

Reprinted with permission. *Glass Club Bulletin*, v. 209, Autumn 2007.

More Puzzling: Larger Objects Patterned in Smaller Molds

by
Ian Simmonds

Between about 1813 and 1840, glass manufacturers in America produced affordable highly decorative tableware using full-sized, multi-part, hinged molds that imparted both a pattern and a form to the glass. The molded designs imitate those of contemporary cut glass but at a cost appropriate for a broader, mass market.

Blowers reshaped the patterned, mold blown bubble of glass, expanding and augmenting it to create a wide

variety of tableware. In doing so they exploited an important property of hot glass—its ability to retain a pattern as it is further heated and shaped. That a pattern can survive expansion and reshaping is part of the same phenomenon that allows hot glass to be formed into vessels at all.

Collectors and students of what is now called Blown Three Mold soon become familiar with the typical re-

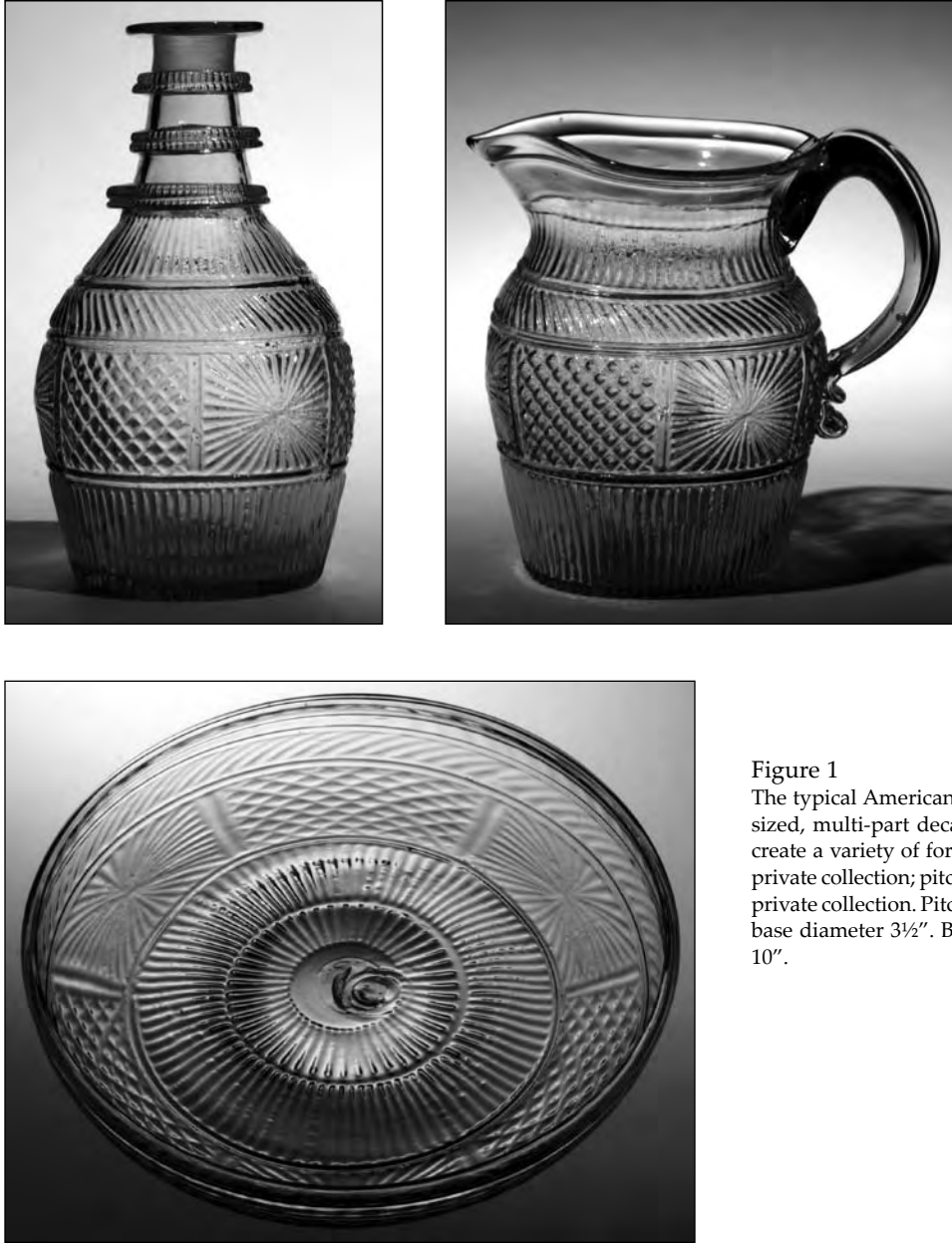


Figure 1

The typical American use of a full-sized, multi-part decanter mold to create a variety of forms. Decanter: private collection; pitcher and bowl: private collection. Pitcher 6¼" high, base diameter 3½". Bowl diameter 10".

shapings used by American glass workers.¹ These are illustrated by three pieces made in the same or identical molds (Figure 1). Most American mold-blown decanters received both their pattern and shape in a single three-part, hinged mold. Besides its flared lip and applied neck rings, the decanter in Figure 1 faithfully represents the shape, size, and pattern of the mold in which it was made, even down to the position and slight misalignment of the edges of each leaf of the mold. A pitcher patterned in the same mold required significant additional work including the broadening of its neck, the formation of a spout, and the addition and shaping of a handle. This additional work is reflected in the relative costs of

"Mol[de]d Gothic Arch" decanters and pitchers listed in invoices from the New England Glass Company to merchants in Baltimore in 1829. At \$1.75 per dozen, the decanters were 15¢ each while the pitchers were \$4.50 a dozen or 37½¢ each.²

In contrast, two decanters presented by Richard Sheaff in the "Tale of Three Decanters" in the Autumn 2006 issue of *The Glass Club Bulletin* (no. 206, p. 5) are far from the norm for American Blown Three Mold. Not only is their pattern unfamiliar, but the reason for the diffuseness of their pattern remains a conundrum, as does the manner of their making and the reason why the maker did not use a full-sized club-shaped mold.³



Figure 2

Variations in shape and proportion due to hand shaping following patterning in the same three-part, full-sized mold. Top row: Sotheby Parke-Bernet sale 4076 (1978) lot 1150; Parke-Bernet sale 100 (Alfred D. Maclay, 1939) lot 129; American Art Association/Anderson Galleries sale 4211 (Alfred D. Maclay, 1935) lot 509; Bottom row: Sotheby Parke-Bernet sale 187 (Frederick K. Gaston, 1940) lot 125; and William D. Morley (W Griffin Gribbel, April 1949) lots 119 and 120. Heights vary from 7½" to 8¼".

Having sought and failed to find conclusive answers either in the glass literature, related pieces or in discussion with a glassblower, this author has decided to share his main findings "as is."

Sheaff's club-shaped decanters and others like them are of a "clean" precise shape that has been described as difficult, if not impossible, to achieve without a mold.⁴ Parks, Edmunds and Parks of Kent, Ohio, have left considerable evidence of the difficulty of expanding decanters patterned in a smaller barrel-shaped mold without the benefit of a second mold to impart a final shape.⁵ While each decanter and bottle in Figure 2 received its pattern in a mold shaped like the left-most decanter, it

has a unique form and size as a result of a combination of blowing, tooling and elongation. To the extent that any two bottles or decanters in this pattern match each other in size or shape it is the result of chance or skill rather than highly predictable expansion within a mold. Extra curvature in the band of vertical ribs of the fourth, broadest example suggests that bands of ribs and diamonds may differently constrain or ease expansion as the patterned bubble is further blown.⁶ Precise reshaping of the Kent decanters may have been hampered by the relative difficulty of working their non-lead bottle glass, which has a more limited working temperature range than the lead glass of Sheaff's decanters.⁷



Figure 3
Using a shallow, open-top mold to insert an angle further out. A mug and bowl patterned in the same mold (private collection). Mug: overall 3 5/8" high, base diameter 2 5/8". Bowl: diameter 6 1/2."

The precise and regular shaping of Sheaff's decanters raises the possibility that two molds were used. The first mold had the form, size and pattern of the barrel-shaped decanter also shown by Sheaff.⁸ This mold was likely made of iron or brass, or even of clay.⁹ The second, larger mold would have also been hinged with at least two parts and used to impart a shape but not a pattern. Like later examples this mold would have been made of wood and kept damp to avoid excessive charring.

Precise and regular shaping is also evident in a great many surviving bowls that, like the large bowl in Figure 1, received their pattern in tumbler or decanter molds before being reshaped to have a much broader base than they received when patterned. Figure 3 shows a bowl and mug that were patterned in the same tumbler mold. The band of flutes that was at the base of the side of the mug appears to have jumped to the base of the bowl. While still on the blowpipe it was in some way expanded and partially reshaped.¹⁰ It was then transferred to a pontil rod where its rim was trimmed and folded out before the final flare of the bowl was completed through tooling.

As described by Sheaff, the base of the decanters (Figure 4) shows a similar relocation of part of the pattern.¹¹ The flat base acquired in the mold appears to have been little expanded even as a couple of rings of the side design were moved to surround it. Reshaping led to slight variations between decanters as it was impossible to precisely predict how the pattern would travel within the larger mold.¹²



Figure 4
The base of a quart decanter matching Sheaff's, showing its polished pontil with remnants of the pontil mark, two of its three vertical mold seams (along the left edge and toward the right), and the extension of those seams to the edge of the plain original base of the decanter. The edge of the original base shows considerable wear. Private collection, Connecticut.

The achievement of near perfect centering of the decanters' and bowls' bases as each piece was expanded in a mold appears difficult. This is emphasized in comparison with a group of tumblers that were less precisely expanded (Figure 5). If the dish of figure 3 were expanded from a tumbler-shaped bubble using an open-



Figure 5

Two tumblers showing evidence of expansion in a larger mold after having been patterned in a mold with flutes above a horizontal rib above diamonds above a horizontal rib above flutes, and a base plate with large diamonds. The lowest band of design of the right-most tumbler shows diamonds from the base plate, while the lower horizontal rib of the left most example slopes sharply at the right. American Art Association/Anderson Galleries sale 4010 (Herbert Delavan Mason, 1932), lot 301.

top dish-shaped mold, the perfect centering of the base area would have required careful positioning of the bubble to touch the center of the mold prior to expansion. This centering would be more difficult to achieve in a hinged mold suitable for enlarging a decanter.

Two period accounts suggest that the decanters, in particular, may not have received their final form in a wooden mold. Firstly, Apsley Pellatt left an illustrated account (Figure 6) in which the sharp angle at the base of a decanter was made using a battledore, a piece of flat, dampened wood pressed against the base of the decanter as it was spun upon the arms of the glassblower's chair. If a bubble were first patterned in a smaller hinged mold it could still be enlarged by blowing before being reshaped by hand and battledore in this usual way. Secondly, Charles Colné, writing in 1880, felt the need to recommend the use of wooden molds to American glass manufacturers, suggesting that they had not been benefiting from what he felt was a Bohemian innovation.¹³ While expressing his astonishment at the beautiful and precise forms created without molds by English glass blowers, he nevertheless felt that wooden molds would be more economical. Taken together, Pellatt and Colné's accounts suggest that Sheaff's club-shaped decanters and, perhaps, the bowls, received their final form by hand manipulation rather than in a larger mold.

With evidence both for and against the use of a mold to constrain expansion, it seems that little for certain can be said about how these pieces were made without actually trying to recreate them. It is hoped that this experimentation will happen in the near future.

In publishing his decanters, Sheaff was less interested in how the decanters were made than why the blower did not use a larger multi-part mold to shape and pattern them in a single operation. Of Sheaff's various explanations this author agrees that it is most likely that they were made to "meet some immediate need for larger club-shaped decanters when no proper mold was available."¹⁴

But why was a club-shaped decanter mold not available? The cost of making a larger mold does not appear to be the reason. In 1812, a mold maker in Newcastle, England charged just 12 shillings—under \$2—for two brass glassmaker's molds bearing eagles¹⁵ suggesting that at least some metal molds were surprisingly inexpensive.¹⁶ On the contrary, a factory might well assemble a sizeable body of molds. For example, the first items listed in auctioneer J. L. Cunningham's October 17, 1827, advertisement¹⁷ in Boston's *Columbian Centinel* for a sale of "Glassmaker's Materials and tools, &c." from a recently closed factory were "100 Moulds, for Glass Makers." Equally, Helen McKearin determined the existence of nearly 400 molds used to make Blown Three Mold. Assuming that the majority of these are in fact American and that there were as many as 20 lead glass factories capable of using them, this suggests an average of 20

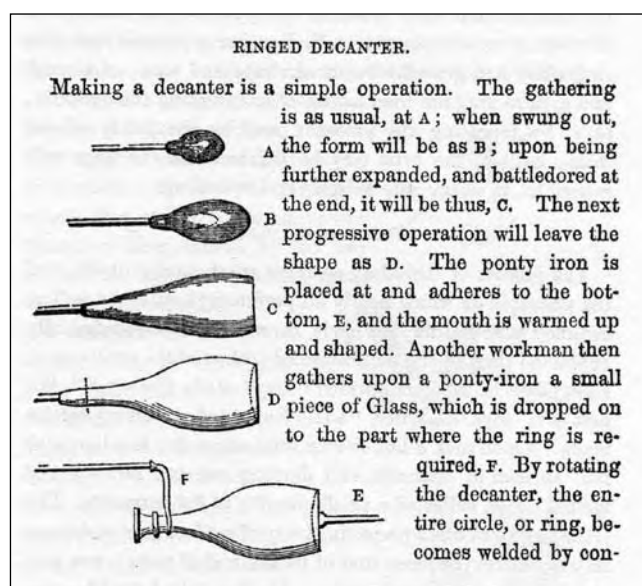


Figure 6

Apsley Pellatt, *Curiosities of Glass Making*, p. 101.



Figure 7
Salt dish with stem drawn from the mold-blown bubble, and with applied petal foot. Height 2½". Private collection.

such molds per factory. For some factories the number was probably much higher.

A search for related pieces has raised the possibility that the makers of the decanters had similarly patterned molds in at least three different sizes. Three molds have been determined bearing the pattern consisting of a pile of rings beneath alternating panels of vertical bars and diamond diapering. A first is the mold used for Sheaff's barrel-shaped decanter. A second, smaller-sized mold was used to create a creamer now at Corning. A third yet smaller mold was used to make a salt dish (Figure 7).¹⁸

Perhaps more interestingly, why did the manufacturer have barrel-shaped molds but no club-shaped mold? One explanation might be that it was more important for barrel-shaped decanters to be of a precise size and shape. Pint-sized barrel-shaped decanters and square decanters with chamfered corners were intended to fit metal or wooden frames and have long been thought to be among the earliest examples of Blown Three Mold.¹⁹ The production in quantity of matching frames and bottles—as practiced at the New England Glass Company as early as 1819²⁰—relies on frames and bottles having standardized sizes. This is best achieved with molds. Indeed, several patterns of Blown Three Mold feature barrel- or square-shaped decanters with no corresponding club-shaped decanters.²¹

In the absence of a quart-size club-shaped mold in this pattern, it would have been only a minor innovation for a blower working in the Anglo-Irish tradition to use a hinged three-part mold to impart a pattern before expanding it by whatever means to create a larger

decanter.²² That there was no club-shaped mold available may suggest that these decanters date from an early period of full-sized, multi-part patterned molds. Recognizably Anglo-Irish in technique and from a pattern not assumed to be American, they may support the case that Blown Three Mold was an Anglo-Irish invention.

References

Acknowledgement: The author wishes to thank Richard Sheaff, J. Garrison Stradling, May Warren, Jane Shadel Spillman, Kurt O'Hare, and glassblower Art Reed for their comments on earlier drafts, which led to a substantial revision of the article.

1. For a systematic treatment of American Blown Three Mold, see George S. and Helen McKearin, *American Glass*, Crown, 1941, pp. 240–331. See also Kenneth M. Wilson, *American Glass 1780–1930*, The Toledo Museum of Art, 1994, pp. 168–171.

2. Helen McKearin, "New England Glass Company Invoices, Part I." *Antiques*, September 1947, pp. 174–179. The price of quart decanters has been compared here to that of 3-pint pitchers (listed as "jugs").

3. In "The Three Decanter Puzzle" in the Summer 2007 issue of *The Glass Club Bulletin* (no. 208, pp. 5–6), Wallace Venable offered an explanation. This article is an attempt to shed further light on the topic.

4. Conversation between the author and glassblower Art Reed, October 28, 2007.

5. McKearin [note 1], p. 274; and Helen McKearin and Kenneth M. Wilson, *American Bottles and Flasks and their Ancestry*, Crown, 1978, pp. 352–353.

6. Conversation with Art Reed [note 4].

7. The expanded decanters from Kent are atypical in American Blown Three Mold. Only rarely, in this author's experience, does an American decanter patterned in a full-sized multi-part mold have a form or size different from the mold in which it received its pattern. See for example, McKearin [note 1], pl. 127, no. 5; and Palmer, *Glass in Early America*, Winterthur, no. 100, 1993, pp. 144–145.

8. Sheaff suggested that the mold was cylindrical. However, no narrow cylindrical decanters are known in this or related patterns. Barrel-shaped decanters seen by the author show no signs of expansion.

9. The author is aware of just one surviving three part decanter mold from the period, a Swedish mold made of a mixture of clay and sand with metal hinges and handles. This is in the Smålands Museum of Sweden and was used to make decanters in McKearin pattern GII-27. See Jan Brunius et al., *Svenkst Glas*, 1991, page 31.

10. It is possible that bowls were reshaped using an open-top, dish-shaped brass mold of a kind used for making heavy bowl-shaped blanks suitable for cutting. Apsley Pellatt (*Curiosities of Glass Making*, London, 1849, p. 96) describes and illustrates that process.

11. Although the illustrated decanter is not Sheaff's, his examples are similar.

12. An example illustrated in a photograph in the Helen McKearin archive in the Rakow Research Library of The Corning Museum of Glass, shows remains of the top band of flutes matching those of Sheaff's barrel-shaped decanter.

13. Charles Colné, "Report on Glass and Glass Manufacture." *Reports of the United States Commissioners to the Paris Universal Exhibition, 1878*, v. III, page 377.

14. It appears that too many of these decanters survive for them to be interpreted as anything other than typical commercial products.

15. For the English brass mold, see Margaret Ellison, "The Tyne Glasshouses and Beilby and Bewick Workshop." *Archeologia Aeli-ana*, v. 3, 1975, pp. 143–193. Exchange rates for the period before 1835 are difficult to calculate, although some rough indication can be obtained from examples in Dwight P. Lanmon, *The Baltimore Glass Trade, 1780 to 1820*, Winterthur Portfolio 5, 1969.

16. The earliest surviving American flask mold is made of brass, while slightly later survivors are made of iron. For a detailed account of surviving molds see Gay LeCleire Taylor, *Out of the Mold*, Museum of American Glass, Wheaton Village, 1990. See also Miriam E. Mucha, "Solving the Mystery of Two Altered American Bottle Molds," *Journal of Glass Studies*, v. 25, 1984, pp. 111–119; and Jane Shadel Spillman, "Two Early Molds." *The Glass Club Bulletin*, no. 191, Autumn 2001.

17. Kenneth Wilson, *New England Glass and Glassmaking*, Old Sturbridge Village/Crowell, 1972, page 209.

18. In the case of the salt and creamer, upper parts of the pattern were either cut away or simply not present in that size of mold. Similarly, the McKearins' pattern GIII-4 has fewer bands than the closely related GIII-5 and GIII-6.

19. For example, see McKearin [note 1], page 264.

20. In listing the occupations of workers at the New England Glass Company, a writer noted that "many are employed in making moulds, castor-frames, brass trimmings for lamps, &c. &c." *Niles Register*, v. 16, August 14, 1819, page 404. J. Stanley Brothers Archive, Rakow Research Library.

21. Among likely frame bottles shown by the McKearins see barrel-shaped decanters in patterns GI-2 and GII-7, and square decanters with chamfered corners in patterns GII-28, GII-29, and GII-30. Examples not listed by the McKearins include McKearin [note 1], pl. 124, no. 1; and Andy McConnell, *The Decanter*, Antiques Collectors' Club, 2004, pl. 400 nos. 1 and 3. This author has seen barrel-shaped decanters in pattern GI-23 or 24 and other unlisted patterns.

22. Similarly shaped Anglo-Irish decanters are known to have been patterned in a variety of other ways including cold worked engraving and cutting, and hot worked patterning in an open-top dip mold. See McConnell [note 21], pls. 331–334 and 338; and Phelps Warren, *Irish Glass*, 2nd edition, Faber and Faber, 1981, pp. 134–135, 137, and 139.