

Cane-Style Walking Stick : A demo to the Maine Woodturners, April 18,2007

Measure the owner: floor to wrist-bone should equal the tip to handle-top length

Handle diameters to fit the hand size: small hands: 1 to 1.25", Large hands: 1.5 to 1.75"

Coupler contribution to length is 0.580",

Handle contribution to length is diameter/2= 0.75"

Rubber tip and ferrule contribution to length is 1.94"

For a 36" "owner measurement", $L(\text{stick}) = 36" - .58 - .75 - 1.94 = 32.73"$

Handle: 2x2x7.5" (from stick stock), turn round to largest diameter (1.5")

Form 4" long handle, sand, apply wire burned v-grooves, retain tailstock mark

Form/fit (0.993") coupler joint, then form and sand decorative front projection

Cleanly part off front end with skew. Install chuck with endgrain softwood in it.

Create jam chuck cavity with 15/16 Forstner bit in soft wastewood, mount handle

Part handle end cleanly with skew. Hand sand both ends of handle and apply finish

Stick: Mount SLIGHTLY OVERSIZE length (32.73" plus 1/8") between centers, turn round to largest diameter (1.3") and trim ends square to 32 3/4".

Set aside for several days to "settle", remount and form/fit coupler and tip ferrule.

Form 3/16" diameter beads inboard of coupler and ferrule.

The measured distance between beads (30.75") is the taper length

Diameter at top of stick (after top bead) is 1.00", Diameter above ferrule-end bead is

.835". Difference is 0.165" over a taper length of 30.75", or 0.005366" per inch of taper length. Every 5" of taper should have a 0.027" reduction in diameter

1.000; 0.973; 0.943; 0.916; 0.889; 0.862; 0.835 are the target diameters every 5"

Set up spindle steady and make diameter cuts (0.005 oversize) every 5" of taper section

Form tapers between adjacent parting cuts, reset spindle steady to complete taper

Sand taper with long stiff board with 80 grit paper applied, follow with 120.

With all "valleys" filled and "hills" leveled, complete sanding to 400 grit.

Apply wire burned v-grooves adjacent to beads and apply finish

Install Jacobs chuck in headstock and drill stick tip .203" dia, .800" deep for spike

Drill stick top .143" dia, 1.1" deep for dowel screw

In a drill press, drill handle .143" dia parallel to grain at coupler hole location

Assemble and parade!

Craft Supplies components used:

Combination Climbing/walking stick system, small size, #050-7087, \$9.50

Brass Cane Handle Coupler #050-7095 \$10.99

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