



# Carlyle House Docent Dispatch

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Northern Virginia Regional Park Authority

## Buckets, Barrels, and Rundlets: The Craft of a Cooper

When you think about the most important items invented in history, a barrel is not the first thing that usually comes to mind. Some would argue, though, that the barrel was one of the most important inventions in civilizing mankind. The creation of the barrel and other wooden containers revolutionized the way that large amounts of food and liquid were stored and transported. The cooper was at the center of this transformation. Coopering as a craft has been around for thousands of years. Egyptian tomb paintings of 2,000 B.C. show staved buckets. Barrels are mentioned in the Bible. Pliny records that casks were used to contain wine in Gaul. It is not clear when the first barrel, whose appearance we would recognize, was created. But by medieval times, these barrels had become vitally important storage containers and have remained so up until the present.

The products of a cooper would have been very important in John Carlyle's domestic and business life. Unlike today where we pack goods in cardboard boxes or plastic containers, 18<sup>th</sup>-century goods were stored and shipped in a variety of wooden containers made by a cooper. Barrels were required for storing flour, whiskey and rum, butter and cheese, as well as a variety of other food products. The cooper also made buckets, churns and tubs and many other necessary household items. In

Virginia, barrels would have been necessary to ship tobacco to England, 100,000 of them a year toward the end of the eighteenth-century.

There were also a variety of sizes and names for containers. A barrel, for example, is a cask that holds exactly 36 gallons of liquid. Half of that size is called a kildrekin or rundlet. Double the barrels capacity and you have a puncheon. There are also hogsheads that hold 54 gallons, a pipe or butt that holds 126 gallons, and finally the ton which contains 252 gallons.



*A Cooper*

Barrels would have also been very important to John Carlyle because as a successful merchant he would have relied on good quality barrels to ship his goods. Ceramics and glassware were often stored in barrels when they were shipped overseas to prevent breakage.

This method was not so successful in the case of one angry patron who writes to a merchant in July 1741, "For the Barrel, was whole and faist naid, when it came ashore & when we opened it, the glasses were broken & yet not one piece of glass as big as my nail to be found in the straw which I caused to be taken out and shaken before my eyes."

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### Carlyle House

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## The Craft of the Colonial Cooper (con't)



Making these wooden storage containers, such as barrels and buckets, takes great skill. There are two main types of coopering, wet and dry. For dry coopering, the cooper can use cheap wood because the fit does not have to be watertight. In the eighteenth century, these containers were used to hold things like flour, fruit and other dry products. For wet coopering, the type of wood is important in the size and fit of the barrel, as well as the taste that it gives the liquid contents.

To make a container of any size or shape, the cooper first splits rough pieces of wood called **staves**. The staves need to be jointed, a complicated process which involves giving each stave the right angle on their edge to ensure that the radius of the cask is equal throughout each stave. As these staves fit together, the joining must be so accurate that the staves fit together and do not allow any leakage of liquid under pressure.

Next, the cooper gathers the staves in a circle and secures them with a hoop. The staves are then heated over a fire so that they become pliable enough to fit trussing rings around them. As the cooper hammers down the rings, the warm staves bend from the middle, giving the container its

shape. In the eighteenth century, the trussing rings for larger barrels or casks were usually made out of iron. For buckets and other small containers, the cooper would use wooden hoops because the wood was less expensive. Hoops have to be driven down to help shape the container while the wood is still hot. If a stave is broken during this process, the cooper must begin all over again!

When you realize the great skill and time involved in producing these wooden containers, as well as their great utility in colonial Virginia, it makes you look at the buckets and barrels we have on display at the Carlyle House in a whole new way.

### Sources Consulted:

- *The Village Cooper*, by K. Kilby.
- *Colonial Craftsmen*, by Edwin Tunis.
- "The Craft of the Cooper" by Luis Marden: Colonial Williamsburg, Winter 1989-90.

