

# THE MIDWEST FACETER



VOLUME 10 NUMBER 3  
JUNE, 1989

AN EDUCATIONAL PUBLICATION OF THE MIDWEST FACETERS GUILD

THE MIDWEST FACETER  
807 Moran  
Lincoln Park, Mi.  
48146



*Dated Material  
Please Deliver*

MFG Historian  
12651 Old Mill Place  
Detroit MI 48238



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.

MEMBER OF:

MIDWEST FEDERATION of MINERALOGICAL and GEOLOGICAL SOCIETIES  
The AMERICAN FEDERATION of MINERALOGICAL SOCIETIES

OFFICIAL PUBLICATION: THE MIDWEST FACETER

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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.

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

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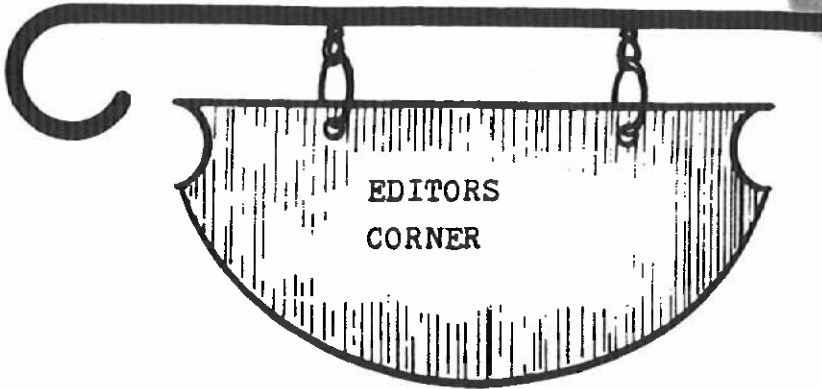


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**wanted**

...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???



EDITORS  
CORNER

In this issue of the Midwest Faceter we have many interesting things for our members. First, we have a diagram from the New Mexico Faceter by Charles Lookingbill called BLAKE LOOKINGBILLS CROWN OF LIFE, named for his late father. Next we have a article from Meet Points on angles and proportions by the late Charles Schagel, who is well known by many of our members. Since many of our members have cut or are in the act of cutting diamond replicas for the Cleveland Field Museum, the six pages gleaned from the Texas Faceters Newsletter will be of special interest. It seems they have developed a meet point method for cutting some of these replica's. If more designs become available we will try and publish them as we receive them. Next is a letter from Sid Word, USA Chairman for the Australian-USA faceting challenge. Diagrams and competition entries were in the last issue of the Midwest Faceter. Last but not least is a very nice looking diagram by W. Moldowin from Meet Points called the Centennial Cut.

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Letter to the Editor:

Mr. Editor:

My name is Ino Zilch, I am not a member of your Guild. Will you tell me if your members were told about the transfer picture that is supplied with most Faceting Machines ?

I took it by myself to check out pictures cast out of white metal. Out of ten pictures nine were warped. This will cause girdles to be out of line. Thick on one side to thin on the other side.

One more problem I found was those Transfer Ficturers with bolts to hold down the Dobs are course. Their tips should be covered with a plastic or hard rubber so not to put burs on the dobs. When reused these burs will cause the dobs to be out of line.

I hope you print this letter in your Newsletter. You may hear from me again because I'm taking my shovel out with me to dig up more dirt.

Ino Zilch

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Flyers are available for our Faceters Fair, "Crystalrama" in October. See me or give me a call and we'll get them to you. Its time to get the word out for our show. Our members are our best source to get this job done.





It has been a struggle, but I do believe Spring is finally wending it's way into our lives.

My annual "SNOWBIRD" trek to the Southwest was a very good experience. I visited with facetors and hobbists throughout the Southwest. The Tucson show was a real experience.

The organization of the North American Facetors Guild is finally underway, but still requires further effort to achieve it's eventual success.

I will ask each of you for a commitment for this year. To every facator, each and everyone, please help by participating in the Australian American Faceting Challenge. Let's all go for it!

I received a letter from Mr. Ed Olsen, of the Field Museum in Chicago, and he is quite anxious to receive the Diamond Replicas we are cutting for the Museum. Let's make a determined effort to have these completed for our Show in October. This could be "OUR" Special Exhibit. For each of you who have volunteered - 10,000 ATTABOYS! - will you drop me a line and appriase me of your progress. Let's make October a very special conclusion for this project.

Our own Show is fast approaching. Start early to prepare for a display or have some fun cutting some of the competitive cuts.

I am looking forward to seeing as many of you as possible in Birch Run on June 3, 1989.

*Bill Horton*

I'm always fascinated by the way memory  
diffused fact.

Diane Sawyer - TV Guide

Growing old is not upsetting; being  
perceived as old is.

Kenny Rogers



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MIDWEST FACETERS GUILD MEETING

DATE: JUNE 2, 1989

PLACE: EXIT RESTURANT & MOTEL  
BIRCH RUN EXIT just off I-75  
North of Flint Michigan  
In the Resturant Conference Room.

TIME: 10:00am - 12:00 Panel talk with Bill Schell.  
1:00pm - 5:00 Business Meeting & Program.

PROGRAM: Hosted by Bill Horton and others.  
Topic, Insights on Gemstones with stonesetting tips.

The Birch Run Exit is about 15 miles north of Flint.

SHOW Update and Flyers for our show in October will be available at the meeting.

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UPCOMING EVENTS

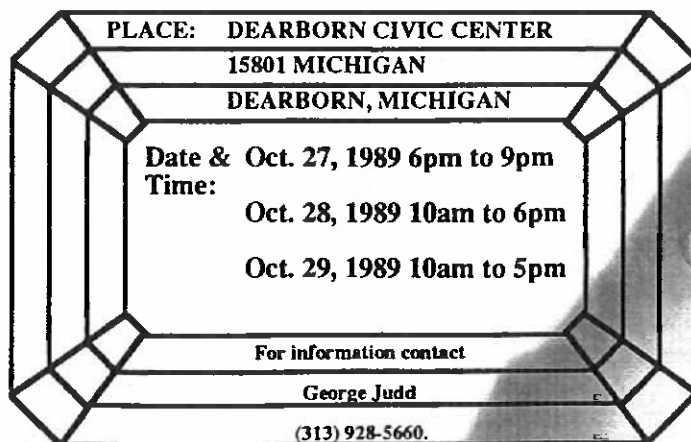
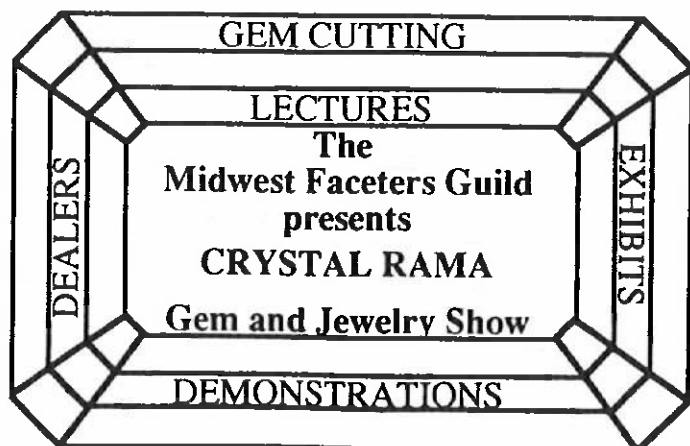
May 19-21.....Show....MIDWEST MINERALOGICAL AND LAPIDARY SOCIETY  
Dearborn Civic Center  
Michigan & Greenfield

June 2.....Meeting Midwest Faceters Guild See details above.

June 9-11.....Swap..... LAWRENCE COUNTY ROCK CLUB  
Bedford Indiana Rock Swap  
4-H Fairgrounds  
Bedford, Indiana

June 17-18.....Seminar.MGAGS  
Kalamazoo Valley Community College

June 22-25.....convention. MIDWEST FEDERATION SHOW AND CONVENTION  
Kalamazoo, Michigan

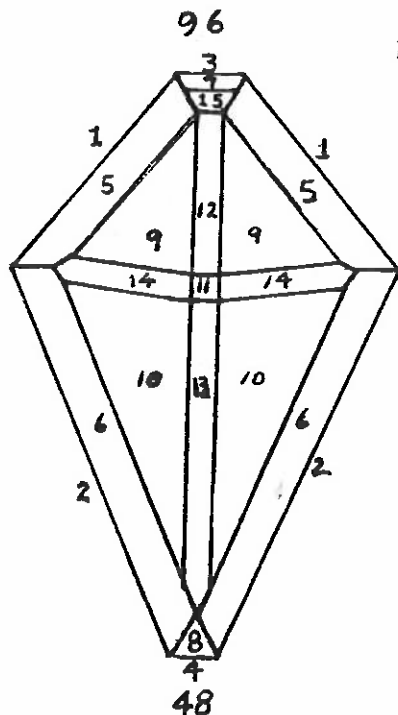




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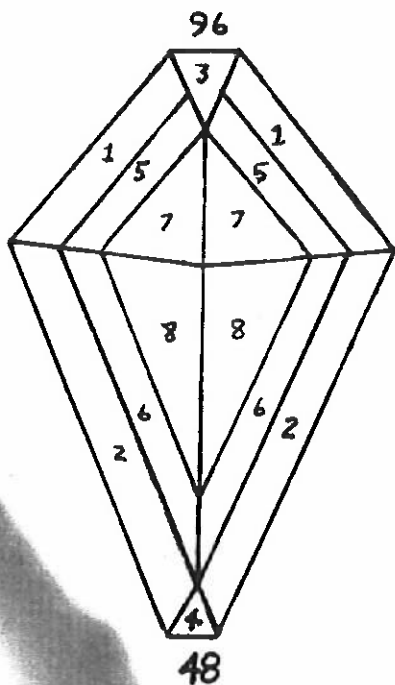
BLAKE LOOKINGBILL'S CROWN OF LIFE  
By Charles Lookingbill

For 96 Index - Angles For Spinel



CROWN

|                     |                        |
|---------------------|------------------------|
| 1. @ 90° --- 18, 78 | 9. @ 15° --- 18, 78    |
| 2. @ 90° --- 36, 60 | 10. @ 15° --- 36, 60   |
| 3. @ 90° --- 96     | 11. @ 0° --- 96        |
| 4. @ 90° --- 48     | 12. @ 5.5° --- 96      |
| 5. @ 37° --- 18, 78 | 13. @ 10.5° --- 48     |
| 6. @ 37° --- 36, 60 | 14. @ 12.5° --- 24, 72 |
| 7. @ 37° --- 96     | 15. @ 30° --- 96       |
| 8. @ 37° --- 48     |                        |



PAVILION

|                     |
|---------------------|
| 1. @ 42° --- 18, 78 |
| 2. @ 42° --- 36, 60 |
| 3. @ 42° --- 96     |
| 4. @ 42° --- 48     |
| 5. @ 39° --- 18, 78 |
| 6. @ 39° --- 36, 60 |
| 7. @ 36° --- 18, 78 |
| 8. @ 36° --- 36, 60 |

FROM: NEW MEXICO FACETOR



# THE ANGLES & PROPORTIONS OF CHARLES SCHLAGEL

(NOTE: CHARLIE SCHLAGEL PASSED AWAY IN APRIL OF 1967 AT THE AGE OF 86. HE LIVED IN THE LOS ANGELES AREA SINCE 1929 AND WAS A MEMBER OF AT LEAST THREE AREA CLUBS. THE FOLLOWING INFORMATION IS CLEARED FROM ARTICLES BY C. SCHLAGEL, PARSONS AND MAIWURM.)

Back in the early 60's, Charles Schlagel took a mathematical approach to facet angles and followed this up with some comparative gem cutting. The results were so remarkable that he published these findings in Gems & Minerals magazine.

Well-known author and faceter Charlie Parsons acted on the new material and cut some trial stones. He was impressed enough to meet with Mr. Schlagel hoping to learn more. Although Mr. Schlagel was unable to explain to him the math behind the new angles, there was no question in Parsons' mind that they produced better, more brilliant gems.

Schlagel was encouraged to expand his calculations and devised a new & enlarged list of facet angles.

Coupled with these angles were some helpful figures on proportions. With these, the faceter could better optimize the size gem that could be recovered from a piece of rough. (These are based on a 50% table.)

In regards to Mr. Schlagel's "new" angles, there are still many faceters who swear by them today. Upon studying the angles, you will note that the crown main angle is always 4 degrees less than the pavilion main angle.

This results in lower crown angles than normal which, in turn, lessens the height of the crown and therefore changes the proportions of the gem as well.

Along with the greater brilliance, this also gives the gem more "tipability" - that is, it may be tipped further before the brilliance "winks out" and you can see through the side of the pavilion.

| Refractive Index | Main Angles |          | *Total Depth (H) |
|------------------|-------------|----------|------------------|
|                  | Crown       | Pavilion |                  |
| 1.40 - 1.43      | 41          | 45       | 72%              |
| 1.50 - 1.53      | 39          | 43       | 67%              |
| 1.53 - 1.56      | 38          | 42       | 65%              |
| 1.56 - 1.60      | 37          | 41       | 63%              |
| 1.61 - 1.62      | 36          | 40       | 60%              |
| 1.63 - 1.73      | 35          | 39       | 58%              |
| 1.74 - 1.80      | 36          | 40       | 60%              |
| 1.82 - 2.00      | 37          | 41       | 63%              |
| 2.37 - 2.62      | 38          | 42       | 65%              |
| 2.79 - 3.09      | 39          | 43       | 67%              |

\* Based on diameter = 100%, table = 50% Percentages

TOTAL DEPTH (H) CROWN DEPTH (Hc) AND PAVILION DEPTH (Hp) FOR VARYING DIAMETERS (D)

| TOTAL DEPTH (H) CROWN DEPTH (Hc) PAVILION DEPTH (Hp) RATIO OF |                                              |     |     |     |     |     |                                     |     |     |     |     |     |                                        |     |     |     |     |  |
|---------------------------------------------------------------|----------------------------------------------|-----|-----|-----|-----|-----|-------------------------------------|-----|-----|-----|-----|-----|----------------------------------------|-----|-----|-----|-----|--|
| Diam.<br>of<br>Stone                                          | Total Depth (H) of Stone<br>For H/D Ratio of |     |     |     |     |     | Depth of Crown<br>For Hc/D Ratio of |     |     |     |     |     | Depth of Pavilion<br>For Hp/D Ratio of |     |     |     |     |  |
|                                                               | 58%                                          | 60% | 63% | 65% | 67% | 72% | 17%                                 | 18% | 19% | 20% | 22% | 41% | 42%                                    | 44% | 46% | 47% | 50% |  |
| 3                                                             | 1.7                                          | 1.8 | 1.9 | 1.9 | 2.0 | 2.2 | .5                                  | .5  | .6  | .6  | .7  | 1.2 | 1.3                                    | 1.3 | 1.4 | 1.4 | 1.5 |  |
| 3 1/2                                                         | 2.0                                          | 2.1 | 2.2 | 2.3 | 2.3 | 2.5 | .6                                  | .6  | .7  | .7  | .8  | 1.4 | 1.5                                    | 1.5 | 1.6 | 1.6 | 1.7 |  |
| 4                                                             | 2.3                                          | 2.4 | 2.5 | 2.6 | 2.7 | 2.9 | .7                                  | .7  | .8  | .8  | .9  | 1.6 | 1.7                                    | 1.8 | 1.8 | 1.9 | 2.0 |  |
| 4 1/2                                                         | 2.6                                          | 2.7 | 2.8 | 2.9 | 3.0 | 3.2 | .8                                  | .8  | .9  | .9  | 1.0 | 1.8 | 1.9                                    | 2.0 | 2.1 | 2.1 | 2.2 |  |
| 5                                                             | 2.9                                          | 3.0 | 3.1 | 3.2 | 3.3 | 3.6 | .9                                  | .9  | 1.0 | 1.1 | 1.2 | 2.0 | 2.1                                    | 2.2 | 2.3 | 2.3 | 2.5 |  |
| 5 1/2                                                         | 3.2                                          | 3.3 | 3.4 | 3.5 | 3.6 | 3.7 | 1.0                                 | 1.1 | 1.1 | 1.2 | 1.3 | 2.2 | 2.3                                    | 2.4 | 2.5 | 2.6 | 2.7 |  |
| 6                                                             | 3.5                                          | 3.6 | 3.7 | 3.8 | 3.9 | 4.0 | 1.1                                 | 1.2 | 1.2 | 1.3 | 1.4 | 2.5 | 2.6                                    | 2.7 | 2.8 | 2.8 | 3.0 |  |
| 6 1/2                                                         | 3.8                                          | 3.9 | 4.0 | 4.1 | 4.2 | 4.3 | 1.2                                 | 1.3 | 1.3 | 1.4 | 1.5 | 2.6 | 2.7                                    | 2.9 | 3.0 | 3.0 | 3.2 |  |
| 7                                                             | 4.1                                          | 4.2 | 4.3 | 4.4 | 4.5 | 4.6 | 1.3                                 | 1.4 | 1.4 | 1.5 | 1.6 | 2.7 | 2.8                                    | 3.1 | 3.2 | 3.2 | 3.5 |  |
| 7 1/2                                                         | 4.3                                          | 4.4 | 4.5 | 4.6 | 4.7 | 4.8 | 1.4                                 | 1.5 | 1.5 | 1.6 | 1.7 | 2.9 | 3.0                                    | 3.2 | 3.3 | 3.3 | 3.7 |  |
| 8                                                             | 4.6                                          | 4.7 | 4.8 | 4.9 | 5.0 | 5.1 | 1.5                                 | 1.6 | 1.6 | 1.7 | 1.8 | 3.1 | 3.2                                    | 3.4 | 3.5 | 3.5 | 4.0 |  |
| 8 1/2                                                         | 4.9                                          | 5.0 | 5.1 | 5.2 | 5.3 | 5.4 | 1.6                                 | 1.7 | 1.7 | 1.8 | 1.9 | 3.3 | 3.4                                    | 3.6 | 3.7 | 3.7 | 4.2 |  |
| 9                                                             | 5.2                                          | 5.3 | 5.4 | 5.5 | 5.6 | 5.7 | 1.7                                 | 1.8 | 1.8 | 1.9 | 2.0 | 3.5 | 3.6                                    | 3.8 | 3.9 | 4.0 | 4.5 |  |
| 9 1/2                                                         | 5.5                                          | 5.6 | 5.7 | 5.8 | 5.9 | 6.0 | 1.8                                 | 1.9 | 1.9 | 2.0 | 2.1 | 3.7 | 3.8                                    | 4.0 | 4.1 | 4.2 | 4.7 |  |
| 10                                                            | 5.8                                          | 5.9 | 6.0 | 6.1 | 6.2 | 6.3 | 1.9                                 | 2.0 | 2.0 | 2.1 | 2.2 | 3.9 | 4.0                                    | 4.2 | 4.3 | 4.4 | 5.0 |  |
| 11                                                            | 6.1                                          | 6.2 | 6.3 | 6.4 | 6.5 | 6.6 | 2.0                                 | 2.1 | 2.1 | 2.2 | 2.3 | 4.1 | 4.2                                    | 4.4 | 4.5 | 4.6 | 5.5 |  |
| 12                                                            | 6.4                                          | 6.5 | 6.6 | 6.7 | 6.8 | 6.9 | 2.1                                 | 2.2 | 2.2 | 2.3 | 2.4 | 4.3 | 4.4                                    | 4.6 | 4.7 | 4.8 | 6.0 |  |
| 13                                                            | 6.7                                          | 6.8 | 6.9 | 7.0 | 7.1 | 7.2 | 2.2                                 | 2.3 | 2.3 | 2.4 | 2.5 | 4.5 | 4.6                                    | 4.8 | 4.9 | 5.0 | 6.5 |  |
| 14                                                            | 7.0                                          | 7.1 | 7.2 | 7.3 | 7.4 | 7.5 | 2.3                                 | 2.4 | 2.4 | 2.5 | 2.6 | 4.7 | 4.8                                    | 5.0 | 5.1 | 5.2 | 7.0 |  |



Even today, there is still a great discussion about the "perfect" angles for the cutting of gemstones. While the greatest and most serious research has been done on diamond cutting, even here there is disagreement. Note the suggested angles below:

|                | CR   | PAU  |
|----------------|------|------|
| Tolkowski      | 34.5 | 40.8 |
| A. Johnsen     | 41.7 | 38.4 |
| W.F. Eppler    | 41.1 | 38.7 |
| or             | 33.1 | 40.1 |
| D.J. Williams  | 36.0 | 41.0 |
| C.J. Parsons & |      |      |
| C. Schlager    | 38.0 | 42.0 |
| G./H. Vargas   | 32.0 | 40.0 |
| E. Burton      | 34.5 | 40.8 |
| G.I.A.         | 34.5 | 47.7 |

The same controversy has applied to faceting angles for all other materials - even moreso since they didn't have the benefit of the "industrial strength" research that diamond seemed to get. In light of this, the hobby cutter could do worse than to start out with the Schlager angles and experiment from there on.

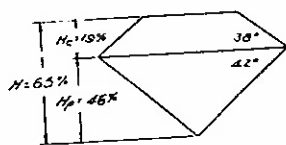
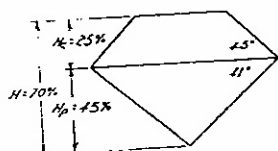
WHEN APPLYING THE PROPORTION TABLES, BEAR IN MIND THAT THEY WERE DESIGNED FOR THE ROUND BRILLIANT CUT AND FOR STONES HAVING A 50% TABLE. MOST OTHER SHAPES HAVING A HIGH DEGREE OF SYMMETRY AND MAINS WHICH EXTEND FROM THE GIRDLE TO THE CULET AND TABLE WILL ALSO WORK. MULTI-FACET DESIGNS AND STEP CUTS CANNOT BE ESTIMATED WITH THE TABLES.

# BRILLIANT PROPORTIONS USING NORMAL & SCHLAGER'S ANGLES

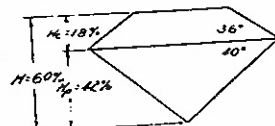
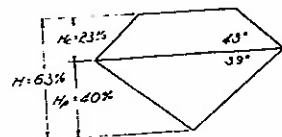
## NORMAL

## SCHLAGER

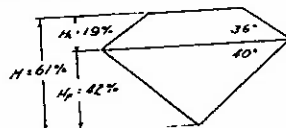
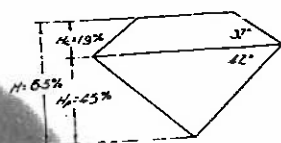
### QUARTZ - R.I. 1.54



### TOURMALINE - R.I. 1.64



### CORUNDUM - R.I. 1.76



DIAMETER = 100% IN ALL CASES

## FACET ANGLES

Calculated and Recommended by Charles Schlager

Refractive indices given are approximate. Only transparent minerals are listed. If minerals are translucent or opaque, use any angle; 40/40 is common.

| TABLE 1           |             |                            |               |              |                   |
|-------------------|-------------|----------------------------|---------------|--------------|-------------------|
| Mineral           | R.I.        | Crown Main                 | Pavilion Main |              |                   |
| Glass             | 1.46 - 1.86 | (Angles according to R.I.) |               |              |                   |
| Fluorite          | 1.43        | 41                         | 45            | Willenito    | 1.69 - 1.72 35 39 |
| Opal              | 1.40 - 1.46 | 41                         | 45            | Idocrase     | 1.70 - 1.72 35 39 |
| Moldavite         | 1.48 - 1.58 | 41                         | 45            | Kyanite      | 1.71 - 1.73 35 39 |
| Pollucite         | 1.52 -      | 39                         | 43            | Epidote      | 1.72 - 1.78 35 39 |
| Orthoclase        | 1.52 - 1.53 | 39                         | 43            | Spinel       | 1.71 - 1.73 35 39 |
| Amber             | 1.54        | 38                         | 42            | Hessonite    | 1.73 - 1.76 35 39 |
| Iolite            |             |                            |               | Pyrope       | 1.73 - 1.76 35 39 |
| (Cordierite)      | 1.53 - 1.56 | 38                         | 42            | Staurolite   | 1.74 - 1.76 36 40 |
| Oligoclase        | 1.54 - 1.55 | 38                         | 42            | Chrysoberyl  | 1.75 - 1.76 36 40 |
| Quartz            | 1.54 - 1.55 | 38                         | 42            | Benitoite    | 1.75 - 1.80 36 40 |
| Scapolite         | 1.54 - 1.57 | 38                         | 42            | Corundum     | 1.76 - 1.77 36 40 |
| Beryllonite       | 1.55 - 1.56 | 38                         | 42            | Almandite    | 1.76 - 1.83 36 40 |
| Bytownite         | 1.55 - 1.56 | 38                         | 42            | Spessartite  | 1.79 - 1.82 36 40 |
| Labradorite       | 1.56 - 1.57 | 37                         | 41            | Zircon       | 1.78 - 1.99 36 40 |
| Beryl             | 1.56 - 1.60 | 37                         | 41            | Andradite    | 1.85 - 1.90 37 41 |
| Topaz             | 1.61 - 1.64 | 36                         | 40            | Uvarovite    | 1.84 - 1.85 37 41 |
| Tourmaline        | 1.62 - 1.65 | 36                         | 40            | Sphene       | 1.89 - 2.04 37 41 |
| Danburite         | 1.63 - 1.64 | 35                         | 39            | Cassiterite  | 1.99 - 2.10 37 41 |
| Andalusite        | 1.63 - 1.64 | 35                         | 39            | Sphalerite   | 2.37 38 42        |
| Apatite           | 1.64 - 1.65 | 35                         | 39            | Diamond      | 2.41 38 42        |
| Eucrase           | 1.65 - 1.67 | 35                         | 39            | Rutile (Syn) | 2.62 - 2.90 38 42 |
| Phenocite         | 1.65 - 1.67 | 35                         | 39            | Proustite    | 2.79 - 3.09 39 43 |
| Enstatite         | 1.65 - 1.67 | 35                         | 39            |              |                   |
| Peridot (olivine) | 1.65 - 1.72 | 35                         | 39            |              |                   |
| Spodumene         | 1.65 - 1.67 | 35                         | 39            |              |                   |
| Diopase           | 1.66 - 1.72 | 35                         | 39            |              |                   |
| Fibrolite         | 1.66 - 1.68 | 35                         | 39            |              |                   |
| Diopside          | 1.66 - 1.70 | 35                         | 39            |              |                   |
| Kornerupine       | 1.66 - 1.68 | 35                         | 39            |              |                   |
| Hypersthene       | 1.70 - 1.72 | 35                         | 39            |              |                   |
| Axinite           | 1.68 - 1.70 | 35                         | 39            |              |                   |

| TABLE 2 (by R.I.) |            |               |  |    |
|-------------------|------------|---------------|--|----|
| R.I.              | Crown Main | Pavilion Main |  |    |
| 1.40 - 1.48       | 41         |               |  | 45 |
| 1.50 - 1.53       | 39         |               |  | 43 |
| 1.53 - 1.56       |            | 38            |  | 42 |
| 1.56 - 1.60       |            | 37            |  | 41 |
| 1.61 - 1.62       |            | 36            |  | 40 |
| 1.63 - 1.73       |            | 35            |  | 39 |
| 1.74 - 1.80       |            | 36            |  | 40 |
| 1.82 - 2.00       |            | 37            |  | 41 |
| 2.37 - 2.62       |            | 38            |  | 42 |
| 2.79 - 3.09       |            | 39            |  | 43 |

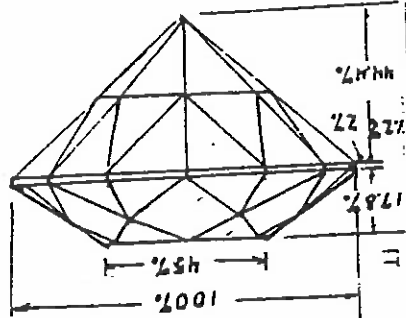
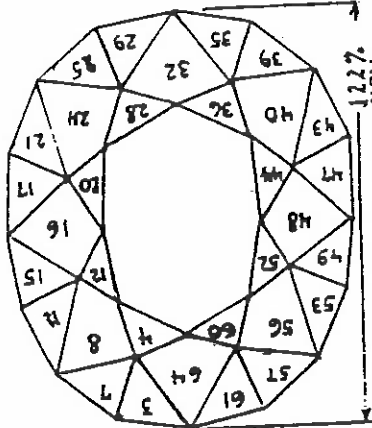
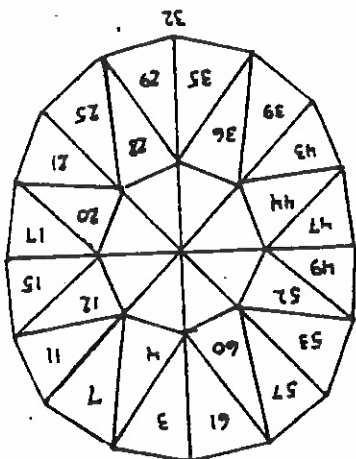
TABLE 2 (by R.I.)

| R.I.        | Crown Main | Pavilion Main |
|-------------|------------|---------------|
| 1.40 - 1.48 | 41         | 45            |
| 1.50 - 1.53 | 39         | 43            |
| 1.53 - 1.56 | 38         | 42            |
| 1.56 - 1.60 | 37         | 41            |
| 1.61 - 1.62 | 36         | 40            |
| 1.63 - 1.73 | 35         | 39            |
| 1.74 - 1.80 | 36         | 40            |
| 1.82 - 2.00 | 37         | 41            |
| 2.37 - 2.62 | 38         | 42            |
| 2.79 - 3.09 | 39         | 43            |

The above article comes via: MEET POINTS.



|                           |            |                      |
|---------------------------|------------|----------------------|
| TYPE CUT, EMPRESS EUGENIE | DATE       | 17/88NO.309          |
|                           | SPECIES    | Cubic Zirconia       |
|                           | COLOR      | CLEAR WHITE          |
|                           | ORIGIN     | SYNTHETIC            |
|                           | Wt.        | 5.00 GR. 6.0         |
|                           | DISP       | none BREF. high      |
|                           | HEAT       | SEN. none CR. 27.3   |
|                           | ROUGH      | WT. 1016 FINAL 261.3 |
|                           | COST       | DATE PUR.            |
|                           | CUT        | LAP 150/600/3000 co  |
|                           | POLISH     | LAP Last Lap         |
|                           | POLISH     | AGENT 50,000 dia     |
|                           | DIMENSIONS | 32x36x14.2           |



| STEP      | 4's | INDEX SEQUENCE    | INSTRUCTIONS                                        | STEP  | 4's | INDEX SEQUENCE         | INSTRUCTIONS                                          |
|-----------|-----|-------------------|-----------------------------------------------------|-------|-----|------------------------|-------------------------------------------------------|
| PR-1      | 90  | 64-32             | cut to length, rough cut 1200                       | 0 C-1 | 55  | 61/3-7/11-57/53-       | Cut to desired girdle thickness, then balance         |
|           | 90  | 16-48             | cut to width, final 1200                            |       |     | 49/47-15/17-           | girdle line. These will be                            |
|           |     |                   | rough cut with 120 mesh, final with 1200.           |       |     | 21/25-43/39-35/39      | recut (later).                                        |
|           |     |                   |                                                     | C-1   | 35  | 64-8/56-48/16-24/40    | Cut to girdle line.                                   |
| PR-2      | 90  | 3/61-35/29-15/17  | Cut to cullet point                                 |       |     |                        |                                                       |
|           |     | 47/49             |                                                     | C-2   | 0   |                        | Free wheeling                                         |
| PR-3      | 90  | 7-11              | Cut to depth where all 4 sides equal, then cut rest |       |     |                        | of width, then place in 45 degree cone                |
|           |     |                   | rough in 150 mesh final 200                         |       |     |                        |                                                       |
|           |     |                   | to same depth. Rough                                |       |     |                        |                                                       |
| P-1       | 40  | 4-36              | Cut to slight wedge                                 |       |     |                        |                                                       |
|           | 40  | 12/44-20/52-28/40 | Cut to point at cullet                              | C-3   | ~39 | 3/7-11/5-17/21-        | paste 1000 rpm with light touch.                      |
|           |     |                   | rough in with 150 mesh, final 1200. Cut tbl         |       |     | 61/57-53/49-47/43      | 3/7-11/5-17/21-25/29 cut to girdle and                |
|           |     |                   | depth of stone is approx. 18 mm.                    | C-4   | ~29 | 4-12-20-26-36-44-52-60 | 3-35/39 form triangle of C-1 facets.                  |
|           |     |                   |                                                     |       |     |                        | Cut to meet each other on table and point up with C-3 |
| P-2       | 44  | 60/4-20/36        | Cut to depth where a                                |       |     |                        |                                                       |
|           | 50  | 12/20-44/52       | cut to meet point around octagon.                   | C-5   |     |                        | L, C-3, C-4 ) with 3000 rpm                           |
|           |     |                   |                                                     |       |     |                        | the Copper Jan.                                       |
| P-3       | ~39 | 61/3-7/11-15/17   | Cut to girdle line and to                           |       |     |                        |                                                       |
|           |     | 21/25-29/35-39/47 | point up a intersection of                          | C-6   |     |                        | LAP using 50,000 paste                                |
|           |     | 47/49-53/57       | P-1 & P-2                                           |       |     |                        | 1000 rpm. use a light touch. Order                    |
|           |     |                   |                                                     |       |     |                        | of polish is C-3, C-4, C-1                            |
| Polishing |     | Order: P-3, P-2,  | P-1 Polish with Last lap                            |       |     |                        |                                                       |
|           |     | using 50,         | 000 Paste @ 1000 rpm and                            |       |     |                        | R. Barbour's cut as                                   |
|           |     | using a           | light touch                                         |       |     |                        | Journal Aug. 1962.                                    |
|           |     |                   |                                                     |       |     |                        | and the cut is meet                                   |
|           |     |                   |                                                     |       |     |                        | point.                                                |

*Edward M. Rabe*

Robert M. Rackett



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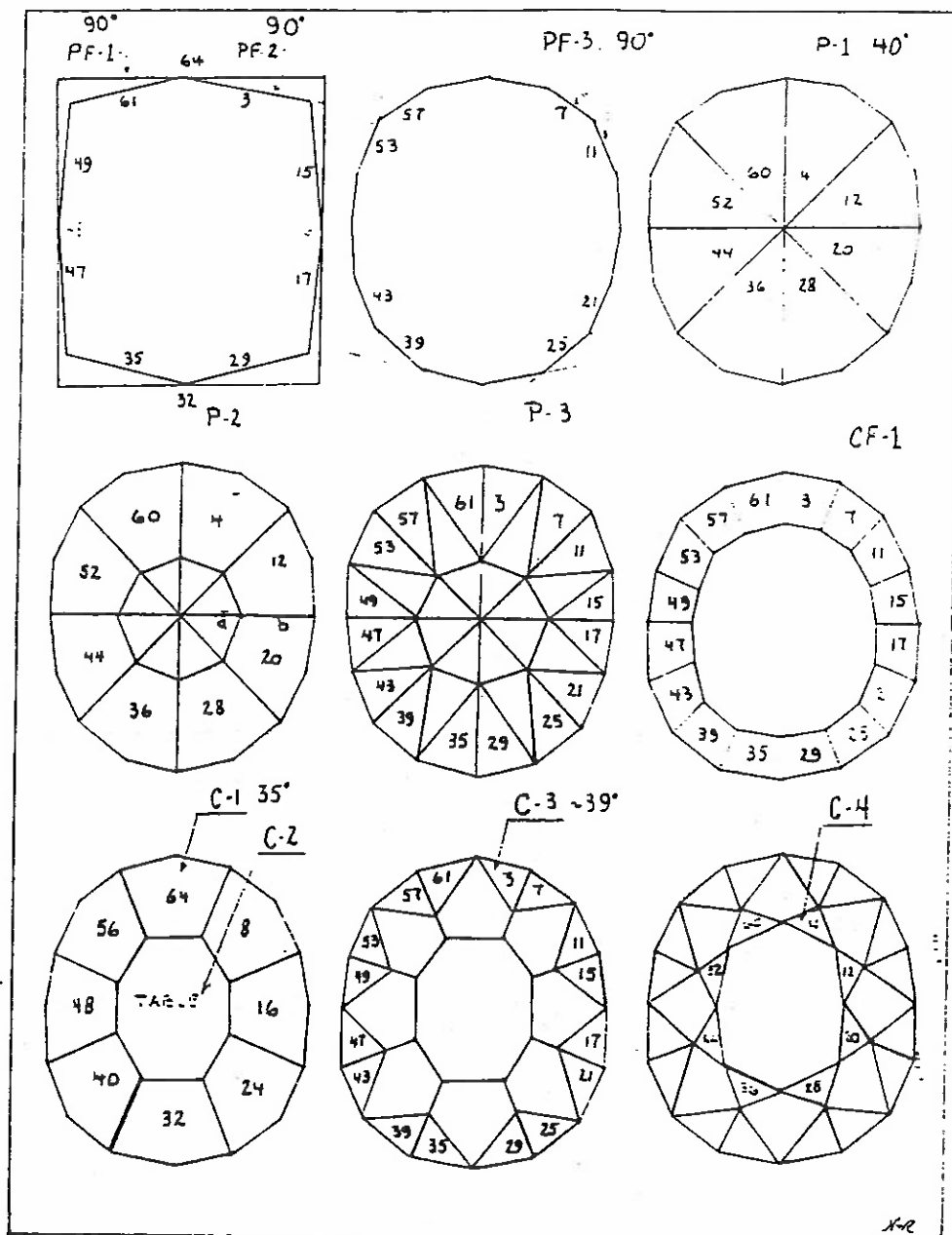
THE MIDWEST FACETER

10

JUNE, 1989

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"EMPRESS EUGENIE"



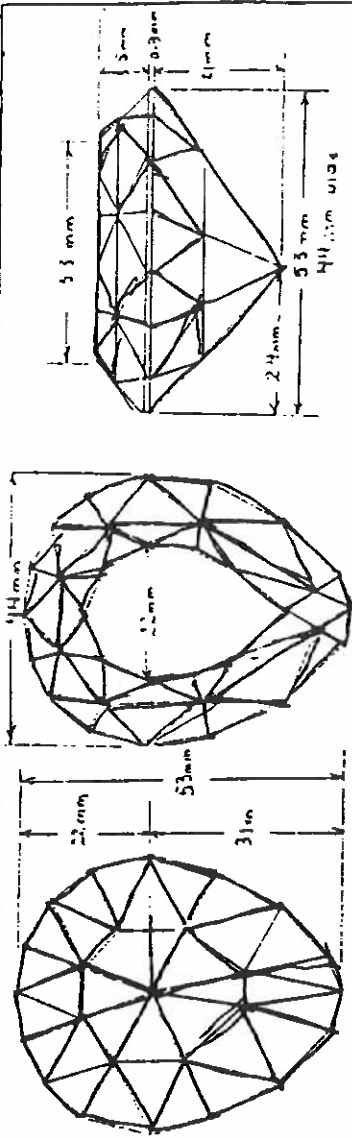


THE "CULLINAN I" DID NOT HAVE A CUTTING DIAGRAM. I WILL PUBLISH IT, NEXT ISSUE.

Diamond Replica

TYPE CUT: "Cullinan I" DESIGNER: Tom R. Tarbour (Reference Lapidary Journal April 1960)

DATE 3-15-80. 210  
 SPECIES Cubic Zirconia  
 COLOR Clear White  
 ORIGIN Synthetic  
 H.B. 58.1.2.18SP.GR6.0  
 DISPNone BIREF. high  
 HEAT SEN. none CR. 27.3  
 ROUGH WT 2346 FINAL 429  
 COST DATE PUR.  
 CUT LAP 150/600/3000 Copper  
 POLISH LAP Last Lap  
 POLISH AGENT 50,000 Diamond  
 DIMENSIONS 53x44x

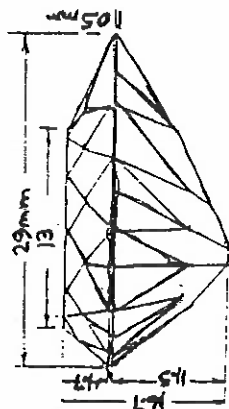
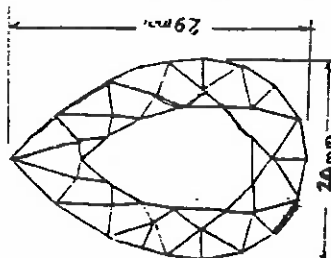
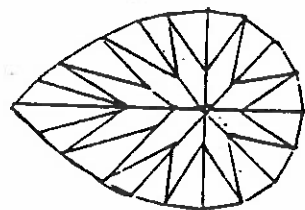


| PAVILION  |          |                                   | CROWN |      |                                   | INSTRUCTIONS                                                            |                                                           |
|-----------|----------|-----------------------------------|-------|------|-----------------------------------|-------------------------------------------------------------------------|-----------------------------------------------------------|
| STEP      | 4's      | INDEX SEQUENCE                    | STEP  | 4's  | INDEX SEQUENCE                    | INSTRUCTIONS                                                            | INSTRUCTIONS                                              |
| P-1       | 90       | 16-43                             | C-1   | 44   | 46-50-54-58-62                    | cut symmetrically to width                                              | Establish girdle thickness & balance around stone.        |
|           | 90       | 64                                |       |      | 2-6-10-14-18                      | cut to same depth as 16-43                                              | these will be recut.                                      |
|           | 90       | 32                                |       |      | 21-43-24-40-29-35                 | cut to total length 53mm                                                | Cut to girdleline                                         |
| CAM       | preform: | rough in with                     | C-2   | 37.5 | 64-56-8-16-748                    | 150 mesh final cut 600 mesh                                             |                                                           |
| PP-2      | 40       | 18-50                             |       | 36   | 22-42-32                          | cut to form slight wedge                                                |                                                           |
|           | 40       | 14-46-54-10-6-58                  | C-3   | 32   | 64-56-8-16-748                    | 62/? cut to meet at culet                                               | cut to ratio of C-2 to C-3 of 52% to 43%                  |
|           | 39.7     | 21-43                             |       | 30.5 | 22-42-32                          | "                                                                       | cut to form continuous line around stone.                 |
|           | 36.5     | 24-40                             |       |      |                                   | "                                                                       | cut table to size, place top, cut and polish table.       |
| PF-2      | 31.1     | 20-55                             |       | 0    |                                   | free wheeling in 45 degree                                              | 17/24 Cut to girdleline                                   |
|           | 90       | 14-18-16-50-54-10-6-58            | C-4   | 42   | 2/62-6/10-14-18-38/34-50/46-73/76 | 29/35 form continuous girdle                                            | cut to point at C-232 and point at girdleline.            |
| F-1       | 38.5     | 16-48                             |       |      |                                   | cut to slight wedge                                                     |                                                           |
|           | 38.5     | 8-56-64                           |       |      |                                   | cut to same depth & meet culet                                          |                                                           |
|           | 37.5     | 2-42                              |       | 41.  | 29/35                             | cut to meet culet                                                       |                                                           |
|           | 29.1     | 32                                |       |      |                                   | "                                                                       |                                                           |
| F-2       | 40.6     | 64                                |       |      |                                   | step facet & culet are equal                                            |                                                           |
|           | 40.6     | 8-56-16-48                        | C-5   | 25.3 | 74-60-12-52-18/74                 | cut to girdleline                                                       | cut to meet each other a point with C-2, 327.             |
|           | 39.2     | 22-42                             |       |      |                                   | "                                                                       |                                                           |
|           | 31.4     | 32                                |       | 25.0 | 21-43                             | "                                                                       |                                                           |
| F-3       | 44.6     | 2/62-6/10-14-18-38/34-50/46-73/76 |       | 20.5 | 24-40                             | recut 32                                                                |                                                           |
|           | 43       | 21-43                             |       | 23.0 |                                   |                                                                         |                                                           |
|           | 42       | 24-40                             |       |      |                                   |                                                                         |                                                           |
|           | 35       | 29-35                             |       |      |                                   |                                                                         |                                                           |
| polishing |          |                                   |       |      |                                   | Recut on a smooth copper lap                                            | 2. Recut with 3000 Daimon @ 1000 rpm using a light touch. |
|           |          |                                   |       |      |                                   | Order: P-3, 2 then think it looks better polished).                     | 2. 5, then 3 on a last diamond paste 1000 rpm             |
|           |          |                                   |       |      |                                   | Polish using last lap with 50,000 paste @ 1000 rpm using a light touch. | light touch. <i>Tom Tarbour</i>                           |



TYPE CUT. "Dresden Green" DESIGNER: Tom Barbour (Reference: Lapidary Journal Mar., 1961.)

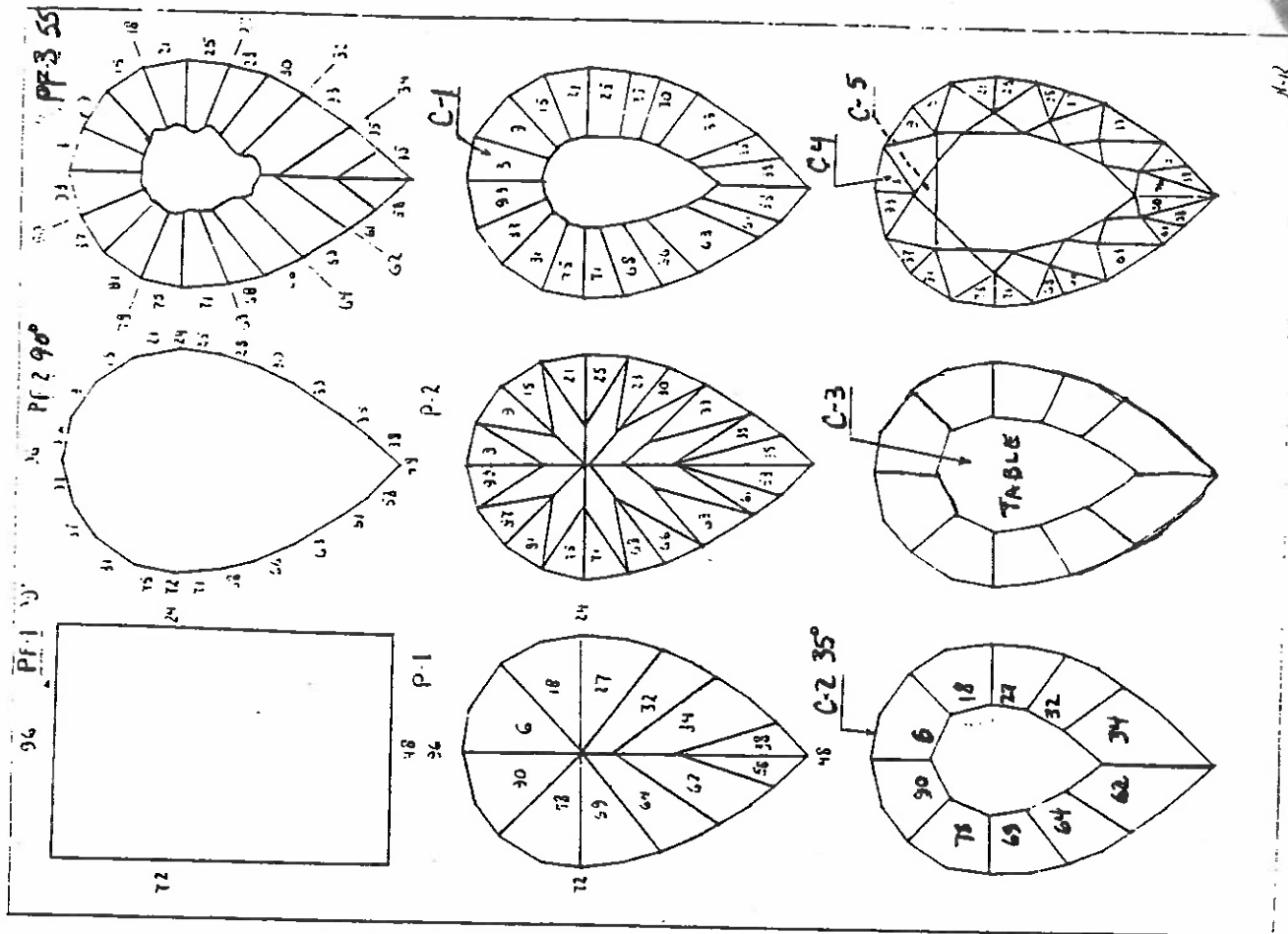
|            |                |              |               |
|------------|----------------|--------------|---------------|
| DATE       | 7/2/88         | NO.          | 311           |
| SPECIES    | Cubic Zirconia |              |               |
| COLOR      | Chartruse      |              |               |
| ORIGIN     | Synthetic      |              |               |
| WGT        | 148.5          | R.I.         | 2.18SP.GR.6.0 |
| DISP       | none           | BIREF.       | high          |
| HEAT       | SEN.           | none         | CR. 27.3      |
| ROUGH      | WT.            | 685          | FINAL         |
| COST       | DATE PUR.      |              |               |
| CUT        | LAP.           | 50/600/3000  | Commer        |
| POLISH     | LAP            | Last Lap     |               |
| POLISH     | AGENT          | 50.000       | Paste         |
| DIMENSIONS |                | 24x29x12.5mm |               |

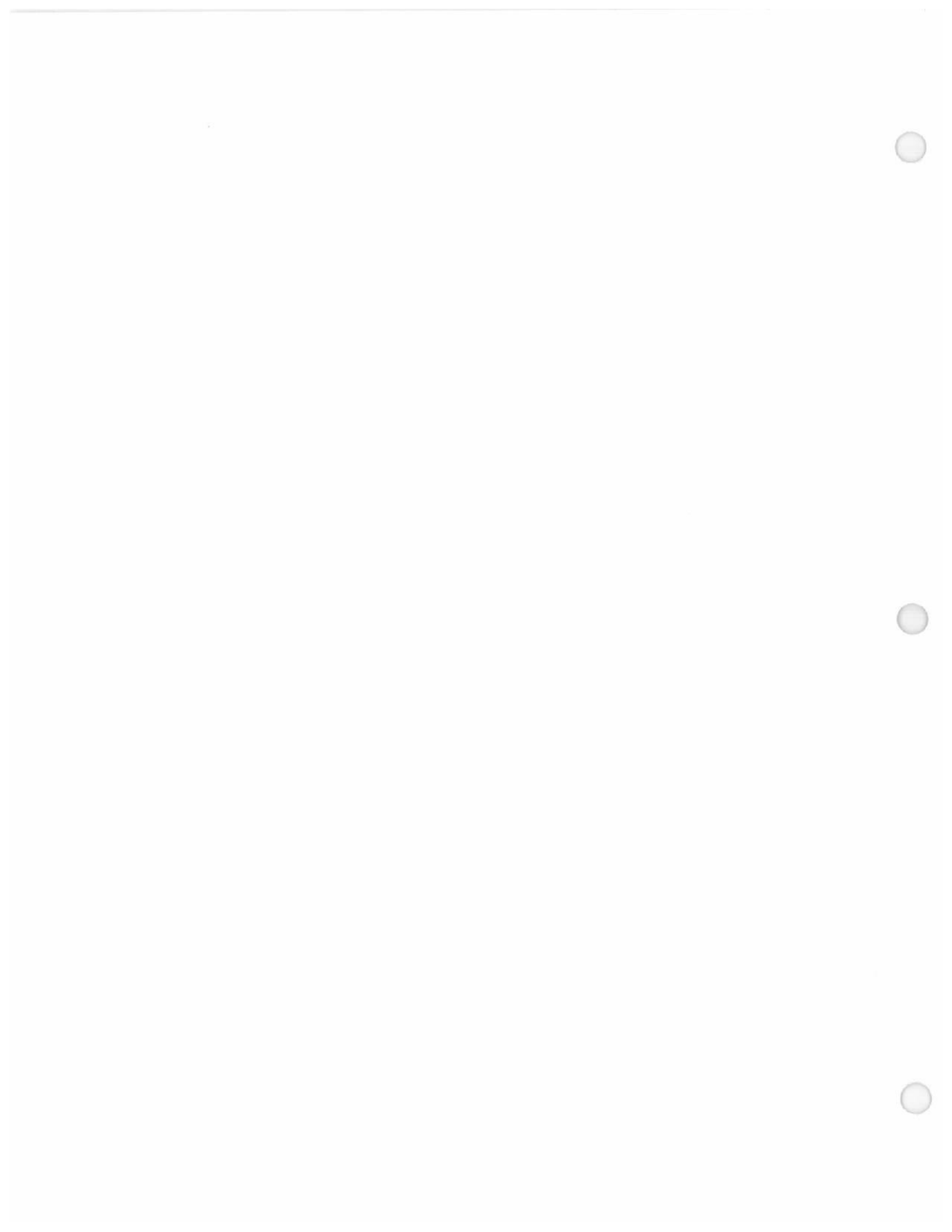


| Pavilion |      |       |    | Crown                        |      | Index  |                    | Sequence |                           | Instructions |  |
|----------|------|-------|----|------------------------------|------|--------|--------------------|----------|---------------------------|--------------|--|
| Step     | 4's  | Index | CE | Instructions                 | Step | 4's    | Index              | Sequence | Instructions              |              |  |
| P-1      | 90   | 24-72 |    | Cut to width                 | C-1  | 33     | 94/3-9/15-87/81-   | 25/71    | Cut to establish          |              |  |
|          | 90   | 96    |    | Cut to same depth            |      |        | 21/96-68/66-62/    |          | Girdle thickness, then    |              |  |
|          | 90   | 48    |    | Cut to length                |      |        | 35/38-58/61        |          | Balance girdleline.       |              |  |
| P-2      | 90   |       |    | rough cut 150 mesh           | C-2  | 35     | 90-6-18-78-60-7    |          | Cut to girdleline at cent |              |  |
|          |      |       |    | rough cut 150 mesh           |      |        | 32-64-62-74        |          | of each facet.            |              |  |
| P-3      | 55   |       |    | rough cut 150 mesh           | C-3  | 0      |                    |          | Cut table to width, then  |              |  |
|          |      |       |    | rough cut 150 mesh           |      |        | place in 45 degree |          | on copper chuck, polish   |              |  |
| P-4      | 40   |       |    | rough cut 150 mesh           | C-4  | 40     | with 3000 Italdo   |          | on Copper Lap Polish with |              |  |
|          |      |       |    | rough cut 150 mesh           |      |        | Fast Lap using 2   |          | 5,000paste @ 1000rpm.     |              |  |
| P-5      | 40   |       |    | rough cut 150 mesh           | C-5  | 24     | 93/3-9/15-21/25-   |          | 38/3- Cut to meet girdle  |              |  |
|          | 40   |       |    | rough cut 150 mesh           |      |        | 33-35/38-97/81-7   |          | 6/21- line, and point up  |              |  |
| P-6      | 40   |       |    | rough cut 150 mesh           | C-6  | 20     | 68/66-62-61/58     |          | at maint.                 |              |  |
|          | 40   |       |    | rough cut 150 mesh           |      |        | 46-50              |          | Cut to point up at girdle |              |  |
| P-7      | 40   |       |    | rough cut 150 mesh           | C-7  | 20     | 96-12-24-20-35-3   |          | Cut to meet each other    |              |  |
|          | 40   |       |    | rough cut 150 mesh           |      |        | 84-72-72-75-61-1   |          | girdle, and point up with |              |  |
| P-8      | 38.5 |       |    | Cut to meet 3 mm from cul    |      | Recn   | stone C-2, 4, 5    |          | C-4                       |              |  |
|          | 40.3 |       |    | Cut to meet at cullet circle |      | on a   | smooth Copper L    |          | using 3000 Italdo spray   |              |  |
| P-9      | 40.3 |       |    | Cut to meet at girdleline    |      |        |                    |          | up, pointing up all meet. |              |  |
|          | 41.2 |       |    | "                            |      | Polish | h with Last Lap    |          | using 50,000 paste        |              |  |
| P-10     | 41.4 |       |    | "                            |      | 1000   | rpm using a light  |          | touch, Polish order       |              |  |
|          |      |       |    | "                            |      |        |                    |          | C2, 4, 5.                 |              |  |
| P-11     |      |       |    | "                            |      |        |                    |          |                           |              |  |
|          |      |       |    | "                            |      |        |                    |          |                           |              |  |
| P-12     |      |       |    | "                            |      |        |                    |          |                           |              |  |
|          |      |       |    | "                            |      |        |                    |          |                           |              |  |
| P-13     |      |       |    | "                            |      |        |                    |          |                           |              |  |
|          |      |       |    | "                            |      |        |                    |          |                           |              |  |
| P-14     |      |       |    | "                            |      |        |                    |          |                           |              |  |
|          |      |       |    | "                            |      |        |                    |          |                           |              |  |
| P-15     |      |       |    | "                            |      |        |                    |          |                           |              |  |
|          |      |       |    | "                            |      |        |                    |          |                           |              |  |
| P-16     |      |       |    | "                            |      |        |                    |          |                           |              |  |
|          |      |       |    | "                            |      |        |                    |          |                           |              |  |
| P-17     |      |       |    | "                            |      |        |                    |          |                           |              |  |
|          |      |       |    | "                            |      |        |                    |          |                           |              |  |
| P-18     |      |       |    | "                            |      |        |                    |          |                           |              |  |
|          |      |       |    | "                            |      |        |                    |          |                           |              |  |
| P-19     |      |       |    | "                            |      |        |                    |          |                           |              |  |
|          |      |       |    | "                            |      |        |                    |          |                           |              |  |
| P-20     |      |       |    | "                            |      |        |                    |          |                           |              |  |
|          |      |       |    | "                            |      |        |                    |          |                           |              |  |
| P-21     |      |       |    | "                            |      |        |                    |          |                           |              |  |
|          |      |       |    | "                            |      |        |                    |          |                           |              |  |
| P-22     |      |       |    | "                            |      |        |                    |          |                           |              |  |
|          |      |       |    | "                            |      |        |                    |          |                           |              |  |
| P-23     |      |       |    | "                            |      |        |                    |          |                           |              |  |
|          |      |       |    | "                            |      |        |                    |          |                           |              |  |
| P-24     |      |       |    | "                            |      |        |                    |          |                           |              |  |
|          |      |       |    | "                            |      |        |                    |          |                           |              |  |
| P-25     |      |       |    | "                            |      |        |                    |          |                           |              |  |
|          |      |       |    | "                            |      |        |                    |          |                           |              |  |
| P-26     |      |       |    | "                            |      |        |                    |          |                           |              |  |
|          |      |       |    | "                            |      |        |                    |          |                           |              |  |
| P-27     |      |       |    | "                            |      |        |                    |          |                           |              |  |
|          |      |       |    | "                            |      |        |                    |          |                           |              |  |
| P-28     |      |       |    | "                            |      |        |                    |          |                           |              |  |
|          |      |       |    | "                            |      |        |                    |          |                           |              |  |
| P-29     |      |       |    | "                            |      |        |                    |          |                           |              |  |
|          |      |       |    | "                            |      |        |                    |          |                           |              |  |
| P-30     |      |       |    | "                            |      |        |                    |          |                           |              |  |
|          |      |       |    | "                            |      |        |                    |          |                           |              |  |
| P-31     |      |       |    | "                            |      |        |                    |          |                           |              |  |
|          |      |       |    | "                            |      |        |                    |          |                           |              |  |
| P-32     |      |       |    | "                            |      |        |                    |          |                           |              |  |
|          |      |       |    | "                            |      |        |                    |          |                           |              |  |
| P-33     |      |       |    | "                            |      |        |                    |          |                           |              |  |
|          |      |       |    | "                            |      |        |                    |          |                           |              |  |
| P-34     |      |       |    | "                            |      |        |                    |          |                           |              |  |
|          |      |       |    | "                            |      |        |                    |          |                           |              |  |
| P-35     |      |       |    | "                            |      |        |                    |          |                           |              |  |
|          |      |       |    | "                            |      |        |                    |          |                           |              |  |
| P-36     |      |       |    | "                            |      |        |                    |          |                           |              |  |
|          |      |       |    | "                            |      |        |                    |          |                           |              |  |
| P-37     |      |       |    | "                            |      |        |                    |          |                           |              |  |
|          |      |       |    | "                            |      |        |                    |          |                           |              |  |
| P-38     |      |       |    | "                            |      |        |                    |          |                           |              |  |
|          |      |       |    | "                            |      |        |                    |          |                           |              |  |
| P-39     |      |       |    | "                            |      |        |                    |          |                           |              |  |
|          |      |       |    | "                            |      |        |                    |          |                           |              |  |
| P-40     |      |       |    | "                            |      |        |                    |          |                           |              |  |
|          |      |       |    | "                            |      |        |                    |          |                           |              |  |
| P-41     |      |       |    | "                            |      |        |                    |          |                           |              |  |
|          |      |       |    | "                            |      |        |                    |          |                           |              |  |
| P-42     |      |       |    | "                            |      |        |                    |          |                           |              |  |
|          |      |       |    | "                            |      |        |                    |          |                           |              |  |
| P-43     |      |       |    | "                            |      |        |                    |          |                           |              |  |
|          |      |       |    | "                            |      |        |                    |          |                           |              |  |
| P-44     |      |       |    | "                            |      |        |                    |          |                           |              |  |
|          |      |       |    | "                            |      |        |                    |          |                           |              |  |
| P-45     |      |       |    | "                            |      |        |                    |          |                           |              |  |
|          |      |       |    | "                            |      |        |                    |          |                           |              |  |
| P-46     |      |       |    | "                            |      |        |                    |          |                           |              |  |
|          |      |       |    | "                            |      |        |                    |          |                           |              |  |
| P-47     |      |       |    | "                            |      |        |                    |          |                           |              |  |
|          |      |       |    | "                            |      |        |                    |          |                           |              |  |
| P-48     |      |       |    | "                            |      |        |                    |          |                           |              |  |
|          |      |       |    | "                            |      |        |                    |          |                           |              |  |
| P-49     |      |       |    | "                            |      |        |                    |          |                           |              |  |
|          |      |       |    | "                            |      |        |                    |          |                           |              |  |
| P-50     |      |       |    | "                            |      |        |                    |          |                           |              |  |
|          |      |       |    | "                            |      |        |                    |          |                           |              |  |
| P-51     |      |       |    | "                            |      |        |                    |          |                           |              |  |
|          |      |       |    | "                            |      |        |                    |          |                           |              |  |
| P-52     |      |       |    | "                            |      |        |                    |          |                           |              |  |
|          |      |       |    | "                            |      |        |                    |          |                           |              |  |
| P-53     |      |       |    | "                            |      |        |                    |          |                           |              |  |
|          |      |       |    | "                            |      |        |                    |          |                           |              |  |
| P-54     |      |       |    | "                            |      |        |                    |          |                           |              |  |
|          |      |       |    | "                            |      |        |                    |          |                           |              |  |
| P-55     |      |       |    | "                            |      |        |                    |          |                           |              |  |
|          |      |       |    | "                            |      |        |                    |          |                           |              |  |
| P-56     |      |       |    | "                            |      |        |                    |          |                           |              |  |
|          |      |       |    | "                            |      |        |                    |          |                           |              |  |
| P-57     |      |       |    | "                            |      |        |                    |          |                           |              |  |
|          |      |       |    | "                            |      |        |                    |          |                           |              |  |
| P-58     |      |       |    | "                            |      |        |                    |          |                           |              |  |
|          |      |       |    | "                            |      |        |                    |          |                           |              |  |
| P-59     |      |       |    | "                            |      |        |                    |          |                           |              |  |
|          |      |       |    | "                            |      |        |                    |          |                           |              |  |
| P-60     |      |       |    | "                            |      |        |                    |          |                           |              |  |
|          |      |       |    | "                            |      |        |                    |          |                           |              |  |
| P-61     |      |       |    | "                            |      |        |                    |          |                           |              |  |
|          |      |       |    | "                            |      |        |                    |          |                           |              |  |
| P-62     |      |       |    | "                            |      |        |                    |          |                           |              |  |
|          |      |       |    | "                            |      |        |                    |          |                           |              |  |
| P-63     |      |       |    | "                            |      |        |                    |          |                           |              |  |
|          |      |       |    | "                            |      |        |                    |          |                           |              |  |
| P-64     |      |       |    | "                            |      |        |                    |          |                           |              |  |
|          |      |       |    | "                            |      |        |                    |          |                           |              |  |
| P-65     |      |       |    | "                            |      |        |                    |          |                           |              |  |
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| P-66     |      |       |    | "                            |      |        |                    |          |                           |              |  |
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| P-67     |      |       |    | "                            |      |        |                    |          |                           |              |  |
|          |      |       |    | "                            |      |        |                    |          |                           |              |  |
| P-68     |      |       |    | "                            |      |        |                    |          |                           |              |  |
|          |      |       |    | "                            |      |        |                    |          |                           |              |  |
| P-69     |      |       |    | "                            |      |        |                    |          |                           |              |  |
|          |      |       |    | "                            |      |        |                    |          |                           |              |  |
| P-70     |      |       |    | "                            |      |        |                    |          |                           |              |  |
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| P-71     |      |       |    | "                            |      |        |                    |          |                           |              |  |
|          |      |       |    | "                            |      |        |                    |          |                           |              |  |
| P-72     |      |       |    | "                            |      |        |                    |          |                           |              |  |
|          |      |       |    | "                            |      |        |                    |          |                           |              |  |
| P-73     |      |       |    | "                            |      |        |                    |          |                           |              |  |
|          |      |       |    | "                            |      |        |                    |          |                           |              |  |
| P-74     |      |       |    | "                            |      |        |                    |          |                           |              |  |
|          |      |       |    | "                            |      |        |                    |          |                           |              |  |
| P-75     |      |       |    | "                            |      |        |                    |          |                           |              |  |
|          |      |       |    | "                            |      |        |                    |          |                           |              |  |
| P-76     |      |       |    | "                            |      |        |                    |          |                           |              |  |
|          |      |       |    | "                            |      |        |                    |          |                           |              |  |
| P-77     |      |       |    | "                            |      |        |                    |          |                           |              |  |
|          |      |       |    | "                            |      |        |                    |          |                           |              |  |
| P-78     |      |       |    | "                            |      |        |                    |          |                           |              |  |
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| P-79     |      |       |    | "                            |      |        |                    |          |                           |              |  |
|          |      |       |    | "                            |      |        |                    |          |                           |              |  |
| P-80     |      |       |    | "                            |      |        |                    |          |                           |              |  |
|          |      |       |    | "                            |      |        |                    |          |                           |              |  |
| P-81     |      |       |    | "                            |      |        |                    |          |                           |              |  |
|          |      |       |    | "                            |      |        |                    |          |                           |              |  |
| P-82     |      |       |    | "                            |      |        |                    |          |                           |              |  |
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| P-83     |      |       |    | "                            |      |        |                    |          |                           |              |  |
|          |      |       |    | "                            |      |        |                    |          |                           |              |  |
| P-84     |      |       |    | "                            |      |        |                    |          |                           |              |  |
|          |      |       |    | "                            |      |        |                    |          |                           |              |  |
| P-85     |      |       |    | "                            |      |        |                    |          |                           |              |  |
|          |      |       |    | "                            |      |        |                    |          |                           |              |  |
| P-86     |      |       |    | "                            |      |        |                    |          |                           |              |  |
|          |      |       |    | "                            |      |        |                    |          |                           |              |  |
| P-87     |      |       |    | "                            |      |        |                    |          |                           |              |  |
|          |      |       |    | "                            |      |        |                    |          |                           |              |  |
| P-88     |      |       |    | "                            |      |        |                    |          |                           |              |  |
|          |      |       |    | "                            |      |        |                    |          |                           |              |  |
| P-89     |      |       |    | "                            |      |        |                    |          |                           |              |  |
|          |      |       |    | "                            |      |        |                    |          |                           |              |  |
| P-90     |      |       |    | "                            |      |        |                    |          |                           |              |  |
|          |      |       |    | "                            |      |        |                    |          |                           |              |  |
| P-91     |      |       |    | "                            |      |        |                    |          |                           |              |  |
|          |      |       |    | "                            |      |        |                    |          |                           |              |  |
| P-92     |      |       |    | "                            |      |        |                    |          |                           |              |  |
|          |      |       |    | "                            |      |        |                    |          |                           |              |  |
| P-93     |      |       |    | "                            |      |        |                    |          |                           |              |  |
|          |      |       |    | "                            |      |        |                    |          |                           |              |  |
| P-94     |      |       |    | "                            |      |        |                    |          |                           |              |  |
|          |      |       |    | "                            |      |        |                    |          |                           |              |  |
| P-95     |      |       |    | "                            |      |        |                    |          |                           |              |  |
|          |      |       |    | "                            |      |        |                    |          |                           |              |  |
| P-96     |      |       |    | "                            |      |        |                    |          |                           |              |  |
|          |      |       |    | "                            |      |        |                    |          |                           |              |  |
| P-97     |      |       |    | "                            |      |        |                    |          |                           |              |  |
|          |      |       |    | "                            |      |        |                    |          |                           |              |  |
| P-98     |      |       |    | "                            |      |        |                    |          |                           |              |  |
|          |      |       |    | "                            |      |        |                    |          |                           |              |  |
| P-99     |      |       |    | "                            |      |        |                    |          |                           |              |  |
|          |      |       |    | "                            |      |        |                    |          |                           |              |  |
| P-100    |      |       |    | "                            |      |        |                    |          |                           |              |  |
|          |      |       |    | "                            |      |        |                    |          |                           |              |  |
| P-101    |      |       |    | "                            |      |        |                    |          |                           |              |  |
|          |      |       |    | "                            |      |        |                    |          |                           |              |  |
| P-102    |      |       |    | "                            |      |        |                    |          |                           |              |  |
|          |      |       |    | "                            |      |        |                    |          |                           |              |  |
| P-103    |      |       |    | "                            |      |        |                    |          |                           |              |  |
|          |      |       |    | "                            |      |        |                    |          |                           |              |  |
| P-104    |      |       |    | "                            |      |        |                    |          |                           |              |  |
|          |      |       |    | "                            |      |        |                    |          |                           |              |  |
| P-105    |      |       |    | "                            |      |        |                    |          |                           |              |  |
|          |      |       |    | "                            |      |        |                    |          |                           |              |  |
| P-106    |      |       |    | "                            |      |        |                    |          |                           |              |  |
|          |      |       |    | "                            |      |        |                    |          |                           |              |  |
| P-107    |      |       |    | "                            |      |        |                    |          |                           |              |  |
|          |      |       |    | "                            |      |        |                    |          |                           |              |  |
| P-108    |      |       |    | "                            |      |        |                    |          |                           |              |  |
|          |      |       |    | "                            |      |        |                    |          |                           |              |  |
| P-109    |      |       |    | "                            |      |        |                    |          |                           |              |  |
|          |      |       |    | "                            |      |        |                    |          |                           |              |  |
| P-110    |      |       |    | "                            |      |        |                    |          |                           |              |  |
|          |      |       |    | "                            |      |        |                    |          |                           |              |  |
| P-111    |      |       |    | "                            |      |        |                    |          |                           |              |  |
|          |      |       |    | "                            |      |        |                    |          |                           |              |  |
| P-112    |      |       |    | "                            |      |        |                    |          |                           |              |  |
|          |      |       |    | "                            |      |        |                    |          |                           |              |  |
| P-113    |      |       |    | "                            |      |        |                    |          |                           |              |  |
|          |      |       |    | "                            |      |        |                    |          |                           |              |  |
| P-114    |      |       |    | "                            |      |        |                    |          |                           |              |  |
|          |      |       |    | "                            |      |        |                    |          |                           |              |  |
| P-115    |      |       |    | "                            |      |        |                    |          |                           |              |  |
|          |      |       |    | "                            |      |        |                    |          |                           |              |  |
| P-116    |      |       |    | "                            |      |        |                    |          |                           |              |  |
|          |      |       |    | "                            |      |        |                    |          |                           |              |  |
| P-117    |      |       |    | "                            |      |        |                    |          |                           |              |  |
|          |      |       |    | "                            |      |        |                    |          |                           |              |  |
| P-118    |      |       |    | "                            |      |        |                    |          |                           |              |  |
|          |      |       |    | "                            |      |        |                    |          |                           |              |  |
| P-119    |      |       |    | "                            |      |        |                    |          |                           |              |  |
|          |      |       |    | "                            |      |        |                    |          |                           |              |  |
| P-120    |      |       |    | "                            |      |        |                    |          |                           |              |  |
|          |      |       |    | "                            |      |        |                    |          |                           |              |  |
| P-121    |      |       |    | "                            |      |        |                    |          |                           |              |  |
|          |      |       |    | "                            |      |        |                    |          |                           |              |  |
| P-122    |      |       |    | "                            |      |        |                    |          |                           |              |  |
|          |      |       |    | "                            |      |        |                    |          |                           |              |  |
| P-123    |      |       |    | "                            |      |        |                    |          |                           |              |  |
|          |      |       |    | "                            |      |        |                    |          |                           |              |  |
| P-124    |      |       |    | "                            |      |        |                    |          |                           |              |  |



"DRESDEN GREEN"





Diamond Replica

TYPE CUT: "Florentine" DESIGNER: Tom R. Barbour (reference Lapidary Journal Mar. 1961)

DATE 11/6/880.315

SPECIES Cubic Zirconia

COLOR light greenish vel.

ORIGIN Synthetic

W 8.5 R.I. 2.18 P.GR. 6.0

DISMONE BIREF. high

HEAT SENS none CR. 27.3

ROUGH WT 0.16 FINAL 261.

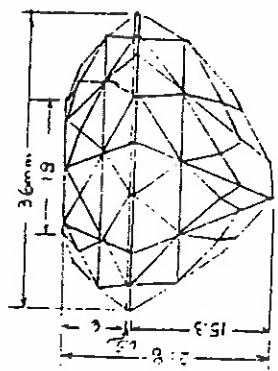
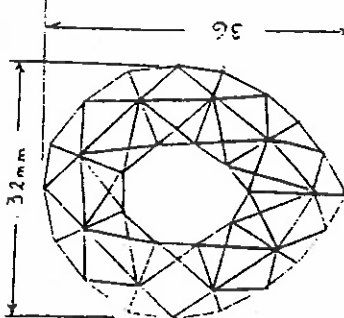
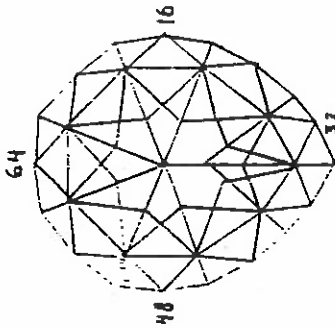
COST DATE PUR.

CUT LAP 150/660/3000000

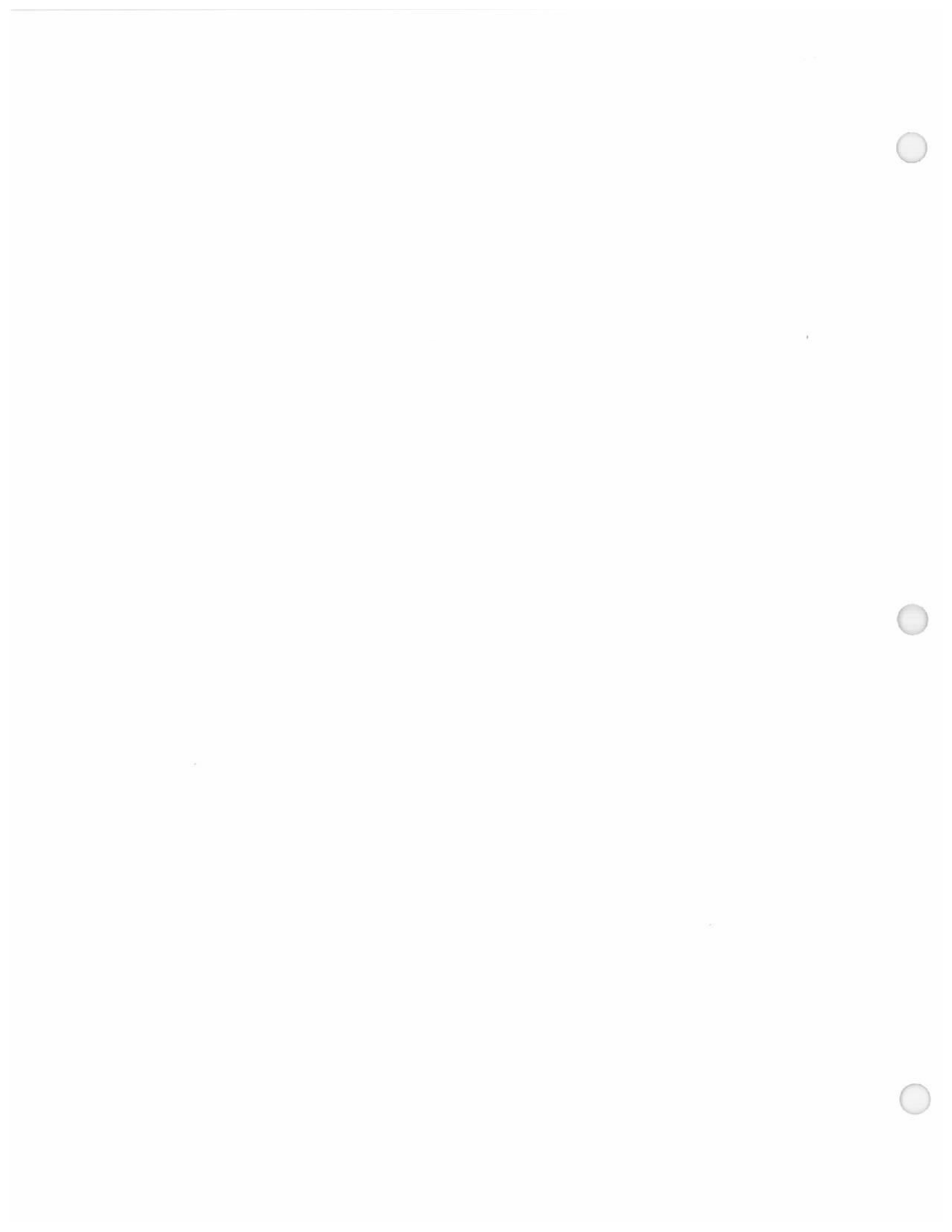
POLISH LAP Last lap

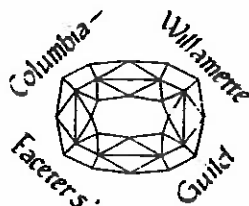
POLISH AGENT 50,000 diam

DIMENSIONS 32x36x14.5mm



| PAVILION  |     |                     | CROWN                   |     |       | INSTRUCTIONS                         |     | INSTRUCTIONS |     |
|-----------|-----|---------------------|-------------------------|-----|-------|--------------------------------------|-----|--------------|-----|
| STEP      | 4's | INDEX               | STEP                    | 4's | INDEX | STEP                                 | 4's | STEP         | 4's |
| P-1       | 90  | 16-48               |                         |     |       | C-1                                  | 55  |              |     |
|           | 90  | 64-8-56             |                         |     |       |                                      |     |              |     |
|           | 90  | 26-38               |                         |     |       |                                      |     |              |     |
|           | 90  | 22-42               |                         |     |       |                                      |     |              |     |
| P-2       | 55  | equals 16/48. Rough |                         |     |       |                                      |     |              |     |
| P-3       | 90  | 64-8/56-48/16-      |                         |     |       |                                      |     |              |     |
|           |     | 22/42-26/38         |                         |     |       |                                      |     |              |     |
| P-1       | 40  | 63/1-7/9-55/57-     |                         |     |       |                                      |     |              |     |
|           |     | 49/47-15/17-21/23   |                         |     |       |                                      |     |              |     |
| P-2       | 49  | 43/41-39/37-25/27   |                         |     |       |                                      |     |              |     |
|           |     | 16-48-56-8-64-22-   |                         |     |       |                                      |     |              |     |
| P-3       | 46  | 38-26               |                         |     |       |                                      |     |              |     |
|           |     | 64-56-8-16-48-42    |                         |     |       |                                      |     |              |     |
| P-4       | 53  | 22-26-38            |                         |     |       |                                      |     |              |     |
|           |     | 64-56-8-16-48-42    |                         |     |       |                                      |     |              |     |
| P-5       | 42  | 1/63-7/9-15/17-     |                         |     |       |                                      |     |              |     |
|           |     | 21/23-25/27-32-56   |                         |     |       |                                      |     |              |     |
|           |     | 49/47-43/41-39/37   |                         |     |       |                                      |     |              |     |
|           |     | 63/1-7/9-15/17-     |                         |     |       |                                      |     |              |     |
|           |     | 21/23-25/27-57/59   |                         |     |       |                                      |     |              |     |
|           |     | 49/47-43/41-39/37   |                         |     |       |                                      |     |              |     |
| Polishing |     |                     | Order: Polish with      |     |       | Pre-polish using 3000                |     |              |     |
|           |     |                     | paste @ 1000 rpm        |     |       | lap @ 300rpm. ORDER C-               |     |              |     |
|           |     |                     | with a light touch.     |     |       | necessary to cause meat              |     |              |     |
|           |     |                     | -4, P-2, P-5, P-3, P-1, |     |       | being formed. Then cut               |     |              |     |
|           |     |                     | girdle is optional      |     |       | POLISH ORDER: C-1, P-5, P-3, then P- |     |              |     |





Dear Faceters;

This letter is to arouse your interest in the 1990 Australian-USA Faceting Challenge. In this biennial event, the top five cutters from the USA compete with the top five Australian cutters, for the best team score. Four stones are cut by each entrant to a specified design, from a designated mineral to a size usually in the 10 to 15 mm range.

In the past, U.S. entrant stones have all been submitted to a central group of judges, who then select the best five groups of four stones from those submitted. These are then placed in competition against the five best Australian groups of four.

The U.S. team won the first years Challenge (1986) by a narrow margin. The Australian team won the 1988 Challenge with a team score of 1962 to the U.S. team score of 1922.

The Australian team had individual scores from 393.8 to 391.6. A difference of only 2.2 points from high to low. The American team had individual score from 393.1 to 372.6. A difference of 20.5 points. The Australian teams achieved their high group scores by having their stones pre-graded, giving the cutters a chance at re-working or re-cutting before final submission.

If each USA Guild would encourage their cutters to enter the 1990 competition; and have a committee pre-judge the stones to give their faceters a chance to make any necessary improvements, before final submission; we could win the cup back in 1990.

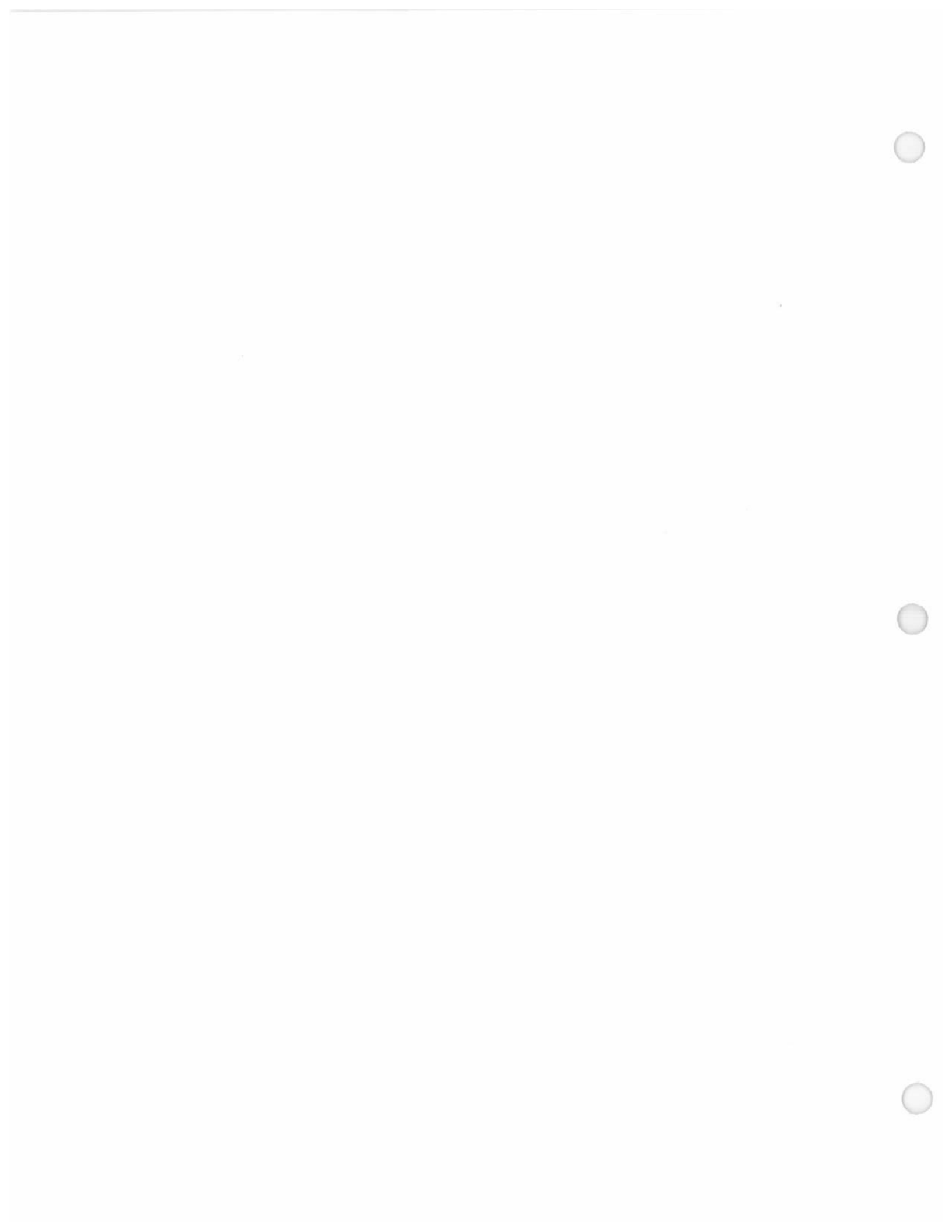
This is an opportunity for each Guild or group of Guilds to work together. Encouraging their members to do their best cutting. This would be a way to encourage team spirit and cooperation where only very fine faceting will win.

Enclosed are the diagrams of the stones to be cut and some information about the Challenge. Please write and let me know how much interest there is in your Guild and how CWFG can help stimulate interest with your members. If enough people get interested, it will stimulate an interest in competition.

For better faceting,

Sid Word, USA Chairman,  
Australian-USA Faceting Challenge  
8760 S.W. Birch St.  
Portland, Oregon 97223  
Phone: (503) 246-8684

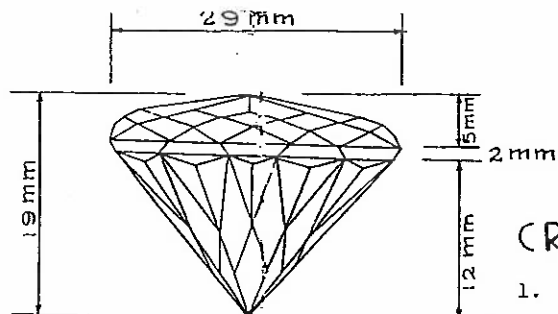




from: April, MEET POINTS.

# THE CENTENNIAL CUT

by W. "Bill" Moldwin  
Richmond, B.C.



## CROWN

1. grind 16 girdle facets @  $90^{\circ}$ ; Index 64 - 4 - 8 - 12 - 16 - 20 - 24 - 28 - 32 - 36 - 40 - 44 - 48 - 52 - 56 - 60

2. grind 16 facets @  $42^{\circ}$ ; Index 64 - 4 - 8 - 12 - 16 - 20 - 24 - 28 - 32 - 36 - 40 - 44 - 48 - 52 - 56 - 60

3. grind 8 girdle facets @  $85^{\circ}$ ; Index 64 - 8 - 16 - 24 - 32 - 40 - 48 - 56

4. grind 8 girdle facets @  $95^{\circ}$ ; Index 4 - 12 - 20 - 28 - 36 - 44 - 52 - 60

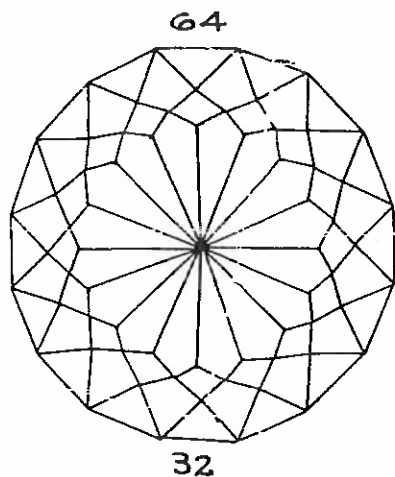
Make a straight line on crown girdle edge.

5. grind 16 facets @  $38^{\circ}$ ; Index 62 - 2 - 6 - 10 - 14 - 18 - 22 - 26 - 30 - 34 - 38 - 42 - 46 - 50 - 54 - 58

6. grind 16 facets @  $23^{\circ}$ ; Index 64 - 4 - 8 - 12 - 16 - 20 - 24 - 28 - 32 - 36 - 40 - 44 - 48 - 52 - 56 - 60

7. grind 16 facets @  $10^{\circ}$ ; Index 62 - 2 - 6 - 10 - 14 - 18 - 22 - 26 - 30 - 34 - 38 - 42 - 46 - 50 - 54 - 58

Polish crown facets in this order: Nos. 7 - 6 - 5 - 2 - 3 - 4



- CROWN -

## PAVILION

1. grind 16 facets @  $42^{\circ}$ ; Index 62 - 2 - 6 - 10 - 14 - 18 - 22 - 26 - 30 - 34 - 38 - 42 - 46 - 50 - 54 - 58

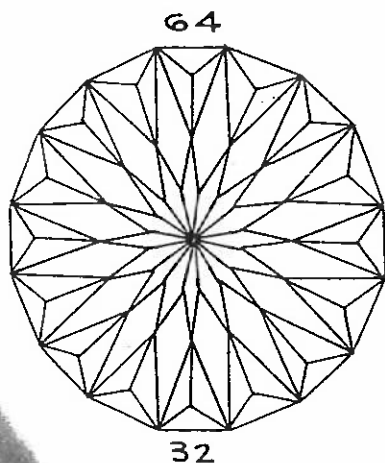
Make the girdle 2 mm. wide.

2. grind 16 facets @  $75^{\circ}$ ; Index 64 - 4 - 8 - 12 - 16 - 20 - 24 - 28 - 32 - 36 - 40 - 44 - 48 - 52 - 56 - 60

3. grind 32 facets @  $43^{\circ}$ ; Index 1 - 3 - 5 - 7 - 9 - 11 - 13 - 15 - 17 - 19 - 21 - 23 - 25 - 27 - 29 - 31 - 33 - 35 - 37 - 39 - 41 - 43 - 45 - 47 - 49 - 51 - 53 - 55 - 57 - 59 - 61 - 63

4. grind 16 facets @  $40^{\circ}$ ; Index 64 - 4 - 8 - 12 - 16 - 20 - 24 - 28 - 32 - 36 - 40 - 44 - 48 - 52 - 56 - 60

Polish pavilion facets in this order: Nos. 4 - 1 - 3 - 2.



- PAVILION -



## SECRETARY'S REPORT

BOARD OF DIRECTORS

The Board of Directors of the Midwest Faceters Guild was called to order at 10:25 AM on Saturday, March 18, 1989 in Angelo's Spaghetti House, Toledo, Ohio. Those in attendance were President, Bill Horton, Elery Holt, Frances Bush, Dorothy Loyd, Edward Myers, Gail Sahr, Don Sahr, June Ramshaw and Harold Rice.

The Secretary's report was accepted as published through a motion by Ed Myers and seconded by Gail Sahr. Additions to the minutes included a recommendation by Ed Myers that unless the Midwest Faceters Guild can have a say in the management, that we do not participate in the judging at the Australian-American Competition. Elery Holt reminded the Board of our policy not to publish the monetary part of our treasurer's report and not to have Club or personal ads published in our Bulletin.

Elery Holt stated the bank needs verification or our tax number. Harold Rice will check to see if our Non-Profit status has been kept up with the state.

The Treasurer's report was accepted as printed by Elery Holt and filed for audit through a motion made by Ed Myers and seconded by June Ramshaw.

OLD BUSINESS:

Gail Sahr will send Show Information to the two major magazines. Will also get the material from Mary Wilson to copy. Show packets will be mailed out as soon as available, (possibly August).

Bill Horton will apply for the permit from the State of Michigan to conduct our raffle at our Show. Joe Manina was to have done it, but due to ill health he turned it over to Bill.

Lansing show is the same date as ours and may have a conflict of dealers and attendance. Hopefully both will be successful and members will attempt to participate in both Shows.

Ed stated that he has the electrical layouts for the Show, but John Gansen already has a copy. Bill Horton kept complete records of the Guild functions

when he was president before and were compiled in a note book for permanent record.

Gail Sahr opened discussion on having a "Hospitality Room" where dealers and members can relax in the evenings after the show closes. All agreed it should be a special room, rather than a member's room. Ed Myers made a motion, "To secure a special hospitality room". The motion was seconded by Harold Rice and carried. Don and Gail Sahr will see if a conference room will be available at the Fairlaine Inn.

Harold Rice will take care of the Medals and trophies.

Dorothy Loyd will provide a list of necessary expenses to secure the speakers and programs for the Show. Programs thus far include the GIA, Chatam Emeralds, Bill Horton and Miner's Den.

Bernard Bush reminded those present that plans for the symposium at the Midwest Federation Convention in Kalamazoo, Michigan, needs to be decided. Elery Holt made a motion, "To have a symposium in conjunction with the demonstrating booth at Kalamazoo". Harold Rice seconded the motion and it carried. Those suggested to participate in the symposium were: Harold Rice, Bill Horton, Bill Schell, George Judd, Jim Schlottman, Ed Daniels and Art Kalinski. Harold Rice will contact Kitty Starbuck to make arrangements for the time slots and dates.

Bill Horton reported on the organizational meeting of the faceters guild that met in Tuscon in February. The New Mexico Guild hosted the meeting. The name voted upon by those present was, "North American Faceters Guild" and the bulletin would be called "Facet World". There are seven Federation and four were represented.

E Myers made a motion, "That the Midwest Faceters Guild become a member of the North American Faceters Guild". Don Sahr seconded the motion and it was opened for discussion. Ed then amended his motion to read, "Providing a letter of intent is sent to each Guild and if



## SECRETARY'S MINUTES (cont'd)

doesn't fly within one year, the idea will be cancelled". A vote was taken on the ammendment and it carried unaniously. A vote was than taken on the motion and it carried with a 7-2 vote. The motion will be presented to the membership for discussion for acceptance or rejection.

A letter of intent will be sent to each facetors guild for final acceptance or denial. If the response is not favorable, the Midwest Faceters Guild will drop any futher action to organize a national guild.

Gail Sahr made a motion, "To adjourn for lunch". Don Sahr seconded the motion and it carried. Meeting adjourned at 12:06 PM.

Respectfully submitted,  
Frances Bush, Secretary.

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MEMBERSHIP MEETING MINUTES

President, Bill Horton called the Membership Meeting of the Midwest Faceters Guild to order at 1:25 PM on March 18, 1989 in Angelo's Spaghetti House, Toledo, Ohio.

The minutes were approved as published in the Midwest Faceter through a motion made by Gail Sahr and seconded by Bernard Bush.

The Treasurer's report was accepted as read and filed for audit, through a motion made by Art Kalinski and seconded by Bon Duritsky.

## OLD BUSINESS:

Raffle Chairman, Bernard Bush needs prizes for the raffle. Prizes to date are a 14K Gold Ruby necklace and earrings, donated by Bill Schell; A light blue Tourmaline ring donated by George Judd and a Blue Topaz 14K Gold Pendant donated by Gail & Don Sahr. Many other raffle prizes are needed for a successful event. Please notify any Board Member or Bernie Bush for your special donation. Any item will be greatly appreciated.

Rules Chairman, Ed Daniels,

absent, no report.

Historian, Vivian Randall, absent, no report.

Membership, Bill Gardiner, absent, no report.

Editor, George Judd, absent no report.

Hospitality, June Ramshaw, no report.

Vice President, Joe Manina, absent due to illness.

The progarm for the Flint meeting has not been finalized, but should be most interesting if plans materialize, according to Dororty Loyd, Program Chairman.

Special Competition Chairman, Ed Myers stated that the required cuts have been published for the American-Australian Competition and he urged every member to participate so the Americans can retrieve the trophy.

The Tuscon meeting to organize the National Faceting Guild was held February 8th & 9th. The By-Laws and Rules were accepted as printed. The name selected by vote from those submitted was "NORTH AMERICAN FACETORS GUILD" and the name of the bulletin will be "FACET WORLD". There were 21 people present, representing four of the seven federations. The Midwest Faceters Guild has done the ground work spending time and expenses over the last nine years to get this organization into being for the purpose of establishing National Uniform Rules & Regulations so guidelines for judging and exhibiting will primarily be the same world wide for the purpose of promoting the Art, Science, and Craft of Faceting through Educating its members and introducing the public to faceting and upgrade faceting by providing seminars and programs. Ed Myers made a motion, To accept joining the North American Facetors Guild, after a letter of intent is mailed to each Guild, with the contingency that it succeeds in one year or it will be dissolved." Harold Boyne seconded the motion and it carried by a majority vote, with four voting in opposition.

The Midwest Faceters Guild will submit a membership, with reservation,

(NEXT PAGE, PLEASE)



## SECRETARY'S MINUTES (cont'd)

to get the organization going within one year or the entire format will be cancelled and the North American Faceters Guild will cease to exist, with no further attempt to organize will be made because of the time and expense involved. A letter of intent will be mailed to each known faceters guild for instant acceptance or denial.

Ed Myers made a motion, "That the Midwest Faceters Guild will financially support our representative to the North American Faceters Guild with up to \$500.00 for reasonable and necessary expenses." Motion was seconded by Gail Sahr and carried.

Kathleen Myers suggested Harold Rice be our representative to the North American Faceters Guild Meeting, but he declined. Ed Myers nominated Bill Horton and he declined. Ed Myers made a motion, "To table the nomination to give the Federations time to organize." Harold Rice seconded the motion and it carried. A representative will be chosen when deemed necessary.

Kathleen Myers still has two vests available to members. Kathleen invested her own funds to purchase the vests and Harold Rice made a motion, "To reimburse Kathleen for the two remaining vests." Motion was seconded by Al Gair and carried. To order additional vests, they must be ordered by the dozen at a cost of \$17.10 per vest, plus \$6.00 for the embroidery of the patch. The Blue faceters pins may be ordered at a cost of \$125 for the dye set and the green ones

with the dates, the dye would be \$110. Harold Rice made a motion, "That Kathleen order 300 Red Pins that will be sold for \$3.00 each". Gail Sahr seconded the motion and it carried. The vests and pins will be sold in our Club Booth at our Show.

The next meeting will be June 3rd, in Flint, Michigan at the Exit Restaurant & Motel.

Harold Rice will contact Kitty Starbuck to make arrangements for our Symposium and Demonstrating Booth at Kalamazoo. Those suggested for the Symposium were: Bill Horton, Harold Rice, Bill Schell, Steve Louton, Jim Schlottman, and Art Kalinski. Those to work in the Booth are: Bernie Bush, Tony West, Don Sahr, Art Kalinski, Elery Holt and the Medlens. Dorothy Loyd will compose the topics to be used for the Symposium.

President Horton suggested we support other local Shows: Columbus, OH, April 1 & 2; MGAGS, June 17 & 18th at Kalamazoo Valley Community College; Midwest Federation at Kalamazoo, June 22-25th; Jackson, MI, April 21-23rd; Stow, OH, April 29th & 30th; Mt. Clemens, MI, April 14-15th; Dearborn, May 19-21st; Lima, OH June 3 & 4th; Toledo, OH, September 8-10th; Lansing, MI, October 27th-29th.

Gail Sahr made a motion, "To adjourn". Seconded by Harold Rice and carried. Meeting adjourned at 3:27 PM.

Due to the length of the meeting and the expected bad weather, the program that was to be presented by Bernie Bush was cancelled. Thank you, Bernie for your time and effort.

Respectfully submitted,  
Frances Bush, Secretary.

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Visit the MIDWEST FACETERS GUILD BOOTH and SEMINAR  
at the  
MIDWEST FEDERATION CONVENTION and SHOW  
COUNTY CENTER BLDG. : KALAMAZOO COUNTY FAIRGROUNDS  
2900 LAKE STREET  
KALAMAZOO, MICHIGAN  
JUNE 22nd through JUNE 25TH, 1989.

