

OHIO GLASSWARE AND THE ATOMIC AGE

By Jack Sullivan

News stories of North Korea underground testing of a device have revived interest and concern about nuclear weaponry. A little known story of the effort to develop the first atomic bomb was the pivotal role played by Ohio and other American glassworks that specialized in making glassware with a yellow green hue that often is called "vaseline glass."

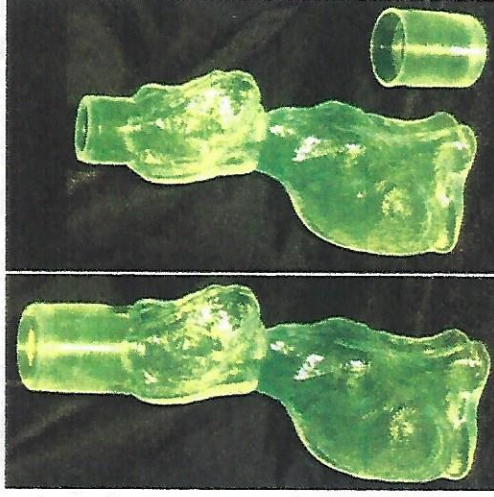


The unique color of this glass is imparted by the use of uranium oxide in the molten mixture. Employing uranium in glass goes back at least to 79 AD, the date of a mosaic containing yellow glass with 1% uranium found in a Roman villa on the Bay of Naples. Used through the ages, uranium in glass became particularly popular in the United States in the mid 19th Century with a peak period between 1880 and 1920.

Ohio glass makers producing vaseline glass became primary suppliers to the U.S. market, turning out bowls, goblets, mugs, candy jars and statuettes, all with a distinctive yellow green cast. The material, technically a glass-ceramic, acquired the name "vaseline glass" because the color is similar to petroleum jelly.

Production ceased sharply with the outbreak of World War II. In one of the most tightly held secrets in history, the United States embarked on a project to build a new and highly destructive explosive device, known popularly

as the atomic bomb. Uranium oxide was a necessary component and government agents began clandestinely to gather up supplies wherever they could be found. Factory managers in Ohio and elsewhere were approached and told that the government was confiscating their uranium oxide. They were pledged to absolute secrecy on the pain of criminal prosecution.



It can be assumed that among the Ohio glass factories approached was the Imperial Glass Company.

Organized in Wheeling, West Virginia, in 1901, Imperial began producing glass in Bellaire, Ohio, in

1901. An example of its vaseline ware

Figure 2

is a candy dish (Fig. 1). Another glassworks to be tapped was the Cambridge Company that opened in 1907 in the Ohio town of the same name and operated until 1958. A dog and tumbler illustrate its vaseline glass production (Fig. 2). A third company that likely contributed uranium oxide was Heisey Glass, founded at Newark, Ohio, in 1895 that produced vaseline items including bowls (Fig. 3).



Figure 3

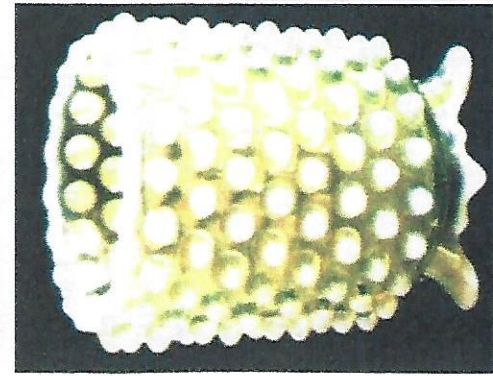


Figure 4

By time World War II came along, however, many Ohio outfits creating vaseline glass had gone out of business. Among them was the Beatty Goblet Company that operated facilities in both Tiffin and Steubenville. It made several patterns in vaseline glass, including an "all over hobs" footed vessel (Fig. 4). Another hobnail style piece in vaseline was a mug from the Aetna Glass and Manufacturing Co. (Fig. 5), founded in Bellaire, Ohio, in 1880 that ceased production nine years later.

The amount of uranium oxide obtained from American glassworks has been highly classified, but the British, who followed Uncle Sam in collecting the material, have revealed that three tons were taken from just one U.K. glass factory. It is highly possible that some of those supplies found their way into the two

bombs dropped on Japan at Hiroshima and Nagasaki. The ban on using uranium oxide in glass remained in force until 1958 when sufficient supplies of uranium were deemed available. By that time concern had arisen about the hazards of radioactive materials to glass house workers and consumers. Less toxic uranium dioxide was

substituted. Because of tight regulations on its use and the expense of the ingredient, however, only a handful of glass houses continued to produce vaseline glass. Among Ohio outfits that made vaseline glass after World War II and some examples from each are Degenhart Glass of Cambridge (Fig. 6), Kemple Glass Works of East Palestine (Fig. 7) and Summit Glass, founded in Akron and later moved to Rootstown, Portage County (Fig. 8).

Vaseline glass has continued to be popular with collectors. A sure way to tell if a particular item has a uranium content is to place it under ultraviolet light. As demonstrated by side photos, the glass in the pitcher fluoresces bright green under the light (Fig. 9). A highly sensitive Geiger counter will also detect the trace radiation, although most pieces of vaseline glass are considered to be only slightly radioactive and not harmful.

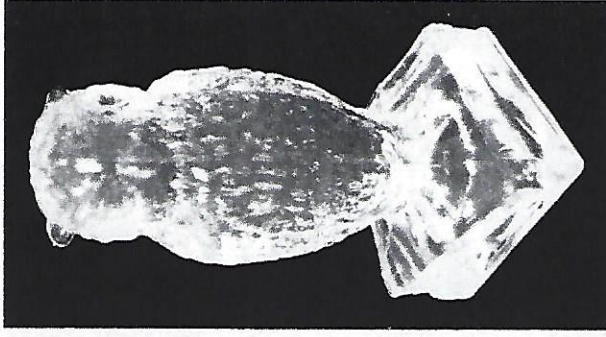


Figure 6

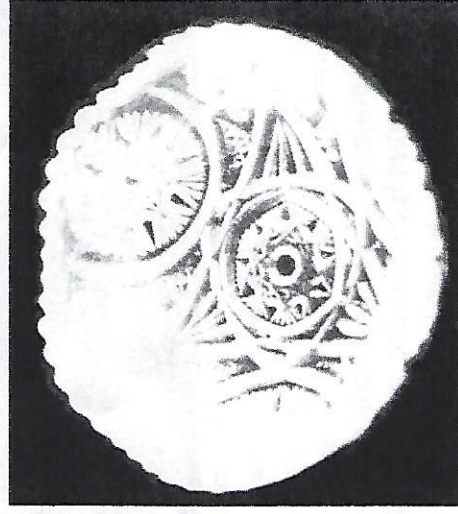


Figure 7

Note: Much of the information for this article and some of the illustrations are from the Vaseline Glass Collectors, Inc., site on the Internet. For anyone interested in learning more about this unusual collectible, I recommend a look.

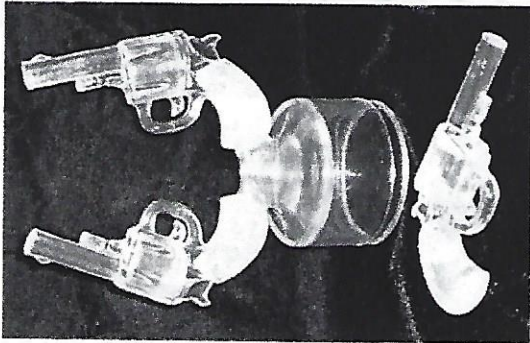


Figure 8

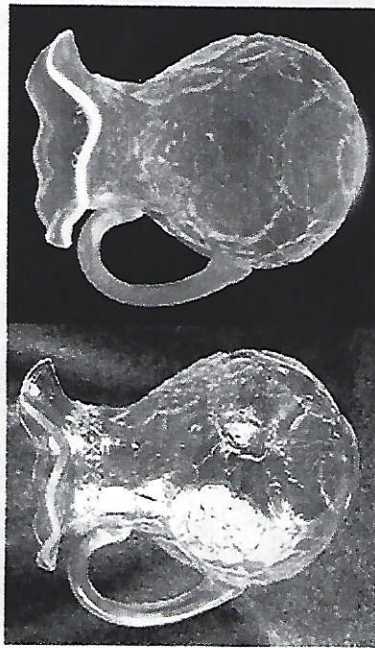


Figure 2

Illustrations:

- Fig. 1:** Imperial Glass Co. candy dish
- Fig. 2:** Cambridge Glass dog and tumbler
- Fig. 3:** Heisey Glass bowl
- Fig. 4:** Beatty Goblet Co. footed vessel
- Fig. 5:** Aetna Glass "hob" mug
- Fig. 6:** Degenhart Glass owl
- Fig. 7:** Kemple Glass bowl
- Fig. 8:** Summit Glass pistols
- Fig. 9:** Ultraviolet on vaseline glass