

BY THE OLD-HOUSE JOURNAL  
TECHNICAL STAFF

# Sash Window Secrets

We share  
insider  
tips on  
unsticking  
and  
reglazing  
double-hung  
windows.

**S**ash windows—the average old house has at least 40 of them, and after decades of weather and use, most are bound to need work. Careless painting on the exterior of the upper sash will make it so hard to move that it never gets opened, and then another round of paint seals the sash in place for good. Indoors, sash cords become brittle when they are mistakenly coated with paint or simply reach the end of their life, allowing them to break and release the weights into the netherworld of

the wall. At this point, the mechanical operation of the window skids to a halt, and it becomes entombed in more paint.

Contrary to what many homeowners believe, the traditional double-hung window is designed to be disassembled for changing cords and glass, ideally with some simple steps. Though many old-house owners may be familiar with this process, they may not know that over the past 30 years or so their fellow restorers have refined and added to these methods in order to deal with the geriatric issues of

sash window revival—chief among them, disassembling a window that is immobilized under layers of paint. While low-tech and often ad-hoc, a quick education in these restorer secrets, as well as a review of the basic maintenance process, makes it possible to free up even the most painted-in sashes so they can be removed to a bench for re-puttying and repainting if needed.

## Prepare to Do It All

Even if you only want to unstick one painted-shut sash, it often pays to plan on going

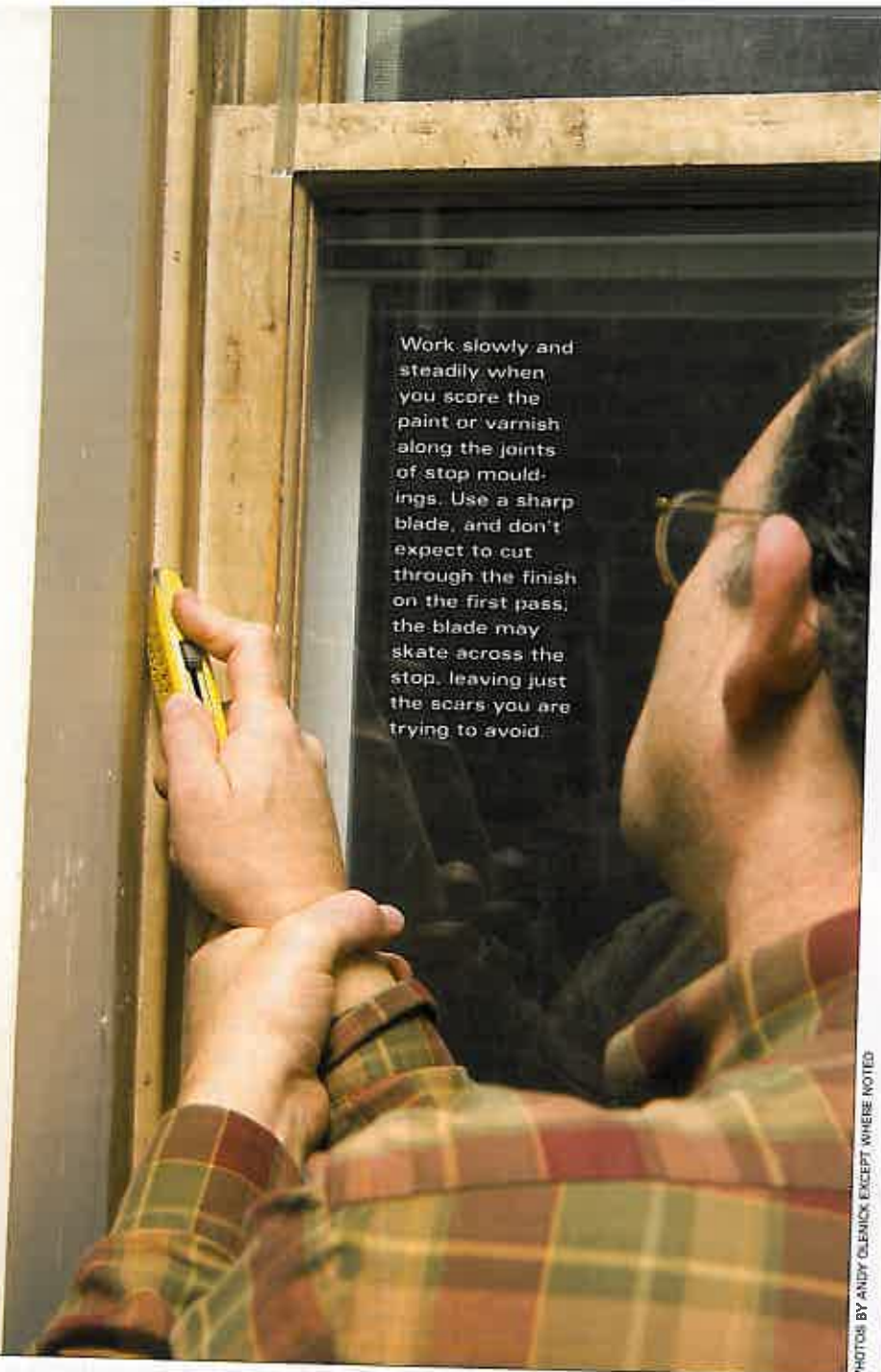


LIGHTSTREAM



LIGHTSTREAM

Far left: To remove stop mouldings, work from the middle. When the stop is loose after carefully prying out nails and removing other fasteners, begin to widen the gap at the midpoint of the stop. Then, working by hand, bow the moulding so the ends come free of the window frame. Left: Working the delicate parting bead out of the notch in the weather stop of the upper sash is tricky and not guaranteed of success. Use locking pliers firmly but gently, and widen the notch slightly with a chisel if necessary.



Work slowly and steadily when you score the paint or varnish along the joints of stop mouldings. Use a sharp blade, and don't expect to cut through the finish on the first pass; the blade may skate across the stop, leaving just the scars you are trying to avoid.



all the way in removing one or both sashes. The reason is that chances are slim you'll be able to break enough paint seal by simply leaving the sash in place, and once you have the window apart, it is only a little more effort to perform a complete overhaul and regain fingertip ease of operation. Start by assembling a kit of tools and preparing the area in front of the indoor side of the window with a drop cloth and vacuum cleaner.

Removing a sash begins with removing the stops, the vertical mouldings that hold the bottom sash in its channel. These mouldings are designed to be removable

**Working at nailed spots, loosen stop mouldings with small pry-bars from the channel side (top) and from the finish side (middle), protecting the wood with putty knives. To free paint-stuck sash, cut the paint from the inside using tools made for this purpose (bottom) or hacksaw blades.**



## Glazing Pointers

Sash windows that are difficult to remove can be glazed in place, but if you can pull the sash, it's much easier to glaze a window on a table or saw horses. Before reglazing or glazing a new piece of glass, make sure that the rebate, the recess that holds the glass, is clear of all dust and debris; a duster brush does the job fine. Also, remove all old paint on the glass with a single-edged razor blade. The clean rebate must be conditioned to make the glazing compound last longer and the task easier. I prefer a coat of boiled linseed oil or Penetrol (manufactured by Flood), but oil-based primer is acceptable. The oil or primer should dry before glazing, but if all work is to be done at one time, thin the oil or primer about 50 percent, apply it sparingly, and accelerate the drying by setting the sash in the sun or near a mild heat source. Finally, clean the glass where the glazing compound will lay; a quick swipe with a clean rag is sufficient.

Glazing compound—historically called putty—should be the proper consistency to expedite the work, neither too stiff nor too sticky. It should be pliable like bread dough but not gooey so that it sticks between your fingers. If your putty is too stiff, heat it on a paper plate for about 30 seconds in a microwave oven; my local hardware store keeps a microwave oven on their glazing table just for this purpose. Sometimes, when I'm on-site on a cold day, I heat the putty with a propane torch.

If the putty is too sticky, dust it with whiting (powdered chalk), plaster powder, or talcum powder, and work the pow-



der in with your palm and fingers until the putty reaches the proper consistency. However, if you have an old can of putty that has rock hard chunks in it, just throw it away.

Once the glass is set in a bed of putty and points are in place, professional glaziers and painters usually apply the putty firmly to the rebate in one of two ways: either by pushing it in with a putty knife or with their fingers. I use a shortened 1½" putty knife for this purpose. Although some homeowners prefer to roll out little snakes of putty, I've never seen any professional do this, and it takes too long. Once one side of the sash has been loaded with putty, it must be tooled smoothly into a bevel. To do this, always use a 1½" to 2" flexible blade putty knife. This knife should be very clean without any rust or pits to allow it to be pulled smoothly across the material. Beginning at the corner, hold the knife at an angle so that, as you pull it along, you are simultaneously pushing the putty tightly into the rebate and cutting the leading edge. If the putty pulls back out, it's usually because the rebate was not conditioned or because the putty is not the right consistency. If I draw my clean line of putty from left to right, I always run my finger lightly back over it from right to left for a final smoothing and to ensure it abuts the glass

appropriately. Remember that the putty line should fall just below the sight line of the interior wood in order to allow a small space to seal the putty to the glass with paint. Clean up corners using the corner of the knife.

—Steve Jordan

but are typically covered in several layers of finish paint. If you simply remove the stops, the paint inevitably will crack and chip into an unsightly mess, so a good practice is to first carefully score the paint with a razor knife where the stops meet the adjacent mouldings. Be sure to keep this line straight by making several light passes instead of pressing heavily with one pass, which can veer off and mar the wood or finish. The idea is to have the paint break cleanly along the score mark so that the stop will go back without the need to repaint when the job is done.

Next, remove all visible screws and attachment hardware. Stops are typically

held in place with small finishing nails, but wood screws are also common, especially for adjustable stops on high-quality windows. Then, carefully pry the stop out, working from the middle and any attachment points. Once again, you don't want to mar the mouldings with pry marks, so after you have a gap started, it's a good idea to protect the moulding edges with a pair of wide-blade putty knives used as shields for a flat prybar. Another trick that helps avoid the issue altogether is to pry from the backside of the stop using a mini-prybar or similar tool with a lip no longer than 1" that will fit into the sash channel.

Once you have a stop loose, with

hands and tools bow it ever so slightly to release it from the window. Don't force the stop out but do watch to make sure that it's not held captive at the ends, either by a miter at the top or an accumulation of paint at the stool (the interior sill). At this point, you should be able to remove the bottom sash; sometimes you can angle it out after removing only one stop. However, before you do, secure any intact weights by pulling on the cord or chain until the weight reaches the pulley, then hold it in place by knotting the cord with a slip knot, clamping it off (say, with small locking pliers), or slipping a nail in a link of the chain.

## The Upper Sash Approach

To remove the upper sash, you must first remove the parting beads, which are the slim, vertical sticks separating the two sashes. In a new window, this would be a simple matter of pushing the top sash down to the bottom of the window and then prying each bead out from the top, but old houses are seldom this obliging. Because the upper sash is most likely frozen by paint, you have to take a different tack. Grab the parting bead near the bottom with pliers (the parallel jaws of locking pliers are a help here), and gently start to wiggle the bead out of its channel. As the bead loosens, move the pliers up the bead, and do your best to guide it carefully around the weather check on the meeting rail, the bottom part of the upper sash.

With luck, you might get the rail around this protrusion, but if you can't, try cutting a slight bevel in the check with a chisel or sharp knife to gain enough clearance. Once the bead is nearly free of the channel, be careful to slide the notched top (if there is one) out of the upper frame. Be aware that the bead may break, or already be broken, from trying to negotiate this tight spot. Beads can be either repaired with glue or replaced with new stock, such as those sold at good lumberyards.

With the stops out of the way, you now have a clear path for removing the upper sash. First, make sure it is not fixed in place with nails or hardware. Then, gently wiggle the bottom of the sash to assess the strength of the paint holding it in place. If the paint starts to crack easily and the sash moves more readily with each wiggle, you can continue until it pops free. However, if the sash shows no movement, resist the temptation to apply more pressure, which will only damage the sash and break the glass. Instead, look for ways to break the paint seal on the exterior. A good method is to do so from the interior by inserting a thin piece of metal, such as a hacksaw blade or a serrated tool made for this purpose. Once you have cut the exterior paint on both sides, the sash will wiggle free, and you'll be able to remove it to a bench to restore it to a like-new condition. 🏠



Accessing the weights that counterbalance the sash is not obvious, but neither is it a mystery. All traditional windows incorporate doors to the weight pockets on each side of the frame, usually in the lower third of the window. Once you have the lower sash out, look for a single wood screw under paint (top), then gently pry the door out from the top to reveal the pocket (above).

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