

# Ten+ CHEAP and USEFUL Things for the SHOP



**JOE WILLIAMS**  
**MARTIN KENNEDY**  
HMSC  
OCTOBER 11, 2014

# Tap / Drill Chart

- Handy reference for:
  - Screw thread sizes
  - Tap drill sizes
  - Number drill sizes
- Constantly used
- Sources:
  - Internet
  - Machinery's Handbook
  - Commercial

**DECIMAL EQUIVALENTS**

AMERICA'S PREMIER INDUSTRIAL TOOL STORAGE SINCE 1911

www.kennedymfg.com

1-800-413-8665

**TAP DRILL SIZES**

TAP SIZE	TAP DRILL SIZE	TAP PITCH	TAP DRILL SIZE	TAP PITCH	TAP DRILL SIZE	TAP PITCH	TAP DRILL SIZE	TAP PITCH	TAP DRILL SIZE	TAP PITCH	TAP DRILL SIZE	TAP PITCH	TAP DRILL SIZE	TAP PITCH
0	80	NC	53	10	24	NC	25	1/2	20	NF	28	1/4	12	NF
1	64	NC	53	10	24	NC	25	1/2	20	NF	28	1/4	12	NF
2	56	NC	53	10	24	NC	25	1/2	20	NF	28	1/4	12	NF
3	48	NC	45	14	20	NF	38	3/4	16	NC	16	1/2	12	NF
4	40	NC	45	14	20	NF	38	3/4	16	NC	16	1/2	12	NF
5	32	NC	37	18	16	NC	16	1/2	12	NF	28	1/4	12	NF
6	32	NC	37	18	16	NC	16	1/2	12	NF	28	1/4	12	NF
7	32	NC	37	18	16	NC	16	1/2	12	NF	28	1/4	12	NF
8	32	NC	37	18	16	NC	16	1/2	12	NF	28	1/4	12	NF
9	32	NC	37	18	16	NC	16	1/2	12	NF	28	1/4	12	NF
10	32	NC	37	18	16	NC	16	1/2	12	NF	28	1/4	12	NF

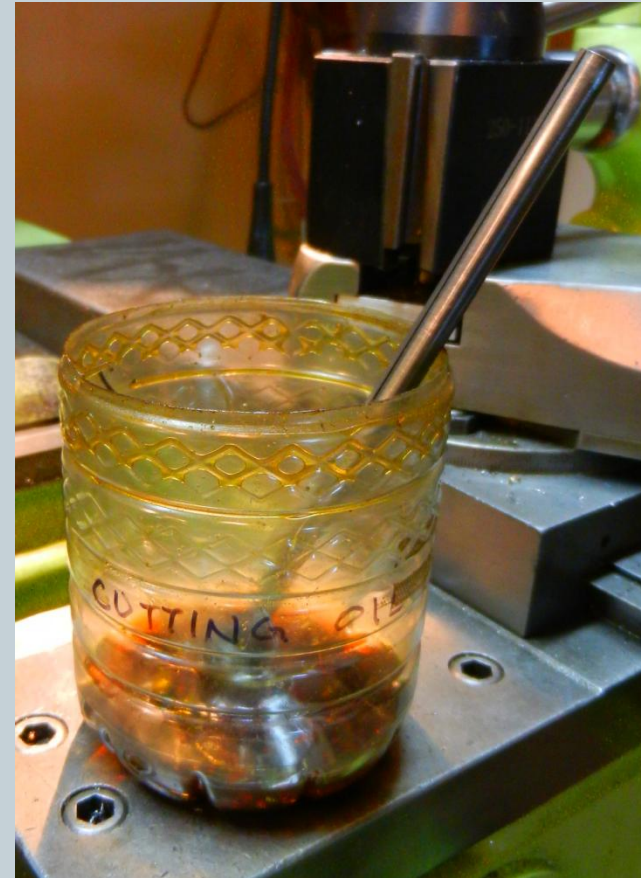
**METRIC TAPS**

**MACHINE SCREWS**

# Non Spill Cup



- Commercially available or build your own from plastic bottle
- Swarf in bottom for weight
- Fill with “only enough oil to wipe up with a rag”
- Use for drilling and tapping
- Uses
  - Lathe and Mill
  - Cutting oil
  - Mineral spirits – aluminum
  - Way oil



# Flashlight and Magnifying Glass

- Thousands of uses
- Bright light and magnification very useful on both lathe and mill when setting tools





# Chip Brush



- Inexpensive paintbrush
- Keep one by mill and one by lathe
- Brush chips off mill vise to assure accurate clamping
- Brush off part during machining to prevent re-machining chips



# Calculator

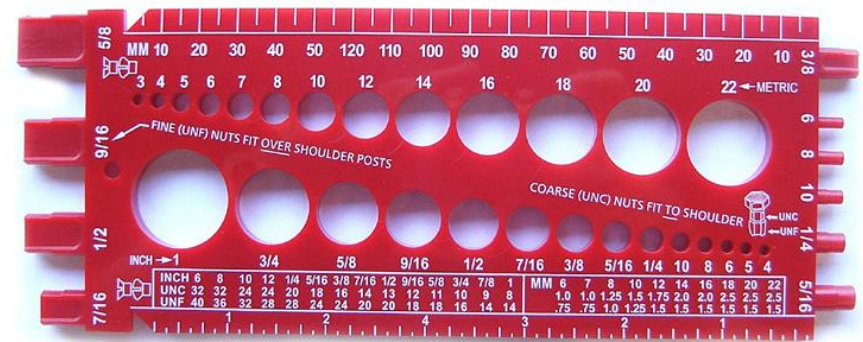


- Keep readily available
- Magnetic version
  - Stick to machinery
- Large digit version
- Desk / printing version
- Advanced version
  - trig functions



# Bolt and Nut Gauge

- Standard and metric sizes
- Different types available
- Faster than using caliper and thread gauge



# Vise Jaw Protectors

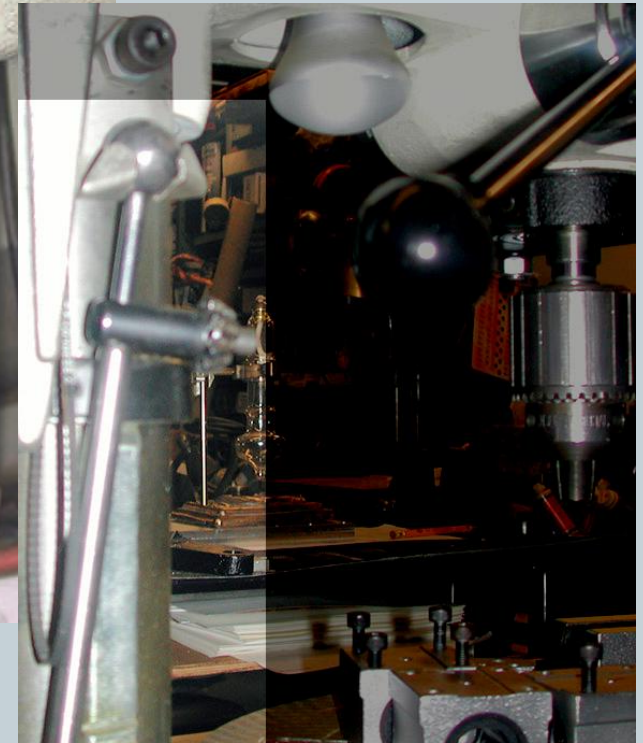
- Copper jaw protectors
- Held in place with contact cement
- Allow clamping without marring surface of stock





# Drill Press Chuck Key Holder

- Holds chuck key ready on drill press
- Extended arm on key for increased torque
- Two designs
  - Ball on arm for hanging on bracket mounted to drill press
  - Angle bracket with hole for chuck key arm



# Taps and Holder



- Common tap sizes ready for use
- Sizes 4-40 to 3/8-16
- Block with holes for tap arms mounted under shelf



# Band Saw Vise Alignment Screw



- Hand wheel and threaded rod mounted on opposite end of vise from saw blade
- Adjust to allow parallel clamping of small parts in band saw
- Use block on vise to support screw (not shown)



# Bifocal Safety Glasses



- Combine two functions
- Very useful to those of us “of a certain age”

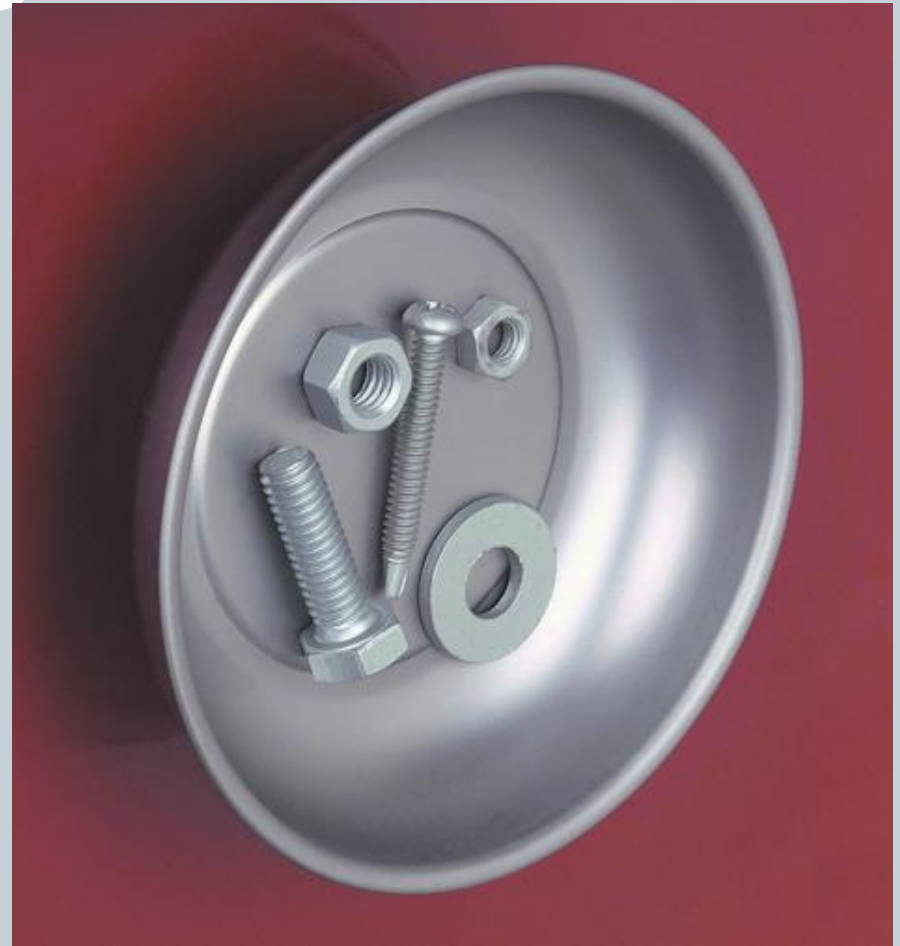




# Magnetic Part Tray



- Different sizes and shapes available
- Hold parts, even when tray is vertical
- Can survive being bumped or kicked!
- Frequently on sale or free with purchase item at Harbor Freight



# Denim Apron



- Keeps oil and swarf off of clothes
- Pockets for pencils, caliper, and such

