

**SOUTH PLAINS
WOODTURNERS**



LUBBOCK, TEXAS



South Plains Woodturners

*Chartered by the American Association of Woodturners (AAW)
Affiliated with Southwest Association of Turners (SWAT)*

SPW MEETING

April 5, 2008

TIME 10:00 am -12:00 noon

WOOD SHOP AT TARGET SHEETMETAL

SOUTH LOOP 289 LUBBOCK

Please park and enter in the back (see map)

From the President

I was unable to be at the March meeting, we were out of town. I have spoken with many members since and understand that the meeting was a great success. Jim Bob, I have heard nothing but good comments about your presentation. Everyone says it was truly outstanding. Our hats go off to you. Thank you for all the time, energy and effort that went into the preparation and presentation. Your demonstration obviously was appreciated by many. Members, I am told that the show and tell table had outstanding pieces. You guys are continuing to bring worthy pieces to share with everyone. Keep the table full and by the way, be sure and bring a weed pot to next month's meeting to show our acceptance of David Turner's challenge.

The SPW Board of Directors met recently and discussed many topics of interest to our members. Many may remember our participation in last year's Arts and Crafts Fair. That program is upcoming the 17 of April. Janice Hubble is the director of the Crafts portion of the Fair and she has requested that a person be appointed as a liaison between the club and herself. Because of his acquaintance with her and his experience at last year's fair, Tom Farrell has accepted that appointment. If Tom requests our assistance, please, let's be willing to help. Another item of discussion was the newsletter editor. Charles Swift has asked to be relieved of this job at the end of this physical year. After discussion, the board voted to make the newsletter editor a board member. This requires an amendment to the chapter bylaws. Dick Markham has requested retirement from the office of treasurer. This brought about discussion of combining the positions of secretary and treasurer. It was decided that a second amendment was needed for this motion. The Board also discussed the formation of a nominating committee for next year's club officers. Jim Bob Burgoon was appointed chairman of that committee. Members, if you have suggestions for next year's officers, please communicate with Jim Bob. The committee will present their recommendations to the membership and voting will occur for the amendments to the bylaws and next years officers, sometime before the beginning of our next physical year. Be thinking about your recommendations for club officers.

I want to thank all of our members for your active participation in our chapter. We are marching through a outstanding year. Our numbers are still growing, your participation in our show and tell table is increasing and the demonstrations have been exceedingly well received. A good year it has been and continues to be. We are looking forward to the meeting next month. We will see demonstrated the construction of walking sticks. Keep the chips flying, see you in April. Larry

Demo Info

This month our demo will be by Bill Garner from the Commanche Trail Woodturners, Midlands, TX. Bill is a MASTER walking stick/cane maker, who has made sticks for Pres. George Bush 41 and for Laura Bush's mother, among

Please park and enter the building in the back of West side of Target Sheet Metal. Because of Liability and Insurance reasons, use of front doors other than for business reasons is prohibited. See map at end of newsletter. Signs will be outside and inside building.

SPW Board of Directors

Bob Harbaugh-Past-President-806-784-0607

Larry Rogers- President -806-795-0245

Mike Chambers-First Vice President-806-637-7647

Mike Oglesby-Second Vice-President-806-795-9100

Charles Swift-Secretary-806-799-7059

Dick Markham-Treasurer-806-795-6248

Glenn Williamson-Raffle Mgr.-806-763-7343

others! He'll be concentrating on walking sticks with a "barley twist" and handouts will be available.

Upcoming Elections

As our fiscal year starts with the June 7, 2008 meeting (beginning our THIRD year, can you believe it?!!!) this means that officer elections and by-law alterations must be voted on in MAY. See Jim Bob for nomination(s) suggestions and any BOD member for any by-law changes you have in mind.

Raffle

Winners of the previous raffle are expected to bring something for the next one, but we encourage anyone, winner or not, to bring a turning to the raffle. This insures it's success and makes for a more interesting raffle. Also, more people have a chance to win something.

Club Shirts

We are seeing more and more of you wearing club shirts and it really looks great. Charles is still taking orders for club shirts. The price for the shirt with club logo is \$30.00. Men's sizes from Xsmall to 6XL, either short or long sleeve (Tall also available). Women's sizes from small to 4XL. If you want your name on it, the name is \$8.00. See Charles to order.

Other club meetings

Our sister club, COMANCHE TRAIL WOODTURNERS, meets the second Saturday of each month in Midland, Texas from 10:00am to 12:00 Noon. Normally they meet at George Hancock's shop at 1709 Clark Street.

The Amarillo club, PANHANDLE AREA TURNERS SOCIETY Meets The second Saturday of each month in Amarillo, Texas at 9:00am , normally At Bob Corn's shop at 7100 E. Willow Creek Road.

Parking and Entering

Segmented Work Layout, Part 2

Segment length = diameter of ring x tan ϑ

Example: What is the segment length for a 12-segment ring with a diameter of 6in?

$$\text{Angle } \vartheta = 180^\circ \div 12 = 15^\circ$$

$$\text{Tan } \vartheta = 0.267949$$

$$\text{Segment length} = \text{diameter} \times \text{tan } \vartheta = 6 \times 0.267948 = 1.607\text{in}$$

Three factors determine the diameter of the ring:

- the number of segments
- the length of the segments
- the thickness of any spacers between the segments.

Three examples will help make this clearer.

Example 1: Changing number of segments

Make two different rings with segments whose length is 1in. A 6-segment ring with a segment length of 1in will make a diameter of 1.732in. A 12-segment ring with the same segment length will make a diameter of 3.732in (Fig 3.3).

Example 2: Changing length of segments

You can change the ring diameter by varying the segment length (diameter = segment length \div tan ϑ). As we saw above, 12 segments 1in long make a 3.732in diameter ring; 12 segments with a length of 2in make a 7.464in ring (Fig 3.4).

Example 3: Adding spacers to the ring

You can increase the diameter of a ring by adding spacers at equal intervals. The number of spacers must divide exactly into the number of segments to keep the ring from becoming lopsided. For example, Fig 3.5 shows a 12-segment ring with spacers every four segments. You can add spacers between all the segments only if there is an even number of segments in the ring. Adding spacers will add to the diameter of the ring; if the spacers are thin the difference will be small.

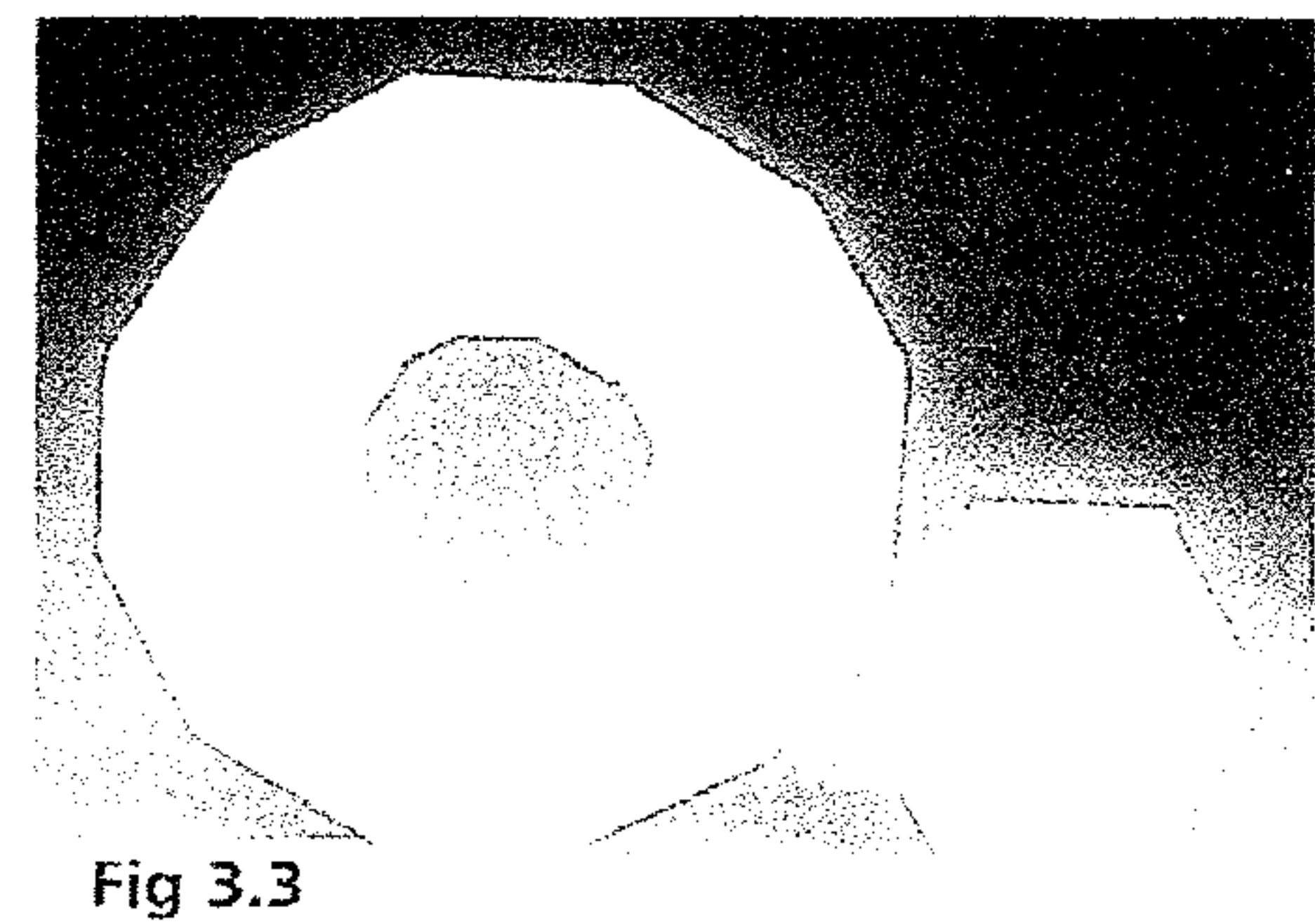


Fig 3.3

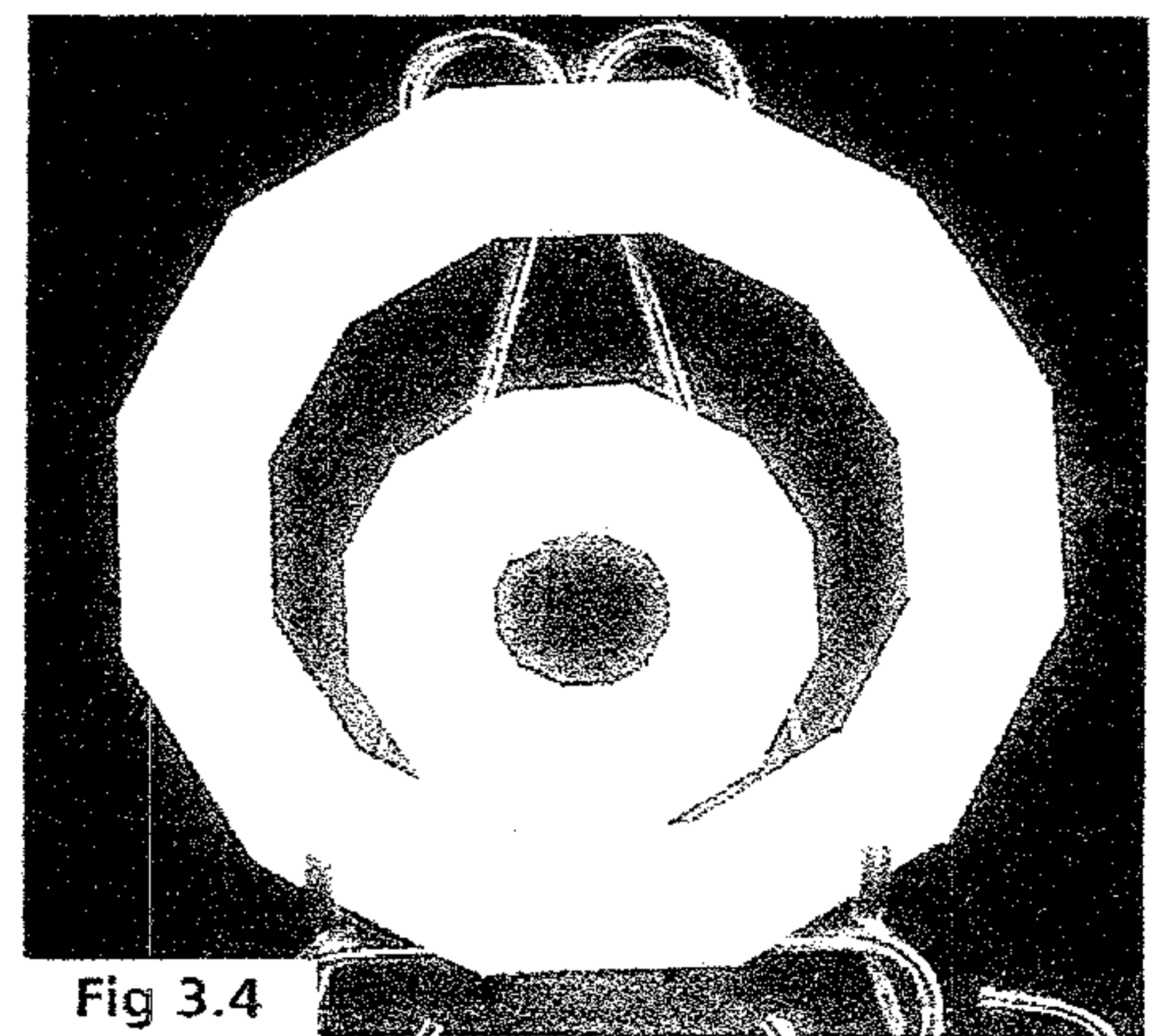


Fig 3.4

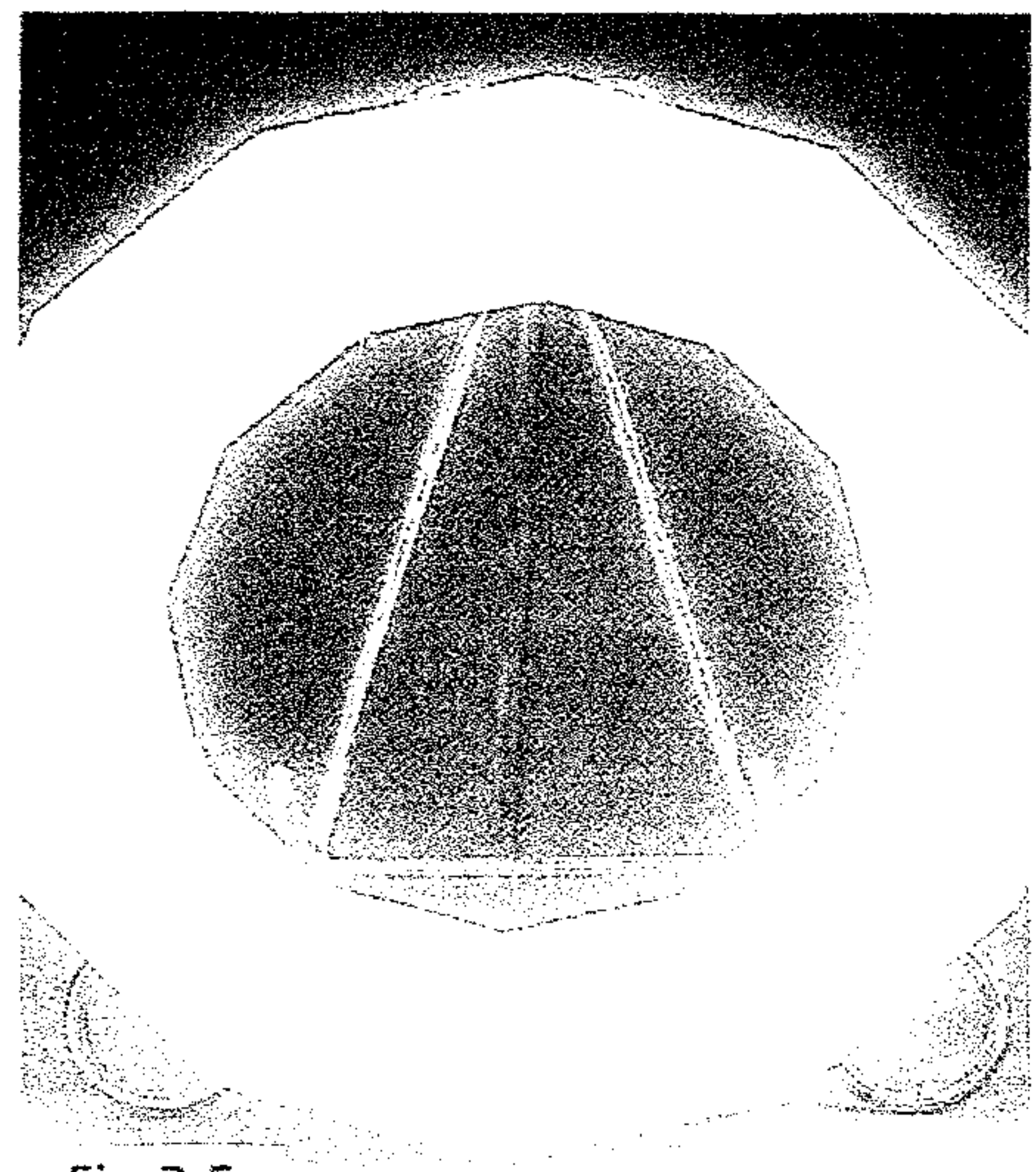


Fig 3.5

SEGMENT LENGTH AND RING DIAMETER

Knowing the tangent of the mitre angle ($\tan \vartheta$) is useful in determining the diameter of the ring and the length of the corresponding segments. (By 'length' I mean the length of material which has to be cut; the finished size after turning will be somewhat smaller.) An inexpensive hand calculator with basic mathematical functions makes this calculation very easily. Note that, although I have given measurements to three decimal places for completeness, accuracy to 0.1in (or to the nearest millimetre) is all that is needed when cutting the pieces.

Example: Making a 12-segment ring that is 9in in diameter.

$$\text{Mitre angle } \vartheta = 180^\circ \div 12 = 15^\circ$$

$$\text{Tan } \vartheta = 0.2679$$

$$\text{Segment length} = \tan \vartheta \times \text{diameter} = 0.2679 \times 9\text{in} = 2.411\text{in}$$

If you prefer metric units, simply substitute 230mm for 9in. In this case:

$$\text{Segment length} = 0.2679 \times 230\text{mm} = 61.617\text{mm}$$

Table 2 shows tangents for rings of up to 40 segments.

TABLE 2

No. of segments	Mitre angle ϑ ($^\circ$)	Tan ϑ	No. of segments	Mitre angle ϑ ($^\circ$)	Tan ϑ
6	30	0.57735	24	7.5	0.13165
8	22.5	0.41421	26	6.923	0.12142
10	18	0.32492	28	6.428	0.11267
12	15	0.26795	30	6	0.10510
14	12.857	0.22824	32	5.625	0.09849
16	11.25	0.19891	34	5.294	0.09266
18	10	0.17632	36	5	0.08749
20	9	0.15838	38	4.737	0.08286
22	8.182	0.14378	40	4.5	0.07870

Fig 3.3 A 6-segment and a 12-segment ring, both with segment length of 1in (25mm)

Fig 3.4 Two 12-segment rings, with segment length 1in and diameter 3.732in, and with segment length 2in and diameter 7.464in

Fig 3.5 Any spacers used between the segments must be evenly distributed

You can calculate the diameter of the ring with the following formulae. This is why the tangent of the mitre angle is so useful: with this number you can calculate the diameter if you know the length of the segment.