## AN INTRODUCTION TO WHEELWRIGHTS

Once a mainstay of the community, a wheelwright was a trade involved with the construction of wheels for diverse types of wagons and carriages. Often known as a local carpenter, the wheelwright would perform jobs with precise expertise at various locations throughout the community involving woodworking. Working without the assistance of drawings, these tradesmen developed great expertise at their craft.

A wheelwright shop was normally situated near a blacksmith's shop because most jobs requiring wheelwright and carpentry expertise also needed a blacksmith's knowledge. Some wheelwright shops had a blacksmith and forge in the shop while others were skilled enough in both trades to complete all the work themselves.

## A WHEEWRIGHT SHOP

A wheelwright shop was set up with little to no clutter as to not complicate the working area. The walls would be lined with carpenter benches. The tools would be displayed on racks and in drawers. Everything had its spot to ensure a neat and tidy work area.

**The Fultz House Museum Carriage House is pictured above.**

## THE WHEELWRIGHT TRADE IN SACKVILLE

Being a wheelwright was a traditional family trade and a very common job choice for early Sackville settlers. Bennett Fultz, an early settler in Sackville, worked as a wheelwright for a time, but did not pursue the career after that. His father, Anthony Fultz, operated a wheelwright shop across from Bennett's home (now the Fultz House

Museum) on the road to Windsor. Halifax County census records show that Anthony Fultz operated as a wheelwright in the Sackville community in 1838.

**Anthony Fultz, father of Bennett Fultz, operated a wheelwright shop in Sackville.**

**THE WHEEL…**

In the 1800's, most of the axels on a wheel were made out of hickory with the wheel hub made out of Osage orange, a wiry and deep wood. The wheel rims and spokes were normally made out of a hard wood such as white oak, and each spoke would have been made to flare out from the hub to make the wheel look like a saucer. A tapered end of the axel would be placed into the hubs to help keep the wheels parallel. The iron tire was six inches wide and always no smaller than an inch thick. This was tightly secured over the wheel rims so it would not fall off.

Sackville area riders were very fortunate with their experience with the wheel rims on carriages. Out West, the wheel rims would shrink because of the dry climate. There were times when Westerners would get so fed up with the wheel that they would throw it in the bed of a creek in hopes that the water might expand the wood again.

**The wagon above is kept in the W. J. Grace Cooperage, but is displayed each day in the summer on the Fultz House Museum grounds.**

## THE TOOLS AND EQUIPMENT OF A WHEELWRIGHT

A wheelwright had many tools. Most of his tools were similar to those of a carpenter or cooper, but even though each tool had the same name, in each shop it served a different purpose. In a wheelwright shop, some of the tools found would have included: compasses, planes, spokeshaves and saws.

**The plane pictured above is part of the Fultz House Museum cooperage exhibit.**

A compass would have been used to make sure the wheel was completely round. Planes were used to smooth the wood, like sandpaper is used today. A spokeshave was used to shave off thin layers of wood to help thin and shape a piece of wood. Finally, saws were used to cut the wood to specific lengths. There were many different types of saws like a backsaw or handsaw.

Some equipment used by a wheelwright was a cast iron “traveler”, C-clamps, and the great wheel. This equipment was often found in a wheelwright shop as it was needed for almost all of their tasks.

**The Fultz House Museum's Fultz House Express stagecoach, which saw many of the wheelwright tools mentioned, used in its construction and maintenance.**

Wheelwrights would use the cast iron "traveler" to measure the iron rims when they were constructing a wheel. C-clamps were used when they needed to work with both their hands on a piece, so they would use the C-clamp to hold the piece still while they worked. Finally, the great wheel was the most noticeable part of a wheelwright shop. It was a man-powered wheel that the wheelwright would use to rotate the hubs.

## WHEEL-MAKING EXPLAINED

There were three main parts to a wheel, the nave (hub), spokes, and felloes. Each part was made out of a different type of wood, oak for the spokes, elm for the nave, and ash, elm, or beech for the felloes.

To start, a piece of elm was chosen and put on the lathe. After that a blacksmith would apply the iron nave hoops to bind the nave to make it stronger and safe. Then the spokes were cut into the nave, and the spokes shaped. The tenons were also cut so that their inner ends would fit into the nave. Before the tongues were marked off at the end of the spokes, the spokes were driven into the nave. After that, the tongues were shaped to ensure that they would fit the felloes. In each felloe, two holes were cut to concave the side to fit two spokes each, and at the other end there was one hole to separate the felloes. A wooden dowel was then made, and used as joints that formed and held the felloes in a circle. The final job for constructing a wheel was to drive a hole through the center of the nave that would hold the iron "box".

To finish the wheel, it had to be fitted by a blacksmith so they could put an iron tyre around the wooden wheel. Before it was an iron tyre, the blacksmith would just hammer on strips of iron to the wheel, and it became known as strakes.

**A wheel on display outside the Fultz House Museum blacksmith shop.**

## Please feel free to visit the wheelwright exhibit and the Carriage House at the Fultz House Museum.