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Your Old House

Wood Windows

Bill Murphy
Vintage Woodworks, Victoria, BC

223 Robert Street, Victoria, BC

Victoria Heritage Foundation · The Vancouver Heritage Foundation · Heritage Society of British Columbia · British Columbia Heritage Trust

Repair and Maintenance of Old Wood Windows

Your original windows are the appropriate ones for your old house, regardless of its age or period. In fact, your house can be dated from the style of its windows.

Most windows are not yet halfway through their lifespan. Many of them have gone through two World Wars and one Depression with very little maintenance. However, windows facing south and west are generally in poorer condition than those on the north and east, due mainly to the action of sunlight on the wood.

Storm Windows

Because of their short lifespan, sealed thermal units are not an efficient replacement option. A far better method for double-glazing to avoid heat loss and deaden sound is the addition of wooden storm windows. Storm windows also protect your original windows from the elements.

Demonstration storm window

Bill Murphy bought his first old house when he was 24, became a carpenter in 1976, and formed Vintage Woodworks Inc. with Jim Stiven in 1984. Vintage Woodworks focuses its efforts on millwork, specializing in restoration and authentic reproduction of windows, doors, storm windows, screen doors, brackets, mouldings, wood turnings and columns, and using only the best timber and materials to ensure a quality product.

Vintage Woodworks Inc. 408 Alpha Terrace, Victoria, BC, Canada V8Z 1B6 Tel: (250) 386-5354 Fax: (250) 386-0161

Victoria Heritage Foundation (VHF) was established in 1983 by the City of Victoria to administer a program of grants for exterior and structural restoration of legally protected heritage houses. Of 267 such properties, more than 200 have received VHF grants, and 45 owners have won Hallmark Society Awards for superb restoration. VHF's Education Committee conducts a variety of projects aimed at raising heritage awareness among citizens and visitors to Victoria, and educating owners of heritage structures on sympathetic methods and materials for restoration.

Vancouver Heritage Conservation Foundation (VHCF) is a private, non-profit, charitable organization created by the City of Vancouver in 1992 to assist in the conservation of Vancouver's built heritage, in recognition of its public benefit. The Foundation has a professional staff and is governed by a citizen board appointed by Vancouver City Council. In 1999, the Foundation commenced a building grants project, *True Colours*, that assists owners of designated houses with exterior maintenance, while emphasizing the importance of authentic period colour schemes.

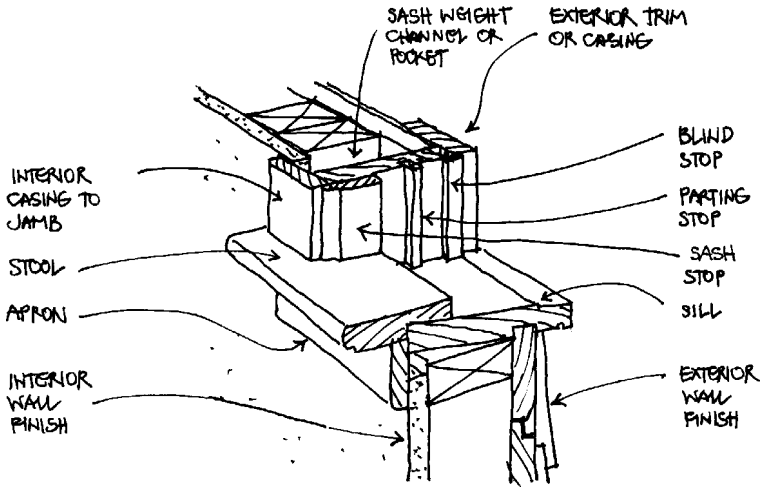
Heritage Society of British Columbia (HSBC) is a non-profit umbrella organization that represents more than 300 group, individual and corporate members from all parts of BC. Incorporated in 1981, the society's purpose is to provide leadership and encouragement for heritage conservation in BC.

British Columbia Heritage Trust (BCHT) has provided financial assistance to this project to support the conservation of our heritage resources, gain further knowledge and increase public understanding of the complete history of the province of British Columbia.

Credits

Jennifer Barr - Editor; Bob Baxter / Camilla Turner - Editing
Judith Andersen - Photos; Janice Tindall - Desktop Publishing

Lift the weights out, feed new lengths of #8 sash cord through the pulleys and down into the weight cavity. The cords can now be tied to the hole at the top of the weights. To determine the required length of sash cord, imagine that when your bottom sash is down, the weights must be at the top of the cavity. Fasten the other end of the sash cord by tying a knot and screwing it into the holes you will find on the sides of the bottom sash. It is preferable not to use nails, which tend to back out and cause the window to bind in the jamb.



Detail at jamb / sill junction

Put the bottom sash back into the track and refasten the sash stop mouldings on either side. The mouldings should be tight against the sash for the bottom 6", because that makes the bottom of the window weathertight when closed. The sash lock with its cam-like action between the meeting rails of the two sash makes the window weathertight at that point.

Casement Windows

Casement windows tend to be less weathertight than a good-fitting double-hung window. If the hinges are somewhat tired, the windows may drag across the sill. However, they can be made to fit quite snugly, frequently by just tightening the screws on the hinges. They can also be made to fit somewhat more tightly by adjusting the striker plate for the casement lock.

Some casements are fitted with Whitco hinges, scissor-like openers on the top and the bottom of the casement sash. Any failure of this system is usually in the bottom hinge and is caused by the rusting of the mechanism. The bottom one should be cleaned out with a whisk broom and lubricated every few years to avoid corrosion. Whitco hinges are still being manufactured.

Window Sills

If your window sills are severely deteriorated, they can be replaced, preferably by a good carpenter knowledgeable about the construction of old buildings. Don't let anyone convince you that your whole window must be replaced.

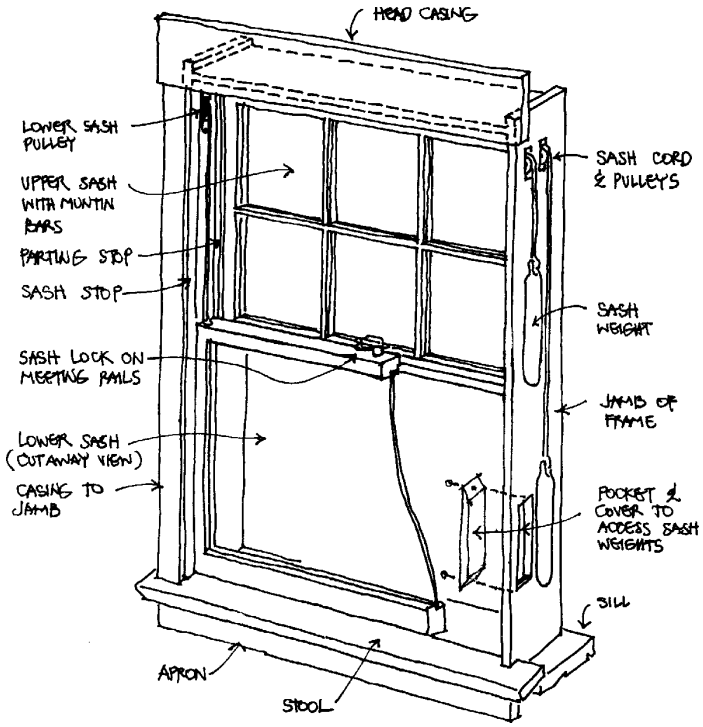
Damaged window sill

Putty

Loose and missing putty can cause moisture retention between the glass and the wooden sash. This can accelerate rot in the wood. It is best to remove all loose putty, but don't remove what is still firmly in place. The old-fashioned linseed oil putty is very difficult to use. Purchase a can of DAP 33 from your local glass shop or hardware store; using DAP 33 and a proper glazier's putty knife will make the job of renewing the putty a snap.

Double-Hung & Casement Windows

There are basically two types of windows: double-hung and casement. A double-hung window is so-called because it has an upper sash [the wooden frame which holds the glass] that slides down in the window frame and a lower sash that slides up. A casement window is a sash hung on hinges, and it generally opens sideways like a door.



Double-hung window, view from inside

Double-Hung Windows

Double-hung windows are one of the most weathertight wooden window designs. They are controlled with weights and pulleys, or by springs, concealed in the side jambs [the side of the window frame in which the sash operates]. Over the years, windows may have ceased working due to a variety of problems. The sash may be painted shut; the sash cords or ropes may be frayed or broken; the hardware may be missing, the putty deteriorated or the wood rotted. The windows may have been nailed shut to prevent break-ins. The sash is made of four pieces of wood, two horizontal rails and two vertical stiles. Take care when trying to get your windows open: the bottom rail could be quite loose and fall off, and the glass may also be loose and fall out.

Most vintage double-hung windows are hung with sash cord and pulleys; perhaps five percent are hung either with duplex spring balances or spiral balances. These latter are typically from the 1940s and 1950s. Replacement parts for the spring or spiral types are still available. This brochure deals with the sash cord and pulley type.

Restoring Double-Hung Windows

When freeing up the lower sash, use a putty knife to run around the edges. Use the knife to pry off one of the sash stops, the thin wooden mouldings along the side that form the track the sash slides in. Try sliding the lower sash upward and pulling it in towards you. If it is still hanging with sash cords, cut them off. Don't worry if the weights drop down into the cavity, as you will retrieve them later. The bottom sash should now be out of the window.

Now run your putty knife around the edges of the top sash. You may have to lean out the window and run the knife around the edges to break the outside seal as well. At this point, the top sash should slide down. If it doesn't run smoothly, apply paste wax to the track. Replacement of the sash cords for the top sash isn't usually necessary because they've been preserved in the wall for all these years.

It is nice to get the top sash working to let the heat escape from your ceiling during summer months. By opening the bottom sash and lowering the top sash a few inches, a natural airflow occurs. In hot weather, warm air rises to the ceiling and flows out the window, while cooler air comes in the bottom.

Demonstration double-hung window and weight

To retrieve the weights for the bottom sash, you will generally find a weight pocket cover in the track that the outer sash slides in. This is approximately 10" up from the sill and held in place with a screw. Many coats of paint may obscure this screw, but it is still there. This cover, which will be about 1 1/2" wide by 12" long, will pull out at the bottom and slide downward, revealing the weights for the bottom sash.