Intro to Spindle Turning

Personal Remote Demo
April 6, 2021

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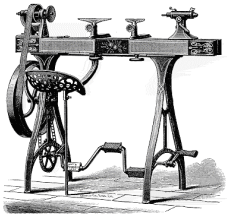

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My Only Guarantee…

Mike Darlow – *The Fundamentals of Woodturning* p. 36

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Spindle Turning -

It's all about finesse…

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Agenda

- Why spindle turning?
- Tool Overview
- Sharpening
- Use of Tools
- Practice Strategies
- Projects

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Goals

- Teach you about proper spindle tool profiles
- Teach you body and tool movements

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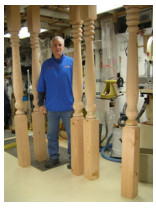
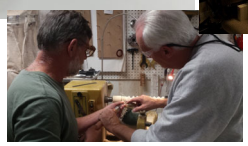
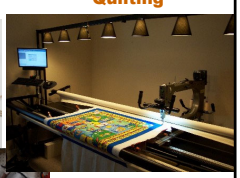
A Little About Me

Woodturning





Quilting



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Where to Find Me

Website: www.tcturning.com
=> Learn to Turn

- Articles
- Videos

Social:
YouTube: SpindleJim

- Upcoming Remote Demos
  - Ask the Woodturner – April 11
  - Intro to Boxes – April 21
- Woodturners Academy 1
  - July - Sept
- Woodturners Academy 2
  - Sept - Dec

facebook

Both as Jim Echter and
True Creations Woodturning

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Why Spindle Turning?

- Variety of Projects
- Learn better tool control
- Faster time to project completion
- Less expensive tooling
  - Faceplates
  - Gouges
  - Big heavy lathes
- Less expensive material
- It will help you to stop turning ugly bowls

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Sample Review

- Just some examples of spindle turned items
- Not just pens and table legs…

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Spindle Turning Tools

Figure 4.25 Spindle-turning tools. *Left to right:* P&N 30-mm roughing gouge, P&N 25-mm skew, P&N 19-mm detail gouge, Robert Sorby diamond-section parting tool, Henry Taylor fluted parting-off tool.

Mike Darlow – The Fundamentals of Woodturning p. 45

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Tool Overview

- Spindle Roughing Gouge
  - "U" profile
  - "Large Radius" profile (Shallow Gouge)
- Parting tools
- Gouges – spindle and detail
- Chisels
  - Skew
  - Beading/Parting

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Sharpening

- Sharpening is a balance between strength and sharpness
- George Hatfield's angle
  - The "Magic" 25 degrees
- To hone or not to hone
- Eight inch grinder (Alum Ox or CBN)
- Belt sander/sharpenter
- Oil stones (50/50 mix of oil & kerosene)
- Slip stone (600 grit diamond)

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Sharpening cont.

- Roughing Gouge
  - Grinder jig
  - Polish flute

Sharpening cont.

- Parting tool
  - Diamond shaped – 25 degree bevel (50 degree included)
  - Beading/Parting tool
  - Thin parting tools
    - Good for box making
    - Grain alignment

Sharpening cont.

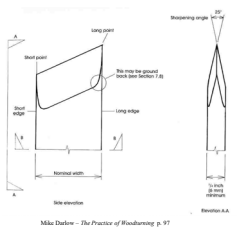
- Gouges
  - "Fingernail" profile
  - Be careful Using Jigs
  - Better to Hand Sharpen
  - 25 degree bevel angle
  - Hone it

Sharpening cont.

- Gouge - Fingernail grind
  - Turn gouge on side
  - Shape top
    - Result is excellent parabolic (fingernail) profile
  - Hand grind 25 degree bevel to the profile
    - Better than using a Bowl Gouge Jig
  - Hone it!

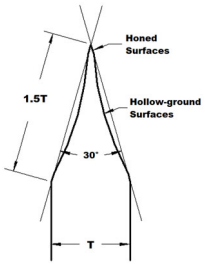
Sharpening cont.

- Skew Chisel
  - 70 degree tip angle
  - 25 degree bevel angle
  - Four sides to a skew
  - Grind it
  - Hone it
  - Round the edges



Mike Darlow – *The Practice of Woodturning* p. 97

Honing



Use Diamond Hones
or
Oil Stone in oil/ kerosene bath
Plastic tub
1" foam on bottom
½ - 1 cup of Oil/Kerosene blend

Chucking Methods

- Centers
- Tenon chuck
- Glue Chuck
- Mechanical Chuck
  - Nova, Oneway, Vicmarc, Axminster
- Morse Taper Spigot
- Collet Chuck (Beall or Morse Taper)

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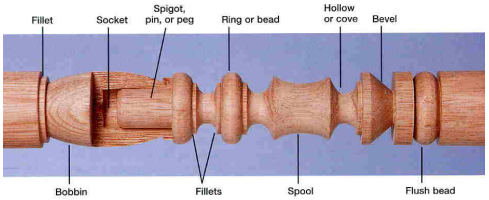
Parts of a Spindle



Mike Darlow – *The Fundamentals of Woodturning* p. 66

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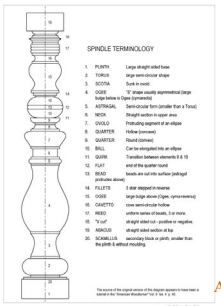

Spindle Terminology

It all boils down to 3 cuts…
Straight
Concave (Coves)
Convex (Beads)

Available at www.tcturning.com

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Stock Preparation

- Mark ends
  - Crosses
  - Squares
  - Awl, center punch or drill
  - Hammer center into stock off of lathe
    - Safety Center better
  - Put onto lathe
  - Set tail stock
  - Set tool rest
  - Check for clearance

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The ABCs of Spindle Turning

- Anchor
  - Did you anchor the tool to the tool rest?
  - Pressure is towards the ground through the tool rest
  - Pressure is NOT towards the wood
- Bevel
  - Ride the bevel ***without*** cutting
- Cut
  - Raise the handle until you start to take a shaving
  - Go for it --- GLIDE the bevel
- Dance
  - Direction of cut AND dance (move your body)

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Important Info!

- Cut the wood the way it wants to be cut
  - Cut downhill
  - Think about your bundle of straws
  - Let the wood come to the tool
  - Support the cutting area

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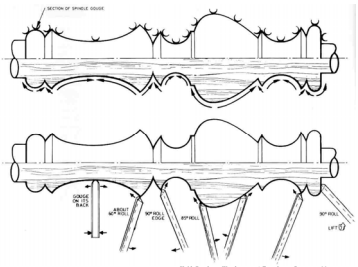
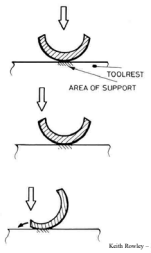
Cutting Downhill & Rolling the Tool



Keith Rowley – *Woodturning A Foundation Course* p. 66

Area of Support



Keith Rowley – *Woodturning A Foundation Course* p. 46

Suggested Lathe Speeds:

- Diameter of Stock => Lathe Speed
  - 1” or less 3,000 rpm
  - 1.5” 2,500 rpm
  - 2” 2,000 rpm
  - 3” 1,500 rpm

Stance & Grip

- Grip
  - Overhand
  - Underhand
  - Hooked Finger
- Stance
  - The dance of the woodturner

Roughing/Sizing Process

- Rough to cylinder
  - Step cuts
- Smooth with the Skew
- Size key diameters
  - Template to mark key dimensions
  - Calipers
  - Parting tool

Turn the Elements

- Point to Point
- Remember – there are only 3 shapes
  - Straight
  - Concave
  - Convex

Skew Cuts

- Planing
- Peeling
- Shoulder
- V cut
- Rolling

Planing Cut

- Use the safe zone
- Use the supported edge
- No tip, this is a slicing cut
- GLIDE (Ride) the bevel
- Edge at 45 degrees to direction of cut

Peeling Cut

- Skew is flat on the tool rest
  - This is why I don't like oval skews
- Edge is perpendicular to stock
- Ride the bevel
- Peel like a pencil sharpener

V - Cut

- Used to make V's and first step when cutting beads
- Used to create space for the next tool
- Cut with point only
  - Do NOT come up the edge or ride the bevel by rotating slightly for clearance
    - Rotate and Swing tool 1 or 2 degrees for clearance

Shoulder Cut

- Used to clean up end grain
- Cleans up tenons
- Two types of cuts
  - Plunge, rotate cut to center (POINT ONLY)
  - You plunge and shear cut up to center

Bead Cutting

- A true bead is a semi-circle
- Tool starts horizontal and ends vertical
- Easier to cut with a spindle gouge
- You get a better finish with a skew

Rolling Cut - Cutting a Bead

- Cut is made with tool tip only
  - Usually the short point
  - Raising a fiber provides all the tool control, if you lose the raised fiber, you will cut a screw thread!
- Start horizontal - end vertical
- Think of a handshake
- Big swing of the tool handle equals a small movement of tool tip

Cove Cut

- It's like scooping sand
- Enter, turn, twist, push
- Start with handle level
- Flute in neutral

Sample of our Exercises

Mike Darlow – *The Fundamentals of Woodturning* p. 74

Practice Exercises

- Use green wood if possible
- Rough it round
- About 2 inches in diameter
- Cut V's
- Cut beads
- Knock down every other bead
- Cut coves
- Rough it smooth again
- Repeat, repeat, repeat – 12X

Template Layout

- Mark key diameters and lengths
- Notch for pummel if needed

Let's Turn Some Projects

Website Handouts

- Woodturning Project Idea List
- Spindle Terminology Diagram
- 4 - AAW Articles

www.tcturning.com

Learn to Turn Page

Questions and Answers

Thank you for the privilege of your time!