

Blade Tips

Steve Bloom

As a continuing contribution (and an attempt to fill space), I'll be sharing whatever neat, new things, ideas, products, and procedures I've discovered that relate to knife making and blade smithing (and I would more than welcome contributions from the rest of you).



As an experiment at the meeting at my shop last May, I decided to try to create a curve between the bolster and the wood on the handles of the knives pictured here. The procedure was to shape the wood handle, including forward and rear curves, then coarsely fit a piece of file-wax (available from jewelry supply houses) to the forward curve. The wax was fitted to the blade, the handle's forward surface was lubricated with silicon grease, and the handle was snugged up to the wax. The gaps between the wax and the wood were then filled with molten wax. When the wax solidified, the assembly was ground just as if it were metal and wood. The wood was then removed, the wax slipped off, and then the wax was cast in coin silver using standard lost-wax techniques with a centrifugal caster. The butt cap was created in the same manner. The inlays were reproduction castings of Japanese dragon menuki. The fidelity of the technique is remarkable. At one point, a chip in the wood, perhaps 1/32" long, was faithfully reproduced in the silver. I think the experiment worked.

The casting activity lead to a discussion about casting procedures and that lead to...

Vacuum Casting Machine

Bill Roberts

The frame is made of 1" angle iron. It is covered with thin aluminum sheet. The back is open and that is where you stick the vacuum pump. The bell jar, 3-way valve and the trap (a jar with wire mesh in it) are ordered from a jewelry supply house, e.g., Swest, Rio Grande, etc. You're just ordering the replacement parts for the \$600 casting machines available in most supplier's catalogs. Compression springs are available at hardware stores.

The vacuum hose is hooked to a T, one side goes to the gauge and the other goes to the 3-way valve. The valve is connected to the casting table and the investment debubbler side.

