

176 *The New York Times Complete Manual of Home Repair*

For a neater and more permanent job, a special aluminum threshold can be installed to replace the existing one. This has a flexible, vinyl bulb insert which runs down the middle of the threshold, so that the top of the bulb presses against the bottom of the door when the door is closed. Another version is one which has the vinyl bulb or strip screwed to the bottom of the door instead. This presses down against the top of the metal threshold when the door is closed.

For doors that swing inward and must clear carpets or rugs, there are also a number of automatic door bottoms available. These are designed so that they raise up automatically when the door is open, yet press down snugly when the door is closed. To raise or lower the plastic-faced strip, a projecting bumper button at one end is located so that it presses against the door jamb when the door is closed, and this forces the seal downward. A built-in spring action raises the strip back up again when the door is opened.

To seal off the bottom of an overhead garage door, there are also a number of heavy-duty rubber and plastic stripping materials available. Especially designed for overhead doors, these are generally nailed or screwed to the bottom, so that they will press down against the garage floor when the door is shut.

Window Troubles

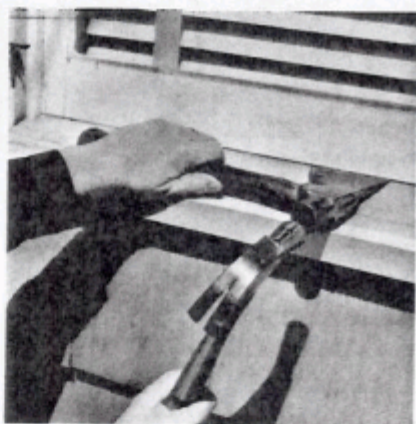
When wooden, double-hung windows stick or bind, the trouble is usually due to one of two causes: dampness may have resulted in swelling of the wood or carelessly applied paint has hardened around the edges.

To open windows which are stuck shut because of hardened paint, the seal can be broken by forcing a stiff putty knife between the edge of the sash and the stop molding as shown. While tapping the blade in, twist the handle slightly so as to give the tool a prying action which will help break the sash free. Pry along both sides of the sash and along the sill at the bottom till the sash can be raised.

In very severe cases, the windows may have to be pried open from the bottom; work from the outside, if possible, to avoid damaging the interior trim. The ideal tool for this job is a carpenter's hatchet or ax-head. Tap it gently into the crack where the bottom of the sash meets the window sill. Move it along the full width of the window, lifting gently each time until the sash breaks free. If done carefully, neither the sill nor the sash will be marred or damaged.



Tapping with stiff putty knife between molding will break the seal



Hatchet is used on the outside to free stuck window

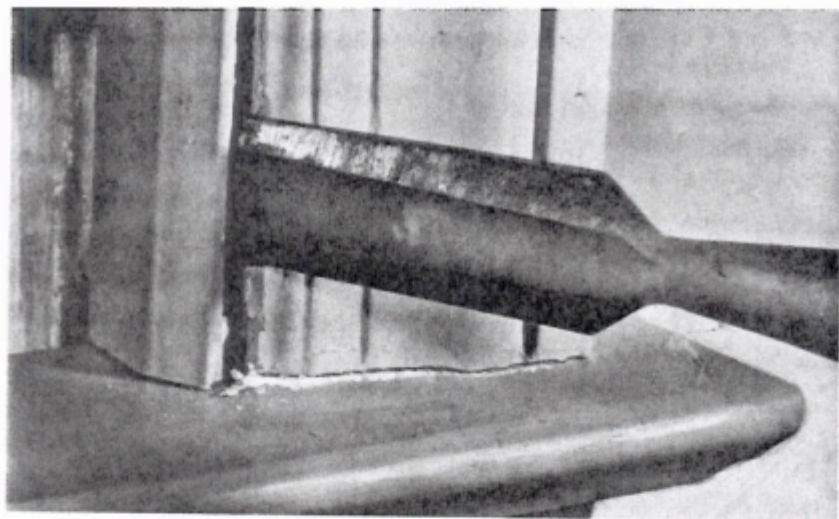
Once the window has been raised, use a wood chisel to scrape accumulated paint off the outside edge of the stop molding where it contacts the inside face of the sash. Scrape carefully to avoid chipping or gouging the wood, then smooth with a piece of fine sandpaper wrapped around a small block of wood. Also check the outer edge of the window sill to see whether the bottom of the sash is rubbing at this point.

Sometimes a window sticks because the wood has swollen from the absorption of moisture, rather than because of accumulations of paint. If the condition is not severe, a cure often can be effected simply by tapping the stop molding inward, using a wooden block and a hammer. Raise the window sash all the way up, then place the block against the outside edge of the stop molding (the edge that presses against the sash when the window is closed). Smack the block sharply with the hammer, working it up and down the full length of the molding on both sides of the frame.

If this doesn't do the trick, the stop molding will have to be removed entirely by prying off with a chisel. If done carefully, the molding can be saved and renailed after the edge has been trimmed off slightly to provide additional clearance.

While the stop molding is off, try moving the window up and down a few times. If it still binds, the sash itself is probably swollen. When this happens, the entire sash will have to be lifted out by undoing the sash cord or by unscrewing the spring balance which holds it in place. The swollen edge then can be trimmed until the sash slides easily.

Windows that are merely stiff (not stuck) often can be cured by simple lubrication. Rubbing with a block of paraffin (a heavy candle



To remove molding pry off with chisel

works well) on the inside of both vertical tracks will often improve the sliding action and permit the window to be raised and lowered easily. Special grease sticks and aerosol lubricants also are available for this purpose. They work well on windows which have built-in metal weatherstripping in the channels (rubbing the metal beforehand with fine steel wool is a good idea).

On double-hung windows which have sash cords, attention also should be given to the pulleys over which these cords run. Pull down the upper sash to expose the pulley at the top of the frame on each side. Place a drop of oil on each pulley shaft on both sides of the wheel. To get the oil into the narrow space on each side of the pulley, use a small "precision" oiler, or place one or two drops on the bearing with a bent piece of wire. Graphite dust (sold for lubricating locks) also will do the trick. This is simply puffed into the opening by squeezing the flexible cartridge in which it comes.

When a window becomes difficult to open or close because the cords have broken or stretched badly, the only cure lies in replacing the cord, preferably with metal sash chain. The chain costs a little more than new rope, but it will last almost indefinitely and it will actually be easier to install. The replacement job can be done by any home handyman equipped with simple hand tools and can be accomplished from inside the house.

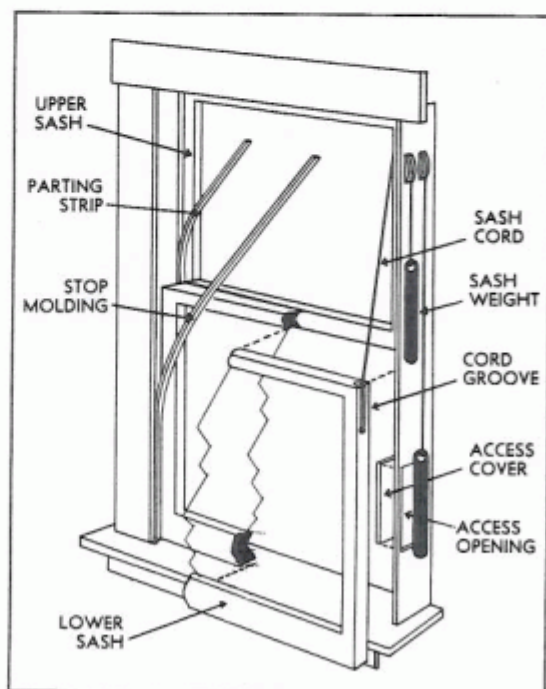
To replace the cords in the lower sash (these usually break first because they get the most wear), begin by first removing the stop molding on the side on which the cord is broken. This strip of wood holds the sash in place. It is nailed to the window frame on the inside so that its

outer edge forms one side of the channel in which the lower sash rides.

To remove this stop molding, raise the lower sash as high as it will go, then pry the molding off with a wide chisel or putty knife (not a screwdriver). Pry gently, working from the bottom up and moving the chisel or putty knife up a few inches at a time. Where possible, do most prying from the far side (the outside edge) of the strip and try to avoid damaging the molding or the finish, so that the piece can be used again without repainting.

After the stop molding has been removed, the lower window sash can be swung inward on that side and pulled out of its track in the window frame. This exposes the cord groove and knot pocket on each side where the cord is fastened to the edges of the sash. Pull out the broken cord and release the cord on the opposite side even if it is not broken. The weight inside the pocket in the window frame will draw this cord upward out of the way, but the knot in the cord will keep it from being pulled through the pulley at the top.

Put the sash down out of the way, then remove the access panel cover to expose the sash weights on the inside. To remove this panel cover,



one or two screws must be taken out first. If the cover has never been removed, its outlines may be completely hidden by caked-on paint. If so, try tapping with a hammer till cracks appear around the edge to outline this cover. In some cases this cover may never have been cut completely free during original construction. If this is the case, use a keyhole saw to finish the partial cut left by the builder. There are also some types of window frames in which the parting strip must be removed first in order to expose the access panel cover (see below).

Lift out the sash weight with its broken cord attached, then take the length of sash chain needed and feed it over the pulley at the top of the window frame so that it falls down through the weight box. Its end can then be reached through the access panel opening. To determine the amount of chain needed, use the old length of broken cord as a guide, or set the sash temporarily on the sill to estimate the length of chain needed.

To keep the outside end of the chain from slipping through the pulley at the top, slip a nail or hairpin through one of the chain links on the outside. Fasten the inside end of the chain to the sash weight by looping the chain through the eye at the top of the weight, then lock it securely with the special clips provided.

Now put the weight back inside the pocket in the window frame and pull it up to the top of the window by pulling down on the end of the chain on the outside. Place the sash back in its frame with its bottom resting on the window sill. Pull the chain down as far as it will go, then slip it into the cord groove with its end resting in the knot-retaining hole. Secure this permanently in place by driving in one or two small nails and cut off any excess chain which remains.

Now raise the sash all the way up to make certain it works freely. By watching through the access panel opening, check the action of the weights to see that they do not hit bottom. Then replace the access panel cover and nail the stop molding back in place in its original position at the side of the window.

Though the directions given above describe the steps involved in replacing only one of the sash cords, it is advisable to replace both sides at the same time—even though only one is broken. Chances are that even though the other one looks all right, it is at least partially frayed and stretched and will go soon. To do the other side, the access panel cover on that side will also have to be removed after the sash has been taken out.

When cords for the upper sash are to be replaced, the lower sash must

first be removed by prying off the stop molding and swinging the sash outward as described above. This permits the handyman to remove the access panel cover so that he can get at the sash weights. Bear in mind that the one panel cover on each side serves both upper and lower sash weights.

After the lower sash has been removed from its channel in the window frame and disconnected from the cords, the parting strip molding must also be removed. This narrow wooden strip is the dividing piece which separates the channels for the upper and lower sashes. It fits into a groove cut in the window frame. In some cases it can be pulled loose with the fingers, but in most cases additional prying or pulling will be required to free it from its wedged-in position and from caked-on coats of paint. Use pliers to grip it with adequate leverage, and pad the jaws with pieces of cardboard or cloth to avoid damage to the molding or its finish. Start pulling it out at the bottom, and work slowly and carefully upward, sliding the top sash down out of the way as the bottom is worked free.

After the parting strip on one side has been removed, the upper sash can be swung out in the same way as was the lower sash. The cords at each side can then be removed and replaced with chain as previously described. Replace the top sash in its position in the frame, tap the parting strip back into position, and reinstall the lower sash after its cords have been replaced.

Steel casement windows which hinge at the sides may also become difficult to open or close without forcing, or they may fail to close as tightly as they should. This condition not only permits cold drafts and wind-blown rain to enter, but can result in a considerable loss of heat in the wintertime.

The most common ailment is rust, particularly around hinges and along the edges. To prevent this, steel windows should be periodically painted with a good quality exterior trim paint or enamel. Rusty areas should be scraped clean, down to the bare metal, then touched up with a rust-resistant metal primer. Allow this to dry thoroughly before proceeding with the top coat.

Before painting a steel window, check the condition of the putty or glazing compound around the outside of the glass. Cracked or dried-out putty provides a ready means for moisture to enter, permitting rust to develop inside the channels. The old putty should be scraped out completely and the bare metal primed with a rust-resistant coating before new putty or glazing compound is applied. In a properly glazed window, the glass is bedded in putty from both sides, so make certain that putty