



## BENCH-ON-BENCH

The original modern inspiration for this bench on bench came from an article by Jeff Miller in the March/April 2005 issue of Fine Woodworking Magazine. Jeff has given his blessing for the manufacture of these benches. The idea, however, has even earlier roots, going back at least as far as Moxon (1678) and other early woodworking documentation. The basic concept is simple. A twin screw vise is clamped on top of a regular workbench to raise it up and to make it easier to precisely saw dovetails and do other close work. With the work closer, it is easier to see, and the correct angle of the saw to the wood is easier to maintain without stooping or hurting your back. In addition, and in a departure from historical sources, this bench on bench has a built-in 16" deep by 29-1/2" wide work surface for doing any manner of fine work. It comes equipped with 3/4" holes for holdfasts and carver's screws (not included).

The bench is approximately 1-3/4" thick hard maple butcher block, with a pair of specially modified veneer screws designed so that as you tighten the clamps your fingers will not get pinched. There is just over 24" between the two screws. The movable vise jaw is crowned in the center, which permits the jaw to securely hold a wide board, and to also hold a much narrower board. Simply tighten the screws evenly. Since the screws are not attached to the front vise jaw, securely holding a tapered board is automatic. With any board, just center it between the jaws, hold the front jaw against the center of the stock, and evenly tighten both screws.

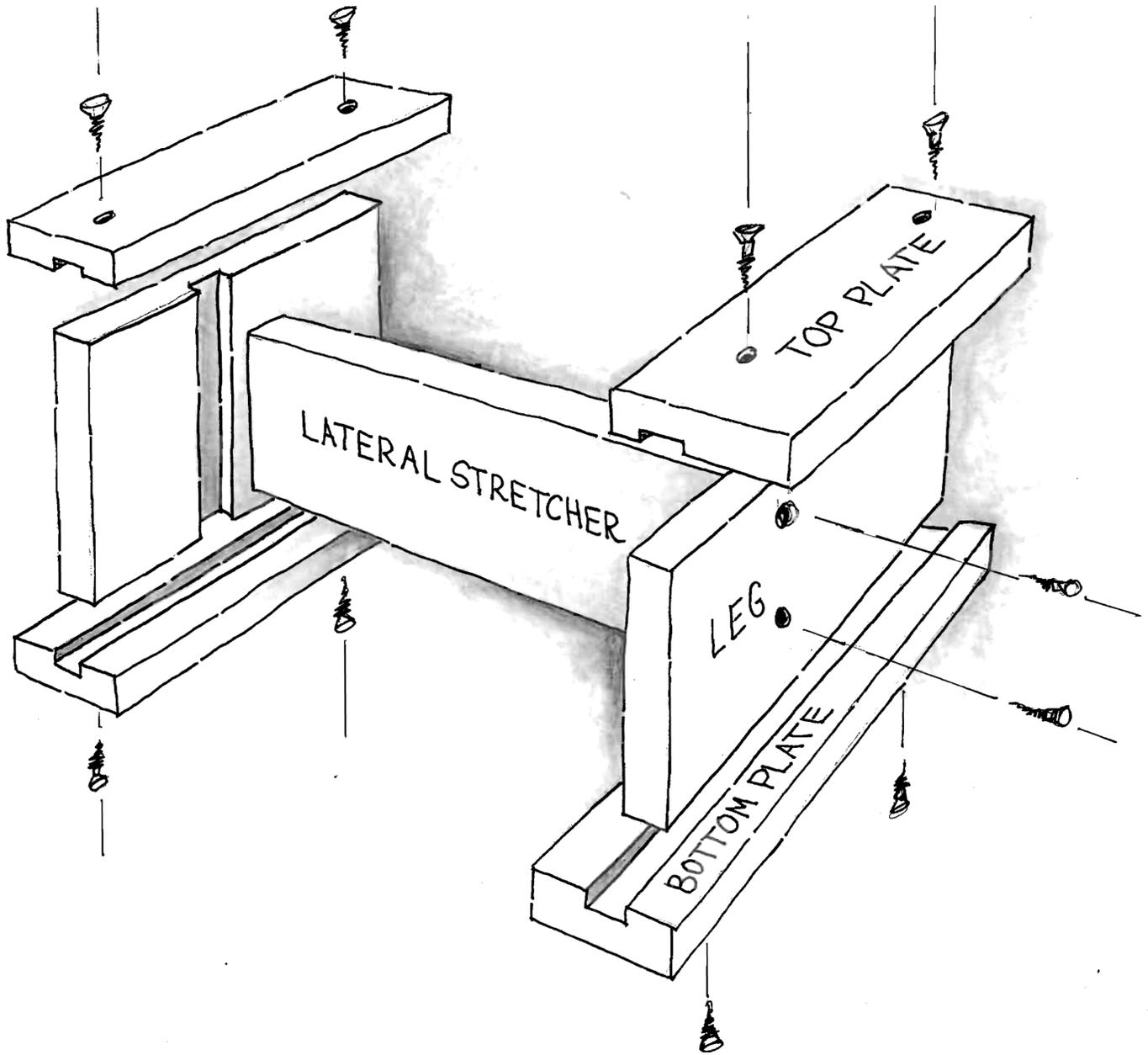
To raise the bench-on-bench to a convenient work height you need to build a set of legs. Some people will find it useful to make several sets of legs, at different heights for different operations. There are many different ways of building the legs. Below is a drawing of a simple, yet strong design that can be easily made from 3/4" cabinet grade plywood. With this design you screw the legs onto the bench top, and then clamp the whole assembly to your primary workbench top. Align the legs with the front edge of the bench-on-bench top.



When mounting the bench-on-bench on your primary workbench, use a square to set the front edge of the rear vise jaw (i.e., the edge of the bench) in the same plane as the front edge of your regular bench. This gives more stability for longer boards. If your primary bench already has conveniently located dog holes, you can then simply insert threaded inserts in the bottom of the bench-on-bench top match the holes. All you then need is a couple of pieces of 8/4 board, wide enough to achieve your desired bench-on-bench height. Place a long bolt with large washer up through the regular bench's dog hole, into the bottom of the bench-on-bench. Tighten up the bolts and your bench-on-bench is securely mounted without the use of clamps.

One of the principal uses of the bench-on-bench is in the cutting of dovetail joints. It will clamp even a full width carcass board, permitting the pins and tails to be cut without further clamping. If you are a "tails first" joiner, then cut the tails, and then clamp the pin board in the vise, level with the bench top. Position the tail board and clamp it to the bench top; proceed to mark out the pins on the end of the board, as shown. For assembly of a dovetail joint, clamp the pin board in the vise, vertical, at the height of the bottom of the pins, and tap the tail board home. For carving, some prefer a bench height equal to the distance of the carver's elbow to the floor. Build a leg set to achieve this height, and use a carver's screw or a holdfast to fasten down the wood. For detailed, close routing work, it is often better to elevate the work and the bench-on-bench is excellent for this usage.





## Bench-On-Bench Leg Assembly Legend

All Material: 3/4" plywood

| Part Name         | QTY. | Width             | Length          | Notes                                          |
|-------------------|------|-------------------|-----------------|------------------------------------------------|
| Top Plate         | 2    | 4"                | 16"             | Extra width to outside                         |
| Bottom Plate      | 2    | 3"                | 16"             |                                                |
| Leg               | 2    |                   | 16"             | Cut for desired height of bench                |
| Lateral Stretcher | 1    | 1/2 less than leg | approx. 26-1/4" | Stated length assumes leg set mounted as shown |

• ALWAYS WEAR EYE PROTECTION WHEN USING TOOLS •