if the holes match the dimensions on the plans if the hardware you have doesn't fit.

· *Leg details* ·

You'll want to accomplish all the necessary operations on the base parts before final assembly. Cut all the joinery (including the tenons at the tops of the legs) and proceed to dry fit the base together. Mark for the drawbore pegs and drill the offset holes in the tenons. Plow the grooves for the shelf ledgers. Drill the holes for the holdfasts in the right leg, as well as the access hole under the first dog. DO NOT cut the dog hole extension in the top of the right leg yet, this is done later after the top is built and fit to the base.

· *The Glide* ·

Follow the installation instructions for the Glide Leg Vise (available any time via our downloads page.) Read completely through the instructions before beginning. The entire vise should be installed with the leg free of the bench. Completely finish the milling and

joinery operations on the base parts before installing the vise. You can completely install and tune the vise before base assembly because the Glide doesn't involve any other parts of the bench other than the leg. Make sure you leave the chop long at the top though, by at least 1/2" beyond the final top surface. You'll trim it to length and bevel the outside corner after the bench is complete and the top is flattened. You can use the templates at the end of the Glide instructions, or take the dimensions from the bench plans themselves, they are the same. The Chop is illustrated as being only 1/4" shorter than the bench height. If you want more clearance here feel free to shorten the bottom of the chop. If you want more than 1/2" clearance, you should raise the Crisscross and vise hardware to accommodate such. The Chop is drawn 9" wide. This is a "widest" ideal. We've made them narrower and they work fine. The Crisscross Solo mounting pins are 8" long, so if you make your chop 9", the pin in the chop will be recessed 1/2". This is fine.

· *Wrapping up the base* ·

Once the Glide is installed and running smoothly, complete the final assembly of the base. The shelf ledgers are glued into their grooves. We drive a few screws through the ledger into the rail so we don't have to use clamps. Cut the ledgers a bit short (1/8") in length, so they don't protrude past the shoulders of the rail tenons and interfere with the base assembly. If you're going with the knockdown joinery, you'll have to cut two arcs in the bottom edge of the long ledgers where they meet the barrel nuts so you can access the holes in the long rails. You can also just cut the ledger into three sections if you don't want to fuss with cutting the arcs. If you'd like to cut stopped chamfers on the edges of the legs and rails, mark for them with the base assembled and shelf in place. If you don't, there's a chance you could chamfer an area where the leg meets a rail or other areas where the chamfer would be unsightly. We usually assemble the base leaving the square corners intact, then route the chamfers afterwards or simply break the sharp corners with files or sandpaper. Don't chamfer the top edge of the front long rail where the deadman runner attaches.

· *The Tops* ·

Select the best wood for the top. The top is built up from 8/4 lumber (thinner boards work too, it's just a bit more labor to build) ripped to a nominal 4-1/2" wide and glued face to face. If some of your boards are wide enough to get two laminations from, you will likely encounter some crook as you rip the boards. Rip these boards to 5" wide (get at least 10" clear boards or 5" clear boards for the top) and let them rest for a day or

two before further processing. You can rip the other boards to 4-1/2", that's usually enough to joint off any irregularities and then plane to an even width. We joint one face and one edge, then plane to thickness and width. Keep your boards as long as possible at this stage, a full 8" over length should be good. Starting with 8' boards should be adequate to account for snipe and end checks. The final thickness of the individual laminates is not important, but you do want to end up with a final top width that leaves rather thick boards at both edges. In other words, you don't want to end up with a top section that's so over width that the last lamination ends up being 1/2" thick. Better to plane each laminate a little so the overall width narrows, leaving the edge laminates as thick as possible. If you are very careful with your stock prep and gluing technique you can end up at final width, or very nearly so. You don't want to have to rip a top section to final width. It will be very long, very heavy, and unwieldy to run over a table saw. A track saw would be ideal for trimming to final width, but again, if you plan accordingly you should be able to glue up at near final width and perhaps only have to joint off a little bit of material at the jointer or with a hand plane. Orient each laminate so the grain direction at the top surface favors hand planing the top from right to left (if you're right-handed). This will make things easier when you flatten the bench later.

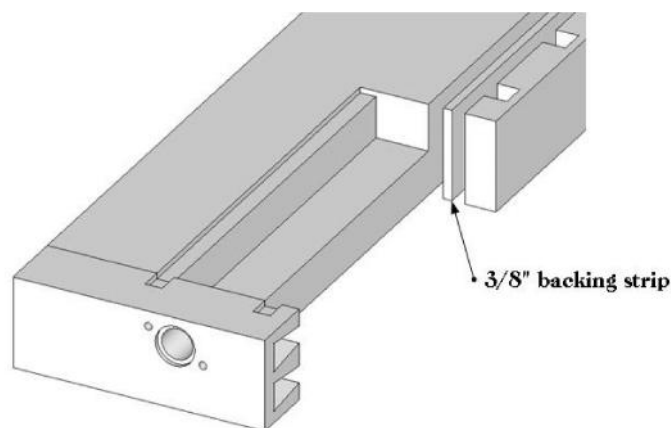
Once you get all your stock prepped and ready to glue, you might want to place about 4 biscuits, dowels, or Festool dominoes along each glue joint. This will help keep the laminates in place during glue up, and thus greatly reduce flattening time later on. Make sure you keep the biscuits in from each end, you don't want to expose them after you cut the tops to length. Since the laminates were planed to width (4-1/2" or less) they should be very consistent and the glue-up should be quite flat afterwards. The more precise you are at each step before glue-up, the easier each subsequent step will be. We like to use a 1/16" notched putty knife to spread the glue. It guarantees the proper amount of glue and keeps cleanup to a minimum. Squeeze-out occurs in small beads all along the glue joint, and is easy to scrape off after curing. If you've never tried this before, do a test on a short section of scrap the same width as the laminates to get a feel for how it works. We recommend gluing no more than three laminates at a time. This means two glue applications per session. We also fit each joint by hand, using a #7 jointer plane to prep the surfaces and correct any errors from the power jointer and planer. If you have sharp knives in your machines and are satisfied with how your joints are coming together off the machines, you can dispense with this step.

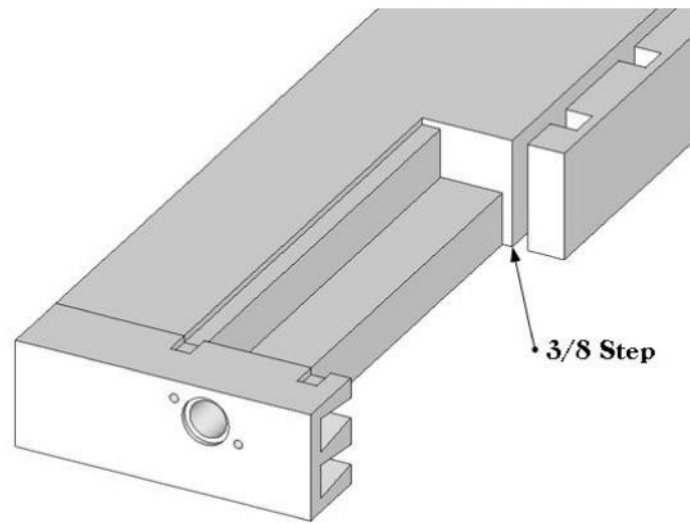
The rear top section should finish out at 11-3/16". If it's a tad (1/16") under or over this, it's not an issue, you can just build the Gap Stop to fit. The front section however should be accurate since you will be installing the Tail Vise into it. Glue up the main body

of the front top section so it ends up right at 7-15/16". Once the two top sections are glued up, they are narrow enough to pass through any planer. Check the underside of the tops for flat using winding sticks, and correct with a jointer or trying plane, then run the whole top through the planer to make the top surface parallel. The tops are heavy. Make sure you have sufficient infeed and outfeed set up. If you prepped your stock carefully you should end up with two top sections that are nearly completely flat and just over thickness. Plane them to within 1/16" of final thickness if you are satisfied with their flatness. If you have access to a wide 12" jointer, you can flatten the tops with it, then plane to thickness. At this point you can cut the tops to final length. We use a sliding miter saw, flipping the tops over to complete this thick cut. Use whatever method you feel comfortable with. The front top section will be shorter than the rear section due to the addition of the end cap. Make sure you plan accordingly when cutting the front top section to length. Don't forget to account for the breadboard tenon if you use this joinery method when installing the Tail Vise.

· *Install the Tail Vise* ·

The front section is assembled to final width while installing the Tail Vise. The front two laminates, comprised of the dog hole strip and the front laminate need to be milled very accurately to width. The dog strip is 1-3/4" wide and the front laminate is 1-1/2" wide. Follow the installation instructions for the Tail Vise to complete the front top section. There are a couple options here for dealing with the dog hole strip. The plans call for a 3/8" thick backing strip that goes between the front top section and the dog hole strip. This is necessary to center the dog holes in the dog hole strip, since the square dog holes are routed into the strip before its glued to the bench. Alternatively, you can make the front top section 3/8" wider overall, then cut a long step into the front the length of your Tail Vise slot. This step becomes the inside edge of the Tail Vise slot. The dog hole strip will be 1-3/8". See the illustrations below.





Cutting the step is a nicer way to do it, but gluing on the 3/8" backing strip is easier and less risky. If you opt for round dog holes, simply make your front top section as shown in the plans, and make the dog hole strip 1-3/4" wide (you don't need the backing strip), drilling the holes on the drill press while the strip is still free of the top. There are no centering issues with round dog holes, just drill them right down the middle of the strip.

· *Topping it off* ·

Once the tops are finished and the Tail Vise installed you can mount the tops to the base. Place both tops upside down on a pair of horses or a low bench and arrange them exactly how they will rest on the base. Then put the assembled base upside down on the top and shift around the tops and base until the front and back edges of the tops are flush with the outside faces of the legs. Make sure the base is in the correct position along the length of the tops--the right face of the right front leg should be flush with the end of the Tail Vise slot.

When you are satisfied with the position of the tops mark all around the leg tenons, transferring their exact positions to the tops. You can use a marking knife or a sharp pencil. Either way, you want to end up with a nice sweet fit so the tops can't shift around. Remove the base and excavate the mortises using your preferred method. We use a plunge router and fence, cleaning up the end grain with a chisel. Cut a small chamfer all around the mouth of the mortise to help the tops ease onto the tenons. Likewise chamfer the top of each tenon.

With the tops upside down and at a convenient height now is a good time to cut the slot for the deadman. Make sure you don't cut all the way to the leg mortises. The slot stops about 1" from the mortise.

· *Preliminary flattening* ·

Set up the base in a level area of your shop (the base should have solid footing on all four legs) and set the tops in place. Check the tops to make sure they are in the same plane. Get down low and sight across the tops from the front and ends, using winding sticks to amplify the errors. You want to get the tops as completely coplanar at this time as possible. You can make corrections by planing the underside of the top where it rests on the base. This saves from having to make subtle corrections to the entire top surface, since you can make adjustments by just planing the areas where the tops rest on the base. Use traversing strokes (across the grain) and frequently check your progress by replacing the tops onto the base. The tops should seat firmly onto the tops of the legs and the upper rails. If there are gaps, correct them. The tops should bottom out solidly, without rocking, under only their own weight.

When you are satisfied, use a transfer punch through the holes in the short upper rails to mark for the lag screws. Flip the tops over and predrill for the screws. Replace the tops and drive the screws. The tops should be nearly coplanar, and the entire bench should feel like one solid mass without any play or movement.

· *Flatten the top* ·

To flatten the tops and get them completely coplanar, use the longest bench plane you have. We use a #7 or #8 plane with a lightly cambered iron. Check again with winding sticks for flatness and if the tops are coplanar. You'll also want to use a 24" straight-edge to verify that both top sections are even across the width. Your plane will tell you as you traverse the top-you'll get continuous shavings all the way across-but the straightedge will give you a quick read on where the work needs to start.

Before you begin planing, you'll need to chamfer the front edge of the Tail Vise slot, the back edge of the front top section and the back edge of the rear top section before you plane across (traverse) the top of the bench. This will help prevent the grain from splintering (spelching) as you work. Even with the chamfer, spelching can occur, especially if you take a heavy cut. Pay attention to the grain direction and take light cuts to start. If you blow out some of the grain in the Tail Vise slot, stop and try to glue the loose splinters back in place before continuing. The top should already be quite flat, so ideally you shouldn't have to spend much time at this stage.

After you plane across the grain, plane along the grain to get the top flat along its length. Once you get it flat, you might want to take light, regularly-spaced traverse strokes to impart a more textured surface to the top. This textured surface holds onto parts quite nicely, and helps to prevent workpieces from the skating around that a smoother surface allows. Don't be tempted to smooth plane or polish the top of the bench. You just want it flat, not slick.

· *Extend the first dog hole* ·

Once the tops are flat it's time to extend the first dog hole through the top of the leg until it meets the access hole bored through the leg. Use a pencil and mark around the inside of the dog hole where it meets the top of the tenon on the leg. Remove the front top section and drill out most of the waste from the leg. You'll be drilling into end grain, which will make the task a bit tougher. Once you've got rid of most of the waste with the drill, now comes the easy part. Chisel the hole square. (If you're using round dogs, just drill straight down to the access hole and you're done) It's easy because all the cuts are along the grain. You may want to start the work by replacing the top and using the dog hole to guide your chisel into the top of the leg. This works well, but since the dog hole is canted, you'll be cutting one side of the hole against the grain. Don't get too finicky here, just chisel out the waste enough for the dog to pass freely. If you have to chisel the area that's against the grain plumb instead of canted, it's no big deal. You're not going to compromise the leg. You can also use a float or coarse rasp in this area instead of the chisel. It's more work, but you'll mostly solve the grain-direction issue.

With the hole finished and the top back in place, lightly chamfer the corners and ease the edges of the dog holes. Then, fit the dog block into the Tail Vise. Make sure you leave it a little tall (1/16"), then once it's screwed in place and running smoothly, plane it flush with the top of the bench. If you want to get really finicky, you'll remove it and plane from the bottom so you don't alter the offset at the top of the dog hole. Make the bench dogs according to the plans. If you face them with leather, make the head a little shorter to leave room for the leather, which just gets glued on. We don't glue the spring on, instead using two screws. Should the spring get damaged or worn, it's a quick repair. You only need two dogs, but we like to make one for each hole. It saves from having to move a single dog around so much, and it also helps prevent small items from falling through the dog holes.

· *Make the shelf* ·

If you haven't build the shelf yet, what are you waiting for? It makes the bench look

great, in addition to having a higher purpose in its low position--it's a great place to store bench accessories and keeps things up off the floor. The shiplapped shelf boards rest on the ledgers without any fasteners. They are made from random-width boards (if you are finicky, you can of course divide the space into equal portions). Make sure you allow for wood movement here. The shelf boards can buckle and rise up in humid months if there isn't enough clearance in the joint.

· *Complete the Glide* ·

Reinstall the Glide and Crisscross into the leg, close the vise completely and mark the length of the chop flush with the top, or better yet, just a little below, like 1/16". Cut it to length then cut or plane the chamfer (or roundover, or whatever suits your taste) on the outside corner.

· *Make the Gap Stop and the Deadman* ·

See the measured drawings for the Gap Stop dimensions. It's just glued together. Get the fit of the parts right between the tops before you glue it up, since it's hard to plane the Stop to thickness after assembly. The hollow areas tend to bow away from the cutting edge. You want it to slide in easily. Make sure you account for wood movement here. If you're building the bench in a dry time of year, make the fit loose. A trick we use for keeping the short piece from shifting around during assembly is to drive four brads into each side of the small pieces and clip them off with some nippers close to the surface. When you clamp them up the tiny points keep the pieces from sliding around. The notches for the rails are cut into one side of the Gap Stop after assembly. You can also make other Gap Stops for different purposes. Use your imagination and tell us what you come up with.

Make the deadman and runner according to the measured drawing, then glue the runner to the rail. You might want to attach it with screws instead (five is plenty). Your choice. 3/4" holes in the deadman will handle accessories from Veritas and Gramercy. We recommend the Gramercy Holdfast (available from Tools For Working Wood in Brooklyn, New York), which is also used in the top of the bench and the right leg. In the deadman it serves as a board support as well as a clamp to hold boards against the front of the bench. A shop-made wooden peg will also work as a support for long boards.

· *Finishing Up* ·

You can apply finish to the bench to protect against glue and stains. The bench is not a piece of furniture. The urge is to finish it beautifully and smoothly. Resist! One coat of boiled linseed oil, or a danish-oil type finish is plenty, followed by a light coat of paste wax. We like Minwax Antique Oil, commonly available. If you don't plan on ever gluing or finishing on your bench, no finish is probably the best. The grippy texture of hand planed wood, especially transversely planed, is a great surface to work on.

· *Make a mark* ·

You've just finished a lifetime project. Something that you'll use to build fine furniture for yourself, family and friends, and perhaps customers. With time, you may become quite attached to it, not necessarily because of what it is, or how you built it, but maybe because of what it represents--a means to connect with other people through your craftsmanship. In this day of mass-produced, poor-quality soulless objects, a traditional, hand-crafted workbench is akin to a family heirloom dining table. Carve or stamp the date and your name onto an inconspicuous area of your bench. Future generations will appreciate finding the craftsman's name who produced it.

~ The Benchcrafted Split-Top Roubo ~





Ash bench with Glide M Leg Vise













