

## ~ American Cut Glass Steins ~

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During its zenith (1880-1915), American Brilliant Period cut glass was widely regarded as the finest made in the world. Consequently, a number of lidless mugs, tankards and other pieces made in this country were exported to Germany and much of Europe, where lids and/or mounts were custom crafted and applied to satisfy the tastes of local customers. Even the prestigious Russian jeweler Karl Fabergé glowingly advertised imported American Brilliant cut glass items, to be mounted by master Russian silversmiths, in his catalogue. Many collectors may not realize that they own fine examples of American Brilliant Period cut glass steins with original European lids. Armed with new information from this article, you may develop a special appreciation for steins in your collection previously considered to be European.

American Brilliant Period cut glass is typically composed of extraordinarily clear, hand blown, thick walled glass upon which deep cuttings are executed in a complex geometric pattern to produce a prismatic or brilliant sparkle over the entire piece. It is heavy, bold and fine. It was always expensive, and ownership denoted economic and social status. Collections were often assembled by purchasing a few pieces at a time.

The manufacture of American cut glass is generally grouped into four historic periods:

1. Early Period (1776-1830) pieces tend to imitate continental styles (i.e. English, Irish & Bohemian) and are often difficult to distinguish as American.
2. Middle Period (1830-1880) pieces feature increasingly more American styles and designs.
3. Brilliant Period (1880-1915) pieces exhibit a superior clarity in the glass and are generally made from blanks with extra wall thickness which allows deeper and more intricate cuts.
4. Flower Period (1906-1920+) pieces are similar to Brilliant but incorporate hand engraved natural figures. However, mold-blown blanks and other devices were regularly utilized to reduce the costs of handwork, sometimes diminishing quality from the Brilliant Period.

### Three Examples

The stein illustrated in figure 1 (9-3/4" tall, unsigned, C 1880's, no capacity mark) has a typical American Brilliant geometric pattern cut over almost the entire surface of the glass. This pattern is called Hob and Lace. Although manufacturers often imitated each other's popular patterns, the stylized monogram and cartouche on this stein is a distinctive characteristic of the Christian Dorflinger firm, White Mills, Pennsylvania. This stein is also overlaid with a coating of cranberry colored glass and cut to clear with deep geometric sparkling miter cuts into a typically thick wall of glass. Miter cutting describes the deep narrow high angle inclusions made into the glass with sharp stone wheels called miter wheels. The high surface luster overall on this stein is evidence of careful hand polishing on a series of wooden wheels and fiber brushes. Soft woods such as willow or poplar were used with abrasives such as pumice to remove a gray-white color from the cut surface and return it to the soft clear luster. This early 1880's practice was eventually supplanted in the industry by easier acid polishing, which never looked as good, unless followed with additional hand polishing to remove the watery appearance left by the acid. Dorflinger was one of the few producers of American Brilliant colored cut glass, which took particular skill to make and is expensive and highly prized today. The glass was made by placing a layer of colored glass over a clear layer. The pattern was then cut from the colored layer through and into the clear glass.

This stein is lidded with exuberant pewter, incorporating a thumb lift of a Burgermeister doffing his hat while hoisting a stein, and a finial depicting a cat afflicted with a woeful hangover. There is a three-part open hinge above the pewter strap which has been poured around an un-notched handle. No pewter marks are to be seen, but the workmanship is of good quality, and unmistakably German in character.

The stein illustrated in figure 2 (8" tall, unsigned, C 1880's, no capacity mark) is cut in a variation (Persian) of the tremendously popular Russian pattern patented by Thomas Hawkes, Corning, New York. However, this piece shows characteristics (the five-sided shape of the handle and the cut back drinking lip) that were also often Dorflinger's. Manufacturers frequently copied each other's patterns and also cut patterns under license from competitors during times of peak demand.

The pattern name "Russian" came from the fact that a complete banquet service in this design was selected for the Russian Embassy in Washington and later for the American Embassy in St. Petersburg. The "Persian" variation of Russian incorporates an intricate multiple pointed star on the surface of the flat six-sided hobnail figure. Persian was both expensive and rare. Dorflinger was known to cut a large production of this variation. This stein also incorporates a coat of arms and initials in a center cartouche.

Again, there are no marks on the well-crafted silver lid which is attached to the handle with a jeweler's clamp. The thumb-lift bears a dwarf with a tall pointed hood about to enjoy his own stein of beer.

The stein illustrated in figure 3 (10-1/2" tall, unsigned, C 1880's, no capacity mark) is much less sophisticated in design than the previous examples, yet it is a great piece of American Brilliant Period glass as characterized by its clarity, wall thickness, and cutting motifs. And although it also bears a handle shape and drinking lip similar to the preceding, it and many other pieces cut during the early years of the Brilliant Period have no signature. Identifying manufacturers by secondary traits, motif, pattern, or color is tenuous at best.

Motifs of strawberry diamonds alternate with intersecting prisms (or bars) around the body of the stein, offset by borders of fans and single stars. The surface has been highly polished by wooden wheels and fiber brushes, and the clear glass virtually gleams.

The stein is topped with a heavy silver plated lid which is also unsigned, but typical of the type used by German remarketers of this period. The hinge is tightly constructed of five pieces with closed ends, and the stein's handle has been notched where the strap is poured. That notch has never been wood or acid polished, indicating it may have been made when the lid was applied, rather than when the glass was manufactured.

### Historical Development

The confluence of several planned and serendipitous circumstances prompted development of American Brilliant Period cut glass into world class decorative art. Tariffs on foreign glass effective in the beginning of the Middle Period allowed developing American glass houses to prosper and perfect their own markets and styles. About 1876, with the advent of economic prosperity in this country and much of Europe, American glass houses began to satisfy the public's newfound desire for finer things. Then the advent of new technologies allowed enterprising American manufacturers to quickly outstrip their European competitors.

Natural gas was soon widely used to fire the glass furnaces in order to provide better temperature control than coal or wood. Precise temperatures provided a rapid, even fusion of the glass mix to greatly improve glass clarity, reduce imperfection, and improve quality. Natural gas was also adapted to annealing furnaces where temperatures were slowly and precisely reduced from furnace to room temperature. Perfect annealing temperatures aided glass clarity, and reduced hidden stresses which could otherwise cause some glass to spontaneously shatter. European firms, however, continued to struggle with slow, uneven fires in their furnaces, which impeded fusion of the glass and inadvertently contributed a gray tint to it.

Similarly, American manufacturers were much quicker than Europeans to adapt electricity to power the wheels of their cutting and polishing lathes. Electricity not only speeded up the work and reduced labor costs, but it powered and speeded up the wheels so well that more deeply cut miters and even intricate curved miters could be widely used by Americans. Concurrent with electrification was incorporation of many improved machining and manufacturing techniques, which not only enhanced the quality and ornamentation of the glass but more accurately purified, weighed and mixed materials.

At this time, there was a fortunate discovery in the American Midwest of extremely pure deposits of sand nearly perfect for making a colorless glass. Little to no manganese or other decolorizing agents was required in the glass mix with this sand. Such agents often left a slight residual blue tint in clear glass made in Bohemia, Ireland or England, where impurities were contained in sands used for glass.

Most importantly, American glass houses deeply embraced the technology of manufacturing full lead crystal glass (38-44% lead oxide) in the Brilliant Period, while Bohemians continued to prefer a soda potash glass which contains no lead. Lead content imparts superior qualities of luster, clarity, density and prismatic brilliance (refraction of light) when compared to potash glass. Although Bohemian (and Irish and English) glass was often made in excellent quality, there was no better glass than that



1/2-liter blown and cut glass stein, cranberry over clear, Hob and Lace pattern. Note the cut along the handle.



1/2-liter blown and cut glass stein, clear, silver lid, Persian pattern.

made by Americans in the Brilliant Period.

## The Cut

The typical heavy wall thickness utilized in glass blanks for Brilliant Period cut glass, in conjunction with the softness of the lead and the absence of glass flaws, allowed Americans to make extraordinarily deep and complex miter cuttings into the glass without breakage from the vibration of the miter wheels. Americans cut the miter much deeper and narrower than Europeans. American stone miter wheels were generally dressed to a 65° angle point versus the 95° used in Europe. The edges of the cutting on American Brilliant glass are noticeably sharper than most European cuts. American points feel sharp to the finger. European cuts will generally feel smooth, although some European glass does match American sharpness, but rarely matches the depth of cut.

## Significance

American Brilliant Period steins make a striking complement and counterpoint to the European glass in most collections. A milestone in this country's accomplishments, they conjure interesting speculations regarding the marriage of lid to stein body, and perhaps this cross-culturization was a harbinger of America's influence. American Brilliant Period cut glass is superbly crafted and is the finest of its kind. American Brilliant Period cut glass steins are historically important and distinctive objects of decorative art.

Special thanks to Dick Lovell of Cypress Antiques for use of the stein in figure 2, and to Lawrence Beckendorff for photographing the steins in figures 1 and 3.

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½-liter blown and cut glass stein, clear, multiple patterns.