

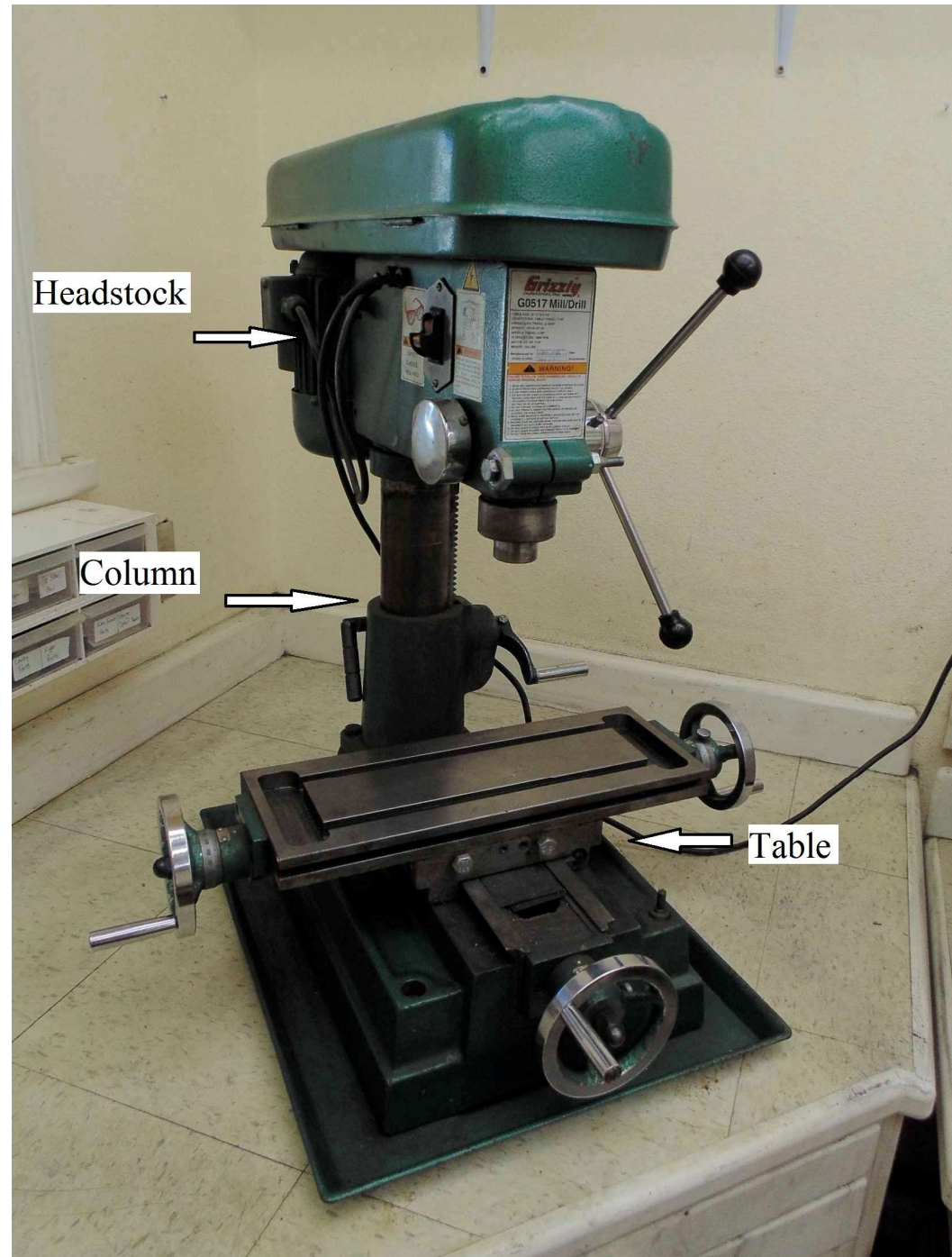
Intro to the Milling Machine

Bob Sorenson

Objectives

- General Overview
- Major Sub-Assemblies
- Mill Specifications
- Accessories
- Cutting Bits
- Measuring Tools
- Popular Models

General Overview



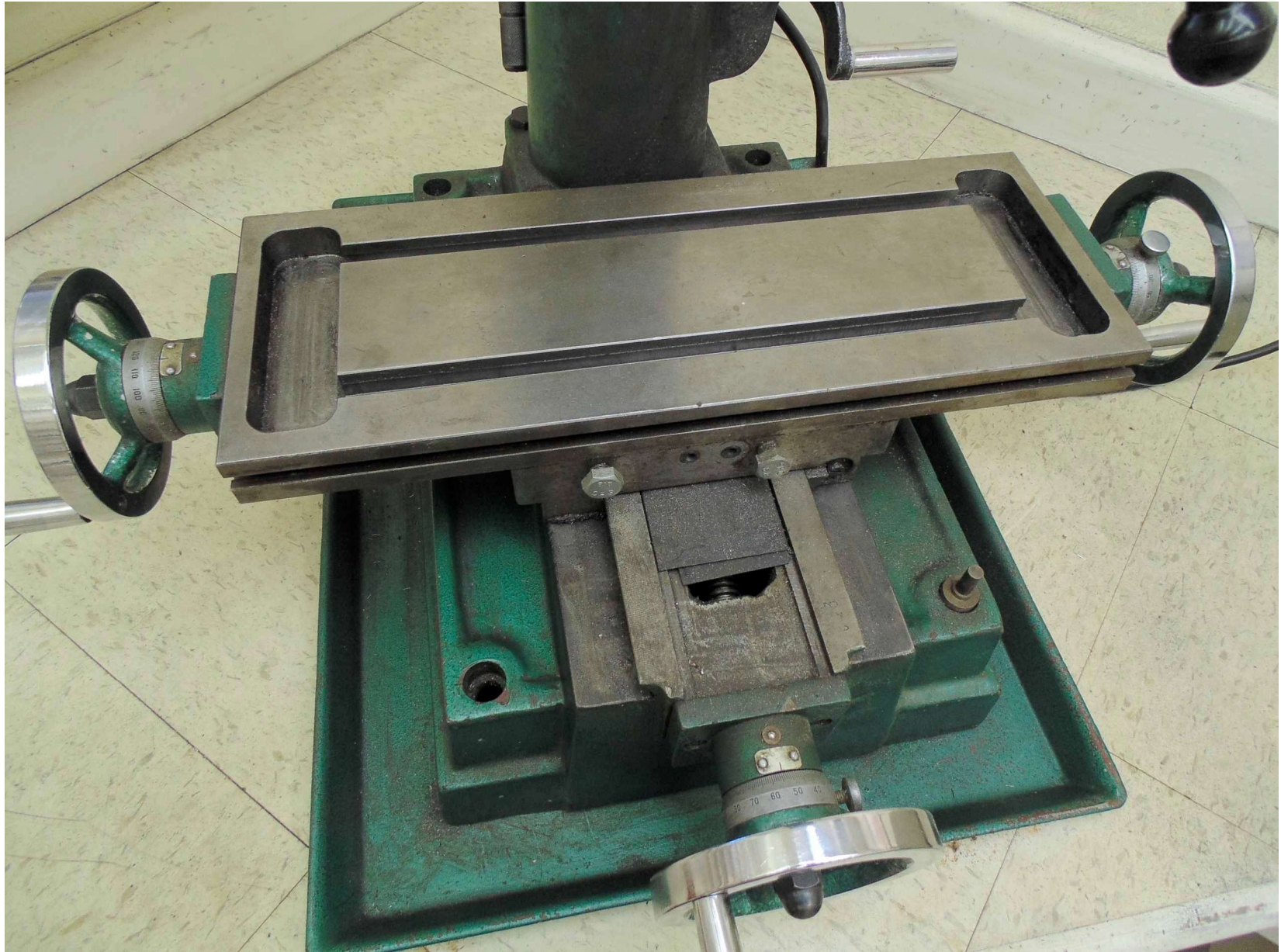
Headstock



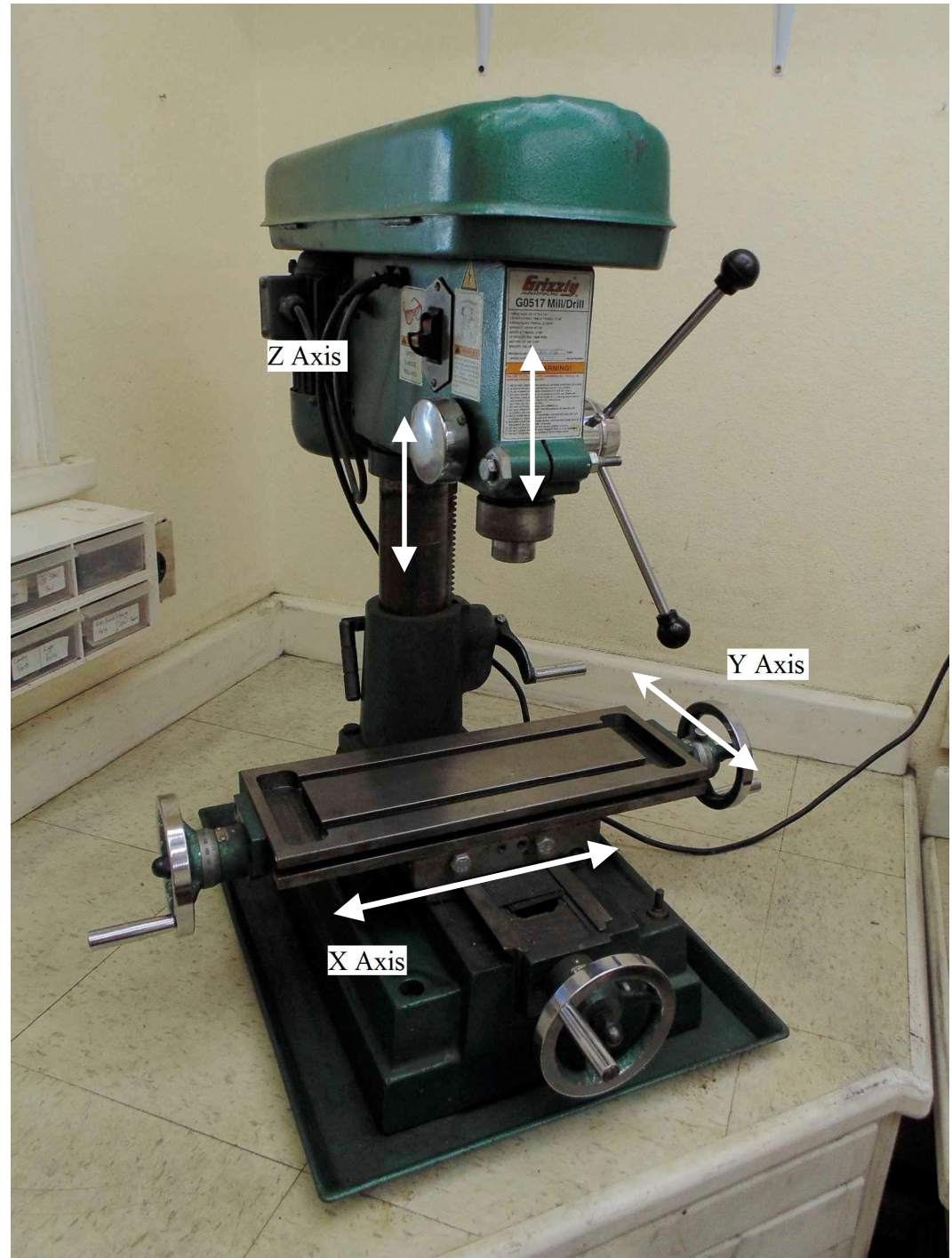
Column



Table



Mill Axis



Specifications

- Table Size
- Table Travel
- Spindle travel
- Max Distance
- Spindle Taper
- Speeds



Table Accessories, Vice

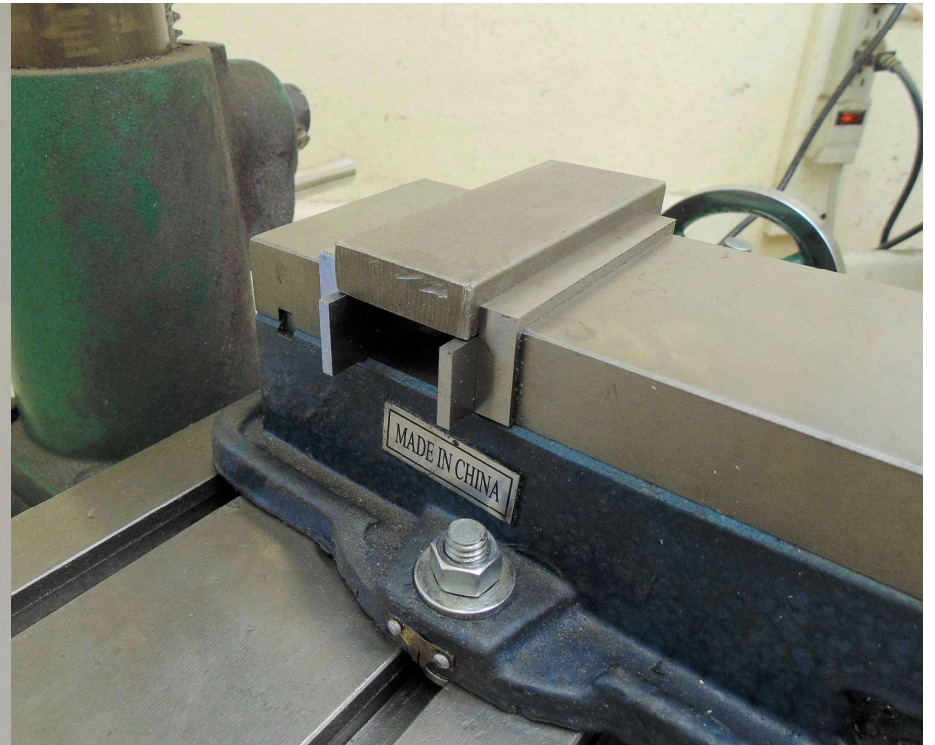
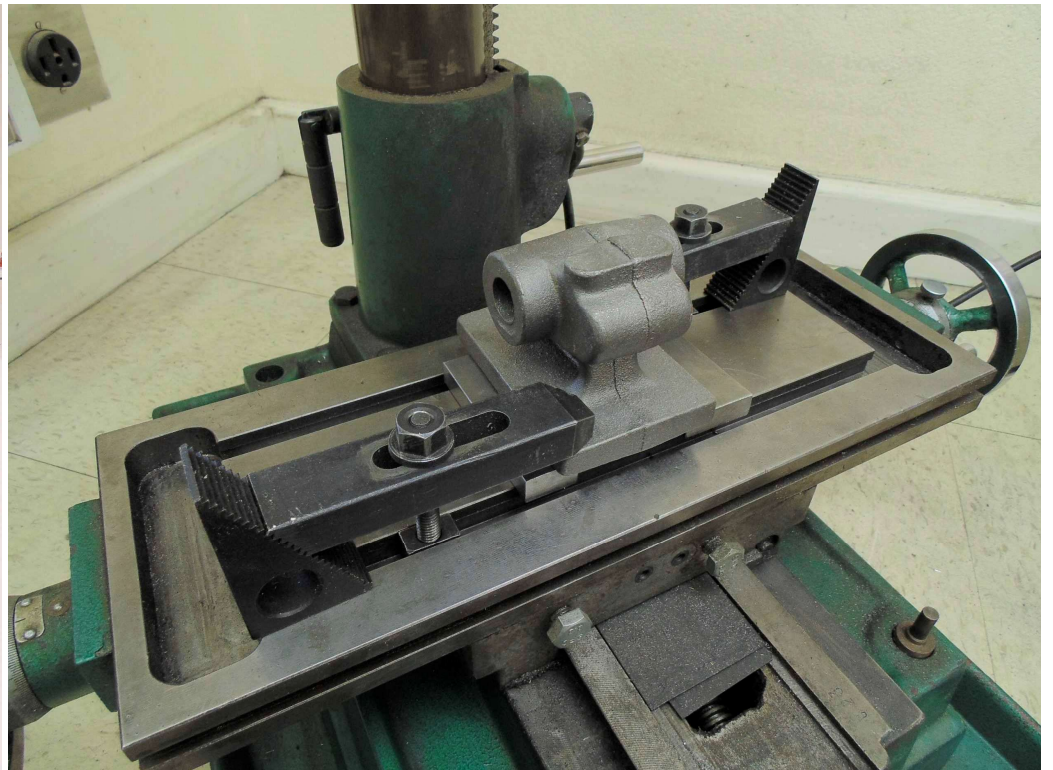
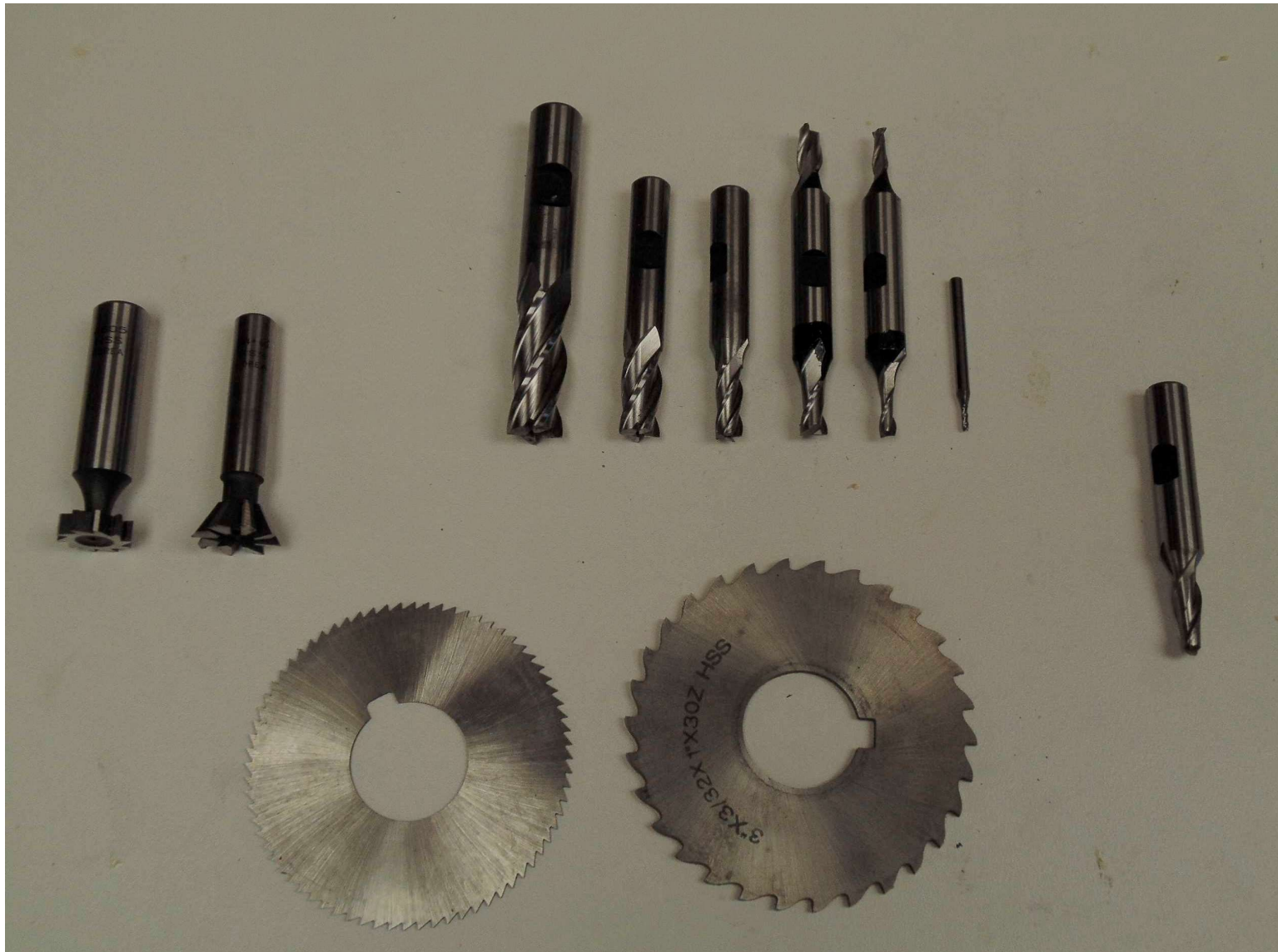


Table Accessories, Clamp Down Set



Spindle Accessories, Cutting Bits



Spindles Accessories, Collets

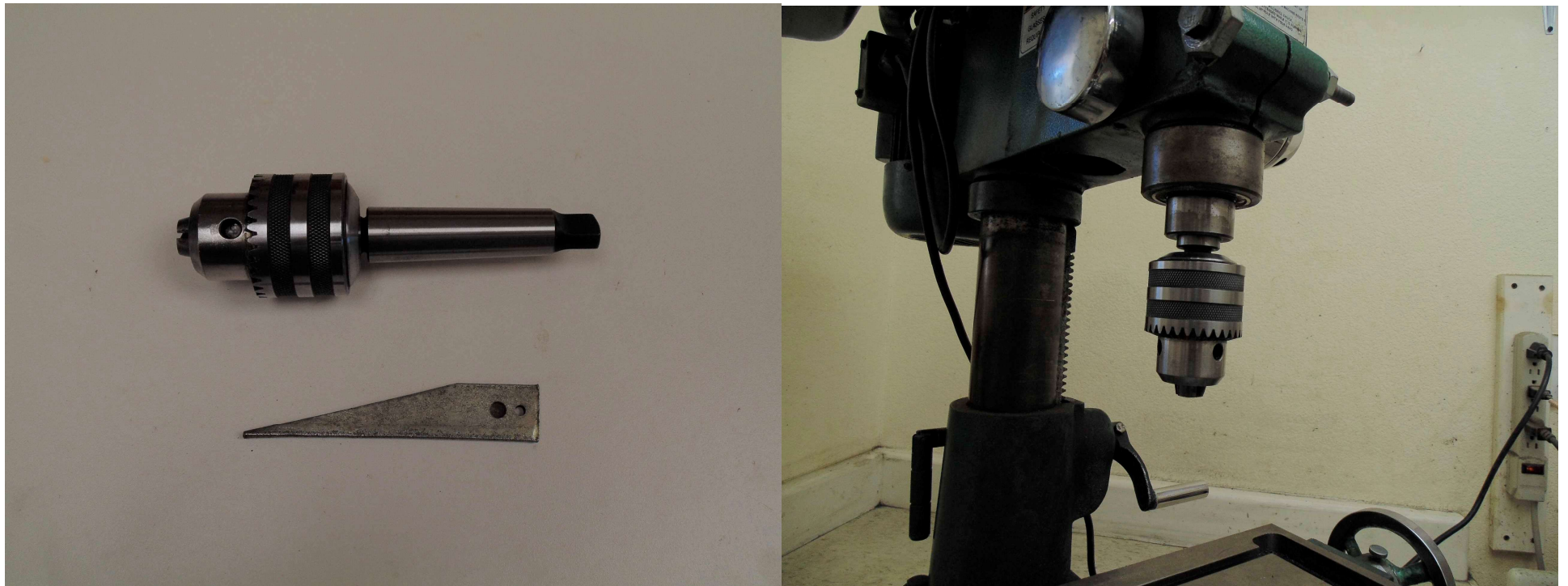


Taper Styles - R8 (Bridgeport)
MT3 (Morse Taper)

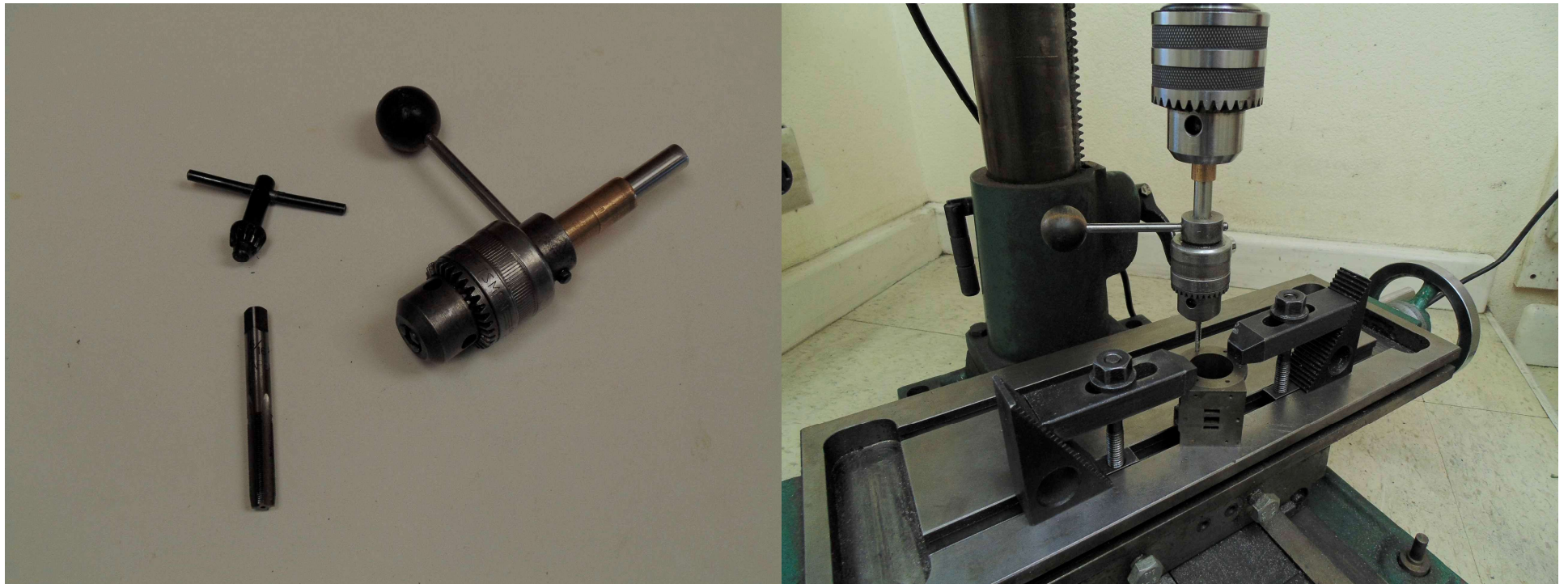
Spindles Accessories, Collets



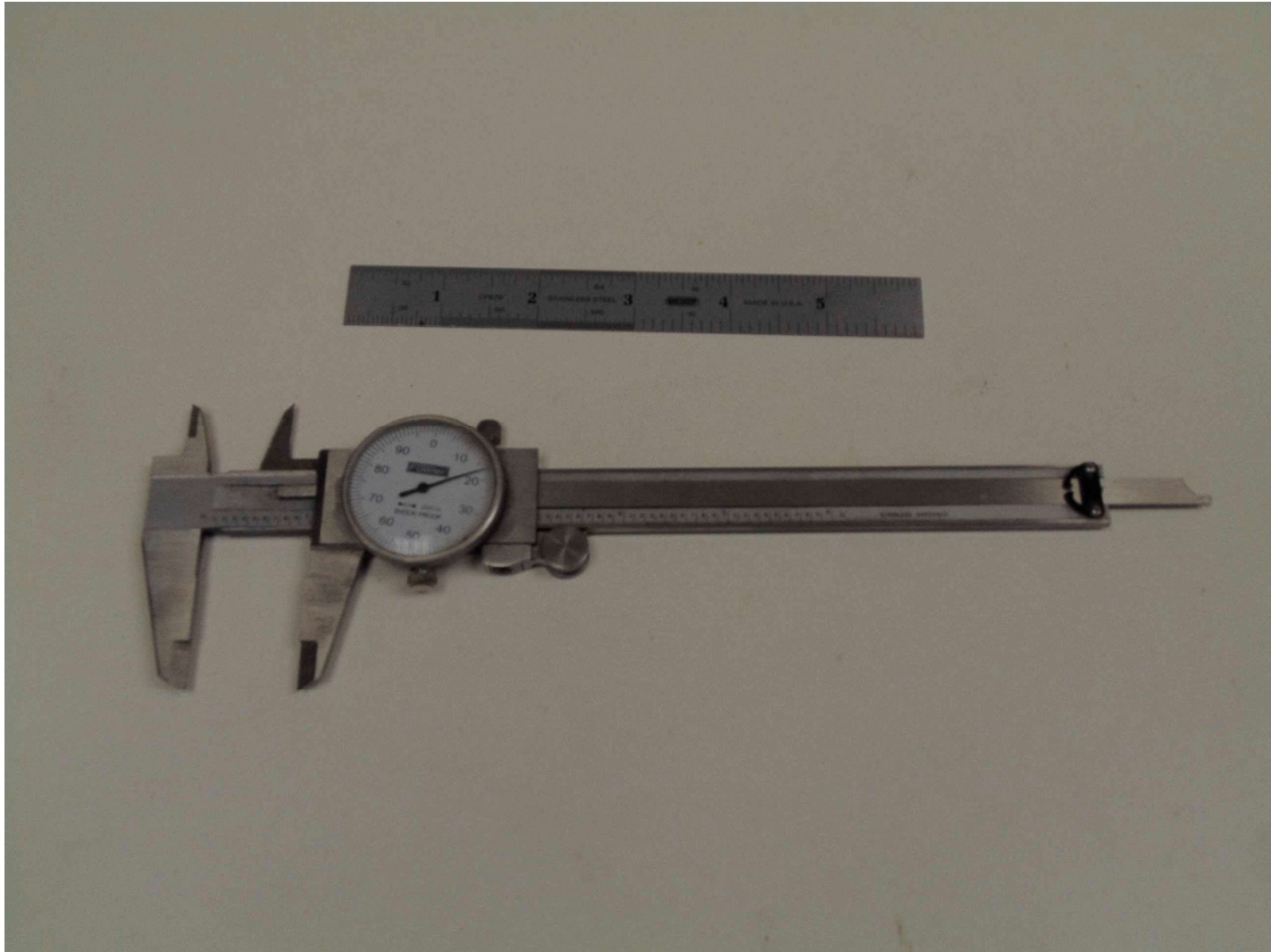
Spindles Accessories, Drill Chuck



Spindles Accessories, Tap Holder

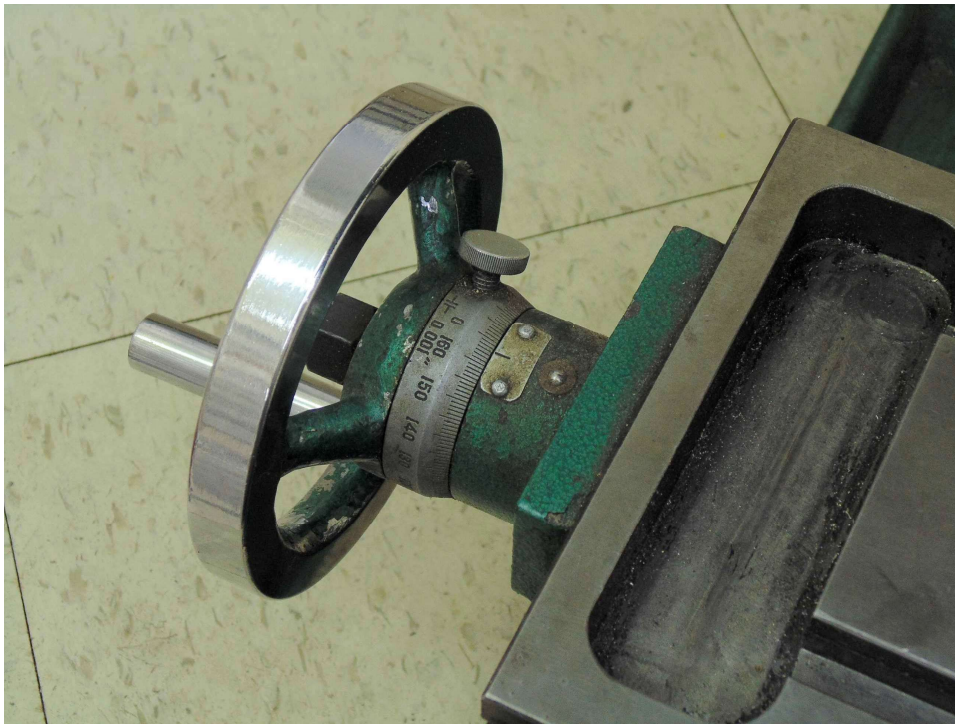


Measuring Tools

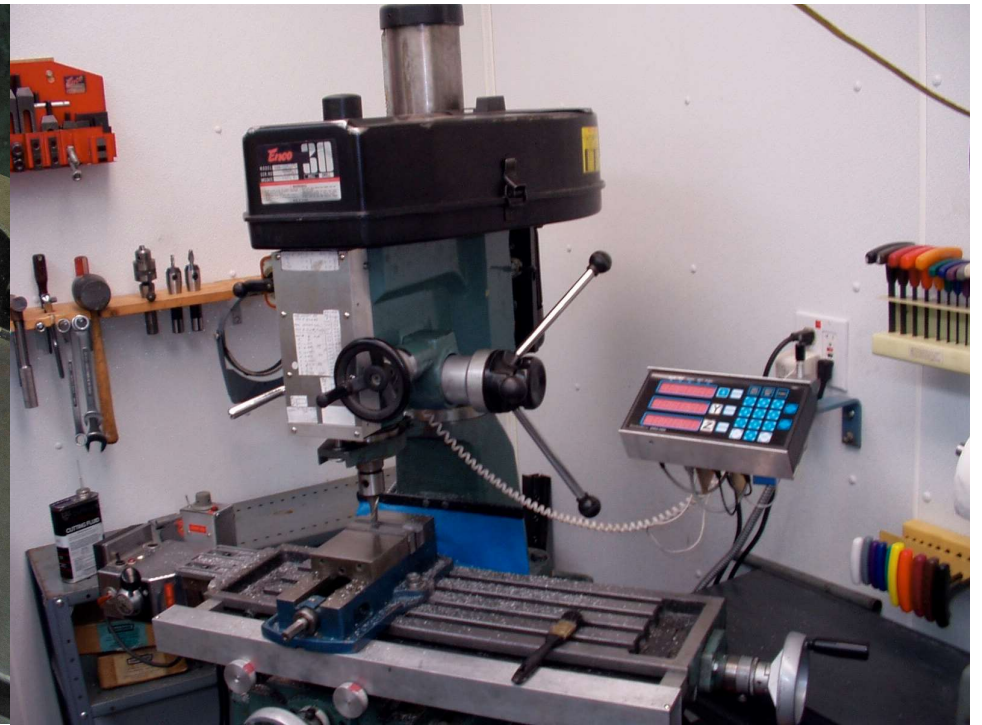


Precision X - Y Measurement

The Problem



The Fix



Precision X - Y Measurement

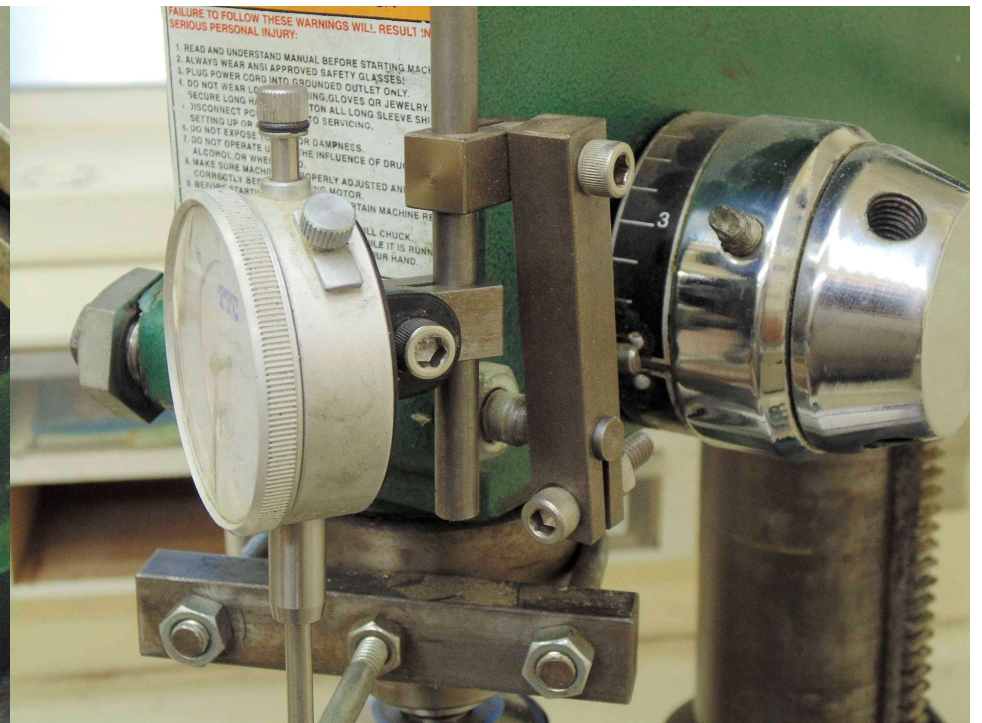
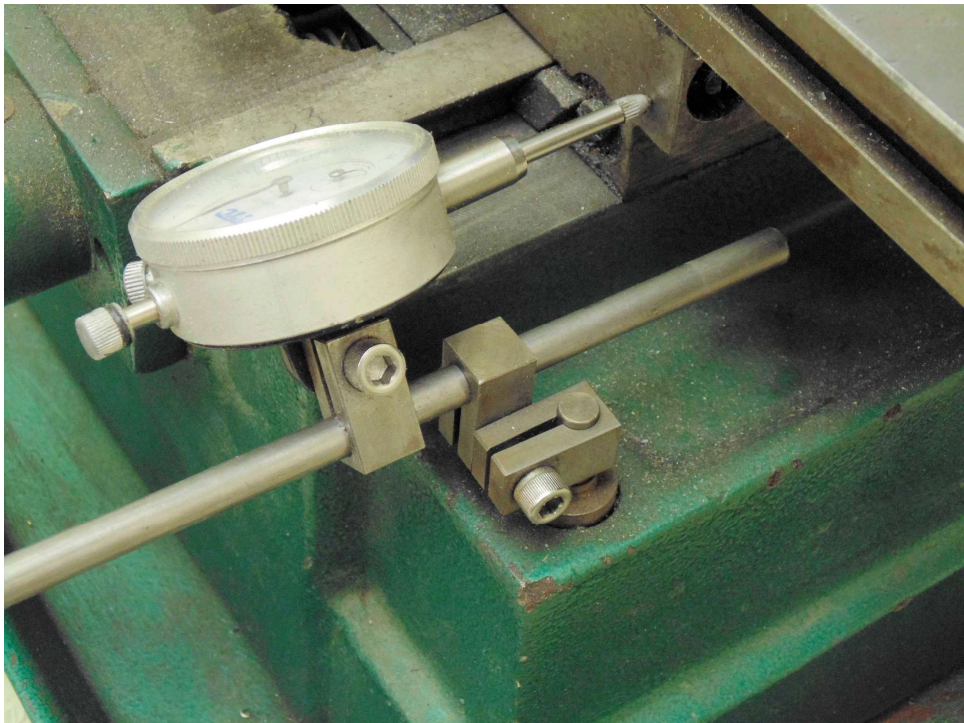
Dial Indicator



Precision X - Y Measurement



Precision X - Y Measurement



Popular Models

Sherline 5500/5510



Maximum Distance	8.00"
Travel, X Axis	8.65"
Travel, Y Axis	3.00"
Travel, Z Axis	6.25"
Table Size	2.75" x 13.00"
Spindle	1MT
Speeds	variable 0-2500
Weight	30 lbs
Sold by	www.sherline.com

Popular Models

Sieg X2 Mini Mill



Maximum Distance	11.50"
Travel, X Axis	8.00"
Travel, Y Axis	4.00"
Travel, Z Axis	7.00"
Table Size	16.00 x 3.75"
Spindle	R8 or 3MT
Speeds	variable 0-2500
Weight	110 lbs
Sold by	Grizzly MicroMark Harbor Frieght

Popular Models

Sieg X3 Mini Mill



Maximum Distance	14.75"
Travel, X Axis	14.00"
Travel, Y Axis	5.75"
Travel, Z Axis	14.75"
Table Size	6.25" x 21.62"
Spindle	R8
Speeds	variable 0-2000
Weight	360 lbs
Sold by	Grizzly (G0463) Travers Tool

Popular Models

BF20 Mini Mill



Maximum Distance	13.00"
Travel, X Axis	19.00"
Travel, Y Axis	9.00"
Travel, Z Axis	13.00"
Table Size	7.00" x 26.62"
Spindle	R8
Speeds	variable 50-2250
Weight	242 lbs
Sold by	Grizzly (G0704) Travers Tool

Questions??