

Curator's Choice

"The eye of a human being is a microscope, which makes the world seem bigger than it really is." Khalil Gibran (1883-1931)

Under the Microscope: A Nineteenth Century Flea Glass

By: Patricia Samford,
MAC Lab Director

Nineteenth-century physicians often found that they needed more than just the naked eye to assist them with offering quality health care to their patients. Using magnifying devices, like this rudimentary microscope known as a flea glass (Figure 1), allowed them to gain a better view of wounds or for routine examinations of ears, eyes and throats.



Figure 1. Handled flea glass dating to the second quarter of the nineteenth century. <http://www.worthpoint.com/worthopedia/simple-microscope-flea-glass-245822098>

Invented in the 1500s, flea glasses were used primarily for studying insects and other small life forms (hence the name), rather than for medical purposes. A small, convex lens held nearest to the eye and a larger, flat lens at the opposite end of a short metal tube allowed for magnification ranges of 6x to 10x.

With large populations living in close proximity, it was critical for cities to provide medical services. At various times during the eighteenth and nineteenth centuries, infectious diseases, including tuberculosis, cholera, yellow fever and smallpox, struck Baltimore (Mdmedicine 2017). Clinics, like the Southern Dispensary, played key roles in treating infected individuals and preventing widespread epidemics.

The lenses and iron fittings of a flea glass or similar simple microscope were recovered from a circa 1850 to 1870 privy excavated at the Federal Reserve site (18BC27) in Baltimore (Figure 2). This magnifying instrument may have been mounted on a stand, similar to the instrument shown in Figure 3 (Bradbury 1968). A medical use for this scientific instrument was assumed because the privy fill also contained a number of other artifacts relating to medical care—a mortar and pestle, a salve jar, a pill tile, a leech jar, a number of medicine bottles and a possible stethoscope.



Figure 3. Simple microscope mounted on a stand. Similar instruments were illustrated as early as 1685 in *Oculus Artificialis* by Johann Zahn.

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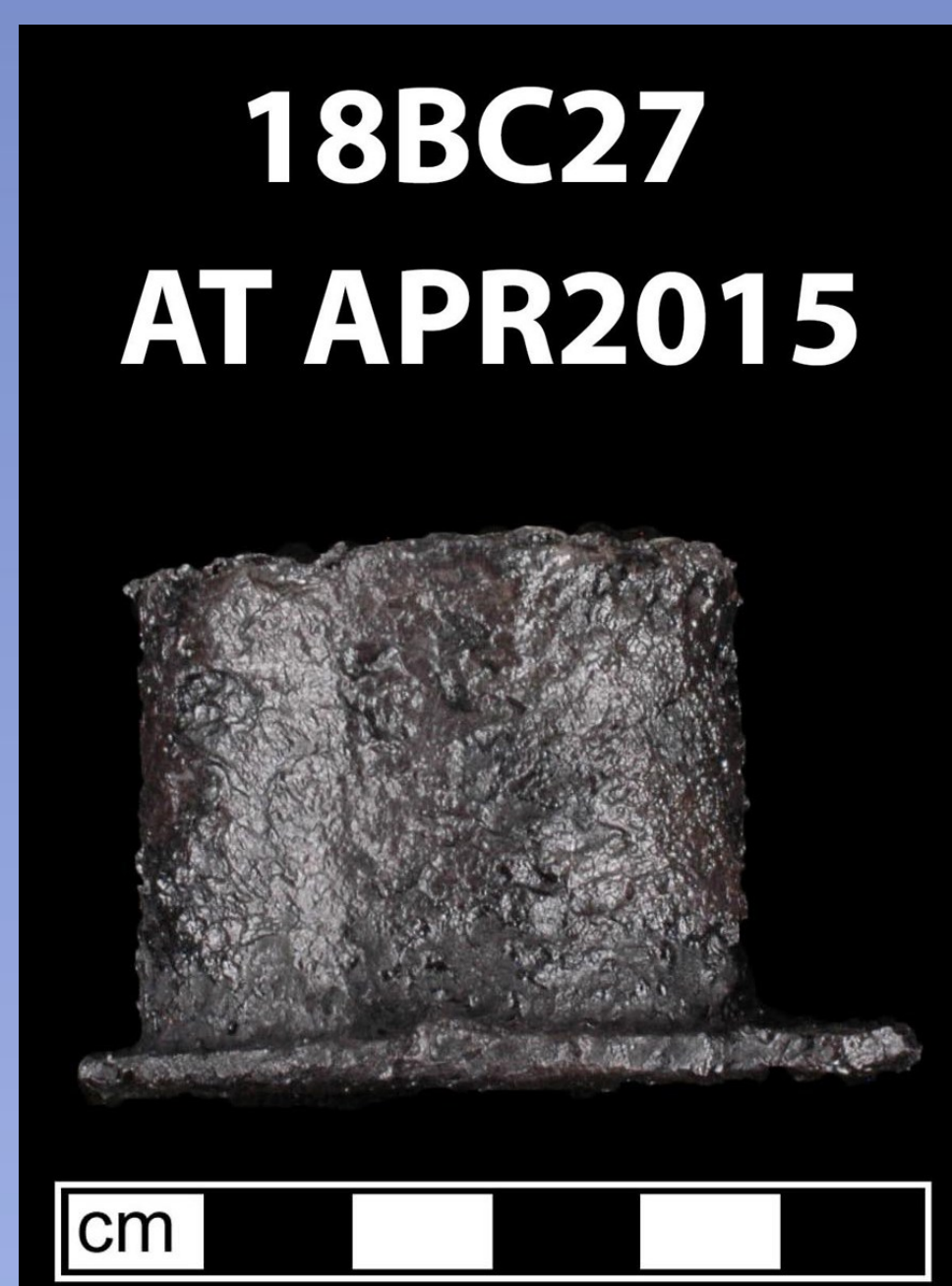
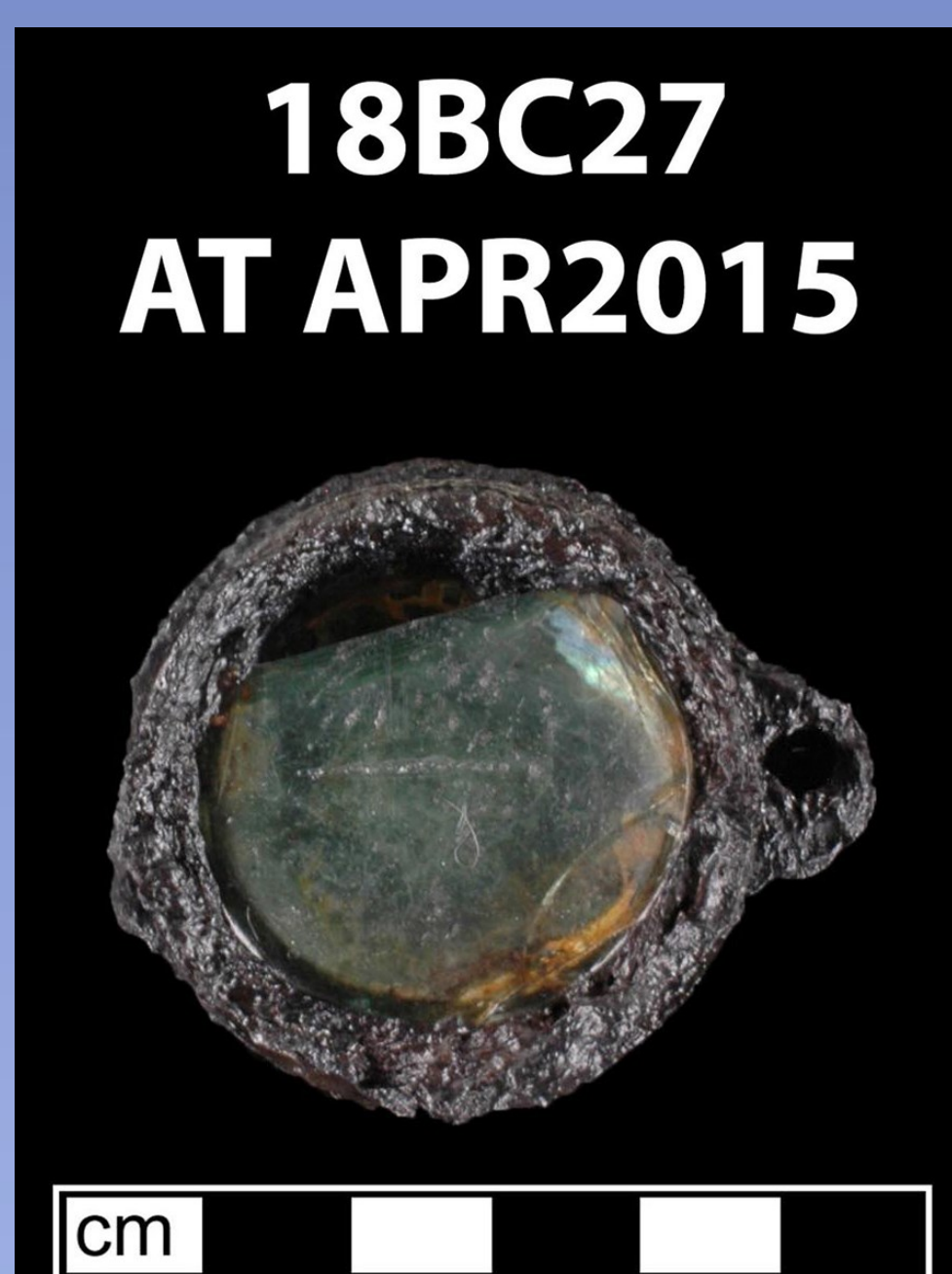


Figure 2. Flea glass or simple microscope from the Federal Reserve site. Top and side views. Photo by Nichole Doub, Maryland Archaeological Conservation Lab.

Documentary records indicate that the privy was located near the Southern Dispensary, a branch of the Baltimore General Dispensary. A dispensary supplied free medicine and health care for citizens who could not otherwise afford medical services. The Southern Dispensary, funded by charitable donations and a small appropriation from the city, was incorporated in 1847 and remained in operation until at least 1889 (Woods 1847; Register 1890). The dispensary offered both clinic and in-home health care (Polk 1888).



10515 Mackall Road
St. Leonard, Maryland 20685

410-586-8501 www.jefpat.org



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