

THE MIDWEST FACETER



VOLUME 10 NUMBER 2

MARCH 18, 1989

AN EDUCATIONAL PUBLICATION OF THE MIDWEST FACETERS GUILD

THE MIDWEST FACETER
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Lincoln Park, Mi.
48146

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THE MIDWEST FACETERS GUILD

ORGANIZED July 14, 1979

INCORPORATED 1979

Became a non-profit Educational Organization - July 7, 1982

PURPOSES

1. To promote education and recreation
2. To develop the art of faceting
3. To exchange information related to faceting.
4. To provide meetings for those of like interests.
5. To promote achievement in individuals.

This directory is published for the convenience of the members of the MIDWEST FACETERS GUILD. Information contained herein is strictly confidential and may not be used for any commercial enterprise or mailing list.

All names listed in this directory are the members in good standing as outlined in the BY-LAWS of the MIDWEST FACETERS GUILD.

Member of: Midwest Federation of Mineralogical and Geological Societies
The American Federation of Mineralogical Societies.

OFFICIAL PUBLICATION: THE MIDWEST FACETER

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	Lincoln Park, MI 48146
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IF YOUR NAME, ADDRESS OR TELEPHONE NUMBER has been CHANGED or any member is not listed correctly, please contact WILLIAM H. GARDINER
4518 Sandstone Drive
Williamston, MI 48895



How to order your MIDWEST FACETERS GUILD badge:

Send exact name you wish on the Badge
Along with \$5.75 and mail to:

A- FRAME AWARDS
414 South Dort Hwy.
Flint, Michigan 48503

PHONE (313) 767-8881

\$5.75 includes shipping and handling.



MEMBERSHIP INFORMATION for MIDWEST FACETERS GUILD

Please use the application blank below to join or renew your membership in the Midwest Faceters Guild. Dues are \$5.00 per year, payable for the next year beginning Oct. 1st. Non-payment of dues by April 1st will cause your name to be dropped from the rolls. After Jan. 1st, a red mark will appear on the label of those members who have not renewed their membership.

NAME: _____ ADDRESS: _____

CITY: _____ STATE: _____ ZIP: _____

PHONE: _____ TYPE MACHINE: _____ TEACH: _____

☐ New membership

☐ Renewal membership

While it is not mandatory, dues should be paid by check when possible and mailed to the membership chairmen at:

William H. Gardiner
MFG Membership Chairman
4518 Sandstone Drive
Williamston, MI 48895

In this issue we have a very interesting article by Merrill O. Murphy, via the "New Mexico Factor". Since most faceters search for the perfect ever elusive polishing combo of lap and polishing media, this article will perhaps shed a little light. Also, two Midwest Faceters Guild members are mentioned: BILL GARDINER of A&B Rock Shop (called Gardner in the article), and ART KALINSKI.

We also have the rules and diagrams for the Australia versus United States Faceting Challenge in this issue. I hope we are well represented in this competition. It seems California has been carrying most of the load so far. It would be nice if we won back the "Challenge Cup" from the Australians who won it last.

Another competition a one stone competition which seems to be a popular format lately. This one called "Cowichan Snowflake" by Walt Heitand looks like it could be accomplished by many of our members. This competition is for the 1989 CANADIAN FEDERATION GEM & MINERAL SHOW, to be held in Duncan B.C., July 8-9. The Host club is THE COWICHAN (hence name Cowichan Snowflake) VALLEY ROCKHOUND CLUB. For Can. Fed. Rules and entry form they are listed on the diagram for this cut later in the issue. Here is another chance for us to shine and have a large representation of Midwest Faceters.

NATIONAL GEMCUTTING CHAMPIONS NAMED BY AMERICAN SOCIETY OF GEMCUTTERS'

In November 1988, the U.S. Gemcutting Competitive Evaluations sponsored by the American Society of Gemcutters drew 286 gemcutters. Of the total entries, only 16 achieved the rank of Supreme Master, given to those who scored 99.5 or better workmanship points out of a possible 100. Three Midwest Faceters Guild members earned the top ranking. In faceting hobbyist category were RICHARD FAIRLESS, of East Tawas, Michigan and J. PATRICK KELLEHER, of Crown Point, Indiana. In the cabochons hobbyist group our own President WILLIAM HORTON, gained this highest of ranking along with the U.S. Championship in cabochons. Bill submitted a round translucent agate cabochon, no doubt in part helped by his faceting machine. Of those who attained the rank of Master by scoring in excess of 97 points in workmanship out of a possible 100 was WAIN POOLE, of Memphis, Tennessee also a member of The Midwest Faceters Guild.

Congratulations to Richard, J. Patrick, Bill, and Wain you make us all proud to share our hobby with such outstanding craftsmen.

Added to the show committee are JUNE RAMSHAW, to Chair Hospitality and TONY WEST to head Admissions thanks very much to both of you. The only Chair open is the one for Hall Decorations, Any takers? Also, we very much need some one to work with GAIL SAHR in advertising. Mary Wilson, who as to help had to withdraw because of illness in her family. Advertising is a very important facet (excuse the pun), for the success of our Fair. If people don't hear about it, it doesn't matter how good it is it isn't going to go! So please let either Gail or me know if you would be willing to help in this area.

DUES ARE DUE

LETTER FROM THE PREZ:

Enclosed in this issue are the rules for the Australian-American Challenge for 1990. Let's all pitch in and help the cutters from California. They have carried the load for the last two contests. Let's all try to cut for the contest and regain the "Cup" for America. I'm positive we have the talent to get the job done.

Don't forget to cut at least one gemstone for Dorothy Loyds Birthstone Cases. Contact Dorothy and find out what she needs, or what rough she has to be cut.

I really hate to be a whip but, we are dragging our feet on the gems for the Field Museum. I implore each of you to finish this project. We could make a field trip to the museum this summer to give the gems to Mr. Olsen.

The Southwest has been great this winter. By the time you receive this bulletin, our meeting for the National International Guild will have taken place. I'll give a report to you at the March meeting in Toledo.

I sincerely hope all of you have had a good winter. I'm looking forward to another great year for the Midwest Faceters Guild, and seeing all of you again at the meeting in Toledo.

Wm. J. Horton
President

MEETING

DATE: March 18th, 1989

PLACE: Angelo's Resturant, Toledo, Ohio (3355 Stickney Avenue)

TIME: 10:00 to 12:00 Round Table & Board Meeting
1:00 p.m. General Meeting and Program.

Details for the program have not been finalized but i"m sure Dorothy, as usual will come up with another fine program.

Lunch will be available at Angelo's for a modest price. Hope to see a large turnout. This promises to be a interesting year with our Fair and the possible formation for a International Guild of Faceters, get in on the action, plan to attend.

Map to get to Angelo's in Toledo, will be found on the next pag.

CALENDAR OF EVENTS

March 18	MWFG MEETING (Details above)
March 19	SWAP..MMLSD(Bearborn)-Allen Park Civic Hall. 10 to 5
March 29-Apr 1	Grand Rapids, Mi Indian Mounds Club. Eastbrook Mall.
April 7 to 9	FLINT ROCK & GEM CLUB. Williams Com. E. Center. 3501 Minnesota in Flint.
May 19-21	MMLSD(Dearborn) Show, Dearborn Civic Center.

DON't FORGE DUES ARE DUE! DON't DELAY SEND THEM IN NOW.

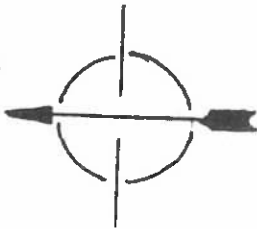
DETAILS AND FORM IN FRONT OF BULLETIN.

Not To Scale !

FROM ANN ARBOR

US-23

NORTH



FROM DETROIT

ALEXIS ROAD

* NOTE: FROM DETROIT—WHEN YOU PASS ALEXIS ROAD 1-75 GET INTO LEFT LANE FOR MANHATTAN EXIT, PAST CUT OFF ON RIGHT 1-75—THEN KEEP TO RIGHT UP TO MANHATTAN BLVD EXIT #12

LAGRANGE-STICKNEY EXIT 207

475

475

1-75

FROM DAYTON

MANHATTAN BLVD.

3355 STICKNEY PARKING LOT ANGELO'S LAKE ST.

STICKNEY

BRICKER 931

HOMER

PEARL ST.

THE BUSH'S DOYLE

EXIT #12

1-280

FROM CLEVELAND

FOR WHAT IT'S WORTH

By Merrill O. Murphy

Good grief, 1988 has already slipped away! I hardly had time to make resolutions let alone keep them. But one thing has become obvious: my eyes aren't getting worse, it's just the blur caused by days, weeks, months and years racing swiftly away from me into the past. But I can't really complain. The years have been good to me. Now, on to the new year.

POLISHING I

With Diamond

Very fine diamond particles, 50,000 to 200,000 grit, come as close to being a universal polishing agent as anything we have. With the proper laps, it will satisfactorily polish gems from a Mho's hardness of 2 to 10. In general, the harder the gem, the harder the lap surface should be. However, this rule of thumb applies better to the softer gems than the harder ones. Gems with hardness in the Mho's range of 2 to 4 require very soft laps like vinyl or wax. Quartz, hardness 7, polishes readily with diamond on medium-hard to soft laps but resists a perfect polish on a ceramic lap. Sapphire, hardness 9, on the other hand, polishes quickly with diamond on a ceramic lap but will also polish on most any other lap if you have the time.

Ceramic Laps

Ceramic laps appeared on the market about ten years ago. And then, as now, some faceters swore by them, others at them. Those who got good results with ceramic laps, however, were winning competitions with the flattest, sharpest facets ever seen. NMFG member, Louis Natonek (Louie), was one of the fortunate ones reporting very good results using diamond and ceramic laps to polish gems with a Mho's hardness greater than 7. Louie recently had a very long, long-distance telephone conversation with Bill Gardner (Midwest Faceters Guild member and owner of the A & B Rockshop). Bill, apparently, was closely involved with the ceramic laps from the first, both as a user and a dealer. His information, therefore, appears to be relevant to the ceramic lap controversy.

According to Bill Gardner, all the early ceramic laps were made by Coors Ceramics, a division of the famous Colorado beer company. The first ceramic laps were made for Graves and Raytech-Shaw and sold under the trademarks of those firms. These were rigid disks machined very flat and smooth and possessing a hardness close to that of sapphire.

Gardner stated that a somewhat tedious "break-in" of these early ceramic laps was required before gem polishing was attempted. Break-in consisted of an extended period of working the lap surface with diamond and synthetic sapphire or hand lapping the surfaces using 600-grit silicon carbide particles on plate glass. Speeds below 50 rpm (for 8-inch laps) were also generally found necessary, and the lap surfaces were lightly coated with graphite (pencil lead) prior to application of fine grit diamond. Polishing then proceeded until the lap surfaces became shiny (glazed). At that point, break-in was again necessary. Most of the polishing problems experienced by faceters appear to have been associated with incomplete break-in and/or too high a lap speed.

Somewhat later, according to Gardner, a company named Eastern (full name and details lacking) developed a formula for a more porous ceramic lap and proceeded to manufacture and sell them. (These were sometimes referred to as "softer" than the original formulation, and may have been softer, due to incorporation of materials other than aluminum oxide or a different firing regimen). The Eastern ceramic laps required no break-in and were easier to use. Eastern, however, marketed these laps for only a short time. They were expensive to make, the market for them was not large, and they may have had trouble shedding the dubious reputation of the earlier "hard" ceramic laps. At any rate, they were soon discontinued. (Eastern may have originated the "Falcon" trademark for these laps. My information is not complete - Ed.).

Again according to Bill Gardner, when Eastern discontinued the more porous ceramic lap, Art Kalinski, of the Northwestern Faceters Guild, began making and marketing a six-inch ceramic lap made to the porous lap formula. He used the trade name, "Falcon". The Kalinski Falcon laps were also very satisfactory, but manufacturing costs and low sales recently forced Kalinski to sell out to Graves. Graves, apparently, plans to manufacture and market both six and eight-inch porous ceramic laps.

Bill Gardner also reports that a box of chipped Eastern laps was recently discovered. The chips were only on the outer edges, so Bill plans to grind them to seven or seven and one-half-inches diameter to remove the chipped edges. If you decide you want a porous ceramic lap or two, make your deal with Graves or with Bill Gardner at A & B Rockshop. Bill's supply won't last long.

Some Speculation

One might well wonder why lap hardness, lap speed, lap porosity, pressure exerted on the stone and perhaps other factors have anything to do with the cost of butter and eggs in Bombay.

Diamond, with a Mho's hardness of 10, is many times as hard as sapphire which boasts a hardness of 9. So, when we polish with diamond powder, we expect it to act like millions of tiny blades planing the gem surface. When everything goes right, we get that planing effect; our stone is abraded utterly flat and smooth. So, what can go wrong?

Here's where the speculation begins.

I think erratic tumbling of the diamond particles under the stone is the culprit. Diamond particles, either grown synthetically or crushed from natural bort, are raggedly irregular in shape. So long as the vast majority of particles remain "stuck" to the lap or slide smoothly on one face, we get the desired planing effect. When the particles tumble, it seems to me we should expect a hit-or-miss gouging, tearing effect.

If a lap surface is relatively soft, diamond particles become imbedded to present a nearly even cutting surface. The imbedded particles have great resistance to tumbling. As an alternative to imbedding, diamond particles may also fall part way into the uncountable pits of a porous surface and exhibit a similar resistance to tumbling. Particles cannot imbed in a smooth, hard surface. You must score or scratch up the surface in simulation of porosity before the particles can adhere and remain in position. Run the lap too fast and we overcome the tendency of particles to adhere. They tumble. Too much pressure on the stone also increases the tumbling tendency and deepens the gouging effects that result.

A thin layer of graphite on a ceramic lap may do two things. It may provide a thin embedment layer, and because graphite is an excellent lubricant, it may encourage particles to slide rather than tumble. A thin layer of hard, high-melting temperature wax might serve the same purpose as graphite. Which leads us to my next subject.

The Facetron Polishing Lap

You can now obtain a new and different polishing lap through Facetron dealers. This new lap is made of a very hard and heavy plastic material that looks and feels like ceramic. The plastic is a methyl methacrylate made by DuPont. Though Facetron does not so identify it, I believe it is the expensive counter top material sold under the trade name Corian. The Facetron people say you should give the lap a thin coating of a hard wax before applying polishing diamond grit. Any good, Carnauba wax-based automobile wax, WITHOUT an abrasive or cleaner additive, is claimed to be satisfactory. A drip of water is used as a coolant. The Facetron people have not tried this technique with the old standby oxide polishes.

Now, there is nothing new in the attempt to use Corian as a polishing lap. I tried it two or three years ago and found that it was not a satisfactory polishing surface if used in the manner of other laps. The new element is the introduction of the wax surface over the hard Corian lap. Facetron says the wax surface is only about 0.003 inches thick. 50,000-grit diamond particles are graded to a maximum of 0.001 millimeter (1 micron or 0.00003937 inches) in diameter. The wax layer is, therefore, 76.2 times as thick as the largest diamond particle. The particles imbed easily and cut gently (polish). The very firm Corian surface beneath forms a near rigid support. Simple. Effective. I like it!

Now, why should you buy a \$48 Corian lap from Facetron when you can go down to Davis The Plumber, buy an eight inch square piece of half-inch Corian and make your own? Good question with a simple answer. Unless you have an accurate machinist's lathe with carbide tipped tools, you won't be able to make your lap round and perfectly flat. As purchased, half-inch Corian costs about \$20 per square foot in small quantities. If you buy a large sheet or more, the price drops considerably. As purchased, Corian has a slightly rippled surface unsuitable for polishing. Considering the material cost and the additional cost of machining, I don't think the \$48 asking price is excessive.

DUES
ARE
PAST
DUE

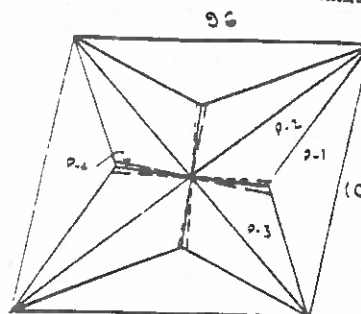
See form in front of this issue. Please send in before its to late.

SLANTING MADNESS

C. W. Covill

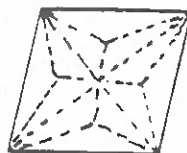
96 Index

Angles for Quartz

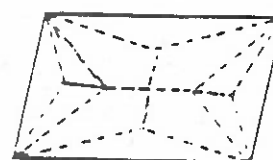


		PAVILION:	
Girdle -	90°	Angle	Index
Step 1	55°	96,21,48,69	
2	45°	2,19,50,67	
3	44°	23,46,71,94	
(Optional) 4	44°	96,21,48,69	

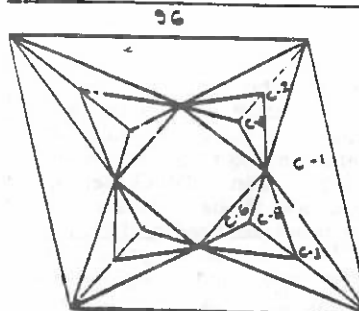
After transfer, re-orient stone on girdle. Otherwise, you will realize why I call it slanting madness



1:1 Ratio



x:1 Ratio



CROWN

		CROWN	
Girdle -	90°	Angle	Index
1	36°	21,48,69,96	
2	25°	2,19,50,67	
3	24°	23,46,71,94	
4	14°	2,19,50,67	
5	15°	23,46,71,94	
6	10°	21,48,69,96	

* Very angle for other than 1:1 Ratio

Note: By omitting the table, and using the 4 C-6 Facets as the table, a very lively and interesting stone will result

wanted

...ARTICLES
of interest pertaining
to our hobby. There's
a lot of information
out there. All I need
is a little help get-
ting it in here. If
you found it inform-
ative, so will some-
one else...

PLEASE???



Australia versus United States Faceting Challenge

1990 CHALLENGE SCHEDULE & CONDITIONS

1. The International Challenge Cup, which is a perpetual trophy, will always remain the property of the Australian Faceters' Guild. The cup will be contested every two years.
2. This is a competition between financial members of the Australian Faceters' Guild and financial members of the faceting guilds of the United States of America. This is a level 3 competition.
3. The winning country will hold the cup until it is won by the other country.
4. Regardless of which country is the current holder of the International Challenge Cup, the Australian Faceters' Guild will request its return to a nominated person/address in Australia bi-annually, for display at the Australian Federation of Lapidary and Allied Crafts Associations' National Gem & Mineral Show held each Easter, for formal presentation to a representative of the winning country.
5. The winning country will appoint a Competition Committee who will be responsible for the setting of the next Competition Schedule and the judging of the stones. The Competition Committee will also purchase the five personal cups for the winning team.
6. The cuts chosen by the Competition Committee should be difficult enough to test the abilities of the competitors.
7. If a specified size is listed for a stone in any section, tolerances that will be acceptable must be clearly shown in the Schedule.
8. In all competitions, the five competitors for each country obtaining the highest aggregate points for their stones will then be tallied. The greatest total of these combined points will determine the winning country. Contrary to past practice, bonus points will NOT be awarded.
9. Should a 6th or more competitor/s equal the lowest score in the top five, such competitor/s will receive a cup, but only 5 scores will count towards aggregate.
10. The Competition Schedule will be available to any eligible potential competitor at least 12 months prior to the closing date of the entries.
11. The Competition Committee may supply place cards and medallions in addition to cups and any other awards.

12. All competitors shall individually airmail their stones to the Competition Committee. The sending of entry stones in a group invites the possibility of loss by carrier, with the possibility of no contest as a result. It is suggested that entrants label their packages "Competition Entries", with no reference to gemstones. It is wise for USA entrants to put a nominal value on customs declaration form which must be fixed to the package.
13. To enable positive identification it is suggested that entrants label each entry with accurate carat weight, in addition to material name, size, colour & cut.
14. Packing of stones is entrant responsibility. Each stone to be in separate container, clearly showing section entered plus information in condition 13. Entrant name must NOT be shown on these containers.
15. Insurance of entries in transit is entrant responsibility.
16. Entries are limited to only one per competitor. Each entry is deemed to cover four stones; one in each section named in the Schedule.
17. A completed entry form constitutes acceptance of this Schedule and Conditions, and is an agreement to comply with them.
18. No member (or spouse) of the Judging & Adjudicating Committee from any country shall be eligible to compete in this competition.
19. Entry forms must be received by the Competition Committee by the date specified as part of these conditions, and directed to the address indicated thereon. There is no entry fee.
20. All entries of stones must be postmarked by date nominated on entry form. Failure to do so will render the entry ineligible. Please note that deadline for actual receipt of stone entries is ONE MONTH AFTER POSTMARK DATE. Correctly postmarked entries which are delayed in the mail MAY not be able to be included in this competition, if they are not received in time for judging. Every effort will be made to include such delayed entries, provided there is time for judging and preparation of trophies.
21. As entries are received they will be catalogued, with no reference to identity of competitor.
22. When all eligible entries are received (including, where possible, mail-delayed entries), they will be judged by qualified Faceting Judges using the points allocations as detailed in this Schedule.
23. All sections have a maximum size limitation of 20 millimetres, and a minimum size of 10 millimetres, measured on the longest axis of the outline shape. Stones which are up to and including 0.1mm outside these limits will be eligible.
24. Magnification for judging will be a 10x hand loupe.
25. All stones will be judged under a single incandescent lamp only.
26. Results of the competition will be announced, and all entries displayed at the Australian National Gem & Mineral Show, April 13-16, 1990 in Bundaberg, Queensland, during the GEMBOREE.
27. Entries, together with judging sheets, will be carefully packaged and returned per airmail to competitors, postmarked no later than May 31, 1990.
28. For USA entrants, contact for any queries is Mr Sid Ward, 8760 S.W.-Birch Street, Portland, Or. 97223.

SCHEDULE

Entry in each of the four sections detailed hereunder is compulsory.

Section 1: RINGS OF FIRE. To be cut in Cubic Zirconia, any colour.

Section 2: FLYING SAUCER No. 1. To be cut in synthetic corundum, any colour.

Section 3: DIAMOND BARION 41.035. To be cut in topaz, any colour.

Section 4: SUNBURST. To be cut in natural quartz, any colour.

Diagrams and instructions for the above sections are included herewith.

JUDGING POINTS ALLOCATION

Visual Effect	6
Outline of Girdle	5
Facets Uniform	10
Meets Pointing Up	15
Facet Edges Sharp	6
Facet Surfaces True	6
Scratches	10
Polish	20
Chips	7
Flaws	4
Girdle Uniform	5
Girdle Too Wide	3
Table Parallel to Girdle Plane	3

100

Australian Judging Rule Book is available for small cost of printing and mailing.

Donations for the Australian Cup Challenge committee will help in advertising this event.

Australian Tours will be interesting during this show....for those who have not visited Australia.

OFFICIAL ENTRY FORM

NAME
ADDRESS
CITY STATE POST (ZIP) CODE
COUNTRY TELEPHONE
NAME OF YOUR FACETING GUILD

Note: All sections have a maximum size limitation of 20 millimetres, and a minimum size of 10 millimetres, measured on the longest axis of the outline shape. Stones which are up to and including 0.1mm outside these limits will be eligible.

ALL SECTIONS ARE COMPULSORY

	Committee use only (Entry No.)
SECTION 1. Please indicate size, colour and, if possible, carat weight.	
SECTION 2. Please indicate size, colour and, if possible, carat weight.	
SECTION 3. Please indicate size, colour and, if possible, carat weight.	
SECTION 4. Please indicate size, colour and, if possible, carat weight.	

I agree to follow and abide by the rules of the competition, and hereby state that the stone entries to be submitted are all my own work.

SIGNED DATE

-----Detach and keep the information below-----

This entry form must be received by the Competition Committee no later than December 1, 1989. The stone entries must be sent by airmail and postmarked no later than January 2, 1990. Send to the following address:-

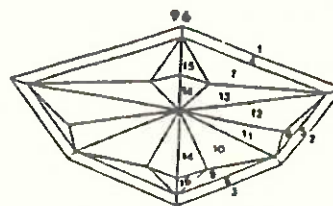
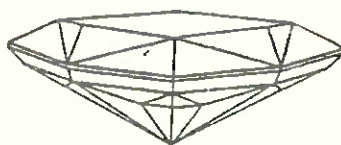
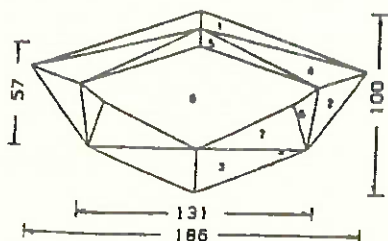
1990 Challenge Committee,
Mr Tony Annear,
PO Box 121,
Lancaster, Victoria 3108, AUSTRALIA

The Competition Committee feels certain that all information submitted herewith is correct. If a competitor feels some item is in error, the Committee would like to be notified. The Committee will do everything possible to answer entrants' queries.

All cuts specified in this Schedule have been checked for accuracy. Stones not cut, as per instructions in this Schedule will not be eligible.

The Committee will exercise all due care of the stone entries, but it cannot be held responsible for any loss or damage during transportation, displaying judging or storage.

AUSTRALIAN - US CHALLENGE CUP COMPETITION 1990



44.022A FLYING SAUCER I (for Synthetic Corundum)

Design by EDITH STROUT

96 INDEX

1.86 L/W

34 FACETS

CROWN CUTTING INSTRUCTIONS

STEP	ANGLE	BEARING INDEX	REMARKS
C1	42.2	71-05	Match pavilion. Girdle edge.
C2	32.1	62-34	Match pavilion and meet C1
C3	26.4	54-42	Match pavilion and meet C2
C4	28.6	90-06	Meet C1-C3-girdle
C5	13.8	91-05	Meet C4-C1-C1-C4
C6	22.0	57-39	Meet C2-C3-girdle
C7	21.5	55-41	Meet C2-C3-C6-girdle
C8	0.0	ANY	Table to meet C2-C4-C5-C6 and C7-C3-C3-C7

Note 1: Original design appeared in Lapidary J. April 1984 suggested material synthetic corundum any color.

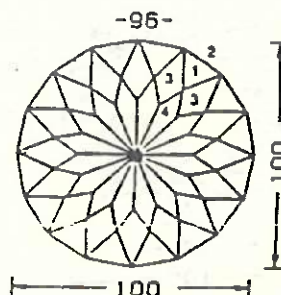
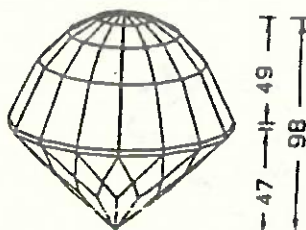
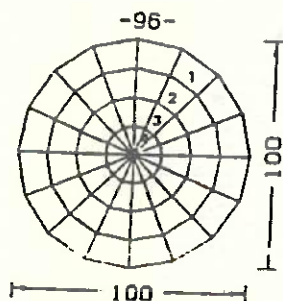
Note 2: Steps PF1 thru PF3 are preform facets cut to a temporary centerpoint in order to fix the outline. They do not appear in the final stone.

PAVILION CUTTING INSTRUCTIONS

STEP	ANGLE	BEARING INDEX	REMARKS
PF1	35.1	54-42	Cut to TCP
PF2	28.3	62-34	Cut to TCP meet PF1
PF3	38.8	91-05	Cut to TCP meet PF1-PF2
P1	90.0	91-05	Fix size, begin the temporary girdle
P2	90.0	62-34	Level girdle
P3	90.0	54-42	Complete girdle facets
P4	57.2	91-05	Locate final girdle
P5	57.2	62-34	Level girdle meet P1-P2-P4
P6	57.2	54-42	Level girdle meet P2-P3-P5
P7	55.1	91-05	See note 3
P8	55.1	62-34	Meet P4-P5-P7
P9	55.1	54-42	Meet P5-P6-P8
P10	40.7	56-40	Meet P5-P6-P8-P9
P11	38.3	58-38	Meet P5-P6-P8-P9-P10
P12	31.2	65-31	Meet P4-P5-P7-P8
P13	37.0	87-09	Meet P4-P5-P7-P8-P12
P14	41.0	92-53-43-04	Meet P10-P11-P12
P15	52.9	92-04	Meet P7-P13-P14
P16	50.4	53-43	Meet P9-P10-P14

Note 3: Side diagram shows appearance with a 2 percent (of width) girdle. Overall thickness 84.0 percent (of width).

Note 4: Crown indeterminate except to look like the drawing distance between meet-points P4-P5-P7 should be 1.66 times the WIDTH measurement



1.391 RINGS OF FIRE

96 INDEX

128 FACETS

STEP	ANGLE	BEARING INDEX	REMARKS
C1	65.0	93-87-81-75-69-63-57-51	Match pavilion
C2	47.0	45-39-33-27-21-15-09-03	at girdle
C3	29.0	93-87-81-75-69-63-57-51	Level line between C1-C2
C4	12.0	45-39-33-27-21-15-09-03	Level line between C2-C3
		93-87-81-75-69-63-57-51	Level line
		45-39-33-27-21-15-09-03	between C3-C4

Height 48.8 percent of width (approximate) this will occur only if the rings are concentric and equal width as seen in the plan view.

Center should be bright, but crown step (rings) should show alternate bright and dark areas.

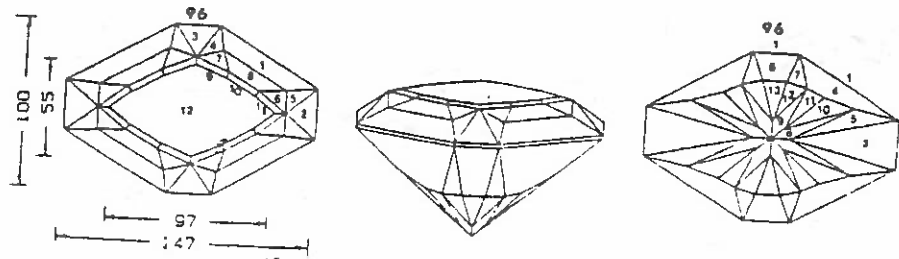
Designer WILLIAMS, Evan

STEP	ANGLE	BEARING INDEX	REMARKS
P1	48.0	93-87-81-75-69-63-57-51	Cut to TCP
P2	90.0	45-39-33-27-21-15-09-03	Fix size and level girdle
P3	45.0	93-87-81-75-69-63-57-51	Meet P1-P2 at the girdle
P4	42.0	96-90-84-78-72-66-60-54	Meet P3-P1-P3 at PCP
		48-42-36-30-24-18-12-06	
		93-87-81-75-69-63-57-51	
		45-39-33-27-21-15-09-03	

Depth 47.2 percent of width

Cut pavilion first. Material Cubic Zirconia (CZ) any color.

AUSTRALIAN - US CHALLENGE CUP COMPETITION 1990



41.035 CC DIAMOND BARION (for Topaz)

Design by ROBERT LONG and NORMAN STEELE
96 INDEX 1.47 L/W

87 FACETS

CROWN CUTTING INSTRUCTIONS			
STEP	ANGLE	BEARING INDEX	REMARKS
C1	40.1	88-56-40-08	Match pavilion at girdle
C2	39.1	72-24	Level girdle meet C1
C3	39.7	96-48	Level girdle meet C1
C4	35.7	92-52-44-04	Meet C1-C3-girdle
C5	32.3	84-60-36-12	Meet C1-C2-girdle
C6	29.3	86-58-38-10	Meet C5-C2-C5
C7	30.6	90-54-42-06	Meet C4-C3-C4
C8	34.0	88-56-40-08	Meet C1-C4-C7 and C1-C5-C6
C9	20.0	90-54-42-06	Meet C7-C4-C3-C4-C7
C10	20.0	88-56-40-08	Meet C7-C8-C9
C11	20.0	86-58-38-10	Meet C6-C5-C2-C5-C6
C12	0.0	ANY	Table. See note 1.

Note 1: Table size is indeterminate, but to match diagram Table width should be 55 percent of stone width, grade 2 percent (of width), and overall thickness 82.1 percent (of width).

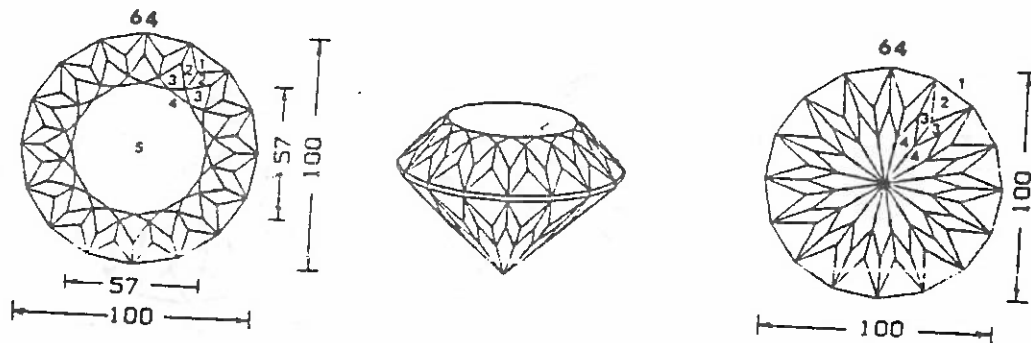
PAVILION CUTTING INSTRUCTIONS

STEP	ANGLE	BEARING INDEX	REMARKS
PF1	35.0	96-88-56-48-40-08	Cut to TCP
PF2	25.4	72-24	Meet PF1 at TCP
P1	90.0	96-88-56-48-40-08	Fix size (width)
P2	90.0	72-24	See Note 3
P3	41.7	72-24	Locate girdle
P4	46.0	86-58-38-10	Meet P1-P2-P3
P5	40.7	76-68-28-20	Meet P1-P2-P3-P4
P6	63.4	96-48	Meet P1-P1-P4
P7	61.9	92-52-44-04	Meet P1-P1-P4-P6
P8	40.0	80-64-32-16	Meet P5-P3-P5
P9	41.0	88-56-40-08	Meet P8 at PCP
P10	41.0	82-62-34-14	Meet P4-P5-P8
P11	41.5	86-58-38-10	Meet P8-P9-P10
P12	43.8	92-52-44-04	Meet P4-P7-P9-P11
P13	45.0	96-48	Meet P9-P12-P12-P9

Note 2: Original reference FACET DESIGN Vol 5 page C23 Elevation angles adjusted for TOPAZ.

Note 3: Step P2 is cut to form a level false girdle and complete the outline (length). Steps PF1 and PF2 are preform facets which do not appear in the final stone.

AUSTRALIAN - US CHALLENGE CUP COMPETITION 1990



1.205 SUNBURST (for Quartz)

Design by ALTON R WALLS
64 INDEX

1.00 L/W

161 FACETS

CROWN CUTTING INSTRUCTIONS			
STEP	ANGLE	BEARING INDEX	REMARKS
C1	39.8	62-58-54-50-46-42-38-34	Match pavilion / level girdle
C2	36.9	30-26-22-18-14-10-06-02	Meet C1-C1-girdle
C3	35.0	63-61-59-57-55-53-51-49	Meet C1-C2-C2-C1 to be same height as meet C2-C3-C2
C4	26.0	47-45-43-41-39-37-35-33	Meet C3-C2-C2-C3
C5	0.0	31-29-27-25-23-21-19-17	Table 57% of width PP

Note 1: Original reference for this design is Vargas and Vargas Diagrams for Faceting Vol 1 (1973) p88 and essentially the same design in MDR Book of Gem Cuts Vol 3 (1977). Elevation angles appropriate for Quartz.

PAVILION CUTTING INSTRUCTIONS

STEP	ANGLE	BEARING INDEX	REMARKS
P1	90.0	62-58-54-50-46-42-38-34	Girdle segments to be equal length
P2	45.5	30-26-22-18-14-10-06-02	Level girdle
P3	44.0	62-58-54-50-46-42-38-34	Meet P1-P2-P2-P1
P4	43.0	30-26-22-18-14-10-06-02	Meet P2-P3-P2 to have same height above girdle as meet P2-P1-P2

Note 2: Step P4 facets must be critically located to meet the "equal height" criteria between bottom of the break facets (P2) and top of the main facets (P4)

Note 3: To match diagram Table is 57 percent (of width PP), girdle is 2 percent (of width), and overall thickness is 64.7 percent (of width).

FROM : ARKANSAS ROCKHOUND NEWS:

Gem's shape gauges personality

From Democrat News Service

For years, Saul Spero, author of "Diamonds, Love and Compatibility" and noted gemologist, had been intrigued by a correlation between the personality of an individual and the shape of the diamond he or she selects.

For over 25 years, Spero conducted a unique and innovative survey of people from every income bracket, age group and degree of education. From this in-depth study he concluded that the shape a person prefers is directed to the personality of that individual. Whether young or old, rich or poor, diamond shape is a sure-fire personality gauge, he said.

The following are the various diamond shapes chosen for engagement rings and the personality types Spero found them to represent:

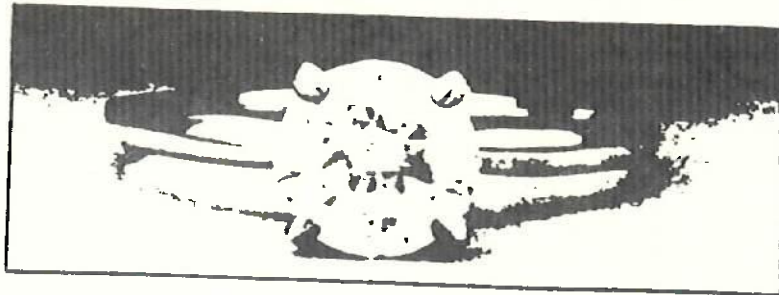
Good neighbor

A Round is a homemaker with simple domestic tastes and simple likes and dislikes. She considers marriage and family life to be all-important. Her outside interests are limited. She is easy to get along with, easily satisfied and contented; not aggressive or pushy.

A dependable individual, a Round is also frugal and makes a good neighbor. Once started in the family role, she grows and remains content as long as her health and finances are good. Routine and stability are necessary to her.

Home-centered

A Pear is basically home-centered, but with interests outside the home. Eager to try new experiences, she is somewhat more ambitious than her Round sister. A Pear is not too imaginative, and is easy to get along with (except when anxious to improve her status). She does, however, like to be innovative.



POPULAR SHAPE — The brilliant-cut or round is the most popular cut of diamond selected by 84 percent of all brides.

A Pear is a solid citizen, active in her community. She is considerate and gives mate support without being overly aggressive. She also adjusts well to new situations. She is frugal with family finances. She is a fine companion in a non-competitive home life but likes to stay ahead of her peers.

On the go

A Marquise is an active, aggressive individual, always on the go. Experimental and sometimes daring, she is usually charming and exciting, sexy and temperamental, creative and innovative. A man has to be "on his toes" at all times to keep up with her, Spero says.

Achievement is her pet neurosis. She cannot stand to be cooped up. Family and children are secondary to her career or challenging activities — but, she finds marriage to be only one of life's many challenges. A Marquise functions well in our modern society if she can achieve her potential; otherwise, she is frustrated and chronically discontented. She is an impulsive person who loves excitement and turmoil.

Executive potential

An Emerald is disciplined, organized, and has leadership or executive potential. She tends toward the conservative and can be rigid in her life-

style. Order and cleanliness are of primary importance to her; "permissiveness" is not a word found in her vocabulary.

An Emerald is clannish and thinks before leaping. She is an honest and open person, but cool to the romantic approach. She cannot tolerate pushy or aggressive people. She is slow to respond but decisive when she does.

Mind of her own

An Oval is an individualistic person, not terribly aggressive. She is well-organized and disciplined, but not rigidly so. She can also be highly creative, independent and orderly; a good executive, yet homeloving.

ent, but doesn't go to extremes. She has a mind of her own. She is a good budget-keeper, seldom extravagant. She keeps children well-disciplined. She is a good community leader and a dependable, fun-loving person.

Highly creative

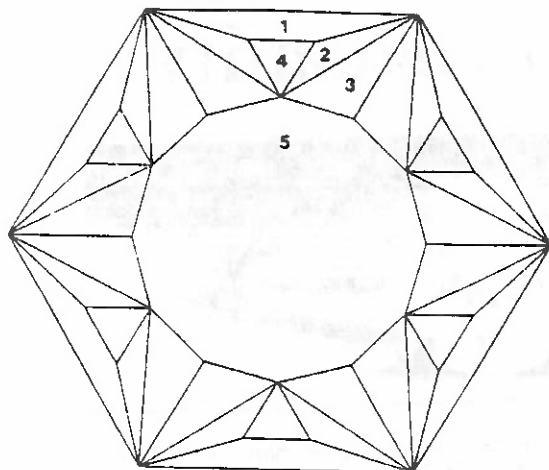
A Heart is a creative individual, a clinging vine that is highly sensitive to criticism. She has a volatile temperament and cries easily when hurt by indifference. A very feminine woman who must be romanced tenderly, a Heart is a sister to the Southern belle of the late 19th century. A man must never forget her birthday or any day tenderly remembered.

COWICHAN SNOWFLAKE

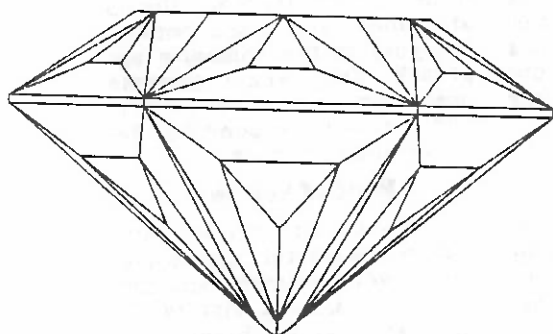
By Walt Heitland

96 Index - 85 Facets - Quartz

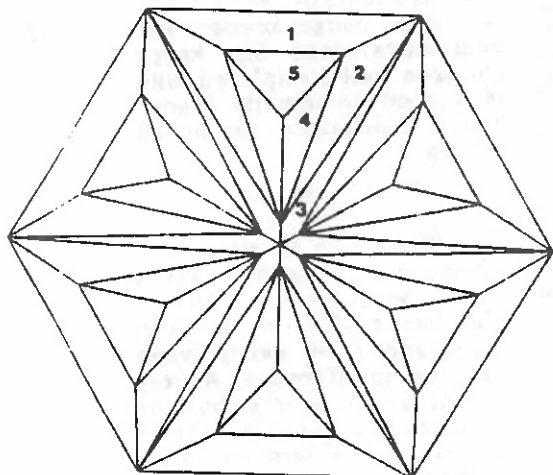
Size: 12 - 14mm (flat to flat)



- CROWN -



- SIDE VIEW -



- PAVILION -

CROWN:

C1.	47.5°	-	96	16	32	48	64	80
C2.	42.0°	-	01	15	17	31	33	47
			49	63	65	79	81	95
C3.	36.0°	-	04	12	20	28	36	44
			52	60	68	76	84	92
C4.	43.0°	-	96	16	32	48	64	80
C5.	0.0°	-	Table (57%). Cut to					
			meet C2, C3 & C4.					

PAVILION:

PF.	90.0°	-	96	16	32	48	64	80
P1.	52.5°	-	96	16	32	48	64	80
P2.	41.8°	-	04	12	20	28	36	44
			52	60	68	76	84	92
P3.	40.5°	-	08	24	40	56	72	88
P4.	42.3°	-	02	14	18	30	34	46
			50	62	66	78	82	94
P5.	45.2°	-	96	16	32	48	64	80

This is the Single Stone Competition cut
 for the 1989 Canadian Federation Gem &
 Mineral Show to be held in Duncan next
 July 8 - 9. Host club is the Cowichan
 Valley Rockhound Club. For Can. Fed. Rules
 (\$2.00) and/or entry forms, contact:

Jessie Talbot, Sect'y, P.O. Box 232,
 Duncan, B.C. V9L 3X3.

MORIARTY GEM COMPANY
PRECISION CUTTERS AND IMPORTER OF FINE GEMS

P.O. BOX 738
CROWN POINT, IN 46307

219-662-1390
Outside IN 1-800-348-4499

Dear Midwest Faceter;

I am looking for a few highly qualified faceters capable of high precision in various cutting styles. I will require a minimum of ten stones per month. All work to be done at your premises from my rough material.

If this would be of interest to you, please call and I will require a sample of your work, either something you have cut or I will provide rough for the sample.

The following is my current pay schedule for cutting services.

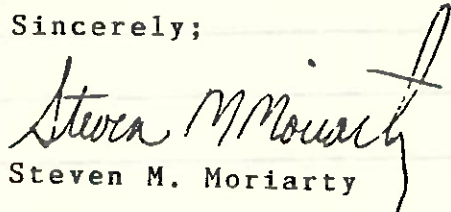
Base price

Standard round brilliant	\$20.00
Barion, heart, portugeuse, specialty cuts	30.00
Oval, emerald cut, antique cushion, pear and freeform	25.00
Carat charge for above, 2 to 10 carat	3.00
Bonus for exceptional quality cut	5.00
Bonus for high yield without compromising cutting design. Generally above 40%	5.00

By this scale a 7 carat barion e/c of fine quality and a yield of 41% would pay \$58.00.

I am also interested in purchasing stones from your personal collection. Make a list or call with particulars.

Sincerely;


Steven M. Moriarty

THE MIDWEST FACETER

15

MARCH, 1989

HELPFUL HINTS. This page was taken from, FACETS, Number 162, July, 1988, p.4.
Via: TFG.

CUTTING NOTES AND RECORD OF FACETING OPERATIONS

Date Cut: _____ 19 _____ Number: _____

Material: _____ Origin: _____

Date Purchased: _____ 19 _____ Dimensions: _____

Rough weight: _____ Finished weight: _____

Type of cut: _____ Size: L _____ W _____ D _____

Designer: _____ Source: _____

Facet No.	Angle	Index settings	Notes
PAVILION			
P1	_____	_____	_____
P2	_____	_____	_____
P3	_____	_____	_____
P4	_____	_____	_____
P5	_____	_____	_____
P6	_____	_____	_____
P7	_____	_____	_____
P8	_____	_____	_____
Girdle	_____	_____	_____
CROWN			
C1	_____	_____	_____
C2	_____	_____	_____
C3	_____	_____	_____
C4	_____	_____	_____
C5	_____	_____	_____
C6	_____	_____	_____
C7	_____	_____	_____
C8	_____	_____	_____
Table	_____	_____	_____

Polish lap: _____ Polish: _____

Additional notes: _____

Marks and inclusions: _____

Estimated Value: _____

Owner: _____

Address: _____ Phone: _____

City & State: _____ Zip: _____

MINUTES OF THE BOARD OF DIRECTORS MEETING

Vice President, Joseph Manina called the January 14, 1989 meeting of the Board of Directors of the Midwest Faceters Guild to order at 10:27 AM in the Royal Forke restaurant in Okemos, Michigan. Those attending were Joseph Manina, Elery Holt, Frances Bush, Thomas Gibbs, George Judd, Dorothy Loyd, June Ramshaw and Harold Rice.

A motion was made by Tom Gibbs, "to accept the Secretary's report as published, providing the word 'Comments' was eliminated from the report". Motion was seconded by Harold Rice and carried.

Elery Holt gave a copy of the treasurer's report to each one present. Dorothy Loyd made a motion, "To accept the report as printed". Tom Gibbs seconded the motion and the report was accepted and filed for audit.

A discussion was held on paying the expenses of the Club Representative for the American-Australian Competition. After due consideration, Harold Rice made a motion, "For the Guild to pay reasonable and proper expenses for our representative to attend the American-Australian Competition in California in 1989". Motion was seconded by Tom Gibbs and

carried.

Bill Horton received a "FIRST PLACE AWARD" in cabachon making at the American Society of Gemcutters Evaluation.

A Show Committee meeting will be scheduled late in February or early in March at the home of Dorothy Loyd.

Joe Manina will distribute Show Flyers to the Highway Department to be placed in various rest areas.

Dorothy Loyd has a commitment from Miners Den to present two lectures, one on crystals and one on mountings. Chatam Emeralds is a wholesale Dealer only, but is willing to supply two lectures. Other lectures will be provided by GRS, GIA and Bill Horton. Lectures will be scheduled as follows: one on Friday night; Saturday at 10 AM-12 Noon - 2 PM - and 4 PM; Sunday at 10 AM - 12 Noon - 2 PM and 3 PM. Elery Holt made a suggestion that the lecturers submit a list of expenses that are to be paid. We have four committed dealers. Contracts have been mailed out to thirteen other dealers and will be accepted on a first- return basis.

George Judd read the article pertaining to our Faceters Fair that was published in the "Meet Points" bulletin of Vancouver.

Meeting adjourned at 11:35 AM.

MINUTES OF THE MEMBERSHIP MEETING

Vice President, Joseph Manina welcomed all members present as he called the January 14, 1989 Membership meeting of the Midwest Faceters Guild to order at 12:53 PM in the Royal Forke restaurant in Okemos, Michigan.

Treasurer, Elery Holt reported a balance of \$7,887.31. Expenses were \$1,399.58, Receipts were \$1,745.45, leaving a new balance of \$8,233.18. We have a Scholarship balance of \$1,220.37; Money market certificate of \$4,472.02, with \$3,698.30 in the checking account and a Post Office balance of \$62.86. A Motion, "To accept the report as read", was made by Art Kalinski and seconded by George Judd. The report was accepted and filed for audit.

Clarence and Hazel Morgan were selected to be our representatives at the Greater Detroit Club Banquet.

The meeting of the International Faceters Guild was listed as Wednesday, February 8th in the "Lapidary Journal" instead of Thursday, February 9th as originally set up. Please contact Joe Manina to verify the time and date, before leaving for Tuscon.

Edward Myers will continue as Special Competition Chairman.

Tom Gibbs will make arrangements for the August 26th meeting to be held in Taylor, Michigan.

Vice President Manina reminded members that dues are past due and on the next bulletin a red dot will appear on

(NEXT PAGE, PLEASE)

MINUTES OF THE MEMBERSHIP MEETING (cont'd)

your mailing label to remind you that your dues are not paid. The list comes from three persons, so please if you have a red dot and you know your dues have been paid, please notify the Membership Chairman, Bill Gardiner, so he can correct the error. If you have paid your dues and are not receiving your bulletins regularly, or know of some else that isn't receiving their bulletins, please call it to our attention as we do not want to overlook anyone.

Bernard and Frances Bush were given permission to purchase a new electric stapler for collating the Midwest Faceter.

Members are asked to remember to bring the rough or faceted material they are to donate to the "Permanent Birthday Display". Dorothy Loyd has th rough materials purchased in Tuscon and will ask members that are qualified to do the faceting.

Editor, George Judd needs lots of articles for the Midwest Faceter. Helpful hints, things you have tryed, and especially original articles and gem cuts are greatly needed.

Show Chairman, George Judd had wallet-size flyers available to be distributed by members as they go to the various shows and Clubs. He also needs a Chairman for Hall Decorations and one for Admissions. Someone is also needed to help Gail Sahr with the Advertising and Steve Louton with the Security. A Show Committee meeting will be scheduled at the home of Dorothy Loyd. The Rules and Applications for Competition and Display Space have been mailed to all the members. If anyone can help with the Show in anyway, please contact George Judd or Bill Horton. The donation for admission to the Faceter Fair Crystal-rama will be \$3.00. George Judd mentioned we have a number of exchange bulletins and the "Meet Point" of Vancouver had a very nice article regarding our Faceters Fair and Competition.

Dorothy Loyd suggested we have a

Natural Crystal Contest in conjunction with our theme. Crystals used in jewelry, sculptures, whimsical ways, etc., would be accepted. A vote would declare the best-liked entry.

President, Bill Horton; Historian, Vivian Randall; Special Competition Chairman, Ed Myers; Rules Chairman Ed Daniels; and membership Chairman, Bill Gardiner were all absent.

NO OLD BUSINESS:

NEW BUSINESS:

Bernard Bush stated he had committed us to maintain a booth at the Midwest Federation Convention in Kalamazoo, Michigan. Harold Rice suggested we have a symposium in conjunction with operating a booth. Harold mentioned several subjects that may be taught, such as, Meet Point Faceting, Organization; Types of Laps and Methods of Uses, Various Types of Machines available; and Selecting Natural or Synthetic Stones. Don Sahr suggested that outlines on the various topics be printed up and be available as guidelines for planned programs.

The March 18th meeting will be in Toledo, Ohio at Angelo's Spaghetti House.

Harold "Arizona" Rice gave the background of the beginning and organization of the Faceters International Guild and explained the acronym "FIG" is registered by a church group and can not be used, making it necessary to select a new name for the organization as well as for the bulletin. Forms were passed out to vote on suggested names that will be presented at the Chaarter Meeting in Tuscon.

The meeting adjourned at 1:59 PM. so we could enjoy the program on "Formation, Chemical Properties and Selection of Synthetic Gem Stones, as presented by George Judd, G. D.

Respectfully submitted,
Frances Bush, Secretary.