Ultra Tec

OWNERS' NEWSLETTER

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December 1981

Dear Ultra Tec Owner,

I started dictating this newsletter last summer and I am getting around to finishing it now. You old timers will probably say "what else is new." For the new Ultra Tec facetors among you however, this is a way of explaining that you can not set your watch by Ultra Tec newsletters, but you can at least set your calendar. We usually come up with two letters a year.

We participated in several shows this past Fall, the California Federation Show which was in Anaheim and the Faceters' Guild of Southern California Show in Long Beach, both of them "right in our backyard," Conversations with facetors and potential facetors at both shows lend support to the idea that the surge of interest in faceting relates more than ever to the economic value of colored gemstones.

GLENN KLEIN

At the California Federation Show the major interest to us was the faceting competitions. We were exceedingly pleased that the major competition, The Best Case Award, went to Glenn Klein. Glenn is an Ultra Tec facetor from Santa Ana, California. He was the winner of the 1980 Ultra Tec Award and has won a number of other important awards. We feel he is on his way to the National Award in the future. At the Anaheim Show Glenn also won first place in the O'Brien Trophy Competition and was only one point from the leader in the Johansen Trophy Competition. At least Glenn Klein has something to aim at future Federation Shows.

The winner of the Johansen Award was Susan Masoner, not an Ultra Tec facetor. We were pleased to see a young woman win, however, and we hope that her participation in faceting offers encouragement to young people and women in what has been a not-so-young-man dominated activity.

The second annual Faceters' Guild of So. California in Long Beach was quite successful with the attendance surpassing last year. For the competitions Glenn Vargas was the single judge with the Best Case Award going to Spence Barnhart of Chula Vista. Mr. Barnhardt is an old time facetor who has been active with the San Diego Mineral and Gem Club for many years. The winner of the speed competition at this show for the second year in a row was Ultra Tec facetor Richard Mall. That competition is interesting since it is judged on speed as well as quality of the cutting and is a good competition for professionals and semi-professionals.

As we write this newsletter, the first Midwest Faceters Fair is coming up at the end of October in Dearborn, Michigan. And, the way time flies, the original Faceters Fair in San Jose will be right around the corner in January. We encourage you to participate in the competitions. We realize that preparation for a "Best Case" competition is a Herculean task, but

most faceting shows these days include one stone, three stone, or five stone competitions. In most cases the smaller competitions are based on workmanship only. And almost every faceter can find enough time to participate in them. There is nothing like a competition for sharpening up your skills.

With a few new things to announce in this letter, I don't like to take up the space talking about an old thing-but; I've come to a realization about our Dial Indicator Attachment. When we announced the Dial Indicator Attachment at the beginning of this year, I said we did it "reluctantly, but we did it right." Now, with some months of experience, I'm very sorry about the word "reluctantly"-because with months of experience I now think the Dial Indicator is great. It has proven to be an incredible time saver for most people who use it. I found that I had relatively little time available for faceting and consequently did not use my Ultra Tec very frequently-I could rarely put together more than a few hours. Using the Dial Indicator Attachment, however, those few hours are all I need (and it it is a marvelous few hours of relaxation). I have been the sort of faceter who inspects, inspects, and inspects. In using the Dial Indicator Attachment, I find my inspection time is much reduced and consequently, the total time is reduced. Since Janurary I have had one on my machine at home and use it all the time and just would not take it off for anything.

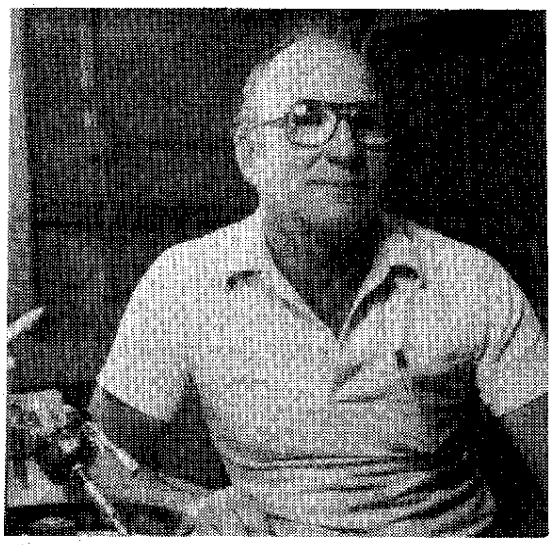
Worth mentioning is that it can be used to cut facets at .1° positions, which is nice when using the recent faceting designs that are in terms of decimal parts of a degree (mostly because they are computer generated). The instructions with the Dial Indicator describe the way of setting up .1° intervals. The earliest instructions that we sent out, incidently, did not include that information and those of you who would like to receive instructions, just drop us a line. Speaking of .1° increments this is a good spot to pass along some information about the Index Vernier (the cheater). The spaces on that dial are also in .1° increments. That information somehow slipped out of our instructions during the time when all faceting instructions were in whole degrees or fractions of a degree. We were ahead of our time.

So much for "old things"-on to new things: Finally, finally, our article "The Economics of Semi-Pro Faceting" is back from the printer. It is a sort of follow up to"The Economics of Amateur Faceting." If you want a copy of either, or both, send us a self-addressed, stamped envelope.

In the past we have explained Ultra Tec's evolutionary design policy, that is, any upgrading of design is done so as not to make existing equipment obsolete. Well, we have been doing some evolving--and I think that many of you will be interested in these design changes: We have redesigned the front end-- the holding end-- of the dop chuck. The result is a design which offers improved accuracy and consistency of manufacture. In this new design we have eliminated the need to use an Allen key and instead the dop is locked into place by twisting the front collar. These dop chucks will work with your existing machine; they are now the standard chucks that we ship.

Once we let Warren loose in this area, we could not stop him. So, we also are announcing a new design of the spindle-chuck system. This system utilizes the new chuck front end described above, but changes the back end of the chuck, its interface with the spindle. Instead of using a locking taper and an offset key to pull the chuck in, chuck retention is accomplished through a threaded draw rod. The taper at the interface between the chuck and the spindle performs an alignment function, while

the draw rod locks the chuck in place. Also, there is a new keying arrangement in this design. For those of you who are machinists this is very similar to the collet-spindle arrangement on a milling machine. It is possible for you to retrofit your machine with this new spindle/ chuck system. Both of these designs-the new standard chuck and the new chuck/spindle system are further described on an enclosed page.



BILL DOBO

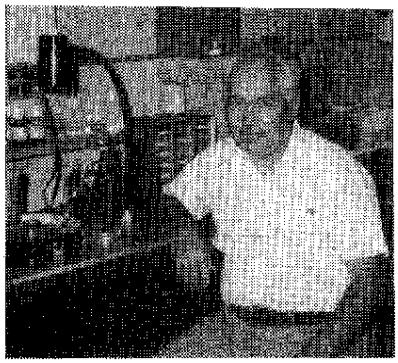
Also new are two items that we showed at the California Federation Show: an Automatic Oscillator and a Spindle Rotator. There is descriptive information about these items included with this letter. We owe a vote of thanks to Bill Dobo in regard to the oscillator, since he lead the way in its development. As we have mentioned previously, Bill is an inventive facetor and has many good ideas.

Earlier this year we got a letter from August Luchini, who many of you may remember as a National Award Winner a few years back. In winning his National Award he had a score of 99 which included a perfect score for workmanship--so when Mr. Luchini speaks about faceting he knows whereof he speaks. He wrote about a new polishing lap, not new in terms of material, but interestingly new in terms of construction. With his permission I quote from his letter:

A lot of faceters would agree that quartz is a troublesome material to polish. One popular polishing method is easy to use, but it rounds the facets. The metal laps give flat facets, but I for one find them almost impossible on quartz and I do not think they will give as good a polish as Cerium Oxide on Lucite.

I for one feel that most polishing problems are the fault of the polish itself such as a microscopic portion of the polish hardening under the pressure and heat generated at the point of contact. This hardened polish rolls under the facet creating a scratch. I think this is demonstrated with the Ultra Laps which practically never scratch. Their only drawback is the rounding of the facets.

The logical answer to the polishing problems would be a permanently charged plastic lap. This can be very easily and simply done in a few minutes and you will have a lap that will give you almost 100% trouble free polishing on most materials from 6 to 7½ in hardness. I and others have used these laps on Opal, Feldspar, Beryl and Quartz with beautifully polished flat facets.



AUGUST LUCHINI

You will need a smooth, unscored Lucite Lap, Cerium Oxide and Ethylene Dichcloride (EDC) a plastic solvent available at most places which handles plastic, acetic acid works also.

Using a clean natural bristle brush flow the EDC on the lap and immediately sprinkle on the Cerium Oxide, spread it on the lap as evenly as you can with the clean brush and let it dry. You have to work quickly as the EDC dries fast. Do not get the Cerium on too thick or work it on too much with the brush. The idea is to get a thin, fairly even coat on the lap as quickly as you can. It does not have to be perfectly smooth and even, because even a patchy lap works well. Too heavy a coat will give you rounded facets. After it is thoroughly dry, put it on your machine and running at slow speed with a lot of water, scrape the surface with a razor blade to smooth out the small specks and bumps.

In use, run it as wet as possible by having a sponge riding on the surface of the lap with the water container dripping into the sponge. You will find you will get flatter facets and more trouble free faster polishing than any other method. My friends and I have been using this method since 1974.

Now that is a tip from an expert.

I alert you to the price sheet (and order form) that is included with this letter. It really helps us if you use that form when ordering. Note that there are special prices entered for some items which are in effect up to December 18th, after which the regular price goes back into effect. There is a nice special on our Millimeter Calipers. We have these made for Ultra Tec, and they are sturdy, accurate instruments and being glass-reinforced nylon are very kind to your work.

We note with great sorrow the passing of two friends-Lyle Hardy of California and Arthur Zion of Montana. Lyle Hardy was someone we looked forward to meeting with each year in San Jose. He was a well known Ultra Tec facetor and perhaps the most prolific designer of original gem cuts. Some of you have probably tried one or more of his designs which were frequently published in"Gems and Minerals" magazine. Art Zion was an Ultra Tec facetor since Ultra Tec's very earliest days. He was a much appreciated teacher of faceting and his loss is keenly felt by those who learned from him. Art's own work was just beautifully done. Both Lyle and Art were gentlemen craftsmen, fun to be with, and we miss them.

With the Holiday season upon us, we wish you a Merry Christmas and a happy and prosperous New Year-from all of us at Ultra Tec to all of you around the World.

Warren Dee Joe