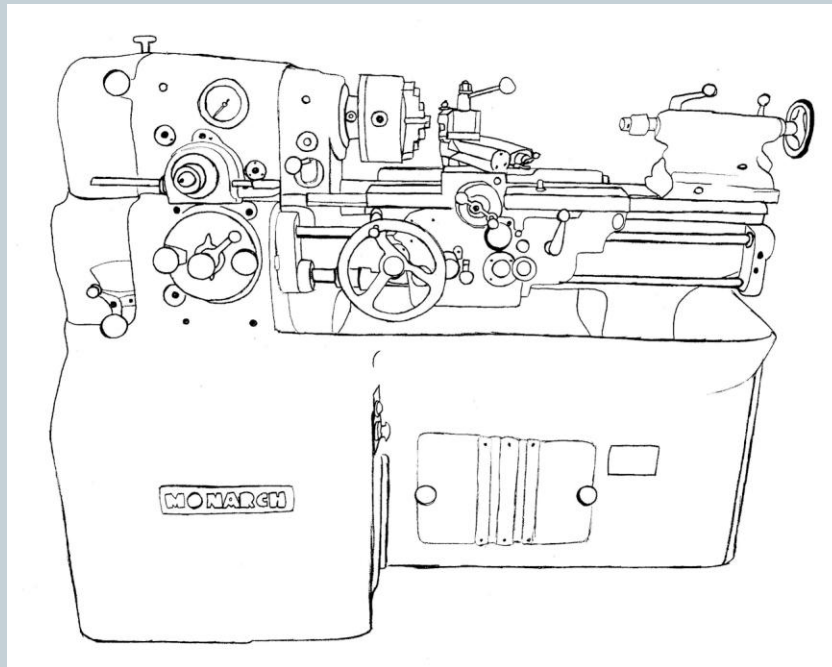


# Ten+ CHEAP and USEFUL Things for the Lathe



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HMSC OCT 12, 2013

# Tool Height Setter



- Easily set tool holder height to lathe center line
- Heavy enough to not tip over
- Built with height adjustment screw in base
- Rebated base to minimize contact
- Can be used with calibration tool



# Dial Gauge Holder



- Integrates dial gauge and tool holder
- Several threaded holes for various orientations
- Can be attached directly or to post
- Dial accuracy:
  - .001" (general)
  - .0001" (precision)
- Small probe facilitates reaching into small clearances



# Ball Bearing Aligner



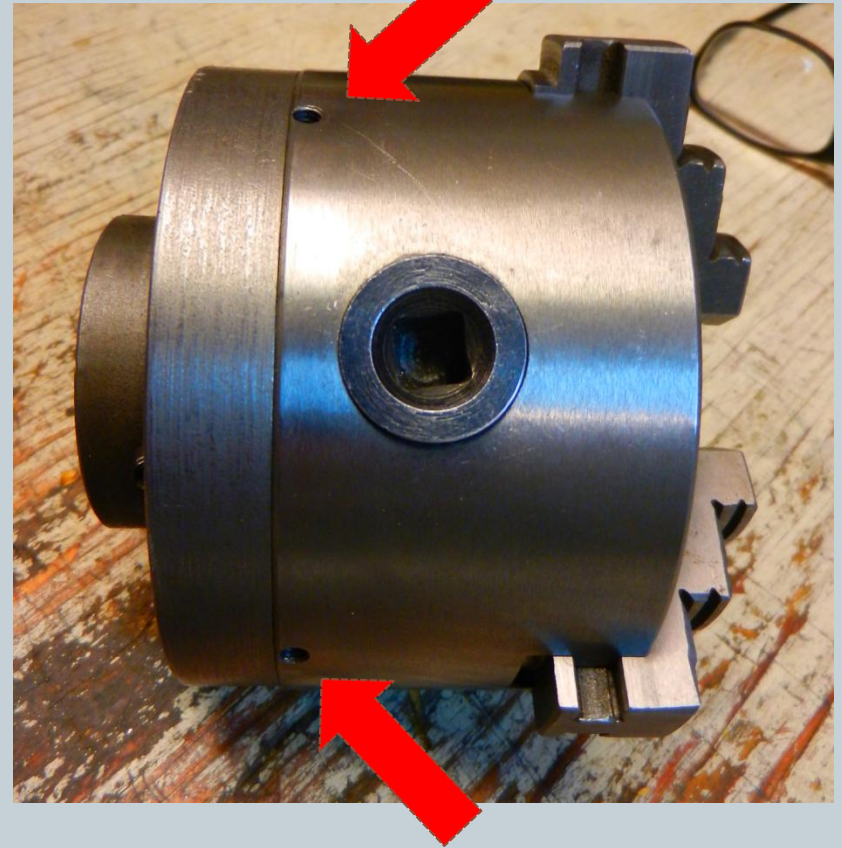
- Aligns short parts on lathe jaws
- Lightly clamp, touch with aligner to straighten
- Tighten chuck jaws
- Make with small ball bearing on square rod



# Chuck Fine Align



- Precisely align part in 3-jaw chuck
- Modify chuck:
  - Turn down part of back plate that fits into chuck slightly (0.010"-0.015")
  - Add four flat face set screws to chuck body
  - May also use bearing balls underneath set screws
  - Bolt back plate to chuck snug, but not tight
- Align like 4-jaw chuck



# Tool Holder Rack



- Made from two angle strips bolted together
- Keeps tool holders organized and handy
- A drawer also works well, if available



# Way Protection / Alignment Sled



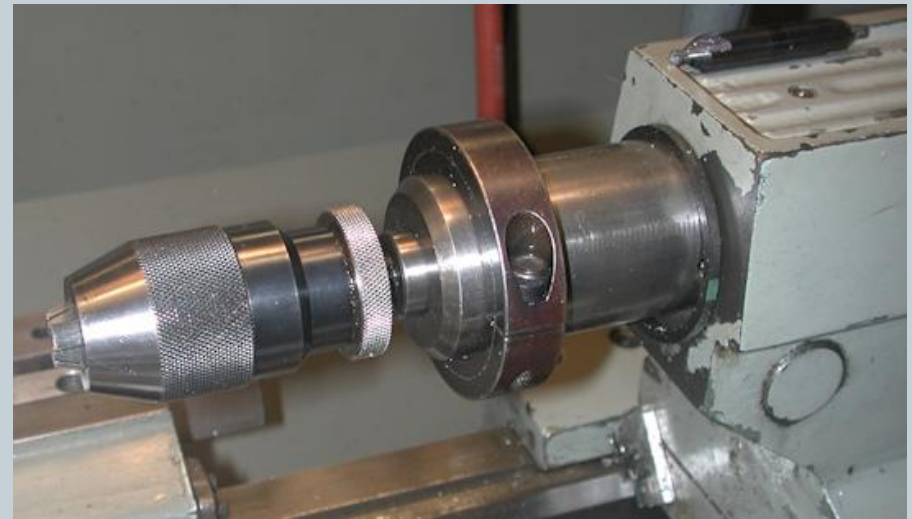
- Plywood sled with blocks on the bottom
- Height such that chuck is easily to slide onto spindle
- Can use multi level blocks to use with two different chucks
- Protects ways and fingers from damage if chuck is dropped
- Especially good if chuck is very heavy
- Works with both pin and screw type chuck mounts



# Tail Stock Barrel Stop



- Prevents Jacobs taper drill shank from being ejected when cranking and damaged
- Made from commercial clamp style set collar
- Small rubber ring on back side provides a 'soft' bumper
- Maximum value if doing repeat runs – minimizes stroke

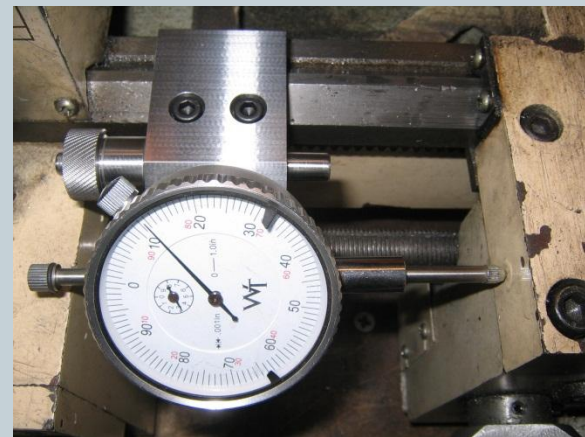




# Lathe Stop / Indicator Holder



- Brass mounting block for indicator attached to carriage stop by milling a flat
- Long range indicator is held in place by thumb screw
- Can be mounted on either side of carriage
- Alternately, micrometer stop can be used
- Detailed plans in HMSC May 2011 newsletter
- Articles in HMSC June 2004 newsletter



# Hex Key Holder



- Made from hard plastic and mounted to Headstock
- Holds frequently used hex keys
  - Tool holder height (Aloris)
  - Tool holder set screws
  - Chuck alignment
  - Cut-off tool
  - Inch and metric

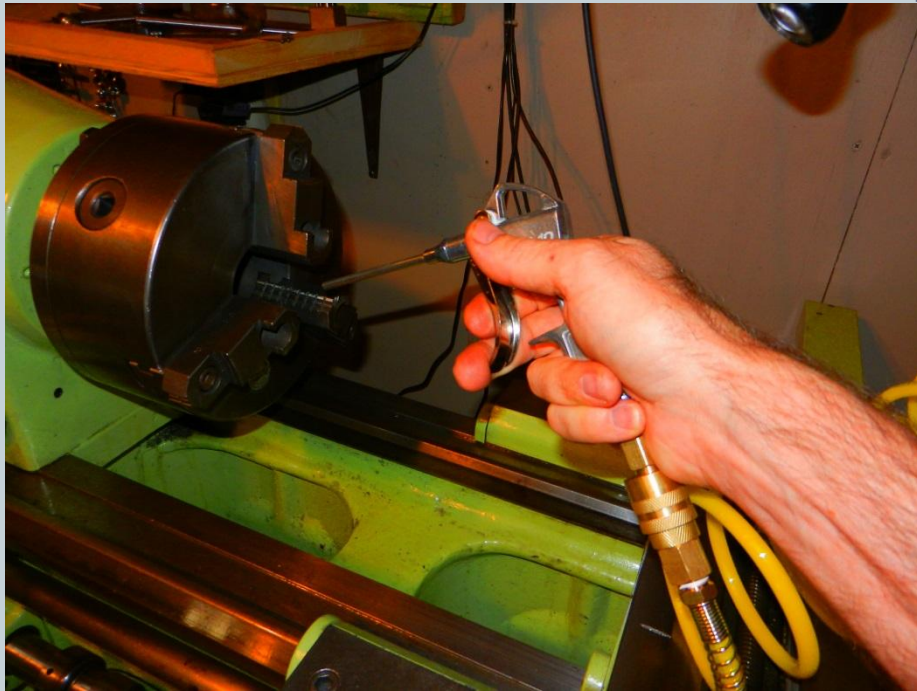


# Collet protector / holder

- Keeps 5C collets from impact damage and from rusting
- Made from PVC pipe turned down on ends for caps
- Caps are pipe thread protectors
- Drill hole in body to release air
- Collet sizes marked on side and top
- Stored in drawer



# Low Pressure Air Blower



- Used to blow chips off various parts of the lathe and from stock
- Extended nozzle
- Lower pressure to control distance chips travel
- Handy to clean scroll on three jaw chucks and to clean taper in headstock

# Storage Shelf



- Can be on top of headstock or near headstock or next to lathe
- Raised edges to prevent tools and parts from rolling off
- Good for chuck keys, way oil, cutting oil, hex keys and calipers
- Helps to avoid storing things on lathe apron