Cheap Sharpening System

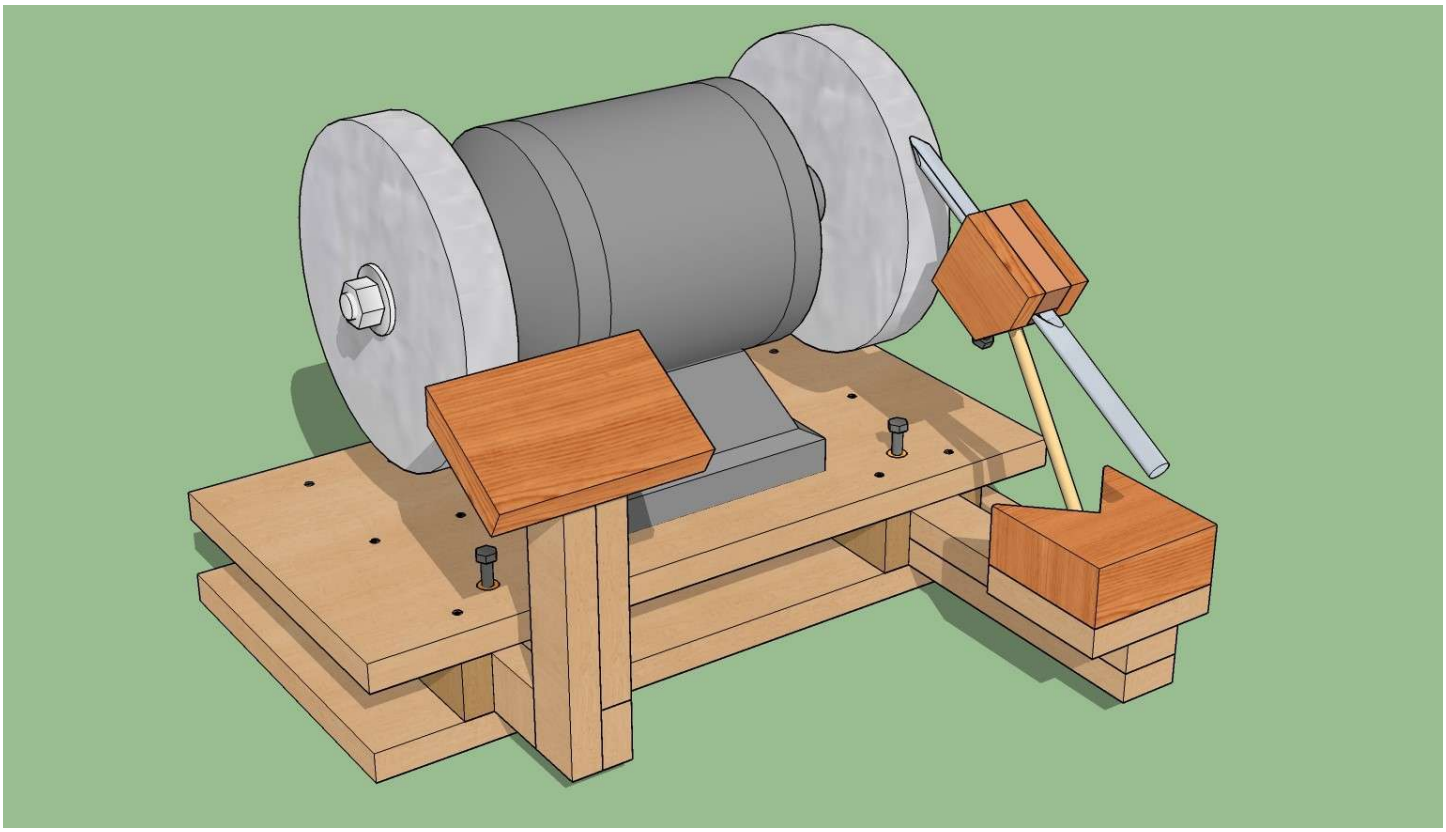
By Josh Bowman
Graphics by John K. Jordan

New turners often do not know what sharpening system to buy. This system is meant to be a low-cost starting place and will get a new turner up and turning with properly sharpened tools in a short time. It is affordable and easy to use

This system is based on many woodturner's opinions and the King Heiple design. Changes were made to simplify the design and give additional details on construction. It includes an angled platform for scrapers and bits. It also has a double pocket arm for skews and a single pocket arm for gouges of all kinds. This system shouldn't cost more than $10 to $15 to construct. It can be even less if the scrap bin is used. These dimensions can vary depending on scrap available.

For a beginner, I recommend using the platform and gouge jig angles given in the following drawings. This will ensure a good starting point and result in a 60 degree angle* on your tools. You can change the jigs later if they wish or even better add additional ones.

*Based on the platform angle and using a 2" distance for the gouge jig see page 5.



Materials List

Part	Length	Width	Thickness	Material	QTY
Grinder Base	9-1/2”	19”	3/4”	Plywood	2
Arm Spacers	9-1/2”	1-1/2”	3/4”	Plywood	4
Gouge/Skew Arm	23-1/2”	1-1/2”	3/4”	Plywood	2
Tool Platform Sliding Arm half #1	7-1/2”	1-1/2”	3/4”	Plywood	1
Tool Platform Sliding Arm half #2	6”	1-1/2”	3/4”	Plywood	1
Platform Upright Arm *	8”	1-1/2”	3/4”	Plywood	2
Tool Platform	5”	3-1/4”	3/4”	Plywood	1
Skew Jig	12-1/4”	3-1/4”	3/4”	Plywood	1
V Pockets for Gouge and Skew Jigs	3-1/4”	3-1/4”	1-1/2”	2x4	3
Index Pin for Jigs and Pivot Arm for Gouge Jig	12”	5/16”	N/A	Dowel	1

*Must be fitted to grinder centerline and form half lap joint to join with sliding arms half lap

Misc. Parts

A handful of 1-1/2” deck screws

Some scrap wood for the gouge jig see drawings for dimensions

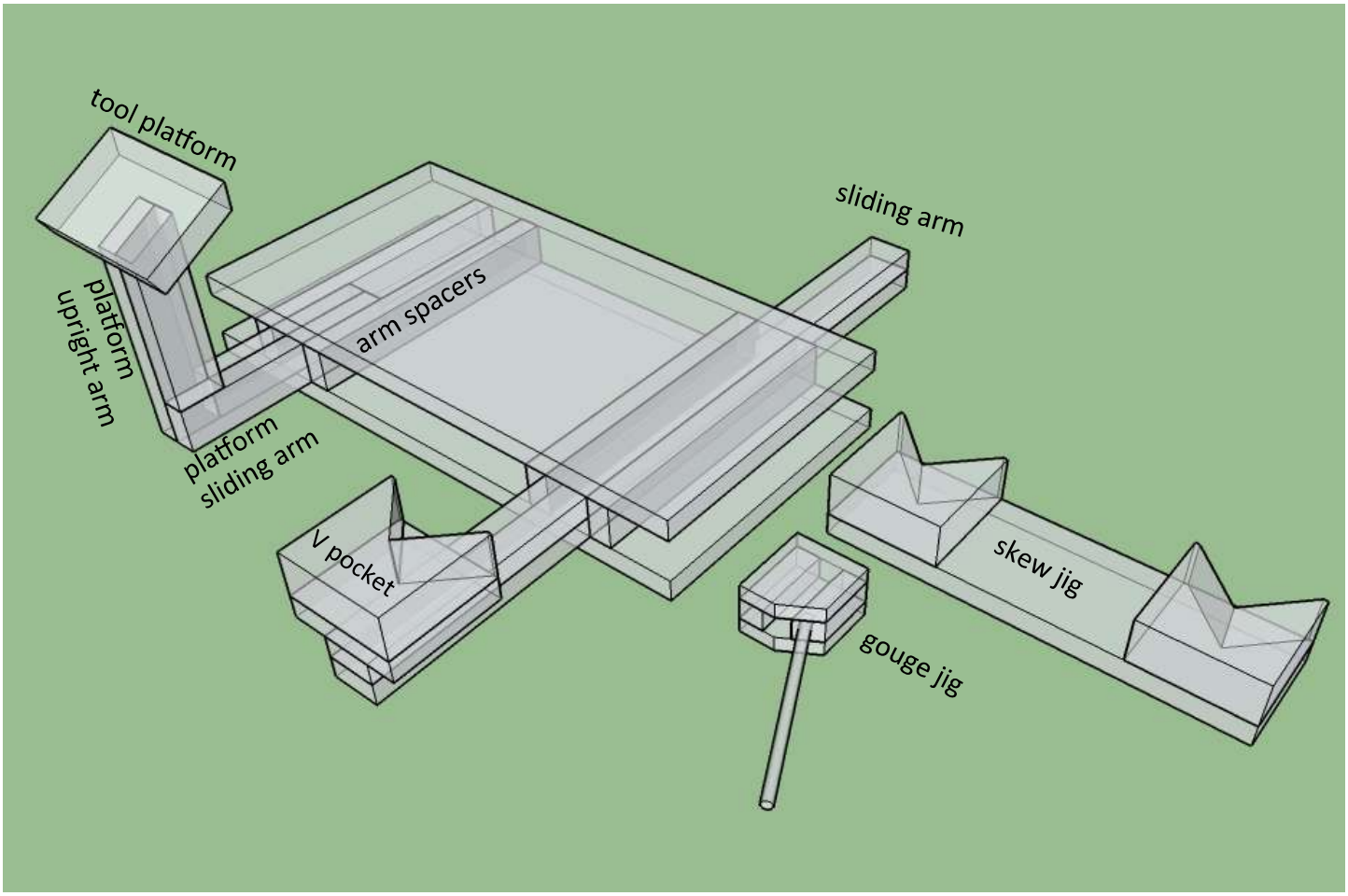
The hardware below is 1/4”x20:

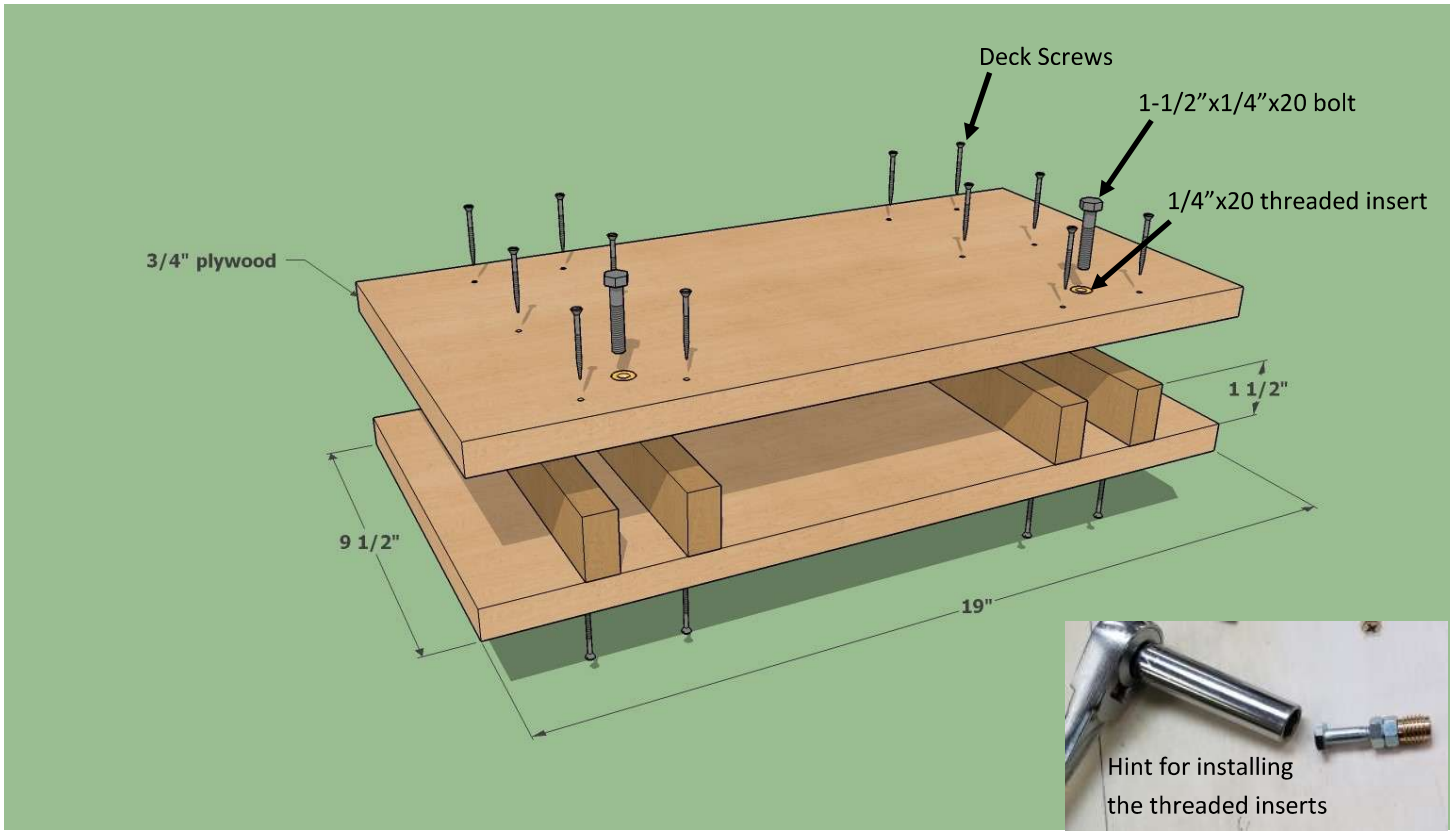
3: 1-1/2” bolts (one should have full threads for gouge jig)

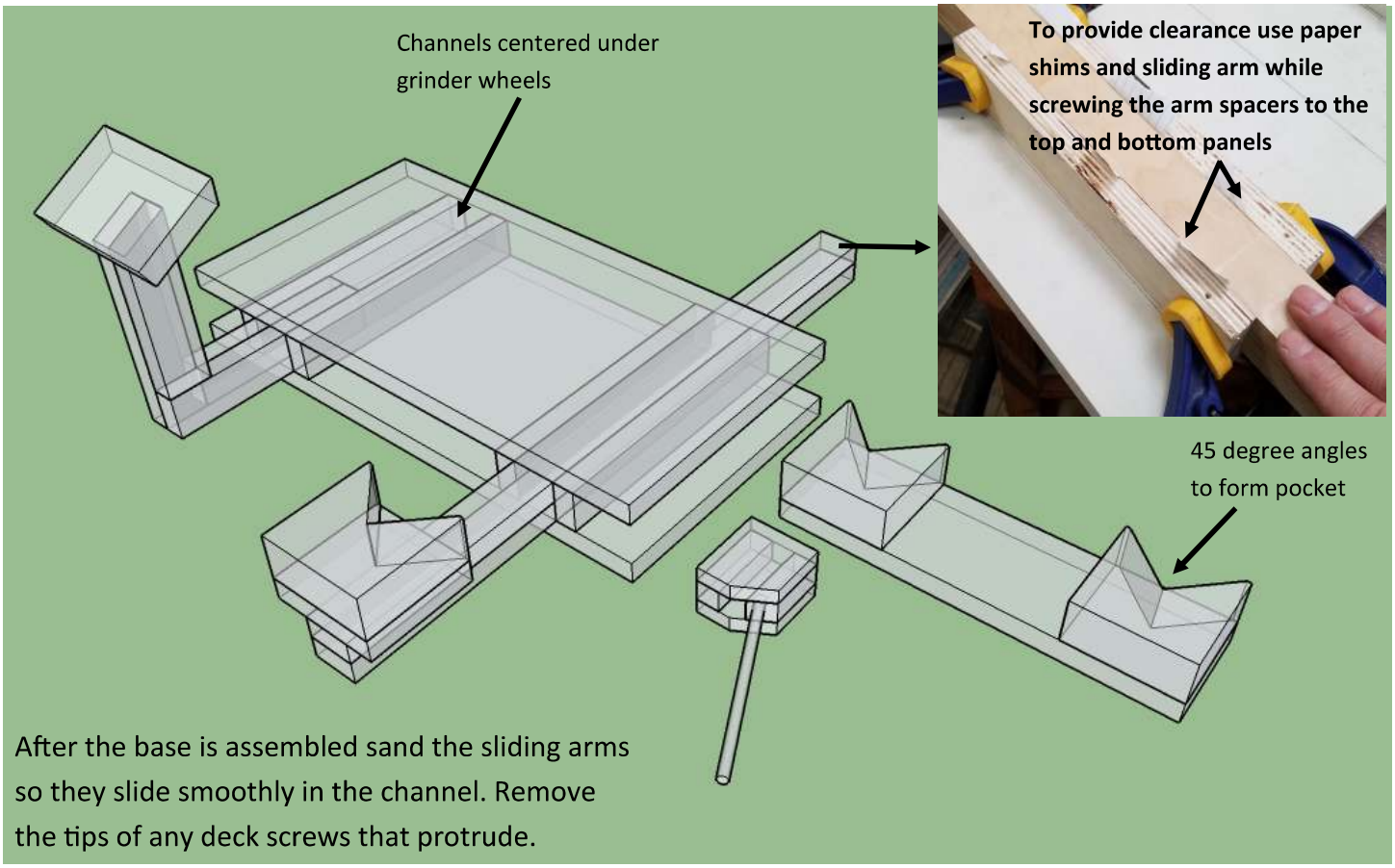
1: 2-1/2” bolt

5: threaded inserts

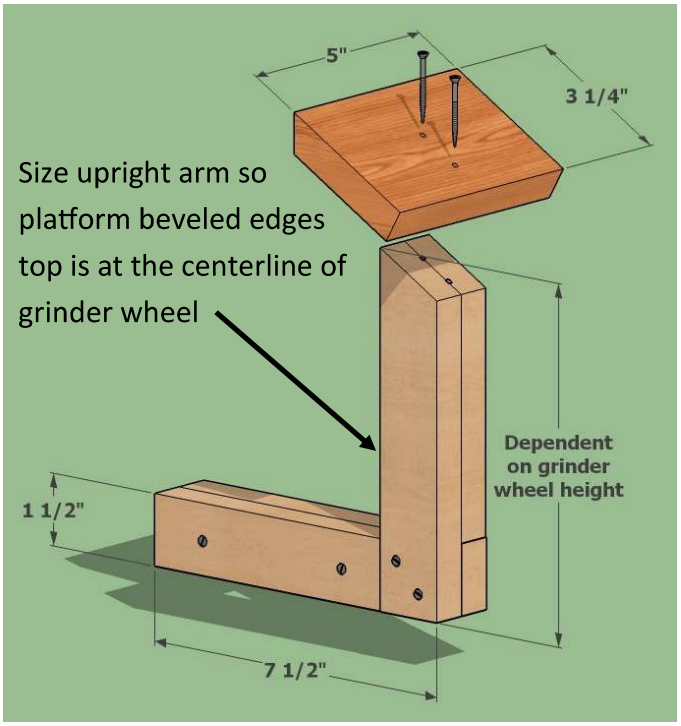
1: washer

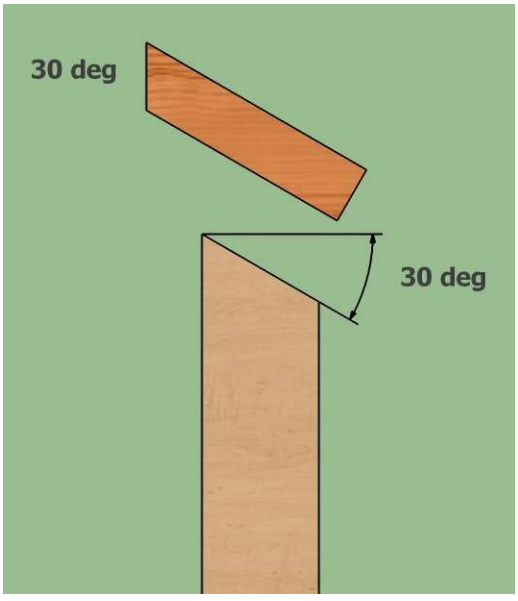

tool platform
sliding arm
platform upright arm
arm spacers
platform sliding arm
V pocket
skew jig
gouge jig

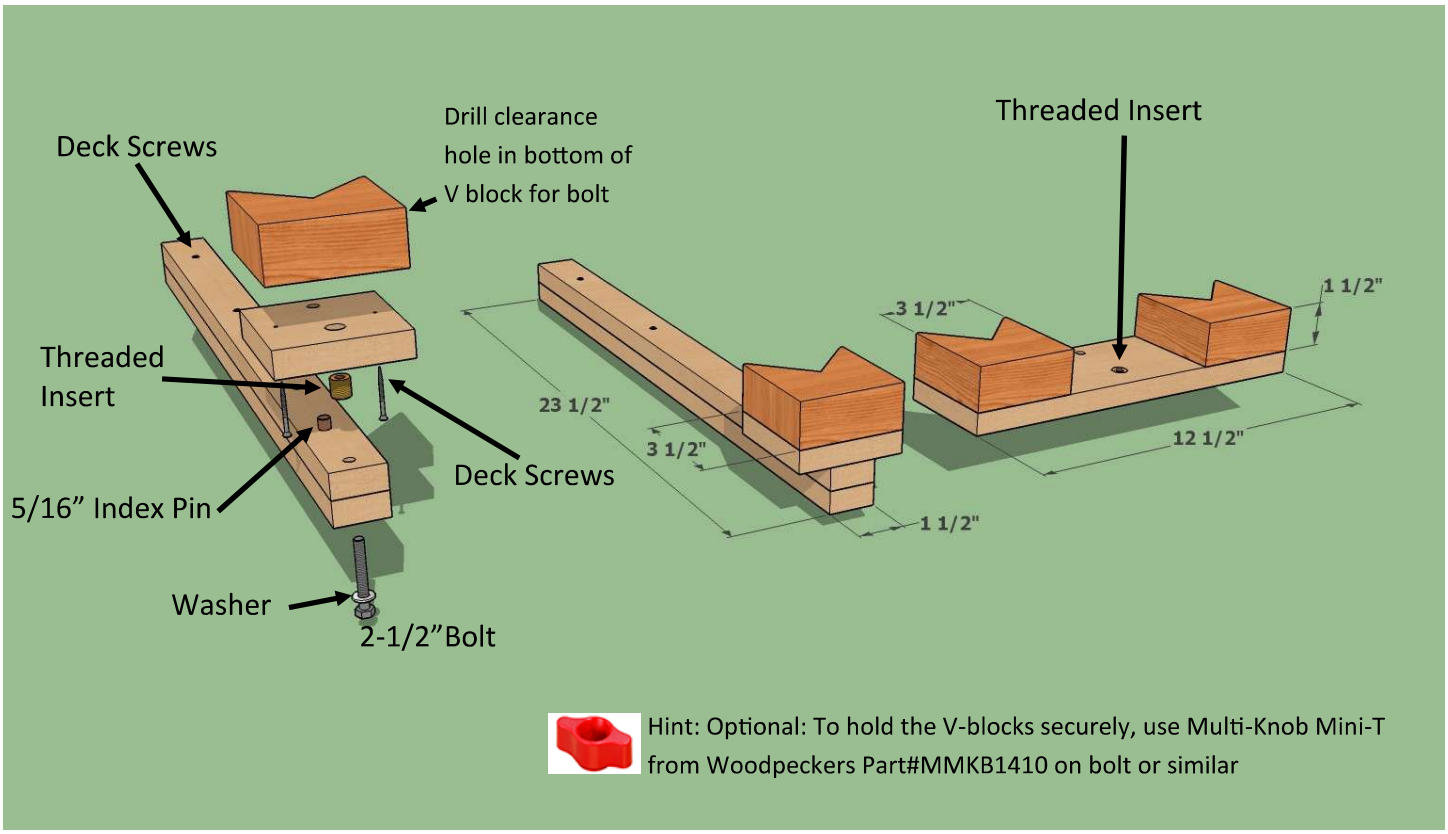

Deck Screws
1-1/2”x1/4”x20 bolt
1/4”x20 threaded insert
3/4" plywood
1 1/2"
9 1/2"
19"
Hint for installing
the threaded inserts



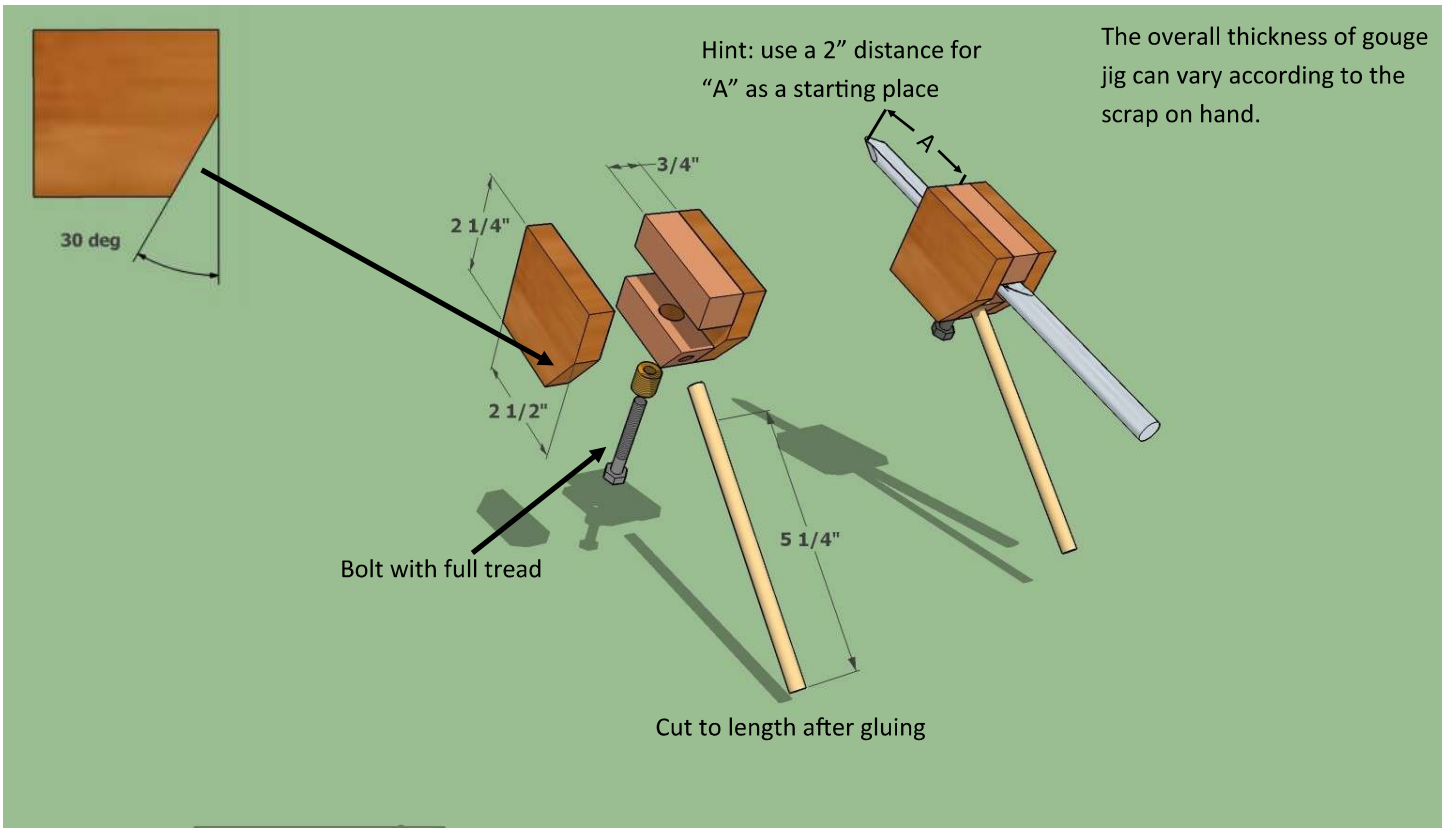
After the base is assembled sand the sliding arms so they slide smoothly in the channel. Remove the tips of any deck screws that protrude.







Hint: Optional: To hold the V-blocks securely, use Multi-Knob Mini-T from Woodpeckers Part#MMKB1410 on bolt or similar



The overall thickness of gouge jig can vary according to the scrap on hand.

Conclusion

This system should give years of service. If you find you need different angles, you only have to remake that particular jig.

Clubs can have workshops where new members can build this system from "kits" that experienced members have put together with the pre-cut pieces and all needed hardware. The tools needed shouldn't be much more than a sander, drill, ratchet and screwdriver.

Turners may need to true and balance their grinders if using standard grinding wheels. The Don Geiger method is an excellent and easy method. See the AAW Journal December 2016 on Page 24 Tuning Up a Bench Grinder or go to Don Geigers Website: http://www.geigerssolutions.com/Tuning-Up-a-Bench-Grinder.html

To the left is an example of an inexpensive grinder with stock wheels after balancing. That nickel has been sitting on the running bench grinder for over 10 minutes! It took only 30 minutes to true the wheels using the Don Geiger method.

Any questions or comments concerning this system can be directed to Josh Bowman at jsbowman@bellsouth.net.