Notes from the Oesper Collections

Some Named Glassware

William B. Jensen

Department of Chemistry, University of Cincinnati
Cincinnati, OH 53706

It is well known that certain pieces of basic laboratory glassware are named in honor of famous chemists of the past, though most often this naming process has had more to do with the advertising practices of laboratory apparatus dealers than with historical fact. As a consequence, it is often unknown when and where the chemist so named first proposed the item in question or, indeed, whether he ever did so in the first place (1).

A case in point is the common laboratory beaker, which used to come in two varieties – a tall-form (figure 1, back), also known as a Berzelius beaker in honor of the famous Swedish chemist, Jöns Jacob Berzelius (figure 2); and a short-form (figure 1, front), also known as a Griffin beaker in honor of the British chemist, John Joseph Griffin (1802-1877).

The plates of apparatus appearing in Lavoisier's famous textbook of 1789 do not show any beakers (2), though a drawing of one (figure 3), sans pouring lip and dimensions, does appear in Berzelius' equally famous textbook of 1823 (3). The later distinction between and names for the two varieties appear to be due to none other than Griffin himself, who operated a well-known laboratory supply house in London and used these names in his supply catalog, though he de-

Figure 1. 19th-century examples from the Oesper Collections of tall-form or Berzelius beakers (back) and low-form or Griffin beakers (front), all made of lime or Bohemian glass.

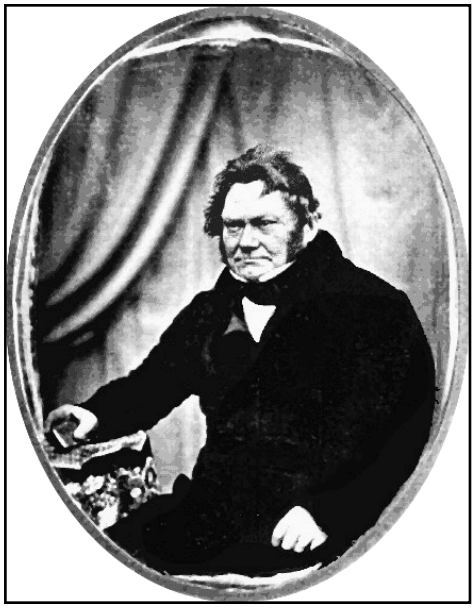

Figure 2. Jöns Jacob Berzelius (1779-1848)

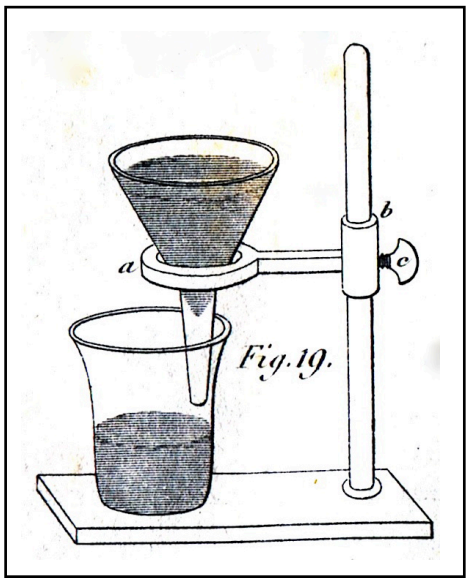

Figure 3. An early illustration of a laboratory beaker from Berzelius' textbook of 1823.

Figure 4. 19th-century examples from the Oesper Collections of a round Florence flask (left) and a conical Erlenmeyer flask (right), both made of lime or Bohemian glass.

scribed the Berzelius beaker as a narrow- rather than a tall-form and the Griffin beaker as a wide- rather than a short-form (4).

A second case involves the laboratory flask. The term flask comes from the medieval Latin *flasco*, meaning a container or, more specifically, a wine bottle. In keeping with this, until the second half of the 19th century the most common laboratory flask was the so-called Florence or round-bottom flask (figure 4, left), apparently named after Florence, Italy, well known for its glass blowing industry, and obviously derived from a round-bottom wine flask like that still used for Chianti (figure 5).

Figure 5. Assorted 19th-century round-bottom wine flasks from the Oesper Collections

The common conical shaped laboratory flask (figure 4, right), on the other hand, is named in honor of the German organic chemist, Emil Erlenmeyer (figure 6). Though this attribution is mentioned in Child's classic study of the history of chemical apparatus, he provides no reference or date for its introduction (5). Interestingly, this flask can be found in the 1866 catalog for J. J. Griffin & Sons, where no mention is made of Erlenmeyer and it is instead referred to as a "triangular flask" (6). Its major advantage over the more traditional Florence flask is that it is far easier to clean.

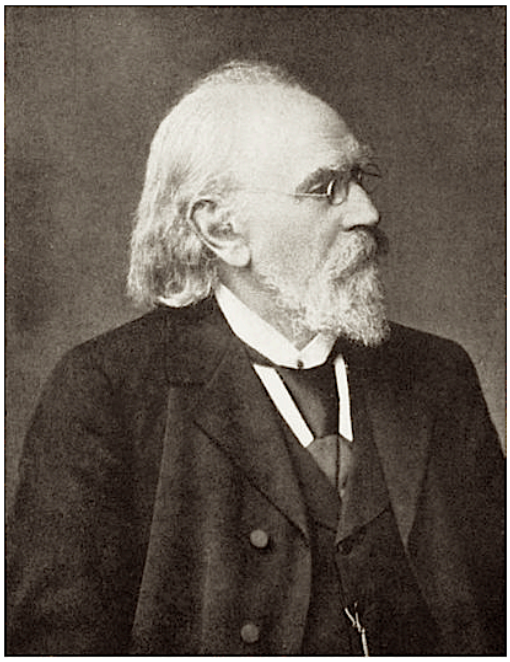

Figure 6. Emil Erlenmeyer (1825-1909)

References and Notes

1. For an example of a misnamed piece of common laboratory apparatus, see W. B. Jensen, "The Origins of the Liebig Condenser," *J. Chem. Educ.*, **2006**, *83*, 23.

2. A. Lavoisier, *Elements of Chemistry* Creech: Edinburgh, 1790.

3. J. J. Berzelius, *Traité de Chimie*, Vol. 8, Didot Frères: Paris, 1823, Plate I, figure 8, and Plate III, figure 19.

4. J. J. Griffin, *Chemical Handicraft: A Classified and Descriptive Catalog of Chemical Apparatus*, Griffin & Sons: London, 1866, pp. 152-153, items 1440 and 1481.

5. E. Child, *The Tools of the Chemist*, Reinhold: New York, NY, 1940, p. 41.

6. Reference 4, p. 148, item 1408.