

dovetailed Shoulder Plane

Make an heirloom tool and learn the secret to creating double dovetails in metal — it's easier than you think.

■ I've always been fascinated by old, metal hand planes. Especially ones that were made using dovetails to join the sides of the plane with the sole, like the shoulder plane in the photo above. If you look carefully, you'll see that they're really "double" dovetails. Both the sides and the sole have flared "tails." Now this seems like it would be impossible to put together. But these dovetails are cut almost the same way as regular dovetails. The tails are cut into the brass sides and the pins are cut into the steel sole. But there's a little trick to

make the pins look like tails to create the double dovetails. I'll explain more about this later.

When building your own plane, you'll need to decide how to go about locking the iron (or blade) in place. I could have used a simple wedge to do this. But I wanted to be able to easily and accurately fine-tune the depth of cut. The solution is really pretty simple. I used just a few commonly available hardware items. This allows you to adjust this plane to make paper-thin shavings for tight-fitting joints.

Materials & Hardware

- Infill and Wedge (cut from same piece) 1/2 x 4 - 8 (Rgh.)
- (1) 1/4" - 28 x 6" Threaded Brass Rod
- (5) 3/16" x 1" Brass Rod
- (2) 1/8" x 2" - 6" Brass Sheet Stock
- (1) 3/16" x 1" - 8" Low-Carbon Steel Stock
- (1) 1" Brass Lamp Shade Riser
- (1) 1/16" Shoulder Plane Iron

Exploded View Details

OVERALL DIMENSIONS:
1/16"W x 2 1/4"H x 6"L (plane body only)

