This 19th-century design is a bit German, a bit French and entirely ingenious. Plus, we came up with a way around the typical sagging tail vise.

The Industrial Revolution did as much harm as it did good to the world of woodworking and workbenches. The Industrial Revolution created machines that could make metal handplanes and handtools obsolete. The Industrial Revolution created the woodworking machinery that made metal handplanes and workbenches. The Industrial Revolution created both the market and the ability to manufacture workbenches to encourage the spread of the modern training movement. And this, in my opinion, changed the course of workbench design in the 19th and 20th centuries. The old-style craftsman-made benches were displaced by the modern manufactured form, which is dominant still today.

But in 1875, when the world was balanced on a precipice with its rural past behind it and the modern age spread before it, this bench was published. It’s a tremendous book even today and is crammed with details on working wood and metal with both hand and power tools.

The author was the head of Holtzapffel & Co. of London, a tool-making enterprise that is best known for its line of elaborate lathes but also manufactured everything from scissors to gardening equipment to exquisite mirror planes.

I have doubts that Charles Holtzapffel actually designed or even advocated this particular bench. He died in 1849, and the edition of my book came out in 1875. I really should scour up an earlier edition of the book and see what sort of bench might be lurking there. Perhaps I’ll be able to afford that old tome after I finally go back to school and get a law degree like my parents wanted.

Why Build the Holtzapffel?

This 19th-century workbench can be built to be knocked down with bolts, or it can be built as a permanent addition to your shop, as shown here.

The Holtzapffel Workbench

The Holtzapffel bench has a French undercarriage that is joined using bolts in some places. The legs and stretchers of the bench – for the most part – pushed out so they are flush with the front edge of the benchtop. This arrangement allows you to use the legs and stretchers as clamping surfaces, which is handy when working long boards and large frame assemblies.

The original bench has a French undercarriage and a French method: drawbored mortise-and-tenon joints are just as natural for supporting long stock (fairly standard pan-Europian fare).

It takes longer to install, but that is offset by the mechanism is easy to install and inexpensive. You’ll be able to clamp tapers, plus metal screws. The wooden screws operate independently – this allows you to easily clamp tapered and odd-shaped pieces, but it forces you to pay more attention to advancing and retracting the screws in tandem and with two hands.

Using two independent metal screws is also a fine choice (see the Supplies box for a source for metal screws). You’ll be able to clamp tapers, plus the mechanism is easy to install and inexpensive. But you can mark your work with grease, which is a common problem with metal screws.

The Veritas Twin Screw vise for this bench. (I used wooden screws that I had for some other woodworking project.) Each strategy has pluses and minuses. The wooden screws are more fragile than iron, though they are durable enough for normal workshop tasks. Hike how they don’t mark your work with grease, which is a common problem with metal screws.

The Veritas Twin Screw also has a good choice. It takes longer to install, but that is offset by the precision with ease.

Here are the details so you can decide if this setup is for you. The face vise is a massive twin-screw vise that offers 24” between the screws. This ensures you will be able to clamp almost any case side, door or drawer in its jaws for dovetailing, sawing or planing. The wide spacing of the screws also allows you to clamp a 48”-long board on edge for handplaning with ease.

The bench top, the leg under the vise are for holdfasts. These support your work from below and allow you to clamp the work to the leg if the need arises. You can create a custom setup to make this vise, or you can use the commercial Veritas Twin-Screw vise for this bench. (I used wooden screws that I had for some other woodworking project.) Each strategy has pluses and minuses. The wooden screws are more fragile than iron, though they are durable enough for normal workshop tasks. Hike how they don’t mark your work with grease, which is a common problem with metal screws.

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