ONE GOOD TURN

Meetings: Dan Hershberger Shop

Winter Months Second Saturday 12:30

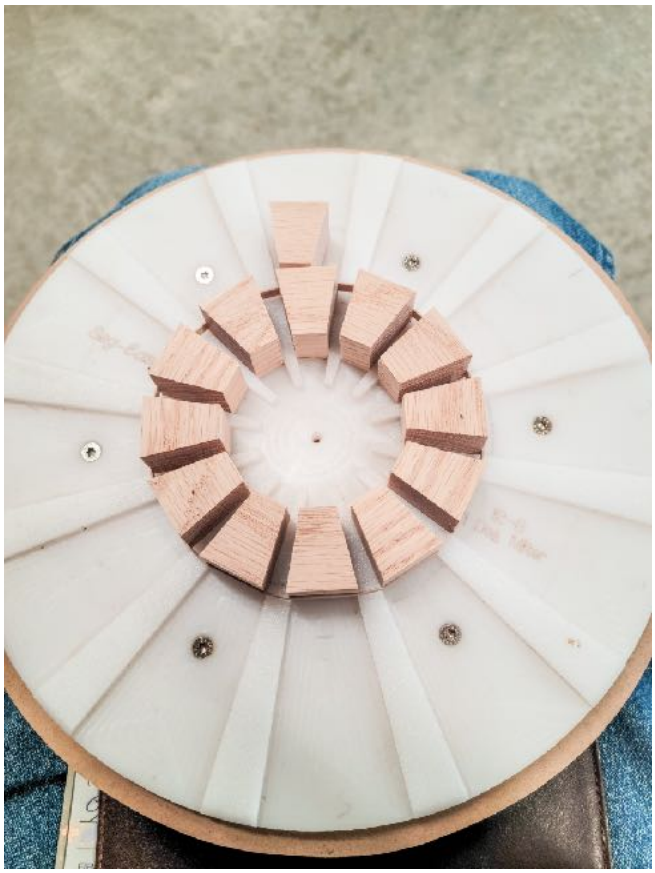
October Meeting

Greg Yeager gave the demonstration at the October meeting of the Great Falls Woodturners. His demonstration was on open segmented turning.

He had gotten information and a jig to help with alignment from the website Segeasy.com. He said Segeasy has a lot of good information under the "Free Downloads" section. There are also many online resources to be found by doing a search for "open segmented turning."

Greg had purchased some jigs from Segeasy. One of these was a Wedgie jig to help with cutting pieces of wood for the segmented turning. He recommends using a spacer and some picks to hold the wooden pieces when cutting them, to keep your fingers well away from any moving blades. He found that segments one inch wide worked best for him. It's very important that all segments are the same width.

Greg also purchased a couple of Open-Segment Segeasy Plates, which are flat round plastic faceplate segmenting jigs to help align and hold



segments for gluing. The pieces are arranged evenly in a circle with space in between each segment. A bit of glue on the top of each piece and a rubber band to hold all pieces against and in the jig and not falling out, and now that layer could be glued to the previous layer of the piece.

Greg does the gluing of each successive layer on the lathe, using a floating centerpin to hold the Segeasy faceplate with segments for the glue up.

Greg recommends the glue bottle tops from Rockler which have a very fine tip for applying glue. Once one ring is glued onto the piece and the glue has hardened, it is very important to sand that new layer, across the top of the ring and in between each segment, before the next layer is glued on.

While solid segmented turning benefits from a lot of glue, open segmented turning takes a lighter hand. If too much glue is used, it takes a lot of patience to clean up all the spaces in the open segmented piece where glue squeezed out of joints. (However, too light of a hand with the glue can result in the piece flying apart on the lathe. Greg said he only made that mistake once.)

To remove glue squeeze out, Greg recommends several different tools. He uses a small flat tipped screwdriver, small triangular files (chainsaw blade

files work well for this) and a pick. If the files get gummed up with glue, they can easily be cleaned with a brash brush and some hot water.

He said he disagrees with sources who recommend using a pipe cleaner dampened with water to remove glue squeeze out while it has not yet hardened. He found some of the water on the damp pipe cleaner would wick into the joints and weaken the glue joint.

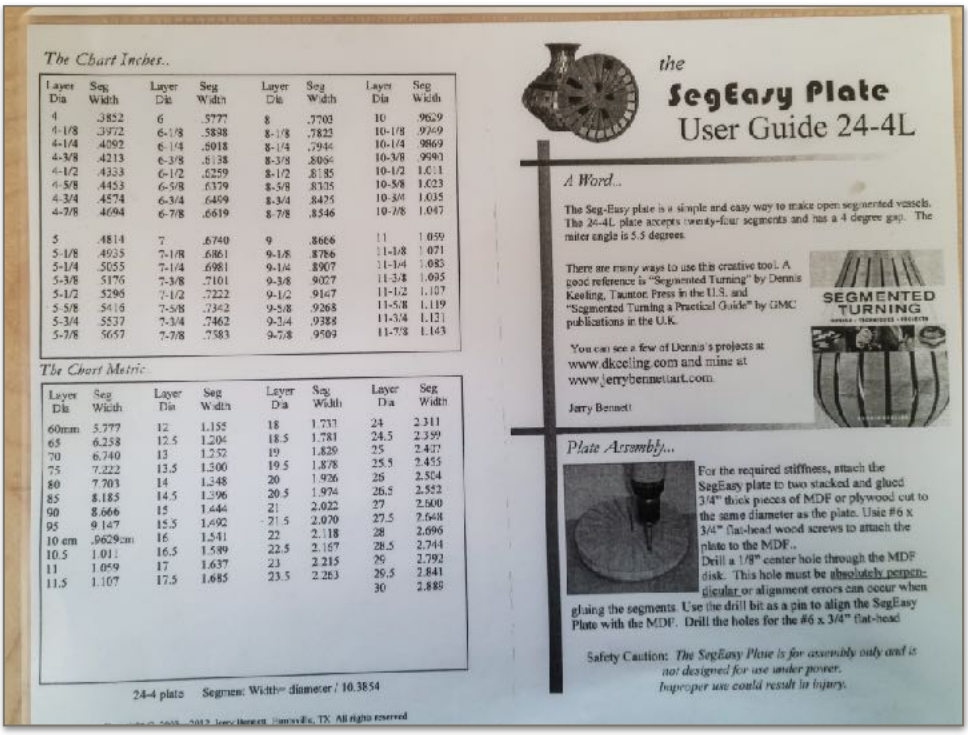
Once the glue has hardened enough that the segments will not fall off, he can remove the Segeasy faceplate jig, put a flat faceplate on the lathe, and use that to hold the segmented bowl together while the glue of the newest layer hardens. During that time, he can use the Segeasy faceplate jig to load up the next ring of segments.

Once all layers have been glued up and allowed time for the glue to dry, it is time to turn the bowl. Greg said that this is

not the time to be an aggressive turner. He recommends at most 1000 rpm on the lathe. When he is turning these bowls, he turns the inside of the bowl first, and then the outside.

He would be happy to loan his faceplate segmenting jigs to anyone in the club who is interested in trying this for themselves.

Greg said one use of these open segmented bowls is they make a nice fruit bowl.



The Chart Inches..

Layer Dia	Seg Width	Layer Dia	Seg Width	Layer Dia	Seg Width	Layer Dia	Seg Width
4	.3852	6	.5777	8	.7703	10	.9629
4-1/8	.3972	6-1/8	.5838	8-1/8	.7823	10-1/8	.9749
4-1/4	.4092	6-1/4	.5018	8-1/4	.7944	10-1/4	.9869
4-3/8	.4213	6-3/8	.6138	8-3/8	.8064	10-3/8	.9991
4-1/2	.4333	6-1/2	.6259	8-1/2	.8185	10-1/2	1.011
4-5/8	.4453	6-5/8	.6379	8-5/8	.8305	10-5/8	1.023
4-3/4	.4574	6-3/4	.6499	8-3/4	.8425	10-3/4	1.035
4-7/8	.4694	6-7/8	.6619	8-7/8	.8546	10-7/8	1.047
5	.4814	7	.6740	9	.8666	11	1.059
5-1/8	.4935	7-1/8	.6861	9-1/8	.8786	11-1/8	1.071
5-1/4	.5055	7-1/4	.6981	9-1/4	.8907	11-1/4	1.083
5-3/8	.5176	7-3/8	.7101	9-3/8	.9027	11-3/8	1.095
5-1/2	.5296	7-1/2	.7222	9-1/2	.9147	11-1/2	1.107
5-5/8	.5416	7-5/8	.7342	9-5/8	.9268	11-5/8	1.119
5-3/4	.5537	7-3/4	.7462	9-3/4	.9388	11-3/4	1.131
5-7/8	.5657	7-7/8	.7583	9-7/8	.9509	11-7/8	1.143

The Chart Metric

Layer Dia	Seg Width	Layer Dia	Seg Width	Layer Dia	Seg Width	Layer Dia	Seg Width
60mm	5.777	12	1.155	18	1.733	24	2.311
65	6.258	12.5	1.204	18.5	1.781	24.5	2.359
70	6.740	13	1.252	19	1.829	25	2.407
75	7.222	13.5	1.300	19.5	1.878	25.5	2.455
80	7.703	14	1.348	20	1.926	26	2.504
85	8.185	14.5	1.396	20.5	1.974	26.5	2.552
90	8.666	15	1.444	21	2.022	27	2.600
95	9.147	15.5	1.492	21.5	2.070	27.5	2.648
10 cm	.9629cm	16	1.541	22	2.118	28	2.696
10.5	1.011	16.5	1.589	22.5	2.167	28.5	2.744
11	1.059	17	1.637	23	2.215	29	2.792
11.5	1.107	17.5	1.685	23.5	2.263	29.5	2.841
						30	2.889

24-4 plate Segment Width= diameter / 10.3854

the SegEasy Plate User Guide 24-4L

A Word...

The Seg-Easy plate is a simple and easy way to make open segmented vessels. The 24-4L plate accepts twenty-four segments and has a 4 degree gap. The miter angle is 5.5 degrees.

There are many ways to use this creative tool. A good reference is "Segmented Turning" by Dennis Keeling, Taunton Press in the U.S. and "Segmented Turning a Practical Guide" by GMC publications in the U.K.

You can see a few of Dennis's projects at www.dkeeling.com and mine at www.jerrybennettart.com

Jerry Bennett

SEGMENTED TURNING

Plate Assembly...

For the required stiffness, attach the SegEasy plate to two stacked and glued 3/4" thick pieces of MDF or plywood cut to the same diameter as the plate. Use #6 x 3/4" flat-head wood screws to attach the plate to the MDF.. Drill a 1/8" center hole through the MDF disk. This hole must be absolutely perpendicular or alignment errors can occur when gluing the segments. Use the drill bit as a pin to align the SegEasy Plate with the MDF. Drill the holes for the #6 x 3/4" flat-head

Safety Caution: *The SegEasy Plate is for assembly only and is not designed for use under power. Improper use could result in injury.*

Greg showed us a few very nice pieces he had already made with this jig. One piece was made out of pine, but between the open segmenting, finish, and nice shape of the piece, it looked like something much fancier than pine. Another was made with two different colors of wood and was very striking.

Greg claimed he could see hardened glue squeeze out all over his pine piece. I had to look closely to see any of that.

Greg uses laser cut stainless steel inserts with his name on them for the bottom of his bowls. There was a bit of discussion about using that instead of a turner trying to write or engrave their name freehand on a bowl.

On a side note, most crafters are their own worst critics.

Next Meeting

The next meeting will be Sat. Nov 11 at the Hershberger shop. Tom Krajacich will give the demonstration.

Instant Gallery

Unknown

Unknown

Greg Yeager

Greg Yeager

Upcoming Meeting

Saturday December 9 - Christmas gathering. Bring a small exchange gift.

Greg Yeager

Thanks

To Camille Good and Paul Snyder for contributing to this months newsletter.

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