

Steel-Window Repair Done Wright at Fallingwater

The windows at Frank Lloyd Wright's Fallingwater were in grave disrepair. A preeminent steel-window repair company was able to restore the historic windows on site.

by Leslie Jay

The refinement of rolled steel in the early 20th century encouraged architects to specify its use in frames for casement windows. Suddenly, casements attained new popularity. They made appearances in Tudor developments, where thin metal strips supported the style's signature divided panes, and in more modern houses, where the frames held uninterrupted fields of glass.

Decades later, as these windows began showing their age, many were converted to double-hung models. But at Fallingwater, the weekend residence Frank Lloyd

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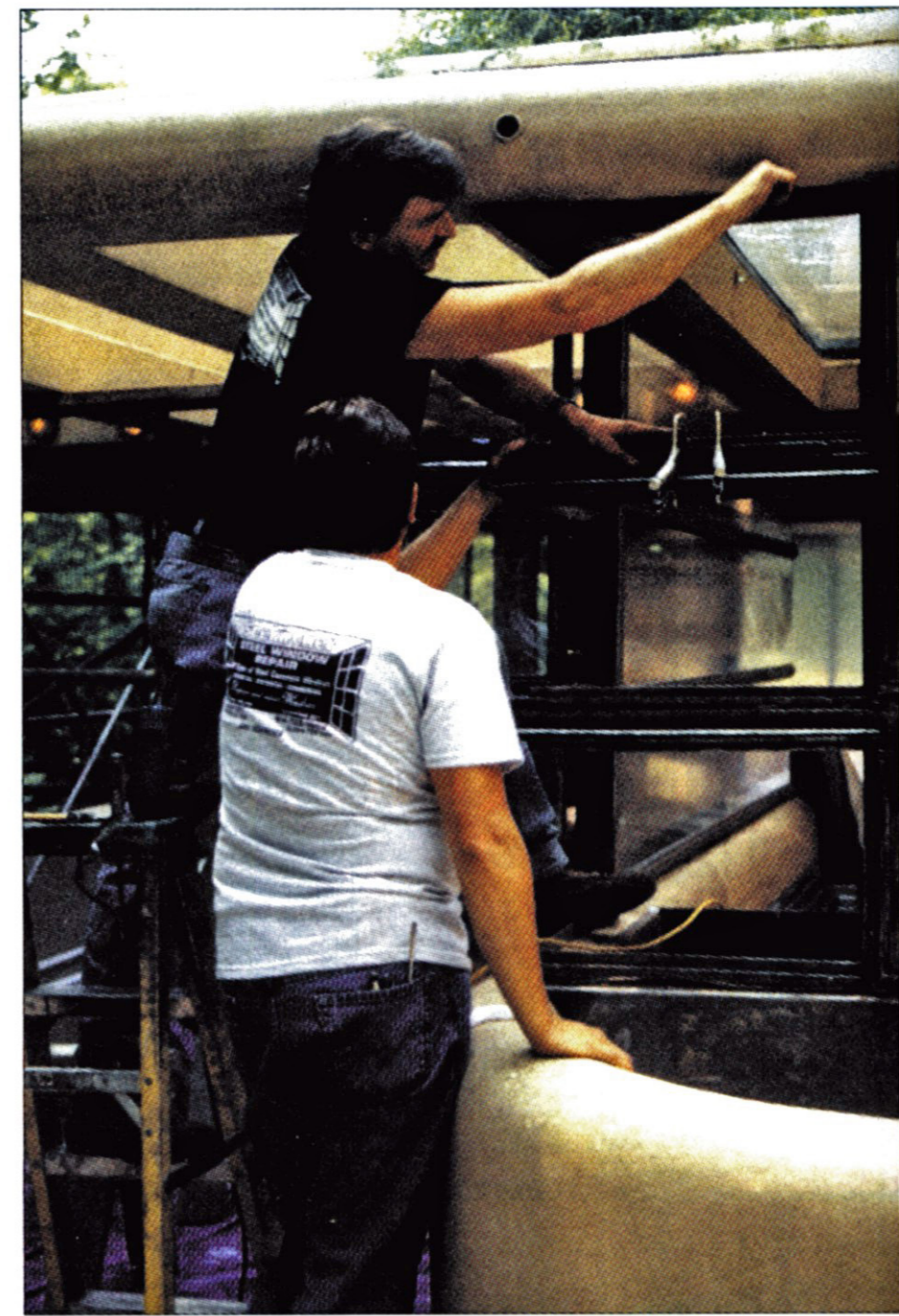
What he saw at Fallingwater, where he had previously fixed the sliding-door hatch leading from the house's living room to the stream, admittedly wasn't pretty. "Sagging had taken its toll," he recalls. "The glass leaked, because the house is near a waterfall." Nonetheless, Seekircher was optimistic. "People see rust and say, 'It's bad.' Things looked worse than they were."

In the past year, in consultation with Conservancy staffers, he mapped out the house, isolating repair zones from the tourists who continued to visit the site. Everywhere he worked, he engaged in the same laborious process: carefully realigning the metal, a task that took almost 3,000 man-hours and was completed in September 2001.

The first step was to open the windows, gently. Many were rusted shut. "We disconnected the hardware and got everything working and lubricated, leaving the glass in place," says Seekircher. "Taking the glass out can just create more problems." (For the record, Fallingwater's original quarter-inch plate glass had been replaced with quarter-inch laminate fifteen



Bobby Seekircher restores a door frame, an effort that required three ten-hour days.



"We're almost like chiropractors, taking stress off mechanical parts," says John Seekircher, seen here with his brother, Bobby, attending to windows in the hatch area of Fallingwater.



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Toward that end, the Conservancy brought in Seekircher Steel Window Repair. "This was the first complete restoration of the windows and doors, and I wanted to preserve as much of the historic material as possible," says John Seekircher, president of his eponymous Scarsdale, N.Y.-based firm. He thinks that the condensation and heat loss associated with casements are exaggerated, the result of improper maintenance. Moreover, he notes, ripping out the original period windows may actually lower the value of an older one-family home. And there's another advantage to restoration: It costs a fraction of replacement.



Once restored, the hatch windows open and close as designed. Note the brass hardware, which was removed for cleaning, polished to its original glow, and re-installed.

years earlier, to give the house better protection from ultraviolet rays.) Then Seekircher and his crew manually twisted each frame back into shape, using shims. Where metal was badly deteriorated, patches were welded on.

Next, painters from Patriot Restorations in Scarsdale, N.Y., and RND Painting in Hopewell Junction, N.Y. — longtime Seekircher collaborators — stripped the frames to the bare steel. The metal was treated with primer, followed by two coats of an authentic shade of Wright's "Cherokee red." Once all the frames were painted, the welded areas could not be distinguished from the original metal. To prevent future infiltration, the glazing was needle-caulked with a fine bead of sealant. Finally, the windows were washed inside and out.

"We were able to salvage every frame," Seekircher reports. "All existing operable doors and windows open, close, and lock correctly. The house will be considerably warmer and dryer." To keep it that way, he'll go back once a year and make spot repairs, as necessary. ♦