

Sept 1997

THE MIDWEST FACETER



September 1997
Volume 17 Issue 4

The Midwest Faceter

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The Midwest Faceter

Volume 17 Number 4

September 1997

MIDWEST FACETERS GUILD

* *Membership
Information*

* *Newsletter
Deadlines*

A Publication of the Midwest Faceters Guild

E ditors: **Kathleen Myers**
Bill Horton

Send all Articles to:
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THE MIDWEST FACETER is not forwardable. For membership application or change of address contact: **Membership Chairman: Ray Becker 29802 Rosebriar Street, St. Clair Shores, MI 48082-2634.**

THE MIDWEST FACETER is the official publication of the MIDWEST FACETERS GUILD and is published five times each year available to members only as a portion of their annual membership dues. Statements appearing in THE MIDWEST FACETER are those of the authors and not necessarily those of the THE MIDWEST FACETERS GUILD, MWFG Board of Directors, or THE MIDWEST FACETER editors. The editors reserve the right to edit all material submitted for publication. Permission to reprint any material published in THE MIDWEST FACETER is granted provided full credit is given to THE MIDWEST FACETER and to the author.

THE MIDWEST FACETERS GUILD

* ORGANIZED JULY 14, 1979

PURPOSES

- * TO PROMOTE EDUCATION AND RECREATION
- * TO DEVELOP THE ART OF FACETING
- * TO EXCHANGE INFORMATION RELATED TO FACETING
- * TO PROVIDE MEETING FOR THOSE OF LIKE INTERESTS
- * TO PROMOTE THE ACHIEVEMENT OF INDIVIDUALS

MEMBER OF:

THE MIDWEST FEDERATION OF MINERALOGICAL AND GEOLOGICAL SOCIETIES

THE AMERICAN FEDERATION OF MINERALOGICAL SOCIETIES

MIDWEST FACETERS GUILD

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Special Display



THE MIDWEST FACETER

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GUILD MEETING October 4, 1997

**City Tavern Resturant
Michigan Avenue
Dearborn, Michigan**

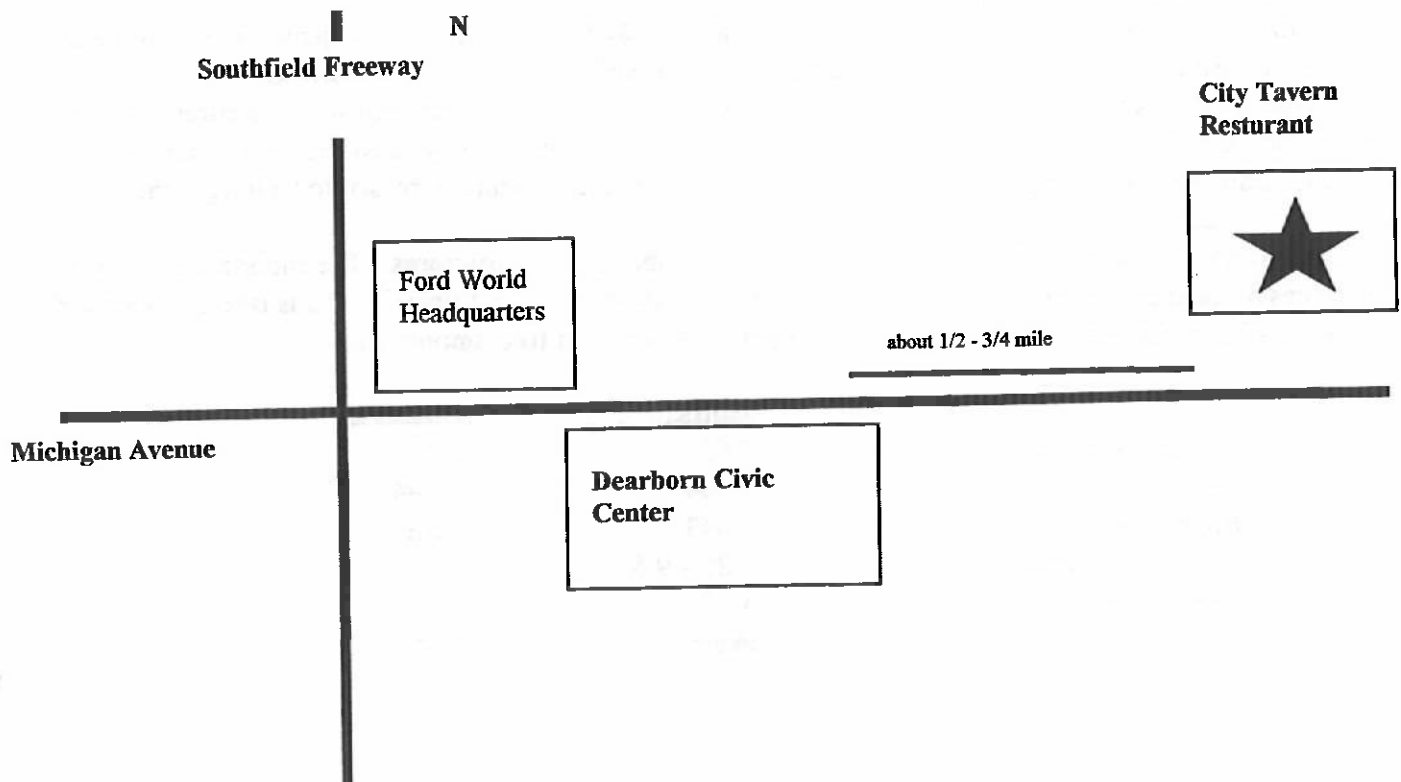
Board Meeting 10:00 A.M.

Morning Session - All Welcome 10:00 - 11:30A.M.

Lunch at 11:30 - all welcome to join

Annual Meeting - Election of Officers 1:00 P.M.

Program:



MFG 1997 SEMINAR

The 1997 Seminar is in the record book. We enjoyed having 68 students and 17 instructors. That made a good ratio of students per instructor. The old 1921 building in downtown Hartland was humming for the entire weekend. The weather was in our favor, as it was cool. We had a little rain, but even the rain couldn't dampen the atmosphere.

The icing on the cake were the lectures by Dr. Kurt Nassau. The good Doctor has written the book on synthetics. He was right on target for the MWF Guild people in attendance. He is a delightful speaker, as well as informative. Everyone really enjoyed his lectures. We also had the pleasure of helping him celebrate his birthday. His wife helped us on that little detail. I hope we will be fortunate enough in the future to have he and his wife visit with us again! 10,000 ATTABOYS for Dr. and Mrs. Nassau, and Harold Rice for arranging Dr. Nassau's visit!!!

For those of you who missed this seminar, plan to attend next year. We don't know the venue, at this time, where the next seminar will take place. Watch for the 1998 seminar in future bulletins.

Dr. Nassau gave us a lecture on MOISSANITE. We missed the spelling in the seminar bulletin. He had a faceted gemstone of Moissanite at this lecture, for all to view. Unfortunately, it seems that we hobbyists will not be able to get these crystals in the near future.

This article printed in the CRITICAL ANGLE, the bulletin of the CALGARY FACETERS GUILD, by editor Doug Miller covers Moissanite from the very beginning. The article appeared in the June 1997 issue of the CRITICAL ANGLE.

SYNTHETIC MOISSANITE: A NEW DIAMOND SIMULANT Doug Miller

Synthetic moissanite, SiC, is the newest potential diamond simulant. First discovered in nature in meteorites in the 1890's, moissanite has since been found in kimberlite pipes and is used as an indicator mineral by prospecting companies. Unfortunately, natural moissanite is found only as small opaque crystals. Larger crystals may be present in kimberlite pipes but the successive crushing operations to retrieve diamonds also crushes the natural moissanite crystals.

Synthetic silicon carbide has been known since about 1881. The primary industrial use of synthetic SiC is as an abrasive and cutting material as only tiny opaque SiC crystals can be produced.

Large single crystal moissanite was originally developed by a semiconductor manufacturer, CREE Research, Inc. C3, Inc. of the Research Triangle area in North Carolina, recognized the gem potential of the synthetic moissanite, and contacted CREE to develop colourless moissanite in return for a long term exclusive supply agreement.

Moissanite forms in rhombohedral, hexagonal and cubic crystal structures. The moissanite that C3 will be releasing belongs to the hexagonal crystal system, is anisotropic and uniaxial and is one of about 200 polytypes of silicon carbide. The properties of moissanite compared to diamond are:

	Moissanite	Diamond
Refractive index	2.65	2.42
Dispersion	0.104	0.044
Birefringence	0.043	none
Hardness (Mohs)	9.25 - 9.5	10.0
Specific Gravity	3.17	3.52
Toughness	excellent	good

SYNTHETIC MOISSANITE: Continued

Diamond has excellent toughness except for the cleavage directions. Synthetic moissanite will be available as internally near flawless gemstones.

The high refractive index and dispersion of moissanite will make for extremely flashy cut stones. The high birefringence may limit the stones potential (and size) as it is almost equal to zircon at 0.059, but correct orientation will minimize facet doubling.

The moissanite previously produced is typically dark green but may also be pale green to pale brown. Current development is aimed at producing synthetic moissanite in the GHJ diamond range. Once a near-colourless moissanite has been achieved, other colours may be developed. Green, blue, amber, yellow, brown and red are all possible, but may be a number of years away.

The thermal conductivity and electrical conductivity of moissanite are very similar to diamond and existing thermal impedance testers identify moissanite as diamond. C3 has developed a tester that will discriminate between diamond and moissanite. The principle of operation is proprietary and will not be divulged until moissanite is marketed. These testers will be available from C3 at that time.

The method of growing the large moissanite is a closely held proprietary process. Moissanite is difficult to grow and the crystals are small, compared to other synthetics. The largest stone cut to date is 8 carats, but stones are more typically between 0.5 and 1.5 carats.

C3 have not fully developed their marketing plans but their primary targets are high volume industry manufactures, with volume commercial production in early 1998. Supplying rough moissanite to amateur faceters has not been ruled out, and I expect that rough will be available, but not until C3 have succeed in their target market. Pricing has not yet been established and will depend on the production costs and the quality of the material.

Moissanite has a strong potential as both a synthetic faceting material and as a diamond simulant. The optical and mechanical properties of moissanite should make for an extremely durable and attractive gem and the best diamond simulant to date. If other colours can be developed, there will be a very bright future for synthetic moissanite as a favorite material for faceters.

I would like to thank Jeff Hunter and Cindy Winter-Hartley of C3, Inc. for providing information for this article.

Opportunity is missed by most people because it is dressed in overalls and looks like work.

Thomas Edison

This article came from the bulletin "ANGLES", The bulletin for the Southern California Faceters Guild. The editor is J.W. Carroll. "Jerry" Carroll wrote the article. There was a mathematical study made to find the optimum angles to cut diamonds. Jerry took this one step further, and came up with the following tables for cutting, according to refractive indices.

SUGGESTED PAVILION AND CROWN MAIN FACET ANGLES

By J.W. Carroll

Index of Refraction	Critical Angle, Degree	Pavilion Main Angle, Degree	Crown Main Angle, Degree
1.50	41.81	43.22	35.25
1.51	41.47	43.17	35.25
1.52	41.14	43.12	35.26
1.53	40.81	43.07	35.26
1.54	40.49	43.02	35.26
1.55	40.18	42.97	35.27
1.56	39.87	42.92	35.26
1.57	39.56	42.88	35.27
1.58	39.27	42.83	35.26
1.59	38.97	42.78	35.27
1.60	38.68	42.74	35.27
1.61	38.40	42.70	35.28
1.62	38.12	42.65	35.28
1.63	37.84	42.61	35.28
1.64	37.57	42.57	35.29
1.65	37.31	42.53	35.29
1.66	37.04	42.48	35.29
1.67	36.78	42.44	35.29
1.68	36.53	42.40	35.29
1.69	36.28	42.36	35.30
1.70	36.03	42.32	35.30
1.71	35.79	42.28	35.30
1.72	35.55	42.24	35.30
1.73	35.31	42.21	35.30
1.74	35.08	42.17	35.31
1.75	34.85	42.13	35.31
1.76	34.62	42.10	35.31
1.77	34.40	42.06	35.31
1.78	34.18	42.02	35.32
1.79	33.96	41.99	35.32
1.80	33.75	41.95	35.32
1.81	33.54	41.92	35.32

SUGGESTED PAVILION AND CROWN MAIN FACET ANGLES - Continued

Index of Refraction	Critical Angle, Degree	Pavilion Main Angle, Degree	Crown Main Angle, Degree
1.82	33.33	41.89	35.33
1.83	33.12	41.85	35.33
1.84	32.92	41.82	35.33
1.85	32.72	41.78	35.33
1.86	32.52	41.75	35.33
1.87	32.33	41.72	35.34
1.88	32.13	41.69	35.34
1.89	31.94	41.66	35.34
1.90	31.76	41.63	35.35
1.91	31.57	41.60	35.35
1.92	31.39	41.57	35.35
1.93	31.21	41.54	35.35
1.94	31.03	41.51	35.36
1.95	30.85	41.48	35.36
1.96	30.68	41.44	35.35
1.97	30.51	41.42	35.36
1.98	30.33	41.39	35.36
1.99	30.17	41.37	35.37
2.00	30.00	41.33	35.36
2.01	29.84	41.312	35.37
2.02	29.67	41.28	35.37
2.03	29.51	41.25	35.37
2.04	29.35	41.23	35.38
2.05	29.20	41.20	35.38
2.06	29.04	41.17	35.38
2.07	28.89	41.15	35.39
2.08	28.74	41.12	35.38
2.09	28.59	41.10	35.39
2.10	28.44	41.07	35.39
2.11	28.29	41.05	35.40
2.12	28.14	41.02	35.40
2.13	28.00	41.00	35.39
2.14	27.86	40.98	35.40
2.15	27.72	40.95	35.40
2.16	27.58	40.92	35.40
2.17	27.44	40.91	35.41
2.18	27.30	40.88	35.41
2.19	27.17	40.86	35.41
2.20	27.04	40.83	35.41
2.21	26.90	40.82	35.42
2.22	26.77	40.79	35.42

SUGGESTED PAVILION AND CROWN MAIN FACET ANGLES - Continued

Index of Refraction	Critical Angle, Degree	Pavilion Main Angle, Degree	Crown Main Angle, Degree
2.23	26.64	40.77	35.42
2.24	26.51	40.75	35.42
2.25	26.39	40.72	35.42
2.26	26.26	40.70	35.42
2.27	26.14	40.68	35.42
2.28	26.01	40.66	35.42
2.29	25.89	40.64	35.97
2.30	25.77	40.62	35.81
2.31	25.65	40.59	35.65
2.32	25.53	40.57	35.49
2.33	25.42	40.58	35.33
2.34	25.30	40.60	35.18
2.35	25.18	40.62	35.02
2.36	25.07	40.64	34.87
2.37	24.96	40.66	34.72
2.38	24.85	40.68	34.57
2.39	24.73	40.70	34.42
2.40	24.62	40.72	34.27
2.41	24.52	40.74	34.12
2.42	24.41	40.74	34.12
2.43	24.30	40.77	33.83
2.44	24.19	40.79	33.69
2.45	24.09	40.81	33.55
2.46	23.99	40.82	33.41
2.47	23.88	40.84	33.27
2.48	23.78	40.86	33.13
2.49	23.68	40.88	33.00
2.50	23.58	40.89	32.86
2.51	23.48	40.91	32.73

Mr. Carroll added this suggestion. If you wanted to change a pavilion main angle up one degree, the crown mains would have to be decreased by four degrees. The inverse would be the same. If the pavilion is to be changed down one degree, the crown main would have to be increased by four degrees.

Editors comment. By using the chart, many gems could be cut with the pavilion mains at 41 degrees and the crown mains at 35 degrees. A rule of thumb for stars would be starting them at 15 degrees below the crown main angle. Be wary of cutting star facets below 15 degrees.

We send our thanks to J.W. Carroll and the "Angles" bulletin for this reprint.

Mr. Don Dunn gave me this article, author unknown. Since our seminar has just concluded, it seemed appropriate to have this bit of information. It seems that one of the toughest areas of faceting seems to be in the polish. This may not be a new bit of information to some of you, but a little review, or just to affirm your knowledge, won't hurt anyone. I receive quite a few calls from people who have problems in polishing. It's also a source of contention between faceters as to what is "good polish"? I believe that each faceter has to recognize what he or she will accept as a final polish. Gemstones for competition vs commercially cut gemstones usually will create a window of acceptability. Final polish at 8,000, 14,000 should be a "good" polish. For competition, 100,000 or 200,000 may be required. One fact is for sure, polish will not be "good" if the prepolish is unsatisfactory!

LAPS USED TO POLISH GEMSTONES

Hardness of 3 1/2 or less:

To prepare surfaces, use ultralap silicon carbide laps; 23 micron (600), 8 micron (1000), or 3 micron (8000).

Polish laps; Ultralaps; chrome oxide, iron oxide. Wax laps (85% beeswax, 15% Carnauba wax). Pitch lap (50% rosin, 50%tar, variable) Agents; alumina on wax and pitch. speed 50-100 rpm. Mineral examples; barite, calcite, cerussite, cinnabar.

Hardness of 3 1/2 to 5:

Prepare surfaces on 3,00 or 8,000 laps, also Ultralaps.

Polish laps; Ultralaps for those of low hardness. Tin/lead, tin, pewter, lead, or scored. Agents; alumina, tin oxide, chrome oxide, and iron oxide. Speed; 100 rpm, possibly higher with care. Mineral examples; apatite, colemanite, cuprite, dolomite, fluorite, rhodochrosite, and sphalerite.

Hardness 5 to 6:

Prepare surfaces on 1200 or 3000 laps, also ultralaps.

Polish laps; tin/lead, tin, typemetal, Last Lap, Fast lap, Pol-A- Gem cerium oxide, or lucite (Plexiglass). Agents; cerium oxide, alumina, tin oxide, others. Speed; 100-200 rpm, sometimes slower. Mineral examples; datolite, diopside, enstatite, natrolite, obsidian, opal, and glass. Synthetics; Fabulite, Linobate, Victory Stone, and other soft synthetics.

Hardness 6 to 7 1/2 up to, not including 8:

Prepare surfaces with 1200 or 3000 laps (3000 excellent)

Polish laps; lucite, Pol-A-Gem cerium oxide and alumina, tin/lead, tin, Fast Lap, and Last Lap. Agents; cerium oxide alumina and diamond. Mineral examples; andalusite, beryl, danburite, iolite, quartz, feldspar, tourmaline, topaz, zircon, and garnet. Synthetics; titania, alexandrium, GGG, and others.

Hardness 8 to 9:

Prepare surfaces with 1200 or 3000 laps.

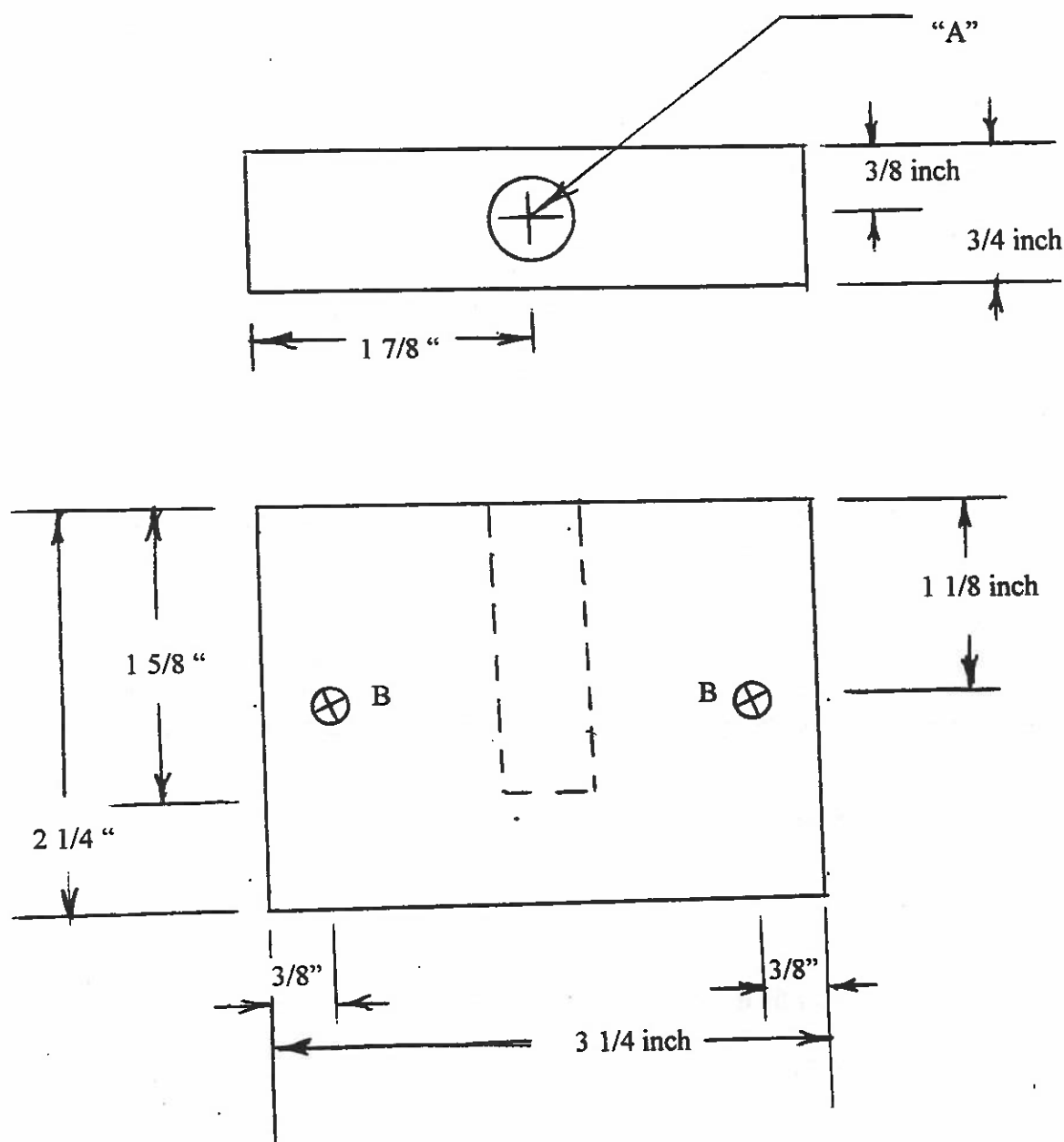
Polish laps; Fast Lap, Last Lap, zinc, ceramic, all with diamond (perhaps alumina) or Pol-A-Gem Lap with alumina. Mineral examples; topaz, spinel, chrysoberyl, and corundum. Synthetics; YAG, cubic zirconia (CZ), and others.

Editor note: If it ain't broke, don't fix it! If you are having good results with something different than the above, please share your knowledge, and send us an article.

Thanks for the information Don. We appreciate receiving information that will enhance our cutting abilities.

This tip was sent to us by Don Yoxthimer, of Sharonville, Ohio. Don was an instructor at our last seminar, working with the beginners class.

This is how Don secures a lamp to his faceting machine. The material needed is a block of cherry wood or wood of your choice, 3 1/4 inches long, and 3/4 of an inch thick. Drill a hole in the center of the block as indicated on the drawing, to a depth of 1 5/8 inches deep. (A). Use a broadpoint drill that is the same diameter as the end of your light fixture (Usually 1/2 or 5/8 inch). Drill two more holes as indicated in the drawing (B). Drill with a 1/8 inch drill bit through the block. Countersink these holes and use two #6, oval head screws that are 1 1/4 inch long. Attach the block to your convenience on your faceting machine, to get the light where it's useable for your cutting.



Don Yoxthimer also sends this drawing of a tool to align your faceting machine. This drawing is for a Facetron. Make the ends of the tools compatible for your machine, but use the principle. It requires a piece of drill rod that is 1/4 inch by 10 inches long, and a piece of bar stock 1/2 inch X 1/2 inch X 6 inches long. Steel is preferred, but use what's available to you.

Use part "A" to check your machine at 90 degrees.

Use part "B" to check your machine at 45 degrees

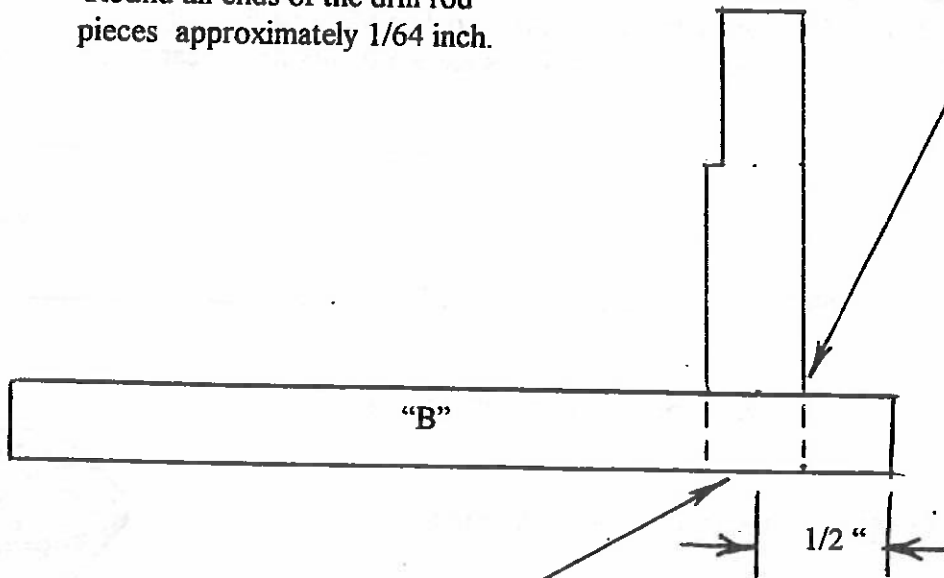
Use your 45 degree adaptor on mast type machines and part "B" to check your machine at 0 degrees.

Mill each end of "A" 7/8 inch long and approximately 1/16 inch deep.



Cut at 2 inches and install
in bar stock.

Round all ends of the drill rod
pieces approximately 1/64 inch.



Drill through and press fit at 90 degrees.
Not to be removed.

Not to scale

Rules Notes...

Dick Fairless
MWFG Rules Chairman

It's Time!!!! I hope your stones are ready for the judges!! Let's make them sweat this year - with tons of entries!!

Interested in apprentice judging? See me at the Fair - we will try to give you a chance to "feel the heat"!

The Midwest Federation Convention and show will be in October this year - plan on entering your cases in that show - let's bring those Federation trophies back to Midwest Faceters Guild members.

Federation rules have changed contact Anne Cook, 684 Quilliams Road, Cleveland Hts., Ohio 44121 Phone (216) 381-9003 for information about the changes.

Looking forward to seeing you and your fine stones in Dearborn!

Dick Fairless

From The Rolls...

Ray Becker, Membership Chairman

MIDWEST FACETERS GUILD MEMBERSHIP

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Ed Myers, Special Competition Chairman

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- ♦ Midwest Federation Show & Convention October 24 - 30, 1997
Davenport, Iowa
Contact Anne Cook (216) 381-9003
- ♦ International Faceting Challenge 1998
Contact: Charlie Moon (707) 822-6063 email: clmoon@sloc.net

More details and official entry blanks can be obtained by contacting:

Charles L. Moon
155 Myrtle Court
Arcata, CA 95521-6511
Phone (707) 822-6-63
email: clmoon@sloc.net

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Seminar & Show Opportunities...

- ♦ **SFMS Wildacres Workshops:** April, June, August, September & October offerings include faceting, silversmithing, goldsmithing, channel work, chain making, wax design, intarsia, bead design, pottery, gem identification, wirecraft, cab making, etc. Contact: Harry and Ruth Billica, 2364 Scenic Hill Drive, Spring Hill, FL 34606, Phone (352)688-1406 or Richard Krutchkoff, 2000 Walters Court, Blacksburg, VA 24060, Phone (540) 552-7167 or email: rgkrutch@vt.edu
- ♦ **American Federation of Mineralogical Societies Convention** October 17 - 19, 1997, Jackson Mississippi Contact: Leon Boutwell, 367 Virillia Road, Canton, MS 39046
- ♦ **Midwest Federation Show & Convention** October 24 - 26 Davenport, Iowa Contact: Floyd Dopler, Box 511, Andalusia, IL 61232 Phone (309) 798-5367 email: Fdopler@aol.com
Web Page: <http://hegel.ed.unuc.edu/mineral/>
- ♦ **Central Michigan Lapidary and Mineral Society Show** October 24-26 Marshall Street Armory Lansing, Michigan
- ♦ **Livingston Gem and Mineral Show** September 27 - 28 Hartland, Michigan Hartland High School 9525 Highland Road
- ♦ **Greater Detroit Gem & Mineral Show** October 10 - 12 Detroit Light Guard Armory 4400 East Eight Mile Road, Detroit, Michigan hosted by The Michigan Mineralogical Society

Carats and Coins

via The Pterodactyl 9/97

Have you ever wished you could tell the weight of a stone easily using a familiar reference? Here is a reference using U.S. coins as an approximation.

A Dime = 11 carats

A Quarter = 28 carats

A Penny = 15 carats

A Half Dollar = 56 carats

A Nickel = 25 carats

(editor's note: 1 carat = 200 milligrams)

**Greatful hearts are open to the
miracles of the ordinary day.**

AGTA GEMSTONE ENHANCEMENT CODES

Lance A. Kanaby, of MINE DESIGN, sent me this bit of information. Lance and his "CREW" helped us set up our show last year in Dearborn. Thanks Lance!!

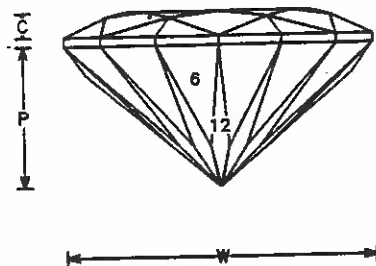
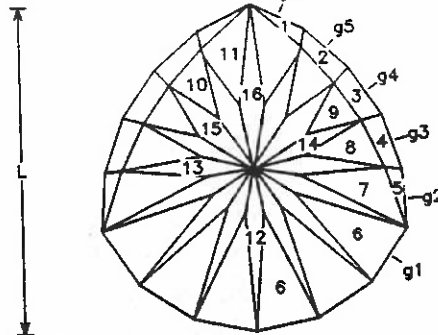
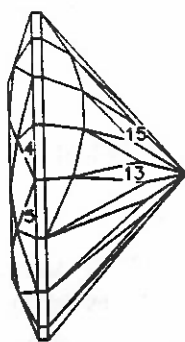
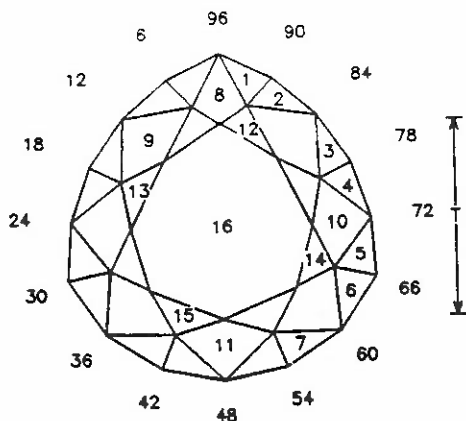
CODE	DEFINITION
A	The "A" symbol used alone indicates either a gemstone that is not currently known to be enhanced or one that is so rarely enhanced that to give it an "E" symbol would mislead the public.
E	The "E" symbol indicates that the gemstone is routinely enhanced.
N	The "N" symbol is used in the event that a particular gemstone has received no enhancement and the seller will guarantee this.
B	Bleaching. The use of chemicals or other agents to lighten or remove a gemstone's color.
C	Coating. The use of such surface treatments as waxing, lacquering, enameling, inking foiling, or sputtering of films to improve appearance, provide color or add special effects.
D	Dyeing. The introduction of coloring matter into a gemstone to give it color intensify present color or improve color uniformity.
F	Filling/infilling/stabilizing: The filling of surface-breaking cavities or porous gem material with colored or colorless glass, plastic or other "HARDENED" material to improve appearance, durability, and/or weight.
G	Gamma/Electron Irradiation: The use of gamma and/or electron bombardment to alter a gemstone's color. May be followed by a heating process.
H	Heating: The use of heat to effect desired alteration of color, clarity, and/or phenomena.
L	Lasering: The use of laser and chemicals to reach and alter inclusions in diamonds.
O	Oiling/impregnation/infusion: The introduction of a colorless oil, wax, natural resin, or "UNHARDENED" man-made materials into fissured or porous gemstones to approve appearance.
R	Irradiation: The use of neutron or a combination of neutron with any other bombardment to alter a gemstone's color. May be followed by a heating process.
U	Diffusion: The use of chemicals in conjunction with high temperatures to provide a relatively shallow subsurface layer of color and/or asterism-producing inclusions.

Lance Kanaby always has very fine gemstones in his booth. They generally look like the carefully cut gemstones of the hobbiest. If you see "MINE DESIGN" at your local show, stop by his booth and look at his gemstones. It's also a way to evaluate the price of your very well cut gemstones.

Sadly, I wish to inform all of our members of the loss of Paul Billett, of Pennsylvania. Paul was one of the premier cutters in all of America. The only shame of death is the loss of all the skill and knowledge that is gone forever. Teach someone your skills, so those skills may last for a long time!

The Walt Carss Cut

by Fred Van Sant reorganized, directions added by Jerry Capps



"The WALT CARSS CUT" by Fred Van Sant
Transferred to GemCad by Walt Carss, 5/5/94
Reorganized, Directions added, Optimized Tilt
by Jerry L. Capps, 2/6/96

96 Index Angles for R.I. = 1.76

75 facets + 16 facets on girdle=91

L/W=1.082 T/W=0.649 T/L=0.600

Faceup/Tilt 20: (ISO) 88.9/80 (COS) 82.3/68.9
Pendants require greater Tilt brightness.
For Rings: Tangent Ratio C1 at 31 degrees:
(COS) 83.5/66.6

(Orientation: "Shield" - point downward)

PAVILION

1	59.68	07-89
2	62.46	11-85
3	63.25	15-81
4	62.01	19-77
5	60.00	23-73
6	42.00	33-39-45-51-57-63
7	42.00	27-69
8	42.15	21-75
9	42.13	15-81
10	42.38	09-87
11	41.85	03-93
12	41.00	30-36-42-48-54-60-66
13	40.96	23-73
14	40.72	18-78
15	40.51	05-13-83-91
16	40.61	96

Corner Meetpoint (2/5 to culet)
MP 1-g5-g6; level girdle
MP 2-g5-g4; level girdle
MP 3-g4-g3; level girdle
MP 4-g3-g2; level girdle
Lvl.Grdl;TCP; (63-33)MP 5-g2-g1;Overcuts
GMP 5-g2-g1-6; TCP
MP 7-5-4; TCP
Overcuts 4 facets; MP 3-4-8; TCP
MP 9-3-2; not a centerpoint
GMP 1-g6-g6-1; TCP
PCP; GMP
MP 8-4-5-7; just beyond PCP for now
MP 9-3-4-8; PCP (also P13 now)
PCP; MP 9-1-2-9; or 11-1-2-10
PCP; GMP 1-1-g6

CROWN

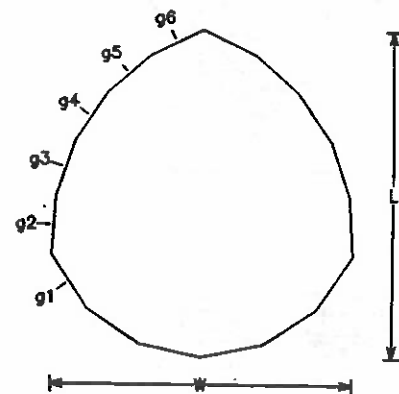
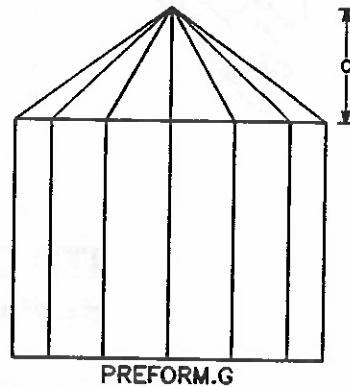
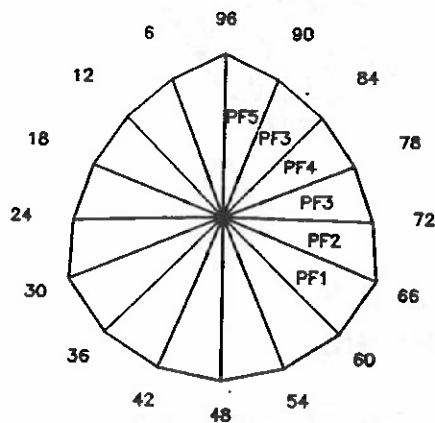
1	28.00	07-89	Set Grdl size	10	23.09	21-75	GMP 4-5
2	27.00	11-85	Lvl.Grdl; MP 1-g6-g5	11	22.21	36-48-60	GMP 6-7 or 7-7
3	26.95	15-81	Lvl.Grdl; MP 2-g5-g4	12	11.73	09-87	MP 8-1-2-9
4	27.04	19-77	Lvl.Grdl; MP 3-g3-g4	13	14.88	17-79	MP 9-3-4-10
5	25.94	23-73	Lvl.Grdl; MP 4-g3-g2	14	9.49	28-68	MP 10-5-6-11
6	26.54	33-63	Lvl.Grdl; MP 5-g1-g2	15	10.39	42-54	MP 11-7-7-11
7*	27.70	39-45-51-57	Lvl.G; MP g1-6	16	0.00	Table	MP 15-11-15; 15-11-14
8	19.52	96	GMP 1-g6-g6-1				14-10-13; 13-9-12; 12-8-12
9	22.96	13-83	GMP 2-3				

*OPTION: Table=69.3% of Length, after C7.

The Walt Carss Cut

by Fred Van Sant reorganized, directions added by Jerry Capps

Jerry Capps
 U.S. Hwy 14
 Mazomanie, WI 53560
 608-795-4565



THE WALT CARSS CUT - PREFORM
 96 Index Angles for R.I.=1.76
 16 facets + 16 facets on girdle = 32
 1-fold, mirror-image symmetry
 L/W = 1.082

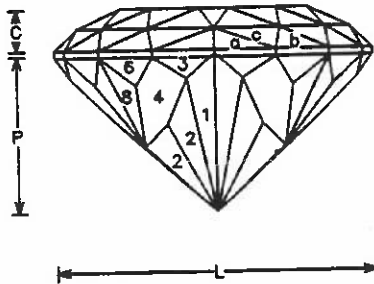
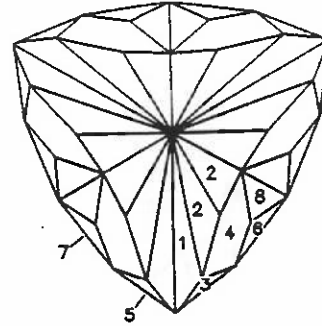
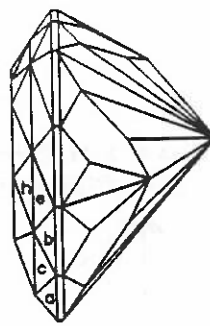
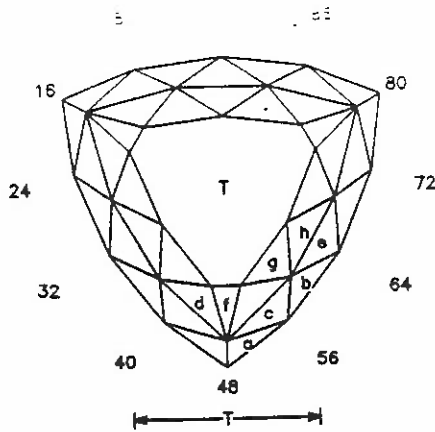
PAVILION

PF1	35.50	33-39-45-51-57-63	TCP
PF2	37.96	23-73	MP TCP; Level girdle
PF3	39.65	11-19-77-85	MP TCP; Level girdle
PF4	40.26	15-81	MP TCP; Level girdle
PF5	37.97	07-89	MP TCP; Level girdle

g1	90.00	33-39-45-51-57-63	(63-33)MP PF1-PF2; Level girdle
g2	90.00	23-73	MP g1-PF1-PF2; Level girdle
g3	90.00	19-77	MP PF2-PF3; Level girdle
g4	90.00	15-81	MP PF3-g3; Level girdle
g5	90.00	11-85	MP PF3-PF4-g4; Level girdle
g6	90.00	07-89	MP PF5-g5-PF3; Level girdle

4th of July

by Paul Rivard originally published in *ANGLES*, April 1985



4TH OF JULY By Paul Rivard

Originally published in *ANGLES*, April 1985

Angles for R.I. = 1.54

82 facets + 12 facets on girdle = 94

3-fold, mirror-image symmetry

96 index

$L/W = 1.004$ $T/W = 0.587$ $T/L = 0.584$

$P/W = 0.504$ $C/W = 0.132$

$H/W = (P+C)/W+0.02 = 0.657$

$P/H = 0.768$ $C/H = 0.202$

$Vol./W^3 = 0.209$

PAVILION

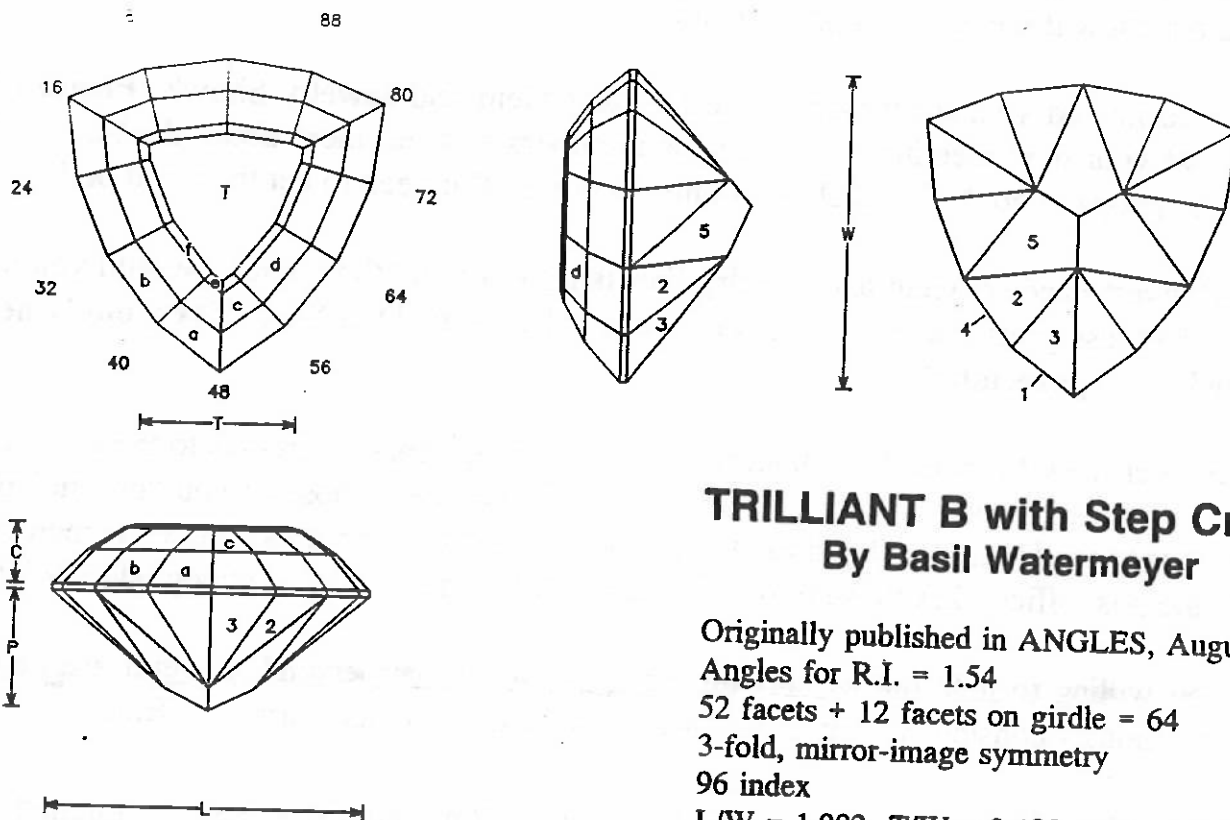
42.00	12-20-44-52-76-84
43.00	07-09-23-25-39-41-55-57-71-73-87-89
64.00	06-26-38-58-70-90
55.50	04-28-36-60-68-92
90.00	06-26-38-58-70-90
64.00	02-30-34-62-66-94
90.00	02-30-34-62-66-94
59.89	01-31-33-63-65-95

CROWN

a	45.81	06-26-38-58-70-90
b	42.00	02-30-34-62-66-94
c	37.00	04-28-36-60-68-92
d	33.00	04-28-36-60-68-92
e	35.68	96-32-64
f	19.00	16-48-80
g	29.00	02-30-34-62-66-94
T	00.00	Table
h	33.42	96-32-64

Trilliant B with Step Crown

by Basil Watermeyer originally published in ANGLES, August 1986



TRILLIANT B with Step Crown By Basil Watermeyer

Originally published in ANGLES, August 1986

Angles for R.I. = 1.54

52 facets + 12 facets on girdle = 64

3-fold, mirror-image symmetry

96 index

$L/W = 1.002$ $T/W = 0.490$ $T/L = 0.489$

$P/W = 0.379$ $C/W = 0.195$

$H/W = (P+C)/W+0.02 = 0.594$

$P/H = 0.638$ $C/H = 0.328$

$Vol./W^3 = 0.191$

PAVILION

1	90.00	06-26-38-58-70-90
2	43.86	02-30-34-62-66-94
3	42.88	06-26-38-58-70-90
4	90.00	02-30-34-62-66-94
5	42.00	96-32-64

CROWN

a	49.00	06-26-38-58-70-90
b	49.00	02-30-34-62-66-94
c	34.00	06-26-38-58-70-90
d	34.00	02-30-34-62-66-94
e	19.00	06-26-38-58-70-90
f	19.00	02-30-34-62-66-94
T	00.00	Table

Editors' Gems...

Kathleen Myers
Bill Horton

- ♦ Summer? What Summer? It flew by! Fall brings another round of gem shows - please attend and help them out by displaying your cases and demonstrating. We cannot expect others to attend out show if we do not support theirs.
- ♦ Have you invited your local club to the Faceters Gem and Jewelry Show? **Please** take a minute at your next meeting to invite your members and tell them about the Fair - I have talked to people who think our show is only faceting. We need to get the word out!
- ♦ The Midwest Faceters Gem and Jewelry Fair is right around the corner. Would you like to help? Express your interest by calling Show Chairman, Don Sahr. **Everyone's help is needed and appreciated.**
- ♦ Ray Becker (new Membership Chairman) is now adding Email addresses to the membership rolls so they can be printed in the next Membership booklet - those of you "on-line" please remember to send your email address to him. If you know your 5 plus 4 zip code include that also - the post office likes those plus 4 numbers. (I found mine on a catalog address label.)
- ♦ Are you willing to help out by serving the Guild as a chairperson? Several are needed - please seriously consider volunteering - **we need you!** Contact "Arizona" Rice.
- ♦ A **giant thank-you** to Bill Horton, the Seminar Staff, and all others who pitched in and took up the slack for me at the 1997 Seminar. I apologize for not being able to attend and hold up my end of the work load. Dealing with my Mom's heart attack and angioplasty kept me running and frazzled for a couple of weeks. She is home now and gaining strength daily. I know you were in very capable hands and I hope you had great faceting, shared great friendships, learned lots of facts, and had tons of fun!!
- ♦ Hope to see all of you at the Faceters Gem and Jewelry Show...and your beautiful case displays! Remember...we always have lots of new folks attending who would love to enjoy seeing your beautiful work!!

Joyfully live each day

Secretary's Minutes....

Fran Bush

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The Board of Directors of the Midwest Faceters Guild was called to order at 11:15 AM on June 14, 1997 by President Harold Rice in Howell, Michigan at the residence of William and Shirley Horton. Those in attendance were: President Rice, William Schell, William Horton, Frances Buh, Thomas Gibbs, Happy Gibbs, Jane Holt and Carol Seebon.

Thomas Gibbs made a motion, To accept the minutes as published in The MIDWEST FACETER. Jane Holt seconded the motion and it carried.

The Treasurer's report was accepted as read by Mr. Horton and filed for audit through a motion made by Carol Seebon and seconded by Jane Holt.

It was suggested that some of the savings be invested in a CD Account. No action taken.

It was suggested that Mr. Horton set-up a Special Scholarship Fund account instead of having it in the savings account.

William Horton said Kurt Nassau will give three talks at the Seminar.

Correspondence was received from Peter Herschman saying how much he enjoyed our Faceters Guild Meeting and from the Michigan Science Teachers Association thanking the Guild for their participation and asked the we submit any suggestions we might offer for future events. Bill Schell suggested we have a list available of Guild Members that are willing to teach faceting.

OLD BUSINESS:

Finding a new site for the Seminar is still in Progress. Thomas Gibbs will get information on holding it at the Monroe Community College. They can do food service if college is in session.

President Rice will be on vacation from July 15th to August 10th.

Risers for the display cases are needed for displays. It was suggested we do not rent cases from the Dearborn Club.

Carol Seebon stated we have 301 paid members for 1997. 115 are not paid as of today. Carol turned in her resignation as Membership Chairman. Her busy Schedule does not allow for all the time needed to keep up the work. Carol will get the list of patrons attending the Show for the last two years and print the labels.

WE have 292 Members for the Midwest Federation dues in 1996. There is discuss will be raised to \$2.00 a year by the Federation. If this is the case it will add a strain to the Guild's budget and sheds doubt about remaining Members.

Meeting adjourned through a motion made by Thomas Gibbs and seconded by Carol Seebon. Meeting adjourned at 1:00 PM.

MEMBERSHIP MEETING JUNE 14, 1997

The Membership meeting of the Midwest Faceters Guild was called to order at 2:07 PM by President, Harold Rice in the spacious backyard of Willilam and Shirley Horton in Howell, Michigan. Forty-two members were guests of the Horton's for our annual picnic and meeting.

Presidnt Rice extended a sincere "Thank you" to Bill and Shirley for the fine hospitality of hosting our picnic and meeting.

The minutes of the previous meeting were approved as published in THE MIDWEST FACETER, through a motion made by Ton Gibbs and seconded by Happy Gibbs.

The Treasurer's report was accepted as read by Bill Horton and filed for audit through a motion made by Bill Gardiner and seconded by Lester Medlen.

A "thank you" letter from Dr. Peter Kerschner was read.

OLD BUSINESS:

Tom Gibbs ahs been appointed Chairman to find a new site for the Seminar.

A discussion was held on the Michigan Science Teachers Association. The fee is \$85.00 for an Educational Exhibit on February 20,21,1978. Dianne Tourville suggested a list of area Shows, the dates and persons to contact for information be included in data placed in our Booth. Happy Gibbs made a motion, The Midwest Faceters Guild be represented at the 1998 Michigan Science Teachers Association." Motion seconded by Frank Beaven and carried with one vote against and 41 for.

A list of persons and Clubs that are willing to teach faceting, the time place and price will be compiled.

The cases will not be rented for our November Faceters Fair. Everyone must furnish their own cases.

New Business;

Presidnet Rice has appointed Bill Horton to remain as Treasurer for the rest of the year.

Raffle prices are desperately needed. If a member wished to donate a faceted stone and do not want the expense of the mountingit the Guild will mount it, if you mail the stone to Don Sahr, Show Chairman.

The Midwest Federation is comtiplating raising their dues to \$2.00 a year. The amount of the raise was weighed against the benefits received from the Federation. A motion was made by Bill Gardiner, to vote against the Federation increase." Motion seconded by Bill Horton, six voted for the raise, 35 against and one abstaining vote.

MEMBERSHIP MEETING (con'td)

Dave Olson of Florida will present a program on stone setting with slides of Sculptures and jewelry he designed.

Meeting adjourned at 2:30 PM.

Respectfully submitted,
Frances Bush, Secretaty.

Dear Guild Members,

Thank you for the pleasure of serving as Secretary . It is with deepest regret that I must resign as Secretary. I really appreciate the privilege of serving all these years. Unfortunately my health is at a stage where I can no longer be depended on to get to the meetings . Travel is difficult for me now.

I really loved the Guild and all it's Friendships that I have come to love over the years. Life wcn't be the same without the Guild and am really grateful it lasted as long as it did.

Thank you again for the honor of serving and try not to forget me too soon. Continued sucess with the Guild. It's a beautiful organization, with fantastic leaders and wonderful membership. Hope you are all aware of the work that goes into making it a great organization you have. Please participate and enjoy it to the fullest as there will never be another like it.

Love and best wishes to all,
Fran Bush.

THE SHOW IS COMING SOONER THAN MOST OF US WOULD
LIKE, BUT THE FACT REMAINS. PRIZES AND TICKETS
RETURNED ARE NEEDED TO HAVE A SUCCESSFUL
SHOW. PLEASE - EVERYONE DO YOUR PART.
UNMOUNTED JEWELRY SHOULD BE SENT TO DON SAHR,
THE CLUB WILL PAY FOR THE SETTINGS.
TICKET RETURNS SHOULD BE SENT TO FRAN BUSH
BUT WILL BE GLADLY ACCEPTED AT THE SHOW

