



Newport's Eighteenth-Century Window Frames

by Robert Foley

Shortly after Christmas, *The Chronicle* editor, Patty MacLeish, queried me as to whether the removable stops on the windows of her eighteenth-century Newport house were the invention of the Newport Restoration Foundation or an original part of the design.

Patty and her husband Bruce are tenants of the Newport Restoration Foundation. NRF was founded in 1968 by Doris Duke to save, restore, and preserve Newport's eighteenth-century architecture. From 1968 to the mid-1980s, some eighty buildings were restored. The Foundation employs a staff of carpenters, painters, and a mill operator to continue the preservation of these buildings that are rented to tenants.

Having installed and disposed of the holiday tree without a trail of needles through the house, Patty was impressed with the ingenuity and ease of pulling out the stop or keeper, removing the upper and lower sash, and pitching the tree first in and later out of the house—no mess, no fuss. Actually people probably have been pitching furniture, trees, and sundry items through these windows since the house was built. Narrow doorways and tight twisting stairways leave little option even today.

In thirty-eight years of restoring, living in, and poking around Newport eighteenth-century houses, I have found virtually all have the same basic sash/window frame design. This covers a period from about 1720 to 1815. There are minor differences such as molding profiles on the sills and caps, half-lapped joints or blind mortise joints on the frames, and of course size, but the overall design is consistent throughout this period of nearly one hundred years (Figure 1).

Exterior

The basic window consists of an exterior frame and interior trim. The two side pieces and top piece of the exterior frame are fashioned from three to four

inch square timbers. They are joined with half-lap joints or blind mortise and tenon joints. The sill is meatier—three to four inches by five to six inches, depending on the style of finish—and joined in the same way. A rabbet is cut into the sides and top, the width of two sash

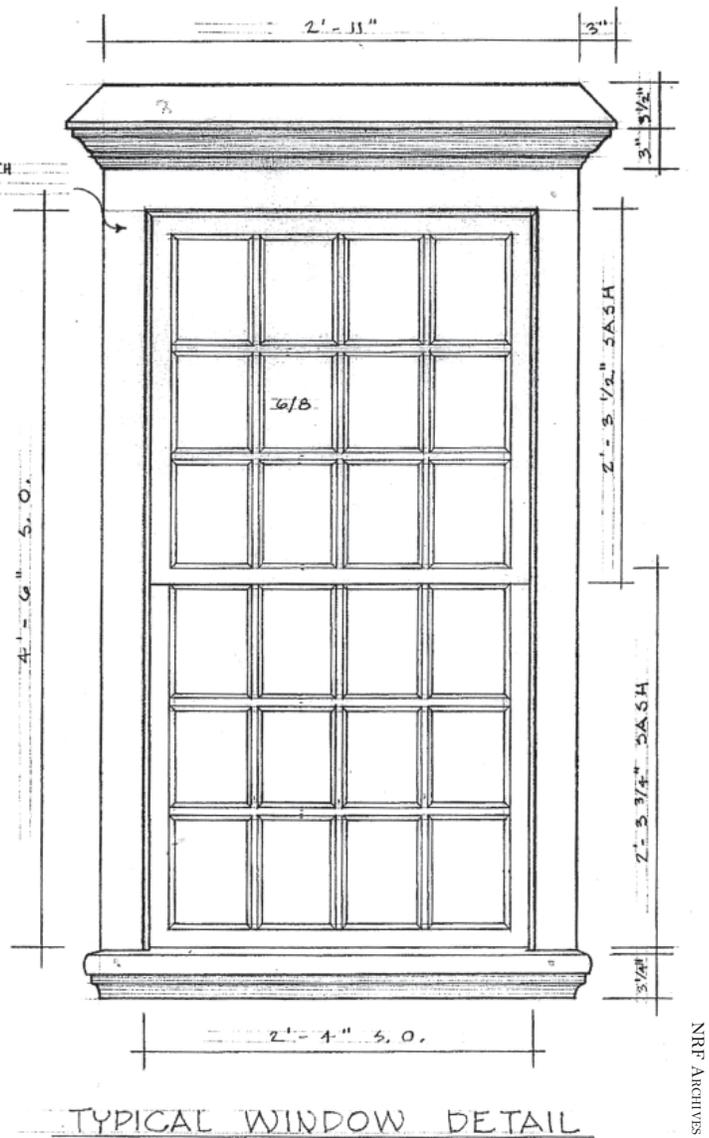


Figure 1. This is a typical eighteenth-century Newport window, exterior appearance. From the top, is the header that consists of a heavy beveled cap with molding under it. Next is the frame—top and two side pieces—this one showing a beaded edge. The frame contains the 12 over 12 sash. The last element is the sill, in this case molded.

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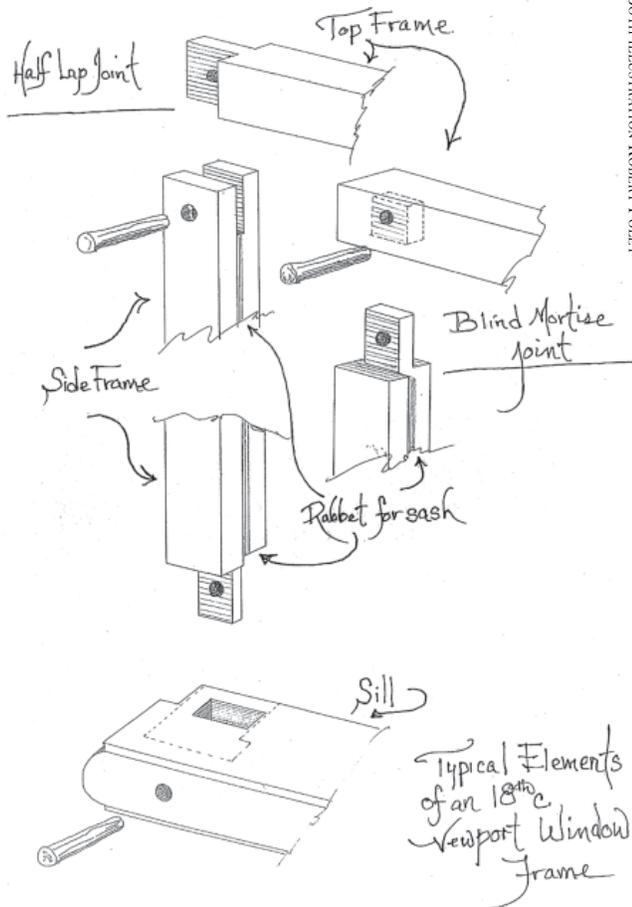


Figure 2. Typical joints in a window frame. Only the blind mortise sill joint is shown, in part because the Newport Restoration Foundation now uses this joint exclusively; the half-lap is much more susceptible to water damage and rot.

(generally two inches). A stop strip fills the rabbet under the upper sash committing it to a fixed position. The lower sash rides up and down in the remaining rabbet width (Figure 2).

On the inside, a beaded stop is fixed, nailed in place, on one side and at the top; the second side has a beveled stop which slides into a cavity holding the lower sash in place and allowing quick removal of the sash when pulled out—provided someone hasn't entombed it in paint over the years (Figures 3 and 4).

To place that simple removable sash keeper in perspective, a brief primer on eighteenth-century Newport house construction is in order. I have come to call construction of this period and area "minimalist" post and beam. A frame was raised using timbers from six by eight to as large as ten by ten inches. There were vertical posts at each corner and, depending on the size of the house, intermediate posts of the same size, which were often placed in relation to the chimney. Sills, girts, and plates, the horizontal members, ran around the pe-

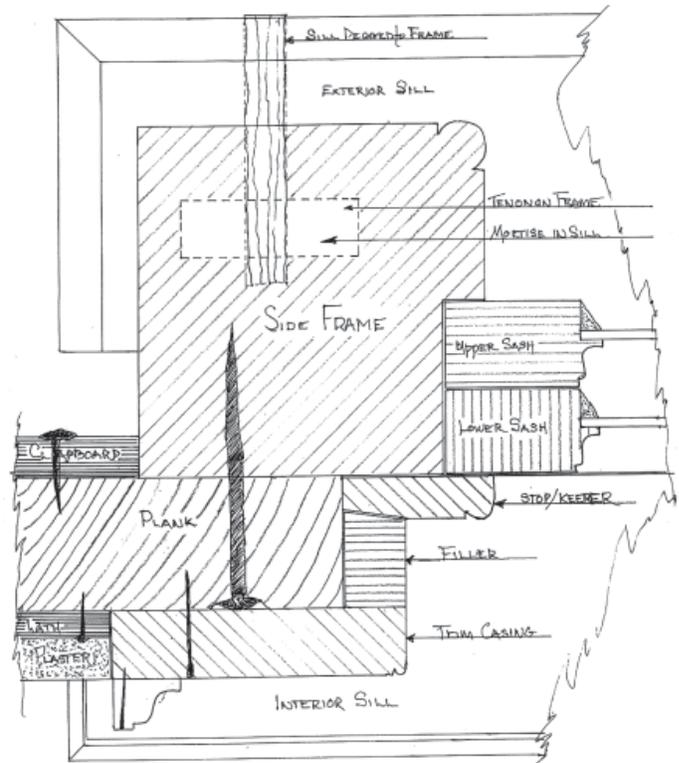


Figure 3. This is a cross section of an interior/exterior window frame with a section of plank wall showing where and how the frame attaches to the building.



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Figure 4. Exterior window frame. Note the sill with peg to side frame tenon, beaded edge, rabbet filler, and lower sash track. The keeper shows on the raised inner sill.



rimeter at ground level, second floor level, and roof level, in a two-story building. In Newport there are very few instances, during this period, of corner braces or smaller intermediate vertical posts. The intermediates were common in Connecticut and Massachusetts, where they were used to define and support window and door openings.

This minimal Newport frame was then simply sheathed with vertical planking, from sill to roof girt, on the outside face. This planking was of native oak, six to fifteen inches wide and one and one-half to two inches thick. The lengths ran randomly from the sill to the second floor girt or full length to the roof girt. Instances of pine planking exist, but oak was the norm. The planks were not fitted with any particular care, edge to edge. They were rough, with some true to the varied edge of the tree from which they were cut. Gaps range from less than an inch to two inches or more. This was not dressed timber.

Window and door openings were cut out of the planking. The window frame was attached—nailed from the inside—through the planking, into the frame, with sizable wrought spikes.

The thick window frame was attached to the face of the planking and projected noticeably from the building, adding a distinct three-dimensional appearance to the building's facade. In other areas, the use of intermediate posts absorbed some of the depth of the frames as they could be "set in." This created a flatter, less interesting surface.

Detail differences from house to house take place in the shape of the sill—from simple square cut to several different molded profiles—and in the caps. Here one sees simple, angled, shed-type boards or heavy, beveled caps with moldings under the cap.

Interior

The first part of the interior window treatment is the simple beaded keeper—fixed

at the top and one side, removable on the second side (See Figure 5). These hold the sash in place. A trim piece, three to four inches wide, is attached to the plank. These often have a small bead on one edge and a band molding applied to the other (Figure 3). Between the trim member is a filler of varying width, depending on the thickness of the plank sheathing. This piece fills the gap between the casing element and the keeper.

Depending on the level of style of the house, the casing at the top would butt the plaster wall or become part of the cornice molding detail. It is interesting to note that the interior top window trim and cornice detail depend on the placement of the window frame in the plank sheathing. The girt determines the ceiling height on the interior, and the window frame placement on the exterior determines the space between the ceiling and the top of the window on the interior. Thus the style and design of the interior cornice treatment had to have been planned well in advance of it being installed.

At the interior sill, several treatments were common: a simple sill butted by wall plaster, a sill carrying into a chair rail around the room, or wainscot paneling with a chair rail above incorporating the interior sill.

As can be seen in Figure 6, the interior trim was installed, lath was nailed directly to the planking, and the plaster was applied over the lath, butting the various trim elements. This makes the wall from exterior clapboards or shingles to the interior finished plaster about two and one-half to three inches thick. The interior partitions are also plank construction.

It is a long way 'round, word-wise, to say, "Yes, Patty, the removable sash was original to eighteenth-century Newport window design." It is also a long way from these Newport windows to the tug and flip, easy clean, vinyl-clad windows of today. The modern sash



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Figure 5. The interior of a window with sash keeper partly removed. Interior trim ends at the sill/chair rail. Next is the spacer for the width of the plank, then the cavity for the keeper, and finally the exterior frame.

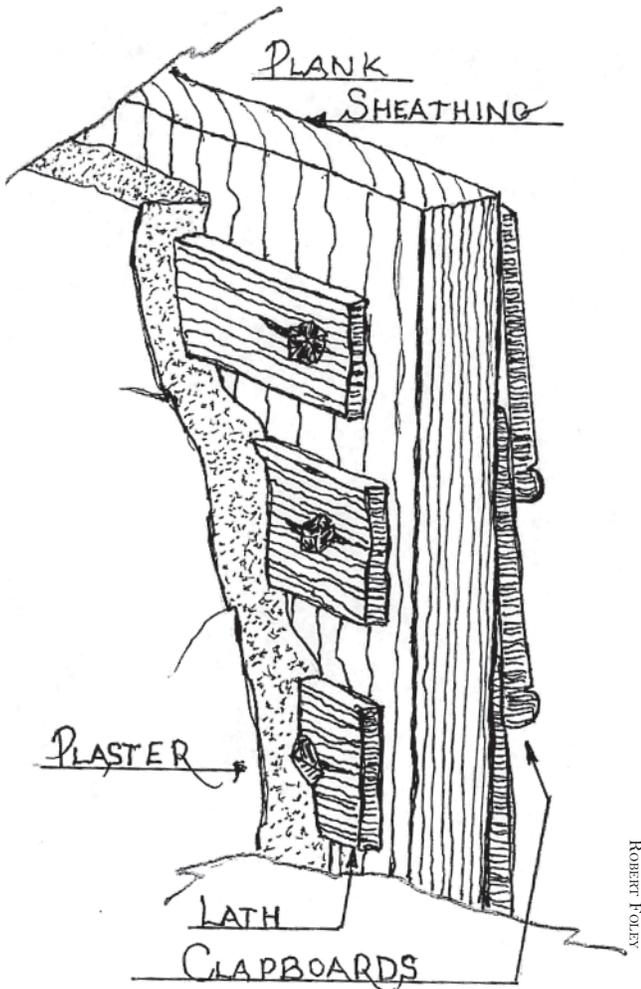


Figure 6. A Newport eighteenth-century plank wall—at the core is the planking attached top and bottom to the horizontal timbers or girts. On the exterior, clapboards, or shingles, are nailed to the planking. On the interior, lath is nailed to the planks and then plaster applied.

doesn't come out quite so easily, neither do they rattle and bang in the winter or stick tight after a rain. All a small price to pay for a pine needle free home, a double bed in a second floor bedroom, or even a sofa in an otherwise inaccessible living room.

The Newport Restoration Foundation has been able to find original window frames and make accurate copies, but we have not been able to find written or drawn evidence as to where this window plan came from and why it lasted nearly one hundred years. In the NRF archives we have a very rare contract to build a house. In the contract, Wing Spooner and Henry Peckham agree, in 1754, "to erect and build a house" for one John Townsend. The dimensions of the building are defined and the number of windows are plainly spelled out—even the size of the glass—but little to

nothing is mentioned of design, be it the house as a whole, window frames, or doors. As for doors, one reference is presumed to relate to design or style when the document states, "...a large outside door fronting the South to be made in the manner and form of Jonathan Bowen's front door belonging to his house..."

We wish we could find drawings or written references pertaining to window frame design—or to any design features from the eighteenth century. It could possibly indicate that there may have been a shop or two that specialized in making window frames, since they so easily attach to any building. It is known that there were specialty shops that made legs and other bits for known Newport furniture makers like the Townsends and Goddards. Why not house components?

Author

Robert Foley is the preservation coordinator for the Newport Restoration Foundation. The NRF operates three museum properties which are open seasonally to the public: Rough Point, the former home of Doris Duke; Whitehorne House, which features Doris Duke's collection of eighteenth-century American, especially Newport, furniture; and Prescott Farm, where samples of the windows described in this article may be found.