

IMAGES

... then and now

From The Indian Hill Historical Society

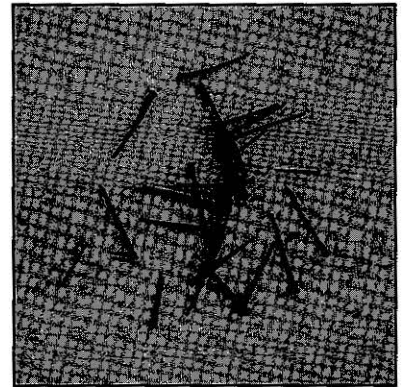


**Buckingham Lodge
1861**

Nails of Yesteryear

When Buckingham Lodge (c. 1860) was built, construction techniques and materials were vastly different. Recently a new roof was installed on the Historical Society's office there, and the original nails were uncovered and salvaged.

Nails have been around for thousands of years. Early on, iron ore was heated, made into square rods, and left to cool, producing wrought iron. The blacksmith (or naylor) would reheat the rod, cut off a nail length, and hammer four sides to form a point. It was then placed in a "header" where the head was formed with several blows of a hammer. Too hot to handle, it was dipped in water and cooled before removal from the header. This process took about a minute per nail, and an experienced naylor could make about 100 nails an hour. These nails, forged one by one, were commonly called rose head nails because of their shape.



By the early nineteenth centuries, over 100 patents were issued for nail making machines. Thomas Jefferson purchased one in 1796 and manufactured nails at Monticello to increase his farm's income. These new machine-made nails were called cut or square nails. They were not really cut. They were sheared from thin metal bars. Water powered mills often provided the energy to slit the nail shanks. Two main categories of cut nails have been identified. The Type A cut nail had a tapered shank as the cutting blades could only cut one side at a time. These had clamp marks near the head where the header kept the nail in place before the head was applied. The Type A cut nail (c. 1790-1830) was a product of the earlier more crude nail machines. A more sophisticated machine in the 1820s flipped the metal rod after each stroke. Every shaft was uniformly chopped to a taper. By 1835 a new method of heading nails was devised. The machine clasped the face of the nail before heading, indenting the face of the head. These nails were known as Type B cut nails and were common c.1830-1900. The two types of cut nails can be distinguished by burrs on the shafts and whether they exhibit a pinch on the side or the face. Cut nails were easier to produce than the hand wrought product and were used throughout the 19th century. When Bessemer began processing soft steel in the 1880s, steel became more popular than iron for nails. Wire nails were created, with a round rather than square shank. Mass produced, they were formed when steel wire was fed into a machine that gripped the wire, cut it, made the head, and chiseled the point all in one operation, producing thousands of nails per minute. Less expensive and quicker to make than a cut nail, the wire nail quickly became the nail of choice, and remains so today.

As manufacturers became savvier, nails became available in all shapes and sizes depending on their purpose. From 1 to 6 inches in the shaft, they were graduated in size by quarter inches. A wide variety of nail heads were used including flat, domed, T or L shaped, or hammered. Wider heads were used for floors, roofs, siding and fences, and smaller or non-existent heads were preferred for delicate work, leaving little trace on the surface. Some heads were decorative, used in furniture making or reproduction work. Though the mass-produced round wire nail is the universal standard, cut nails continue to be made in the USA. The cut nail has four times the holding power of the wire nail, and is less likely to split wood fibers because of its square shaft.

The square nails saved from Buckingham Lodge's old roof appear to be Type B, prevalent during the era when the two-story house was built (c.1860). These authentic remnants of the past lasted for more than 120 years and fastened the metal roof to the homestead for generations of the Buckingham family.