OPEN SALT COLLECTORS

NATIONAL NEWSLETTER

Issue #31 Spring 2015

Fuse It or Lose It

By Judy Johnson

It all started with a borosilicate glass class. That's where you use glass rods in a flame and make (or try to make) a recognizable object. I managed some teardrop pendants, a leaf, a couple of hearts and if you really used your imagination, a mouse (not pictured because it broke. . . ☹). That was great fun, but I was more intrigued by a different part of the studio: "**Fusing and Slumping**"

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Editor's Notes:

It must have been more than 20 years ago that Cackey Marsden gave me a copy of a copy of a copy of an article about glass piano rests that had been published in 1978 in the British magazine ***Antique Collecting***. I thought the article very interesting because such foot rests often unknowingly find their way into open salt collections. Imagine my surprise when I was able to contact the author last year—36 years after the article was first published! My personal thanks to Mr. Peter Garland for his kind permission to reprint the article here.

At the risk of sounding like a broken iPod, I'd like again to harangue everyone to please consider authoring an article for this Newsletter (as you noted on the Cover, I finally succeeded in getting Judy J. to contribute!). As you know, we are a relatively small community of collectors, with nearly everyone having their own unique set of interests and knowledge—and the more we share these interests and knowledge, the better for all of us. So please put your salt-related thoughts on paper and become a published author!

Lastly, in the previous issue I started my remarks with a comment about "out with the old and in with the new." Continuing with that theme, it is definitely with mixed emotions that, with the next issue, I turn over the Editor's position to Donna Wolfe. While I have no doubt that Donna will do, as she always does, an outstanding job, I have edited 27 of the 31 issues, including Issue #1 way back in 2001 and I will miss it. I have always enjoyed the task, especially working with all the many contributors. . . but, as the saying goes, all good things must come to an end and certainly better for me to leave voluntarily than to risk being thrown out! Best wishes for much enjoyment and success to Donna.

Signing off . . . . *Rod Elser*

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The ***National Newsletter*** is the official publication of the Open Salt Collectors, a nonprofit organization dedicated to promoting and encouraging the study, collecting and preservation of open salts. This is done through the publication of a national newsletter, maintaining an informational website, promoting membership in open salt collecting clubs, publishing informational and educational articles in collector publications and through other means as may be appropriate from time to time.

The ***National Newsletter*** of Open Salt Collectors is published three times per year—in April, August and December—in both electronic and hardcopy versions. Subscriptions are available through the organization's website (www.opensalts.info).

President's Message:

Spring has sprung and the winter weather and winter blues are behind us. Now we can get out and about and hunt for all those neat treasures that are out there.

The Convention is right around the corner, which means the OSC Board Meeting. Nina R. is the "go to" for each club's delegates to this meeting and she does need these names as soon as possible; each club gets two delegates to the meeting. OSC Achievement Award nominations also go to Nina along with any subject you want brought up at this meeting. We will post the nominations and the agenda the first of May on the OSC web page. Please remember that contact information on OSC Officers is on OSC Home Page web, which also has contact information for each of the clubs. Also, the logo contest (see below) needs your ideas so please do not hesitate to send your idea to Judy, but the dead line is fast approaching.

I have termed out as OSC President; it has been a great learning experience and certainly an honor and pleasure to hold this office. In these past few years I have seen OSC grow and prosper. Yes, we have had some challenges, but we have met these head on and come thru them even greater than before. The OSC Newsletter has three issues a year, the treasury is healthy and the OSC web page is full of great information. The nominee for the new OSC President is willing and very able to carry on and bring us to even greater heights. This greatness is all because of my other officers and the membership in general—many thanks to each and every one of you.

See you at Convention. Also, remember that the OSC Board Meeting is June 4th at 4pm.

Sarah

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OSC Logo Contest

Put your thinking caps on, folks! OSC is offering a **$100 prize** for the design of a logo for our national newsletter. The winning design will be selected by the Executive Board at the 2015 Convention so the prize can be awarded prior to Buy & Sell. More money to spend on salts!!

Please submit your design no later than **May 15, 2015** to:

By Mail: Judy Johnson, OSC Treasurer
4475 Middle Cheshire Rd
Canandaigua NY 14424

By Phone: 585-394-2179

By Email: opensalt@rochester.rr.com

GOOD LUCK!!!

Outstanding Achievement Award

Nominations for the 2015 OSC Achievement Award, which honors an individual who has made a significant contribution to the hobby of open salt collecting, should be sent by May 15th to Nina Robertson by email: nrobertson.@va.metrocast.net; or by phone: 804-436-5058. Members in good standing are eligible to cast one vote. Voting results will be compiled by the President and kept secret until the Convention, when the recipient will be honored at the closing banquet.

(Continued from Cover)

Some of my earliest pieces

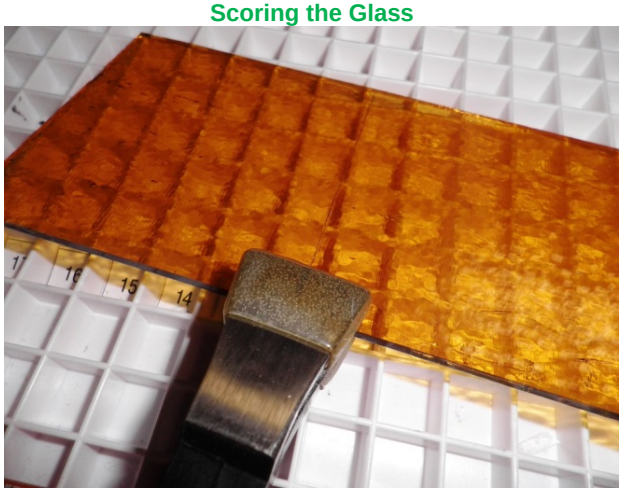
Next were a couple (okay, *three*) classes making glass beads. You form your beads on a steel rod coated with a release agent, which leaves the hole through the bead. If you're lucky, the hole is in the *middle* of the bead. Again, this was great fun and I have some lovely pieces of jewelry that were created from MY glass beads.

This introduced me to the annealing process. Borosilicate does not require annealing, but beads need to be annealed (cooled slowly) in a kiln. So much for instant gratification! You don't take your pieces home with you the same day. Okay, but there's still that studio across the hall where they do **"Fusing and Slumping"** . . .

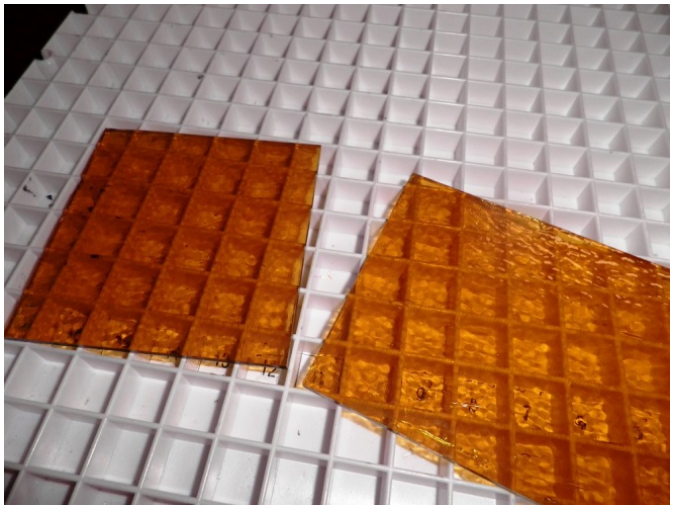
Finally, the opportunity arose – I was signed up for a class in Fusing and Slumping!!! Happy Dance! The class I chose was going to allow me to make two bowls, which I planned to use as a wedding gift (well, pending final outcome!). Away I went to the Rochester Arc & Flame Center where I met Karen Hitchcock, our instructor. We started with safety instructions (location of Band-Aids, how to dial 9-1-1, etc.) and the glass-cutting basics. I have some experience with stained glass, so I was fairly skilled at scoring and cutting. Here are some of the tools used to cut glass:

The grid and metal bar are part of a system called a "Morton Board". On the far left is a scoring tool, which is the same as the item in the middle, just a different configuration. The "pliers" are just that – running pliers, which are used to break the glass after it's scored.

Scoring the Glass



Running the Score

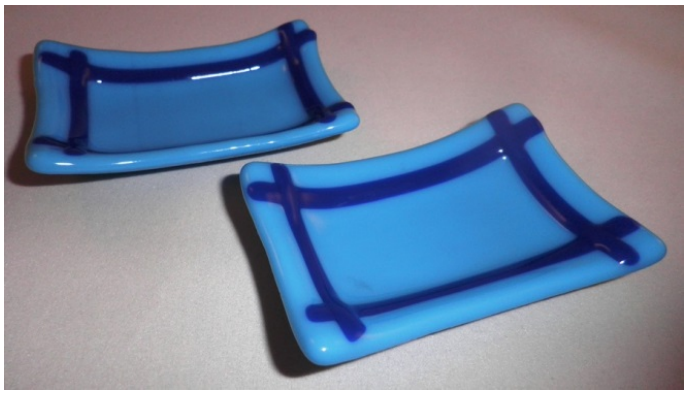


A Perfect Break!

We cut our “blanks” and began decorating them with additional pieces of glass in whatever style we liked. There were stringers, noodles, frit balls, dichroic pieces…..I was in glass heaven. The two bowls I “designed” (using that term loosely) didn’t take long, so Karen said, “Go ahead and make another piece.” COOL! I decided on a small dish, naturally chose blue for the base and added bits of dichroic glass. Being easily distracted by shiny objects, I went for LOTS of dichroic (aka “dichro”). Poor Karen – in a very nice way she mentioned that, “We don’t usually use so much dichro because it’s *really* expensive.” Oops…..my bad! Here’s the finished product, 4” across:

The two pieces that did become wedding gifts were much larger. The square is 11” across and the circle 10” in diameter. Not bad for a first attempt.

There were several examples of fused and slumped glass around the studio and these caught my eye…….OMG SALTS!!!!! I immediately purchased the two that were available. These are 2” x 3” – the perfect size for a salt. And really, what else would they be?



The idea that I might be able to create SALTS was, to say the least, intriguing. The thoughts kept rattling around in my head (there being nothing else to *prevent* rattling). Internet to the rescue…..how might I start fusing glass at home? Lo and behold, a kiln that can be used in a *microwave!* Hobby Lobby 40% off coupon, here I come.

My “baby” kiln; used in the microwave

I purchased a kit that included the kiln and lots of different pieces of glass. With the kit alone, I was able to make a substantial number of small items, some of them really quite impressive. I WAS HOOKED. Here are some of my early efforts with what I now call the “baby” kiln:

Yes, the micro kiln was fun, and yes, I was able to make some very neat things. But salts? Now, that’s not going to be possible when the base of the kiln is a mere three inches in diameter, with about two of those inches usable. I needed a bigger kiln. Internet, give me guidance. Okay, there’s a dealer in Buffalo….that’s not so far….would save a lot of money on shipping (these things are *heavy*). Bonus! They give 10% off for walk-in sales on Wednesdays. Goodbye day job, I’m shuffling off to Buffalo…..

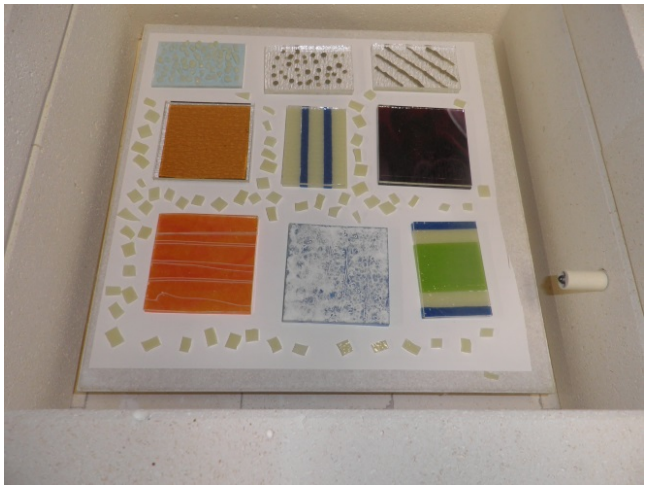
My “BIG GIRL” kiln!

Interior of the kiln

My new baby! Oh boy, this is a little scary….what if the house burns down….where is the fire extinguisher….what have I done???

Now THIS is intimidating. A little ceramic kiln in a microwave, okay, but this? Well, they say you need to pre-fire one time to burn off any "whatever" from manufacturing. Read, read, read the instructions….press buttons….pray. House still standing. *Excellent!*

To explore the concepts of "fusing" and "slumping" a bit more, they are two separate processes. Fusing causes two or more pieces of glass to fuse together and become one. Here is a setup for a group of salts in the kiln ready to be fused; note that some have multiple pieces of different colored glass lying together while others have small pieces of broken glass or "stringers" of glass lying on top of a solid-colored piece.



Not crazy exciting, right? And what are all those little pieces scattered around? They are going to become "frit balls" (more later on these) because a full kiln is a happy kiln!

The kiln is heated up to 1450 degrees, then cooled to stabilize (anneal) the glass. There are many different schedules for heating and cooling, but the general concept is universal. You need to both heat and cool in a controlled manner to prevent thermal shock, which equals broken glass. This particular firing takes roughly eight hours. When we're done, we have this:

Please take special notice of the "before and after" of the top row and the bottom center. It's amazing how square corners become rounded corners. What a difference some heat makes! ☺

But how do we make them look like salts??? Well, that's another big internet search, and I quickly found that "small" is not necessarily prevalent in fusing world. I did find a few molds that are working well for me – still searching for something that will allow me to make round pieces. In the photo below, you will notice little holes in the bottom of the molds; these are necessary to allow air to escape as the glass drops (or slumps). Otherwise, the air would come UP and cause bubbles or possibly break through and leave holes. We don't want that!

The next step is to take our newly fused, but still flat, glass and SLUMP it into the shape--using molds--we want. Back into the kiln we go!

Here is the setup with the previously made "blanks" placed on the molds:

Before slumping

These are ready for a second session of carefully controlled heating and annealing (cooling), after which, with luck, we have SALTS! Slumping temperatures are lower than what's needed for fusing, so this will top out at about 1250 degrees and take about six hours.

After slumping!

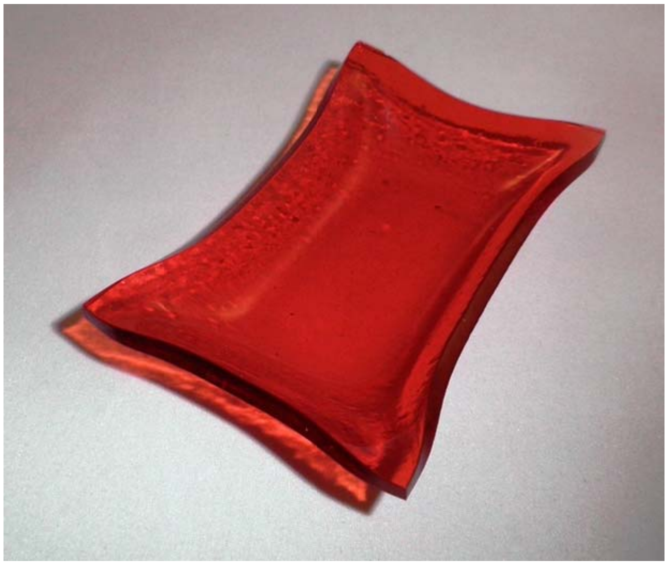
Not bad! This is one of the best reasons I've found to get out of bed in the morning – to see what the kiln did overnight! (Well, that and coffee.)

Here's another photo of the same group without the molds:

Finished Salts!

Naturally, it's not economical to fire the kiln for one salt at a time, so I always set up as many as will fit on the 12" x 12" shelf. Also, as I mentioned earlier, I usually cut up little squares of scrap glass to fire into frit balls. The squares naturally draw up into nice little rounds, which can be used later as decoration on other pieces. Glass NEVER goes to waste in fusing world. Here is the after-firing group of frit balls:

The little red guy shown in the next photo is the VERY FIRST salt I produced in my kiln. Keep your eye on auctions at Christie's, because this will surely fetch a TON of money when I become famous. (Two, maybe three bucks….)



THE FIRST SALT!

Truthfully, this was only done as a test of the mold to see if it would produce the shape I wanted. It's only a single layer of glass, and I did nothing to try for a more pleasing shape. But now it has sentimental value….

<u>My very first Buy & Sell</u>: This is an important and necessary part of Fusing & Slumping because you always need to *buy more glass!*

A selection of salts for those with discriminating tastes!

So, are there more salts planned for future gatherings? Perhaps a certain convention in Cleveland in June of 2015? Hmmm….maybe…..I'll have to go check the kiln!

Dear Rock, Salt and Roll Fans,

The 14th National Open Salt Convention will be here before you know it! In case you have forgotten to send in your registration, it's not too late. Please go to: www.opensalts.info for information. The committee has worked really, really hard to make it one of the best conventions ever. We hope to see you there June 4th-7th in Cleveland, Ohio.

Rock, Salt and Roll!

Diane Wittik
Chairperson

(and no, I'm not sick of hearing that word. . . . . I'm too excited!)

Glass Piano Rests

By Peter Garland

Although glass rests came later to be used under many types of furniture, there is no doubt that the early examples were intended for pianos, glass being a good conductor of sound, thus making the notes more resonant. The diversity of names ascribed to these pieces and their intended use is best observed by tracing the earliest registered examples in the old files. The first reference in 1859 mentions a "pianoforte insulator", whilst objects registered from the 1870s until the end of the century were also called, less glamorously, "piano feet", and in other trade catalogues of the time "piano stands, rests" or in one case, "inductors". Since then one sees references to them, in particular the smaller ones, as "castor cups and furniture rests"; however, it is the earlier examples with which I shall be dealing.

The earliest piano rest in my collection, and indeed the earliest I found mentioned in the design registry, was registered on the 20th May 1859 as a "pianoforte insulator" by the Stourbridge firm of Davis, Greathead and Green (figure 1).

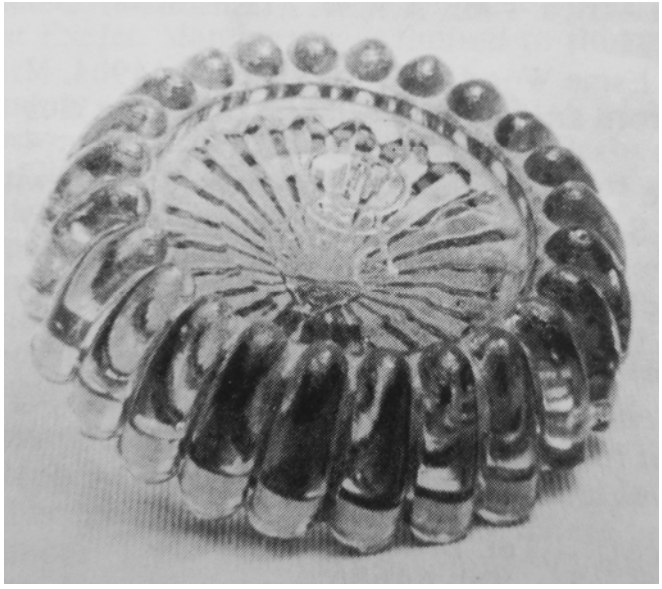


Figure 1—If you look carefully you can see the British mark in the base of the bowl.

After establishing this initiative, the Stourbridge glass firms are not mentioned again on this subject, and the pressed glass factories in the North and North East of England started to manufacture larger and sturdier versions in a remarkable assortment of shapes, sizes and colours. The Manchester firm of Percival, Yates and Vickers were the first manufacturers to produce these objects in any number, and on the 8th July 1859 they registered their design of a "pressed glass piano insulator" to be supplied to Thomas Dawkins of Clerkenwell, Piano Makers (figure 2).

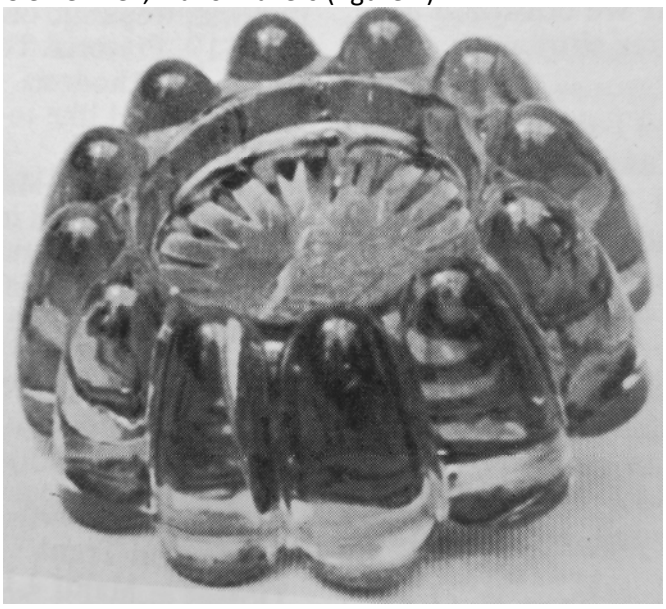


Figure 2

This "jelly-mould" pattern was copied and varied by other factories until the last war, when glass was largely replaced by plastic, thus surviving for nearly a century. Figure 3 in fact shows two rests illustrated in the catalogue of H.J. Fletcher & Co.

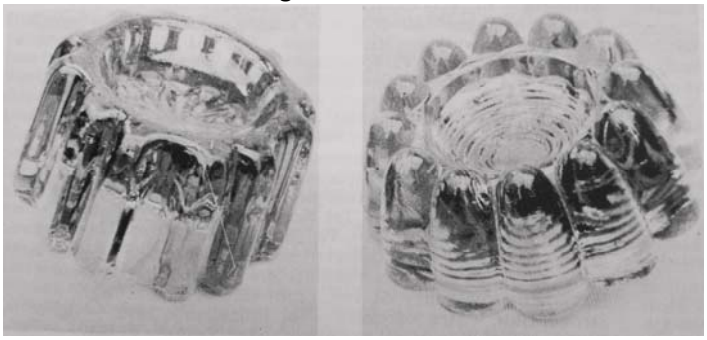


Figure 3

(Piano Makers) of London c.1924 (Nos. B337 and B336) and a striking similarity can be seen between B336 and the much earlier rest. It is interesting to note that B337 is illustrated in Sowerby Trade Catalogues from 1892 (Figure 3a) and it is quite possible that they were the suppliers of these rests.

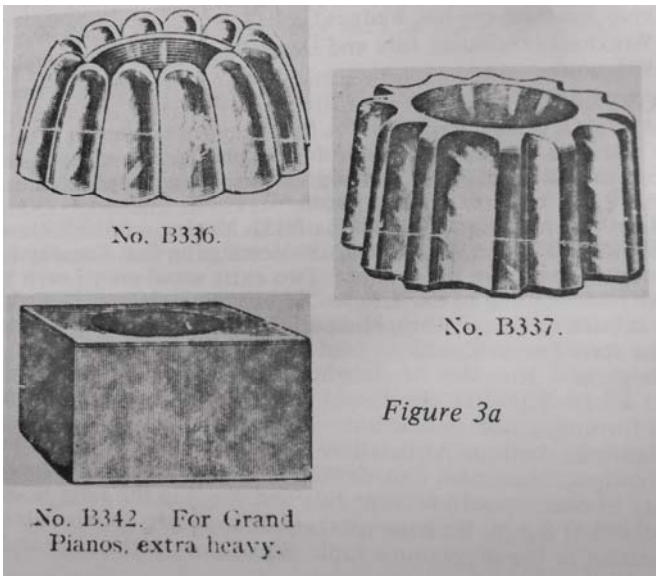


Figure 3a

The 1870s saw the introduction of more varied and unusual designs. On the 11th March 1872 the newly named firm of Percival, Vickers & Co. registered the rest illustrated in figure 4, the example in my collection being made of vaseline glass.

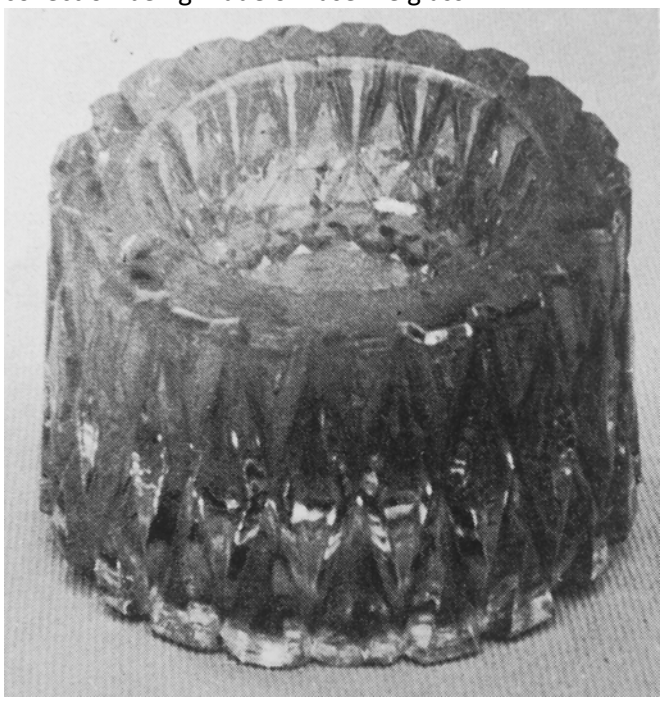


Figure 4

On 27th May of the following year Ker, Webb and Co. of the Prussia Street glassworks, Manchester, registered an ornamental design virtually identical to that in figure 5, which is again made of vaseline glass, and is very striking.

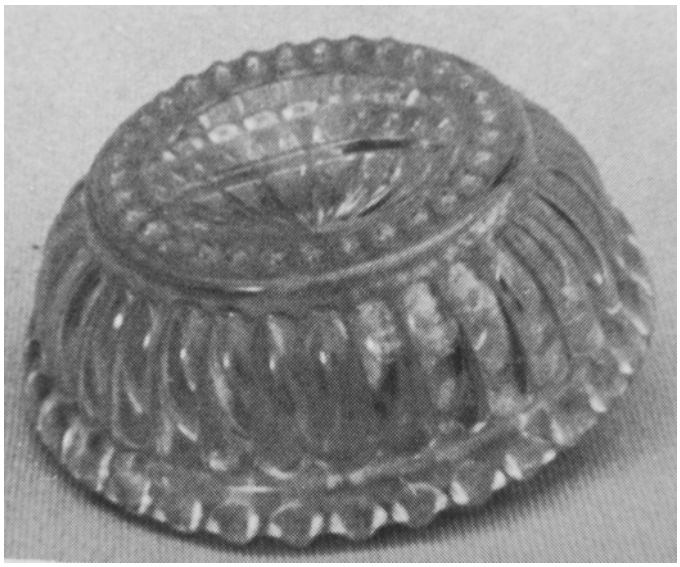


Figure 5

Among the most spectacular and interesting piano rests in my collection are those made by John Derbyshire of Manchester, later to become Regent Flint Glass Company. This firm was well known for its use of animal forms in its designs and the rest illustrated in figure 6 shows the Victorians' use of the lion in their ornaments. This piece was registered on 12th May 1874 and also bears the factory mark of an anchor and initials JD. The two marks in the depression on the top are repeated on the bottom of the rest on each side. I have examples of these objects in clear glass, vaseline glass, and, as in the illustration, a frosted green for which the factory was also noted.

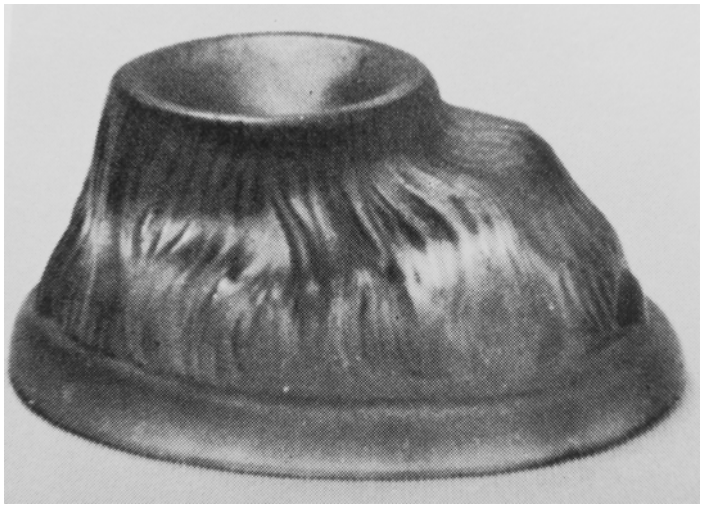


Figure 6

Although I have never seen one, the same company also registered and illustrated a "bull's head piano foot" on 4th May 1877 which depicts the head on the side of an otherwise normal round piano rest. The latest piano rest with the diamond registration mark in my collection is the elaborate "jelly-mould" design

registered on 5th November 1880 by Percival, Vickers & Co., examples of which I have in clear glass, emerald green, and a beautifully rich "Bristol blue" (figure 7).

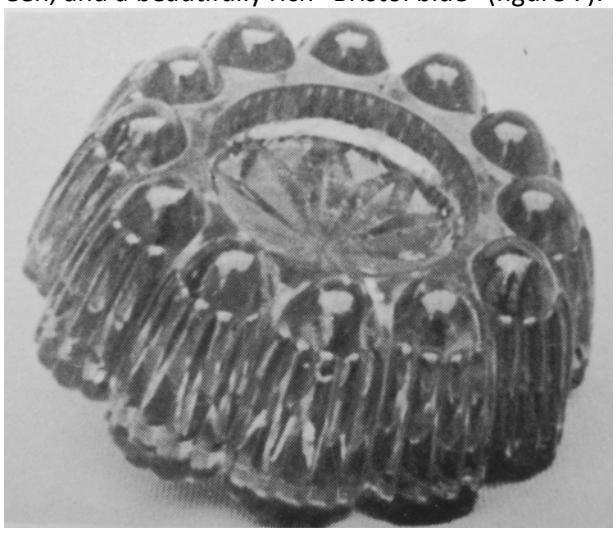


Figure 7

Although pieces continued to be registered under the number system until 1909, I have only one such record in 1887 (Rd. 87140) by the same firm with examples in vaseline and green glass (fig. 8).

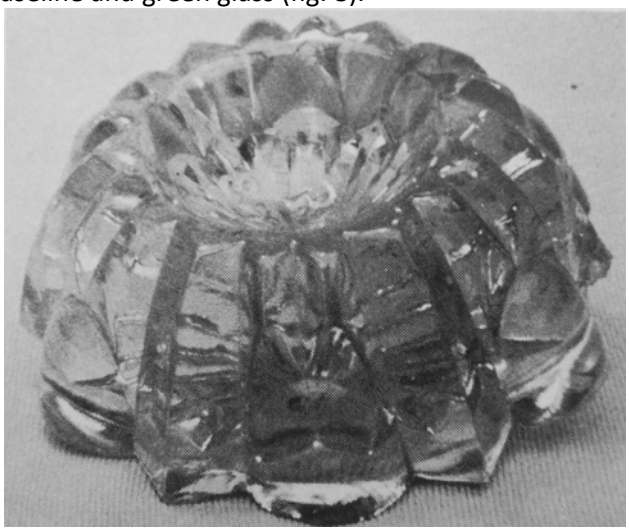


Figure 8

In general the marked piano rests I have mentioned are not to be found often, but when they are they present an opportunity not only to date them approximately, for it must be remembered that the designs were often continued for a decade or more, but equally interestingly, to discover their makers and thus build up a history of their development. The vast majority of my collection is unmarked and consists of examples from other English factories and those of North America and the Continent. The most prolific pressed glass making area in the world in the latter part of the 19th century was the North East of England, and the factories of England and the factories of Sowerby and George Davidson of Gateshead-upon-Tyne, and Greener of Sunderland all made piano rests. With the exception of the example in figure 3, of which I have pieces in vaseline and turquoise glass, I have seen none of the early Sowerby designs which date back to about 1870, and some of which were made well into this century. A catalogue of George Davidson c.1884 illustrated the pieces shown in figure 9, and it seems certain that they supplied many of the London retailers judging from these stores' catalogues.

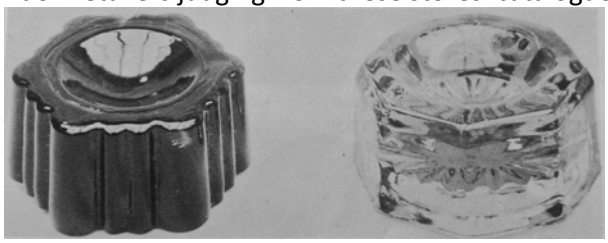


Figure 9

Greener of Sunderland made rests similar to that illustrated in figure 10 (far left) and No. 2246 (figure 10a) in the catalogue of C.A. Wallgate & Co. c.1920 is quite possibly theirs since they were made up until the Second World War; the design, though, is an old one as it is illustrated in a catalogue c.1870 of Edward Moore & Co. of the Tyne Flint Glass Works of South Shields. Nos. 2245 and 2248 are also shown in figure 10a, and they too are English.

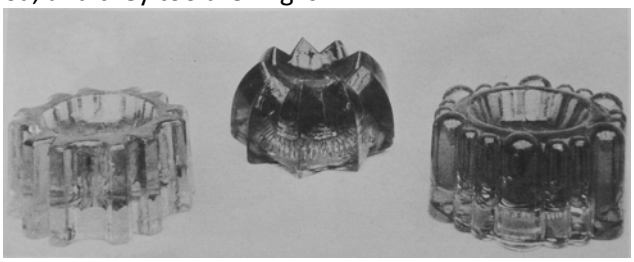


Figure 10

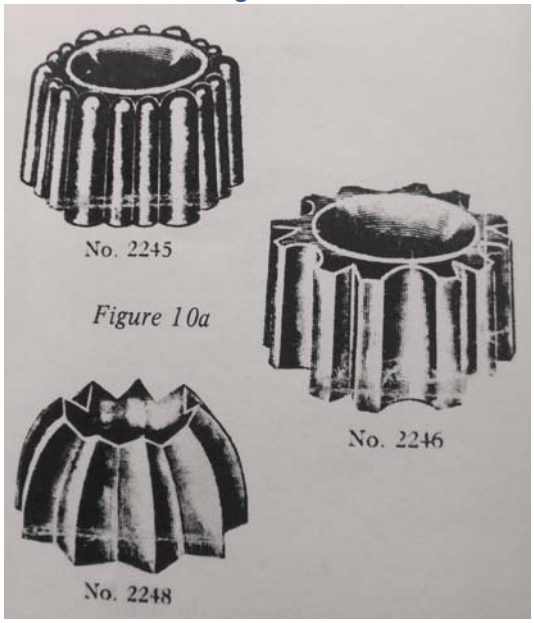


Figure 10a

Two of the more unusual piano rests in my collection are those in figure 11 which bear the words R H THOMAS, INVENTOR, KIDSGROVE. These may well have been used as an advertising device by the person named, distributed perhaps at Christmas. They are the only examples I have ever seen and are of especial interest. So too is the rest in figure 3A specifically to be used under grand pianos; although I have not got such a thing, there is an illustration in a catalogue of John Ford of the Holyrood Flint Glass Works of Edinburgh.

Figure 11

Apart from those piano rests, the origin of which can be traced, there were numerous further examples made in the English glass houses of the 19th and early 20th centuries (figures 12, 13 and 14). They occur in an endless variety of shapes and colours and I am still acquiring new designs, and will probably continue to do so.

Figure 12

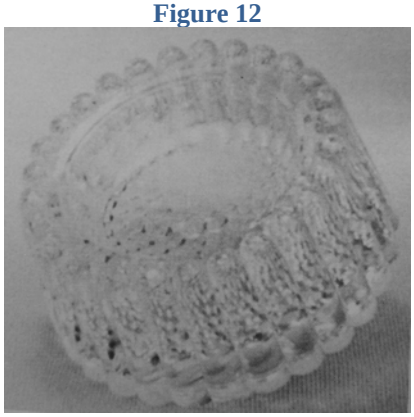


Figure 13

Figure 14

I also have pieces from North America and the Continent. Piano rests were imported until the last war, and two elderly employees in a wholesale firm which used to supply them remembered these objects being imported from the United States and Germany, and there is no doubt that many were also made in Czechoslovakia, although such records are virtually unobtainable now. Figure 15 shows some examples of

Figure 15

North American piano rests which I posses and these represent the general styles which occur in the old records, although in an edition of the McKee Glass Co. Catalogue, c.1920, a "jelly-mould" pattern, similar to that mentioned and illustrated earlier, is shown together with the smaller versions which, in a catalogue of the time of the Jeannette Glass Co., appeared under the generic name of castor-cups; this catalogue also illustrated the extended usage of these articles by mentioning furniture, stove and bed-rests; indeed it seems unlikely that these smaller later versions could withstand the weight of pianos.

I must confess that it is the earlier, more varied examples which appeal to me, not least because of the enormous variety of colours in which they may be found. I have already mentioned that vaseline glass was used until the end of the last century at least, but many other unusual colours can also be found. Piano rests were made by Greener of Sunderland in pink, black, blue, green, amber and clear, the last four being indeed the colours most often seen, albeit in innumerable shades and tones. In a catalogue of the London firm of Silber and Fleming dated 1898, two additional colours, puce and canary,

A selection of 19th and early 20th century piano rests showing the wide variety of shapes and colours to be found. Almost all of these are English, the exceptions being the clear glass rest (centre) which is Continental, and the green one (lower left) which is typical of those to be found in American glass catalogues of the early 20th century. The writing on the round green rest (bottom centre) refers to Richard Handley Thomas, a noted Staffordshire inventor of the middle to late 19th century; it seems unlikely, however, that piano rests actually numbered amongst his inventions but served rather as a means of advertising his profession.

are mentioned, although I have never seen either. There is no doubt also that Sowerby and perhaps other firms made piano rests in turquoise glass. I have often wondered whether any were made in red glass, but I have never actually seen an example, not even an illustration or reference to one; it is possible that such things were made to special order by the smaller firms.

Piano rests may still be found comparatively easily but the older, more interesting specimens are seldom seen and it can sometimes be difficult to identify them. They are frequently used as ashtrays now, for which they are admirably suited and I have even heard of someone who collected them to put at intervals along the garden path, presumably to add colour. My sister always uses three vivid blue rests under her mahogany grand piano, and they look most decorative as well as improving the quality of the sound. Indeed in my own opinion, they can be used in no better way than in fulfilling their original purpose.

Prices—The price of piano rests varies considerably, depending on where one finds them. As a rule, the commoner unmarked rests in familiar colours such as clear, green, amber or blue can be bought for between £1 to £3 each if in good condition, whilst such rests in scarcer colours (turquoise, black or Vaseline glass) are more expensive. Because of the interest and information provided by registration and factory marks, one can expect to pay up to £5 for a well-marked piece in good condition, but it must be remembered that value is determined above all by age and scarcity of design. Although the rests were originally made in sets of four, it is unusual now to find a complete old set.

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Mr. Garland was born and brought up in England. He practiced as a barrister in Hong Kong for 25 years and now lives in England. He is the author of "***Ceramic Furniture Rests***," the first book to be written about these decorative and unusual items. The book is available from Amazon or Reference Works LTD.

Pictured here are piano foot rests, some in private collections and others recently for sale on eBay.

Base of pieces above; made in South America!

Reproductions in American Brilliant Cut Glass

By Dave Nickerson

When discussing reproduction glass, there are two categories to consider.

The first is modern cut glass made to resemble old American Brilliant Cut glass. This is vintage glass you would find in fancy department stores since the 1950's. Much of this glass was cut in Ireland, Turkey or Czechoslovakia (Bohemia) and imported under various names, including Waterford, Baccarat, Mikasa, Gorham, and Queens Lace, to name only a few. When sold, by law, these pieces all have a sticker proclaiming they contain 24% lead. This is the minimum amount required by most countries in order for that piece to be called 'Crystal' and falls into a different tax category. Though it is called 'Crystal', it is just in name. It was not formed naturally and has no crystalline structure. Old cut glass typically had 35-45 % lead. This made the glass softer to cut without flying apart on the cutters wheel and, more importantly, increased the refractive index (prismatic light bending effect) giving the glass a brilliance.

Features to look for on modern glass:

1. Thick walls;
2. Sharp, jagged teeth;
3. Poor cutting quality and symmetry. Look at where the star points and major miters join. Parallel lines such as cross hatch cutting that are not aligned;
4. Excessive acid polishing: Cutting wheels leave the surface a frosted gray. (Many times you will see this effect on the starred centers of cuttings.) Any grayed cutting is suspicious. Acid polishing is used to removes the gray but it does so by eating away a layer of glass. This process will also round off all the cutting on the entire piece making all the miters look smooth.
5. Shapes – modern shapes are considerably different from those of 100 years ago;
6. Frosted or gray cut areas as these are unpolished cuts.

An example of cut glass produced during the 2nd half of the 20th century.

The second category is American Brilliant Cut Glass c. 1880 - 1915. American Crystal cut during this period by thousands of workers and hundreds of companies was considered the finest in the world.

Since the introduction of American Cut Glass in the late 1800's, there has always been the need for cut-glass repairs and replacements. The fragility of the glass made this a necessity. All manufacturers had a repair and replacement shop. Many fine Jewelers had a cutter / engraver and cutting frames as well, though the work here was more limited. Glassware sets would be made whole when one piece was broken. These would need to be of the same shape and pattern so as to not stand out - tumblers, cups, plates, bowls, etc. All companies offered this service back then.

A beautiful example of American Cut Glass c. 1895

As of this writing there is still one cut-glass company that provides this service – Warsaw Cut Glass Co. Warsaw, Indiana. WCGC opened in 1912 and still uses the same overhead drive shaft, belts and stone wheels that were used 100 years ago. In the United States, there are perhaps only a dozen craftsmen with the skills necessary to replicate the complex geometric patterns of the American Brilliant Period (ABP) and do proper restoration or repair.

Until the 1980's, Cut Glass Collectors thought they were immune to the reproductions that have plagued other genres of antiques. Their concerns were more limited to the perfection of the piece and any repairs that may have altered its original function or form. The common thought was that the skill and time required would outweigh the value. Original pieces took a week or more to complete. There would be no profit left for the forger.

This false assumption was dispelled at the 1987 ACGA convention in Washington DC when Herman Defregger, a cutter working for Pepi Hermann's Crystal Shop, gave a presentation showing several Brilliant-style bowls he had cut in only a few hours on blanks he had obtained from Germany.

A notable cut-glass dealer, Bob Hall, his friend Max Redden, and others developed a series of tests and observations to help determine if a piece of cut glass is old or new.

1. The new blanks used vary in shape and cross sections from known originals;
2. Signatures on fakes are smudged rather than clear and distinct;
3. The presence of faint, parallel striations on the major miters like the groves on a vinyl record from the use of a diamond cutting wheel (see close-up photo later in the article);
4. All the reproduced pieces were in nearly perfect, new condition without wear and sharp to the touch;
5. Most genuine Brilliant Period Cut Glass will fluoresce lime or apple green under long wave ultraviolet radiation. New fake glass fluoresces a faint, pink color.

It is important to note that other known authentic pieces of Brilliant Period glass fluoresce a faint pink. For this reason, the black light (UV light) is not a foolproof test, but more of an indicator of composition. All factors need to be considered. **(See Note 1).**

Use of a black light to assess origins of glass

Of interest to all glass collectors is the reaction of the glass composition to UV rays. For this discussion, an understanding of the materials used to manufacture glass is needed.

While the exact formulas vary, here is an example of the ingredients used to create a cut glass blanks made in the United States c. 1880 - 1915.

WHITE FORMULA (in pounds)	
Sand	500
Lead	100
Potash	200
Phosphate of Lime	50
Oyster Shells	30
Arsenic	50
Salt (common salt)	40
Salt Peter	50
Fluor Spar	10
Manganese	2 ½
Charcoal	2

When basic clear glass is made, there is a slight amount of iron oxide present as an impurity in the sand. This imparts a muddy color to the glass. Arsenic is added to remove the ferrous iron ions. The result imparts a green tint to the glass. This can easily be seen by looking at a typical glass shelf on edge. In order to neutralize the green tint, a de-colorizer is added to the batch. In the case of American Glass, Manganese dioxide was introduced and provides a purple tint to the batch which is a complimentary color to the green and serves as a counter-tint. The purple color from manganese oxide is given only to glass in the presence of oxidizing agents, and in the absence of sufficient oxidizing agents in the glass batch, the purple manganese color is unstable and its action as a counter-tint is lost. Therefore, the glass maker uses strong oxidizing agents in his glass mixtures for crystal effects, usually in the form of potassium nitrate and red lead, which liberate oxygen. In reaction with the manganese oxide, this provides the necessary purple coloration. It is this manganese dioxide that the UV light causes to fluoresce a light apple or lime green in many Brilliant Period pieces.

Manganese was imported from Russia. This mineral was not available during WWI. Additionally, there was a shortage of lead. Lack of these materials sharply curtailed cut glass production during the war years. When the war was over, public attraction to the geometric shapes of cut glass had moved on the flowing lines of the Art Nouveau period.

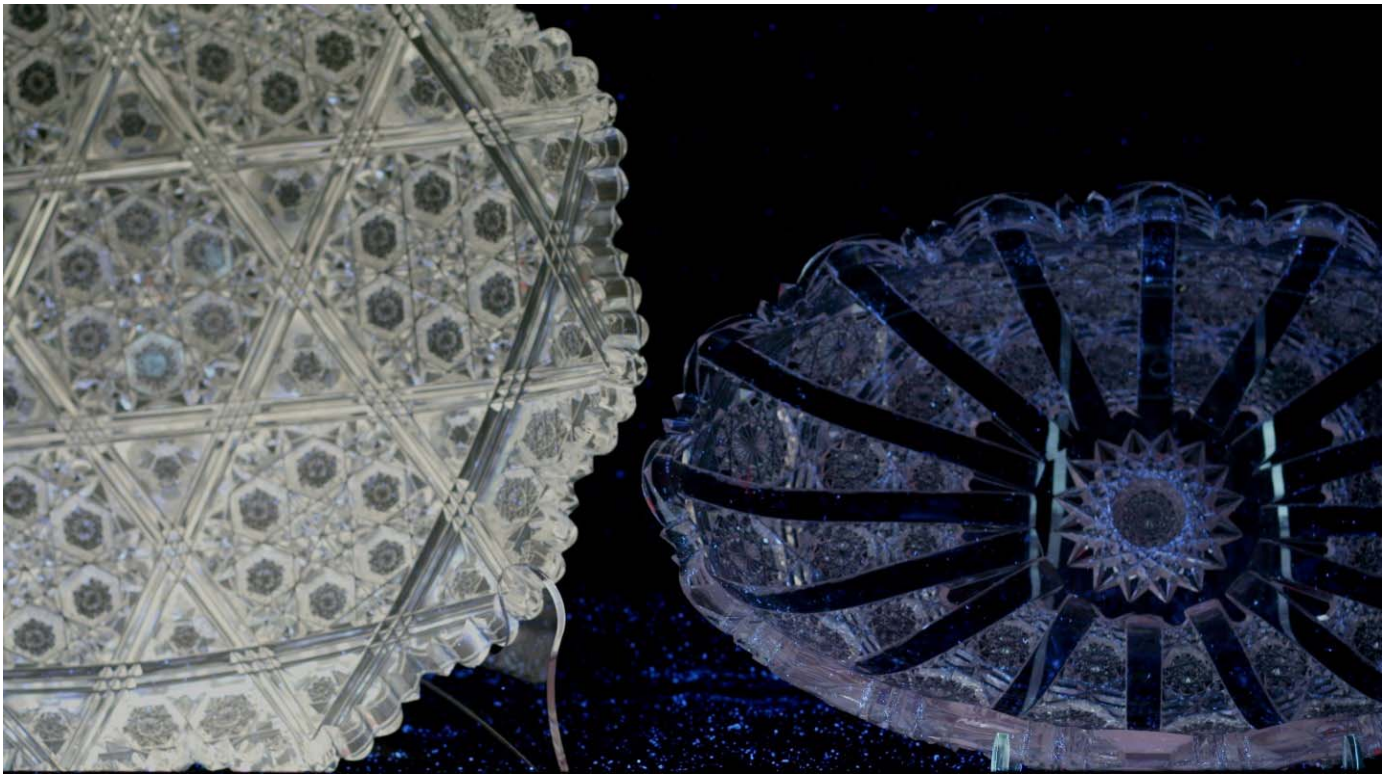
European pieces from the same period have different ingredients which results in different fluorescence.

UV Results from Moser glass formula 1850 to 1930

UV wavelength	Bohemian Crystal	Venetian Crystal	Lead Crystal
Shortwave (254nm)	Intense powder blue	Whitish to Whitish yellow	Intense blue toward aqua blue
Longwave (366nm) Typical Fluorescent Black Light Tube	Translucent yellow, yellow green, green or orange	Pale translucent yellow to yellow-green	Pale powder white – yellow to white

It is known that Egginton Cut Glass Company used some European blanks. In my personal collection I have a 10" tray in Arabian #2 Pattern that under a black light turns a pale yellow to white.

Shown below is the Arabian #2 authentic piece on the left and a fake Hawkes panel pattern on the right under a Long Wave Fluorescent tube black light. The one on the left is a Moser blank (pale powder white) while the one on the right is recent (hazy pink on edges).



A UV viewing area need not be overly complicated and can be as simple as a black bag and UV light. The strength of the light will help with the fluorescence effect. It

can also help to obtain some UV safety glasses. These will not block the colors you wish to see.

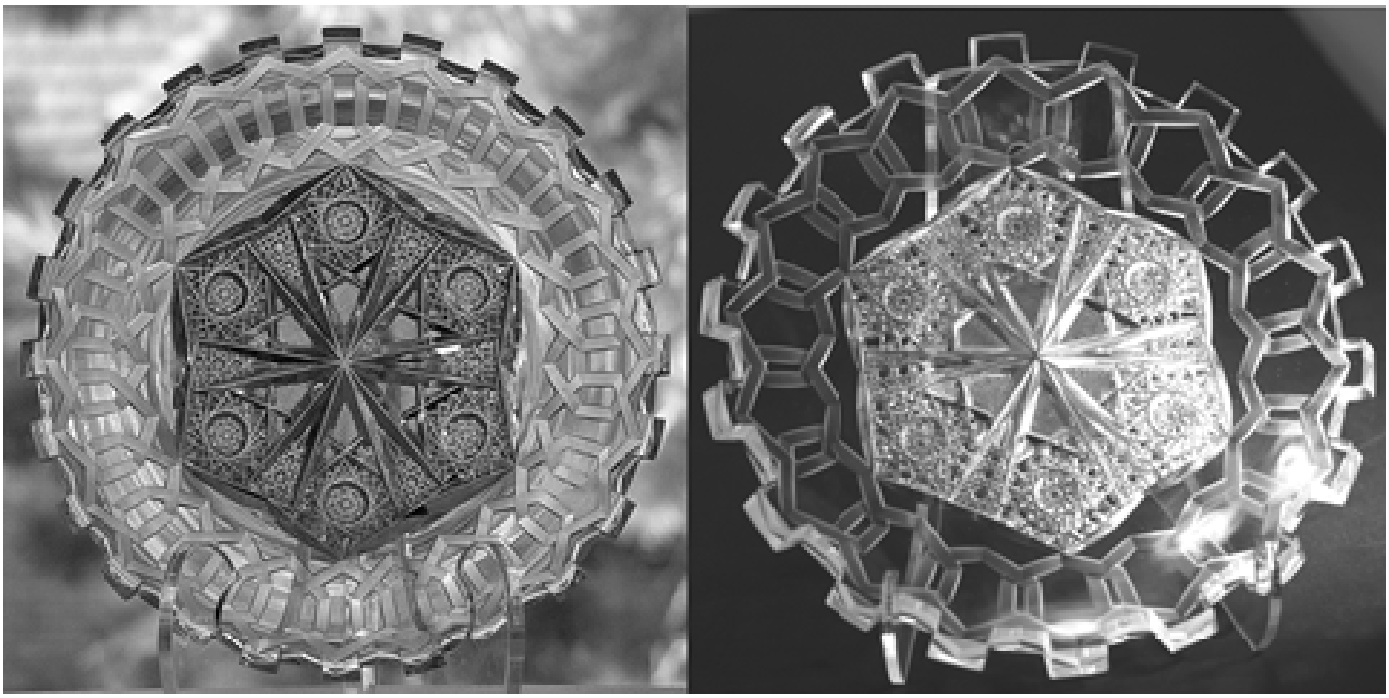
There are 3 Ultra Violet bands. UVA-Longwave, UVB - Midrange, and UVC - Shortwave. Certain minerals can absorb UV light and give off visible light. Each band can excite electrons into a higher valence shell. When that electron losses the extra energy it gained, it drops to another shell giving off a visible light photon.

Cut Glass does not have any reaction to the mid and low ranges of UV light, or it is very difficult to see.

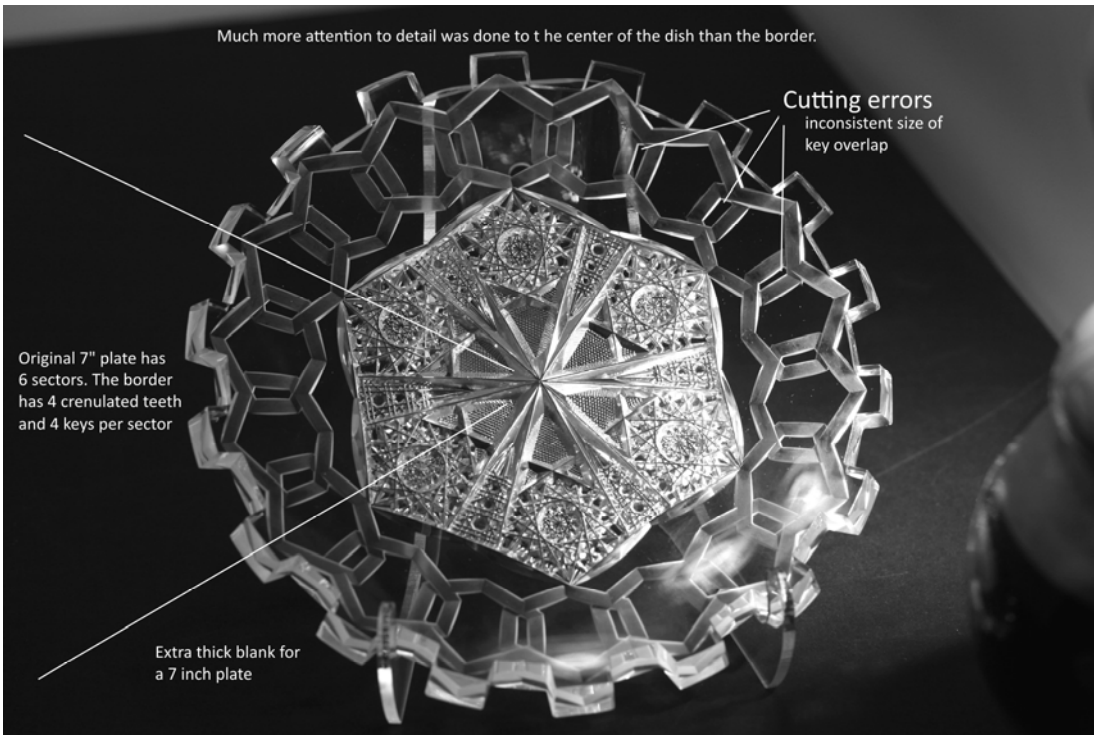
The most effective black light is the 18" fluorescent tube type which produces long wave UV light. This type of tube and fixture is available at most lighting and hardware stores.

Shortwave UV lights are used more by Rock and Mineral enthusiasts.

You will need a very dark place such as a closet to get the full effect. Lining the viewing area with a black cloth helps as well. Wear dark-colored clothing (especially sleeves) as this will influence the colors seen. A plastic tub in a darkened room will also work.

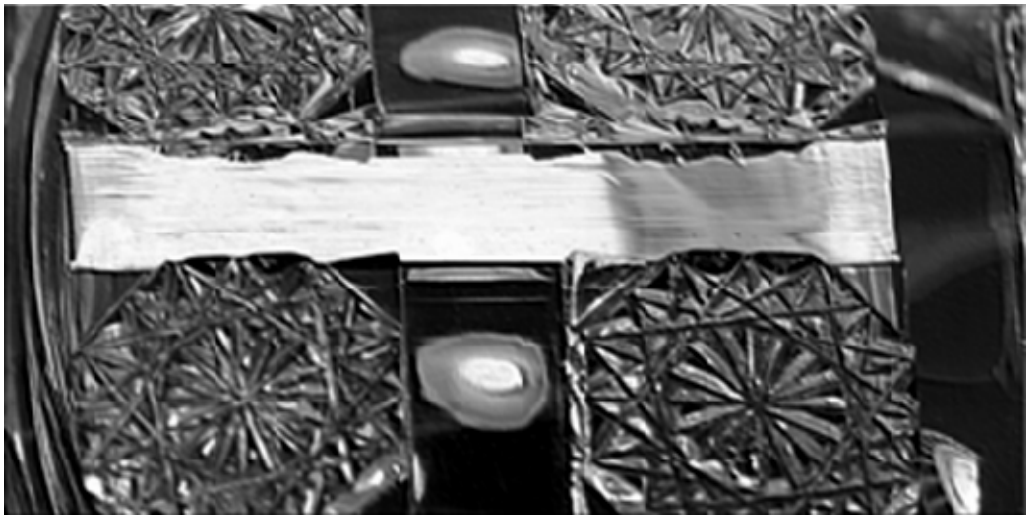


Pattern variations: Alhambra 7” plate side by side; the fake is on the right.



The fake Alhambra has 3 teeth and keys per sector, is an extra thick blank and has numerous cutting errors.

Modern cutting wheels have imbedded industrial diamonds and spin at much faster speeds than the iron or stone wheels used 100 years ago. The old wheels left marks as well, but they had a short stroke appearance. In the enhanced photo below, diamond wheel striations on a fake bowl have the appearance of the long groves on a vinyl record.



Note 1: Information obtained from the Jan. 1990 edition of the ACGA *Hobstar*

The author is a National Support Specialist for Philips Healthcare. He is a nationally accredited Biomedical Equipment Technician and Certified Technical Trainer. His training in the field of Electronics was obtained while serving his country in the U.S Navy during the Vietnam War and he participated in two tours of duty there.

Dave's fascination with American Cut Glass began shortly after his marriage to his wife, Shelia in 1972. Shelia's father owned an antiques business, specializing in cut glass. Dave and Shelia were given several pieces as gifts over the years, which spurred their interest in learning and collecting cut glass. In the years since, their collection has grown to several hundred pieces and a library of books and catalogs.

Dave is an active member and Region Director in the American Cut Glass Association. He also is a guest speaker at local chapter meetings.