



NEW HAMPSHIRE DIVISION OF HISTORICAL RESOURCES

State of New Hampshire, Department of Cultural Resources

19 Pillsbury Street, 2nd floor, Concord NH 03301-3570

Voice/ TDD ACCESS: RELAY NH 1-800-735-2964

<http://www.nh.gov/nhdhr>

603-271-3483

603-271-3558

FAX 603-271-3433

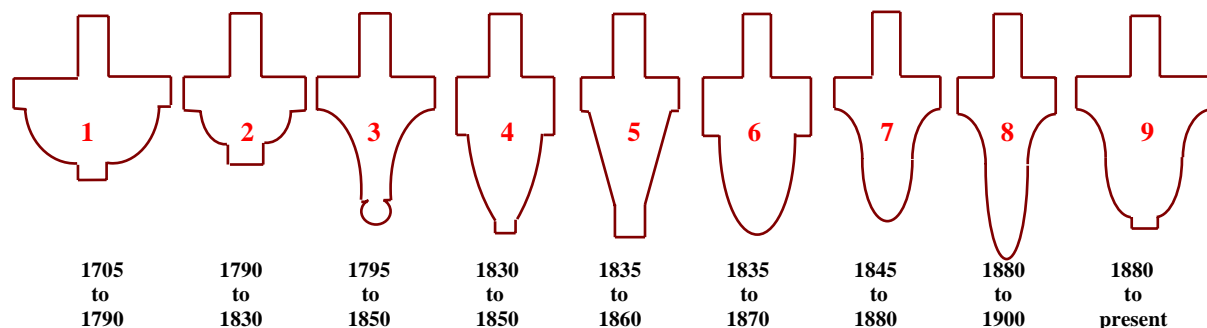
preservation@nhdhr.state.nh.us

THE EVOLUTION OF WINDOW SASHES

Few elements of a building contribute more to its architectural character than do the window sashes. There is a great difference between a window opening filled with twelve-over-eight sashes and one filled with two-over-two sashes. The character of the sash is even stronger from within the building, where the grid of muntins interposes itself between the eye and the view from the window. The inner faces of the muntins are moulded, and the profiles of these mouldings evolved over time, contributing much to the expression of style or period in a structure. As shown in the chart below, new sash designs appeared every ten or fifteen years during the nineteenth century, lending their character to succeeding architectural styles. The muntin profile therefore provides a useful means of dating a building as well as helping to define the aesthetics of the window and the room.

WINDOW MUNTIN PROFILES IN NEW ENGLAND, 1705 TO THE PRESENT

(The profiles shown below are derived from dated buildings. Some profiles may occasionally persist beyond the end of the usual date range as shown in the chart.)



Yet sashes are meant to be looked through. It is easy to look past the grid of muntins and to ignore their beauty and the size and character of the glass. Perhaps because sashes are largely transparent, they are often undervalued as a contributing element to the style and character of a building. People often assume that all old windows are much alike, or that the character of the sash is unimportant. Coupled with the common idea that old sashes are loose, fragile and drafty, the assumption that they are insignificant makes the sash the most vulnerable and often-replaced element of a historic building. Any historic building with its original sashes and glazing retains a higher degree of architectural integrity than a comparable structure in which the sashes have

been replaced. Where original or early sashes survive, their preservation should be a paramount concern of the building's owner.

The earliest sliding sashes, introduced to North America shortly after 1700, had heavy muntins that were often over an inch in width (1). The considerable width of the muntins, however, combined with the tendency to use small lights of glass in these early windows, gave eighteenth-century sashes a heavy appearance that is quite noticeable from inside or outside a building.

The evolution of the muntin profile after the end of the eighteenth century was generally one of increasing delicacy. At the same time, production of window glass in the United States reduced the cost of glazing and permitted sashes to have fewer but larger lights. Thus, window openings tended to become larger, sashes became lighter and held larger panes, and interiors generally became brighter.

The advent of the federal style in the late 1700s and early 1800s was accompanied by several patterns of window muntin. The most common type, popular until about 1830, was nearly identical in profile to the heavy muntin of the 1700s, but was smaller in dimensions (2). Its profile consists of quarter-round mouldings and flat fillets. Another muntin type first seen just before 1800 had a cove-and-bead profile (3). Generally restricted to more expensive buildings or urban areas, this profile is much less common than the traditional quarter-round-and-fillet pattern.

The quarter-round-and-fillet pattern did not disappear with the advent of the Greek Revival style in the 1830s. Instead, it evolved, adopting an elliptical moulding in place of the quarter-round (4).

The Greek Revival style was, however, accompanied by alternate muntin profiles that were noticeably different from those seen earlier. Perhaps the most distinctive was the flat, angular profile (5). Like some mouldings seen in Greek Revival joinery, this muntin relies on its faceted surfaces rather than on curves for its character. This type of muntin is often seen in conjunction with woodwork that is similarly decorated with flat surfaces rather than with curved mouldings.

Also popular during the Greek Revival period, as well as in buildings of a Gothic character, is the Gothic muntin (6). Often assuming the profile of a rounded or pointed arch, this simple muntin appeared in the late 1830s and persisted from the 1840s through the 1860s.

A profile that enjoyed nearly the longevity of some of the older quarter-round-and-fillet shapes was the sharp ogee muntin (7 & 8). Composed of S-curved mouldings that meet in a knife edge, this was the sharpest and thinnest profile ever used in American windows. First seen in the late Greek Revival buildings of the 1850s, the sharp ogee muntin persisted up to the turn of the twentieth century, appearing in six-light sashes in the earlier years and in two-light sashes at the end of the century.

Another muntin profile that has enjoyed a popularity rivaling that of the earliest quarter-round-and-fillet muntins is still in use today. This is the ogee-and-fillet profile, first seen in early colonial revival buildings (9). The profile is often seen in modern windows with true divided lights, and is most commonly encountered in the ever-popular Brosco "Boston" sashes, available in configurations ranging from two lights to multiple lights.