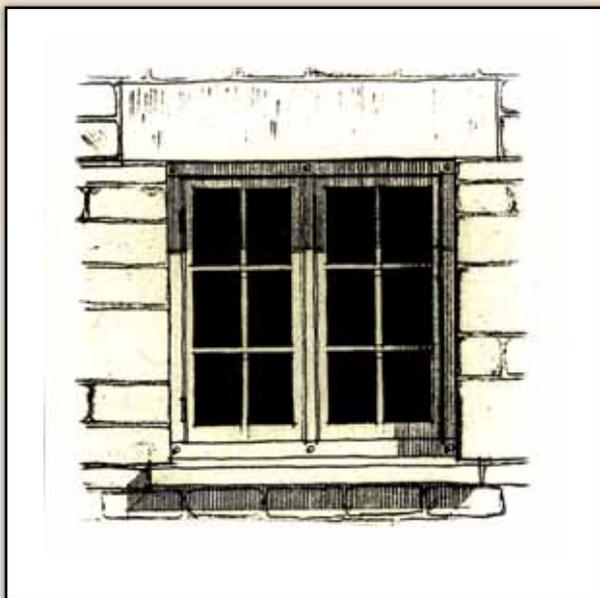


# TRADITIONAL CASEMENT WINDOWS

## Design Guide



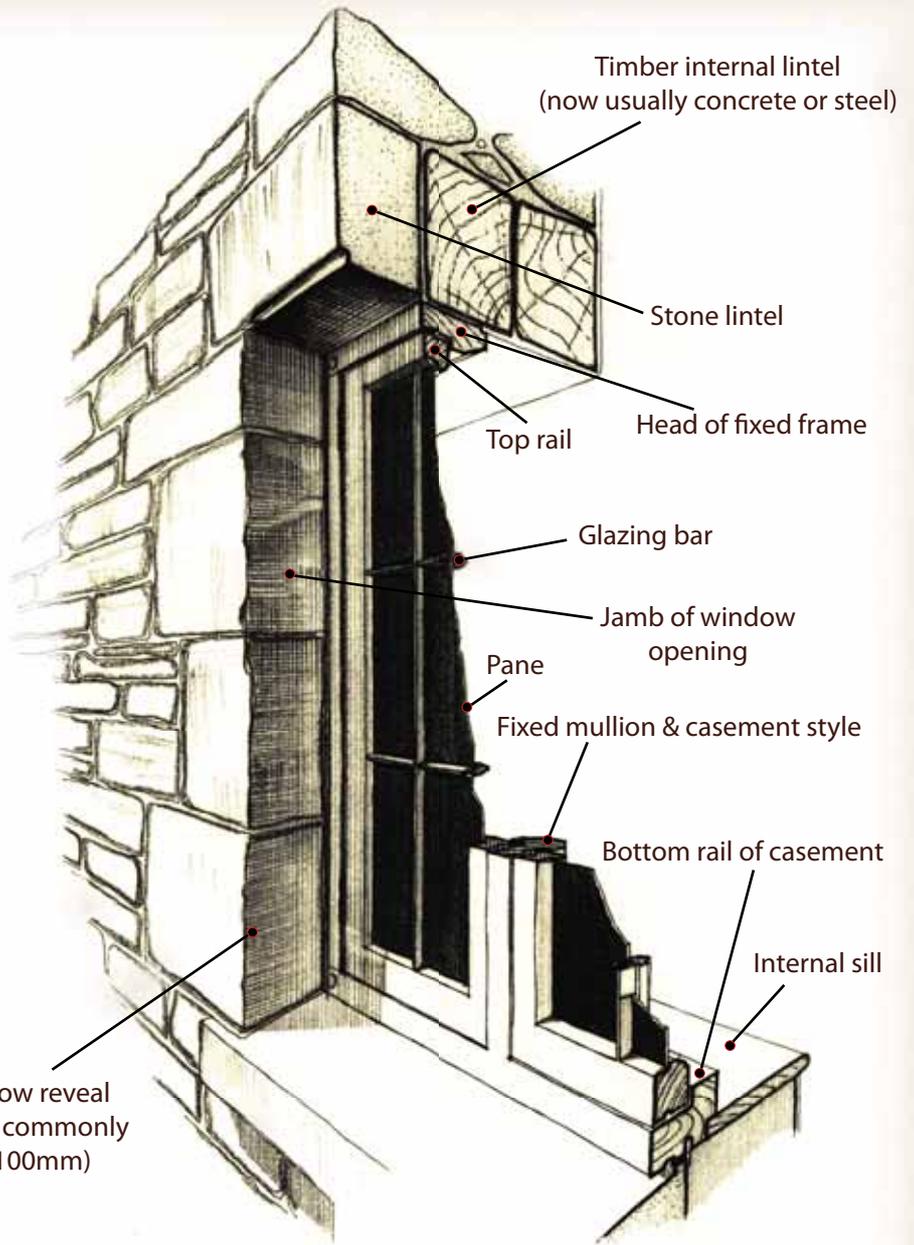
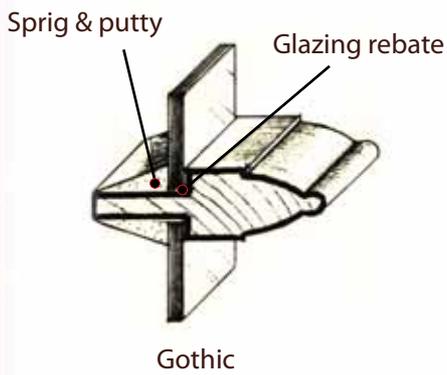
Timber casement windows succeeded the stone mullioned window, to become the most common window type by the second half of the eighteenth century. The traditional Subdivided by glazing bars, joining together the small panes of glass, the earlier designs had the opening part of the window, the 'casement' made of iron with lead latticing to the glass. By around 1840, the beginning of the Victorian period, the frames and opening casements were made entirely of timber. Windows of 6-panes per casement were the most common pattern, but designs were occasionally elaborated by the use of Gothic arches or smaller panes, especially during the mid-nineteenth century. From then, glass technology improved and the number of panes per casement was reduced to two with one horizontal glazing bar. Traditional windows were usually no wider than about 450mm (18") per casement.

November 2013

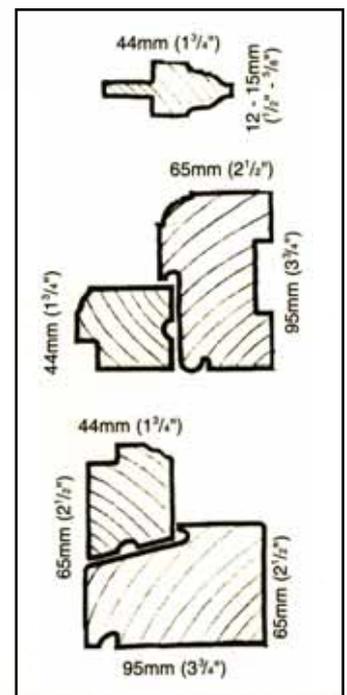
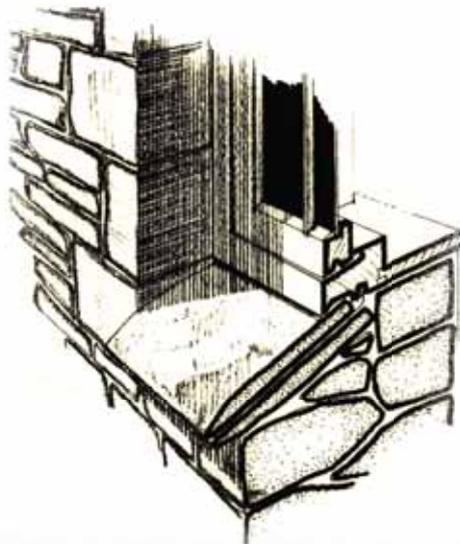
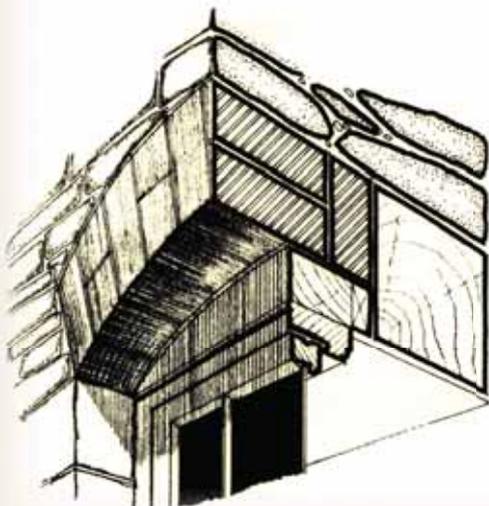


**COTSWOLD**  
DISTRICT COUNCIL

# Typical glazing bar mouldings



## Variations in the head and sill treatments



## Construction

The timber frame of casement windows was developed from the heavy oak frames of medieval openings. Jambs, sill and head were jointed with a pegged mortice and tenon. A slimmer softwood version of this construction forms the basis of the traditional casement window. In a typical window, a glazing rebate is formed allowing the glass to be fixed from the outside face and be held in place with sprigs and putty. A little sophistication was introduced by means of moulding the inner edge of the frame where it adjoins the glass, the glazing bars being moulded to match, and the fixed frame was often also moulded. In traditional construction, mouldings meet at mitred corners they were never routed after assembly, which creates rounding of the inner edges. Routing of assembled components is not a desirable technique in historic buildings.

Traditional windows are constructed using solid timber components joined using traditional joints. Some timber casement windows available today are constructed using modern techniques sometimes described as machined or engineered windows. Such windows are constructed using resin bonded timbers and utilise many of the mechanisms common to upvc windows. This type of window construction does not possess the detailed aesthetic qualities of traditionally constructed casement windows and are generally aesthetically unsuitable for use in historic buildings.

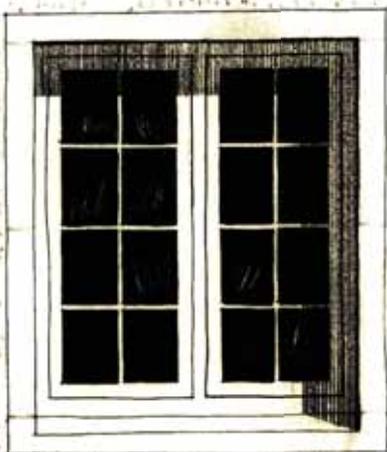
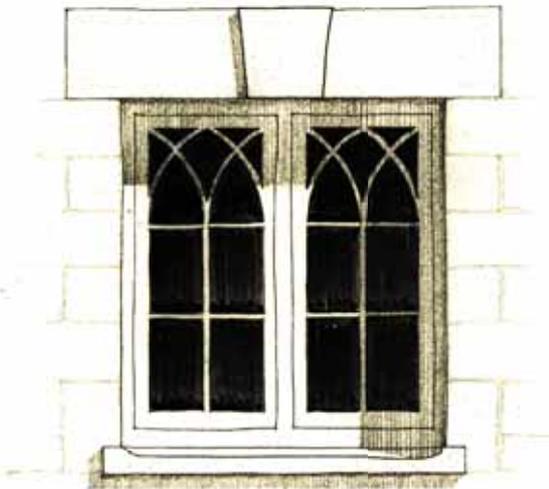
Planted glazing bars are a common feature of some modern timber windows. Such windows incorporate a single pane of glass with false timber glazing bars planted on the surface of the glass to create a subdivision of the window frame. This method of construction lacks the aesthetic qualities of a traditionally constructed window and is therefore unlikely to be appropriate in some more historically sensitive situations.

## Glass

Until Crown Glass and Cylinder Sheet became available, the small panes of Broad Sheet had to be fixed together in leaded lights, and later by the use of glazing bars. The newer glass-making processes produced much larger sheets although many imperfections occurred, and these can often be seen in the poorer quality glass used in cottage casements. Modern Polished Plate glass has no imperfections, and has none of the special character of the older material.

## Double Glazing

Double glazing is used to increase thermal efficiency of windows and is a requirement of building regulations in new windows in non listed buildings. Advances in technology have enabled the width of double glazed units to be reduced significantly, however, in some cases, especially listed buildings the use of double glazing is considered to lack the aesthetic qualities of traditional glazing and is not considered to be appropriate. In such cases secondary glazing may be considered in order to increase thermal efficiency.





## Fittings

The ironmongery attached to casements consists of the hinges, the casement latch, and the stay bar. As with the latches found on earlier iron casements, these fittings were often made by the local village blacksmith and can be very distinctive. By the late nineteenth century, cheaper factory-produced fittings were available.

## Paint Colour

Although the very earliest casements were made of oak, and therefore left unpainted, nineteenth century softwood casements were always painted. White was the most common colour, but many estates adopted other shades, many of which are still in use today. Common estate colours in the Cotswold area are cream, pale blue, grey, and slate green (the latter colour sometimes called 'lizard'). Staining is not a traditional finish for windows and is best avoided, especially on listed buildings.

## Conservation

Although this guidance leaflet is primarily intended to provide advice on how to design new casement windows to match the appropriate local style, old windows should always be retained and repaired wherever possible, especially when the building is 'listed'. Often the only fault will be a rotten sill, and any good joiner will be able to replace this. Old glass and ironmongery should also be retained, unless beyond repair. Modern casement designs should be avoided. Usually these have opening casement frames that overlap the fixed frame externally, and where the fixed light is directly glazed to this outer frame creating an unbalanced effect. When selecting windows for sensitive locations, such as on listed buildings or in conservation areas, the joinery details described in this leaflet should be followed.



## Listed Buildings

Most changes to windows on listed buildings, other than very minor repairs, will require listed building consent. It is recommended that a member of the Council's Conservation and Design Section is contacted for advice prior to any work on listed buildings, and before an application is made.

**Where prior permission is required, it is a criminal offence to carry out unauthorised works to a listed building.**

For further information, please contact:

[planning@cotswold.gov.uk](mailto:planning@cotswold.gov.uk)

Telephone: 01285623000

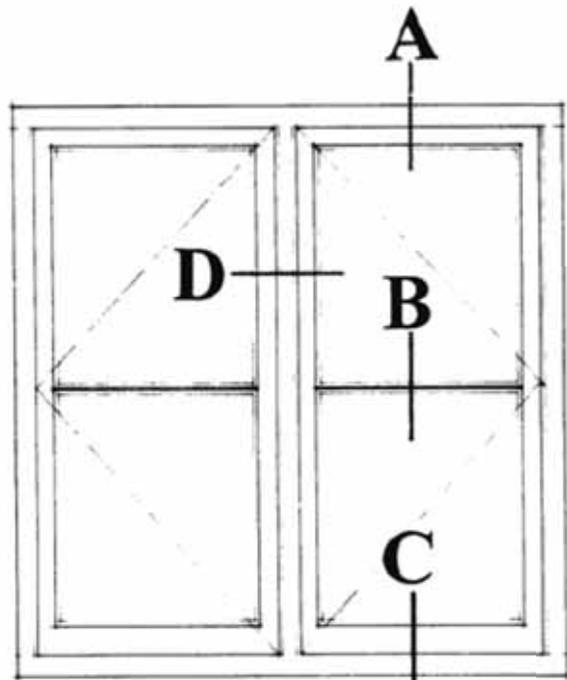
[www.cotswold.gov.uk](http://www.cotswold.gov.uk)



# TRADITIONAL CASEMENT WINDOWS

## Single Glazing

The drawings to the left illustrate an example of how a modern window can be detailed in a way which reflects the general pattern of traditional single-glazed casement windows found throughout the Cotswolds.



Elevation  
(Not to scale)

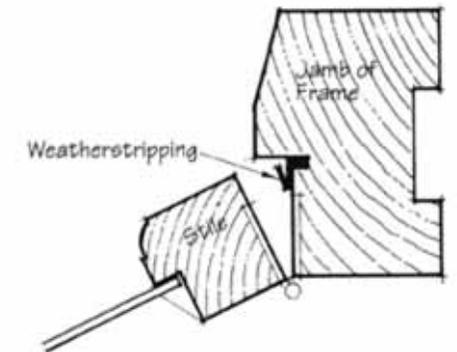
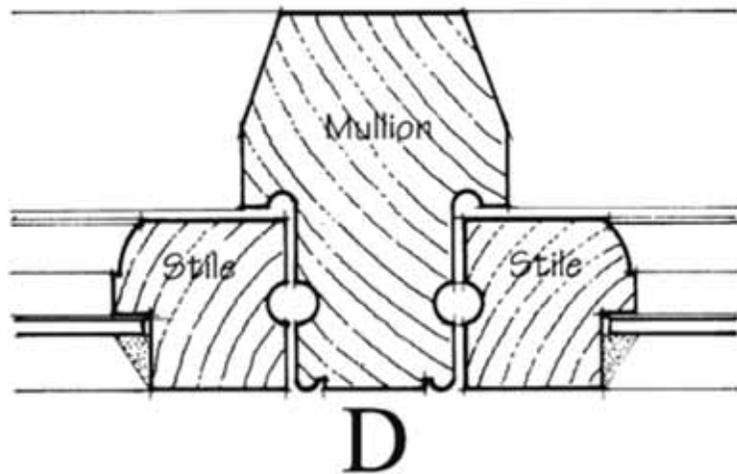
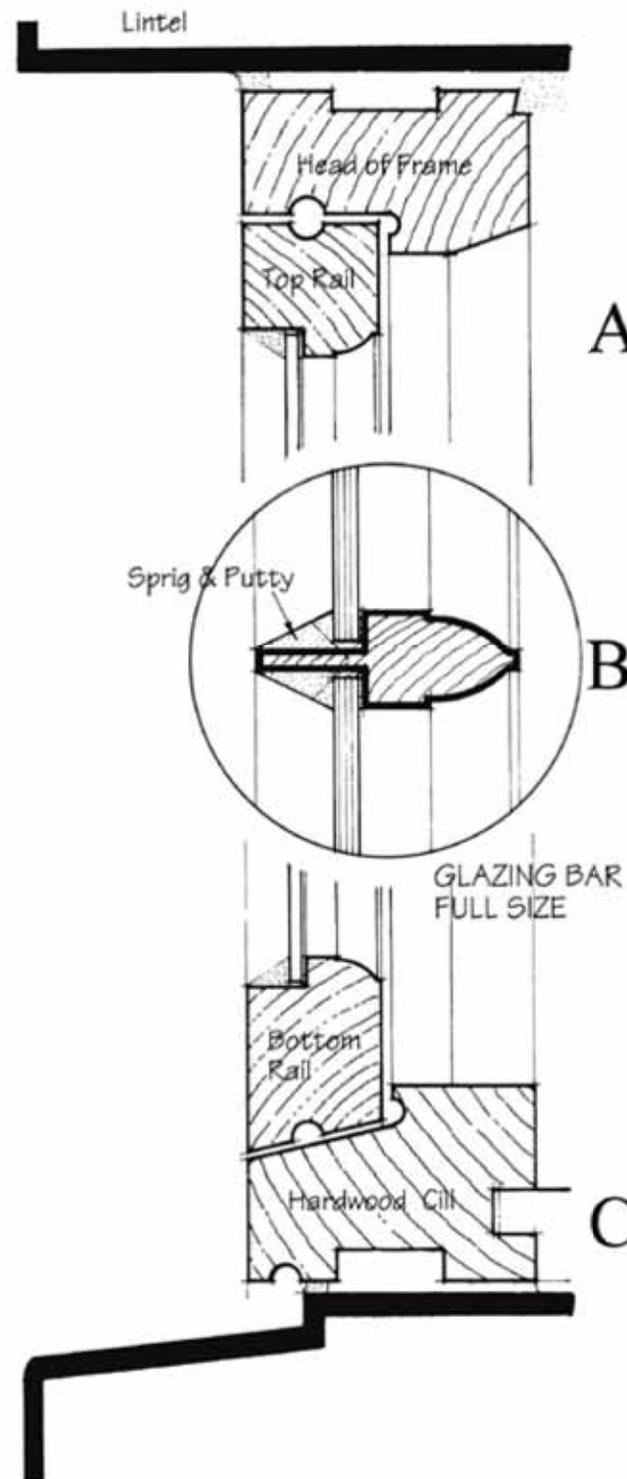


Figure. 1 Example of weatherstripping.

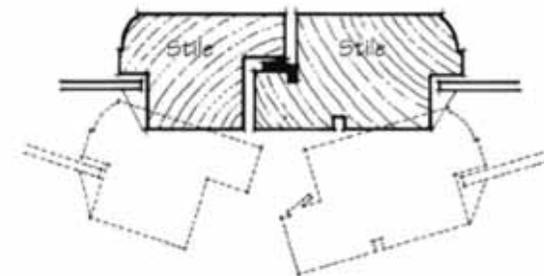


Figure. 2 Example of escape window with stile of opening casement incorporating fake mullion.

# TRADITIONAL CASEMENT WINDOWS

## Double Glazing

The drawings to the left illustrate how, if required, a window can be double-glazed while retaining a traditional appearance.

Please note that in certain situations, for example on listed buildings, the use of double-glazed casements may not be acceptable, due to the effect of the appearance and detailing of the window.

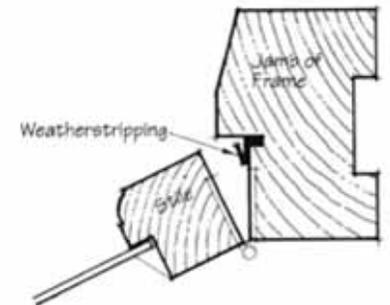
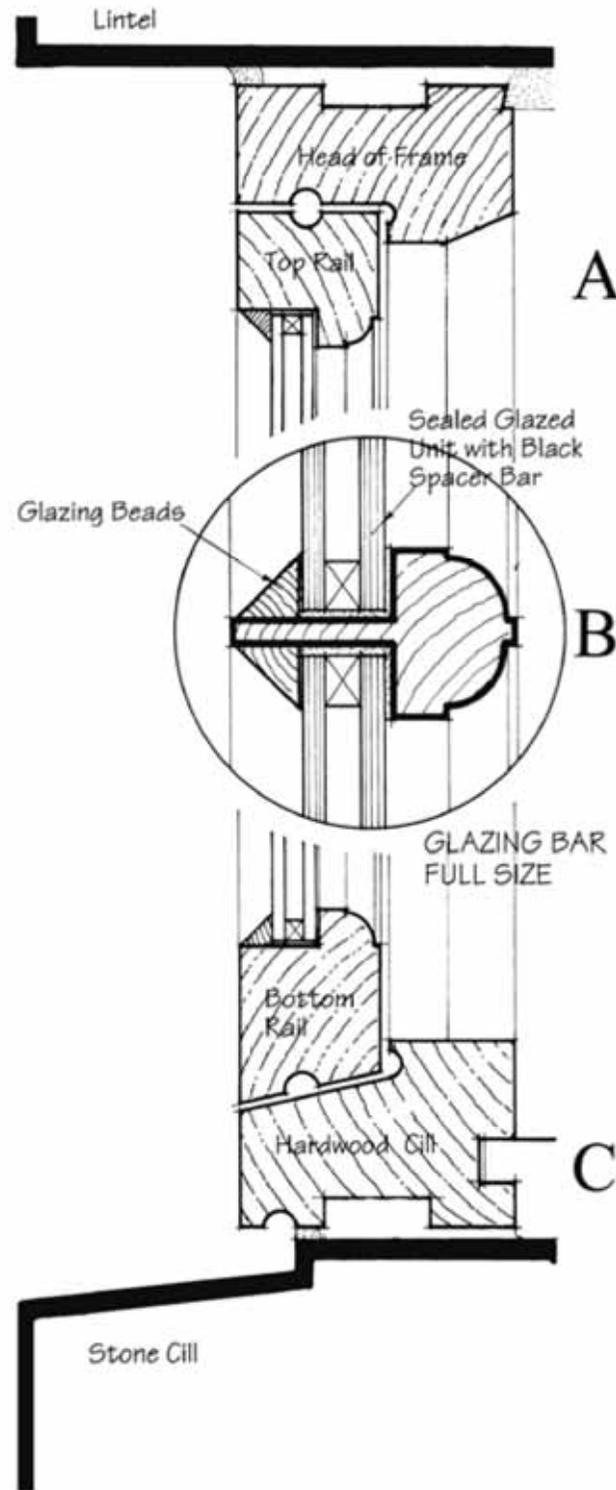
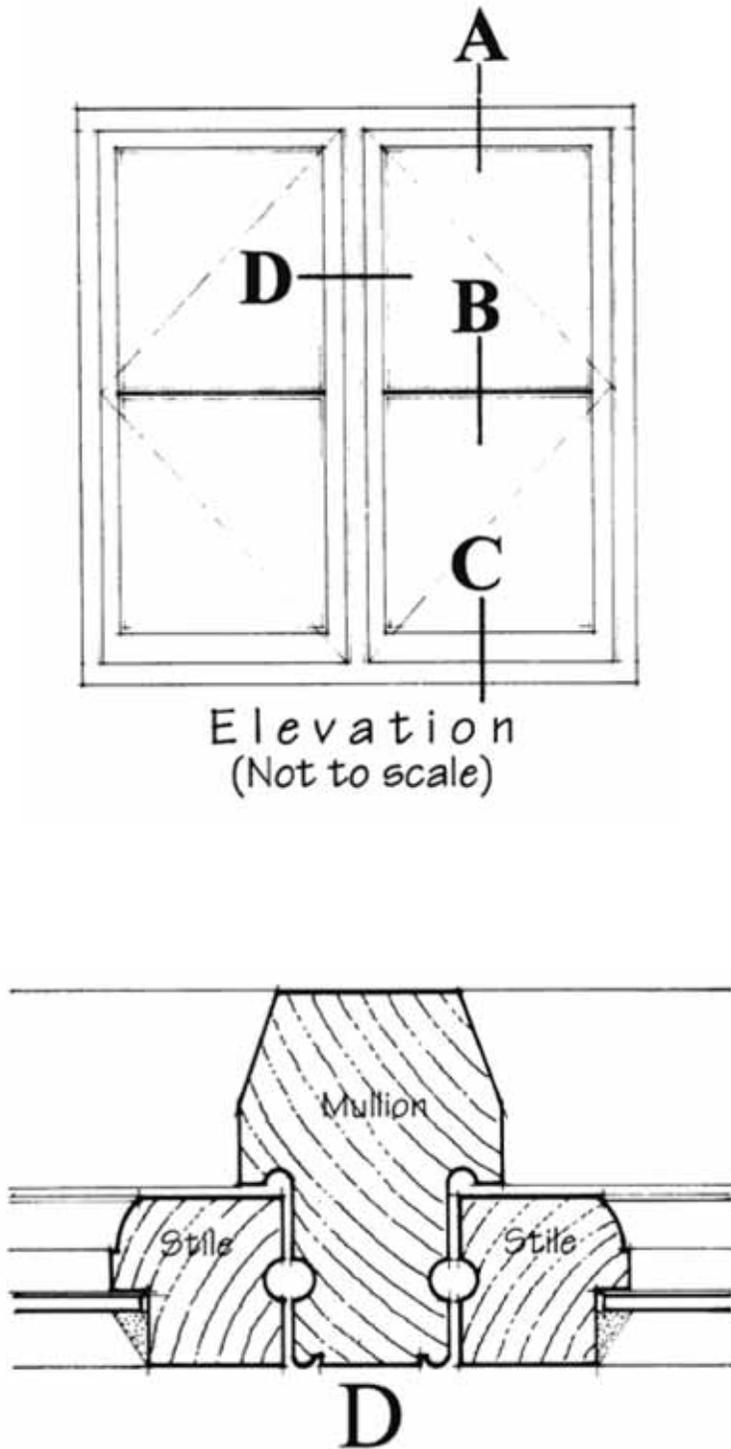


Figure 1 Example of weatherstripping.

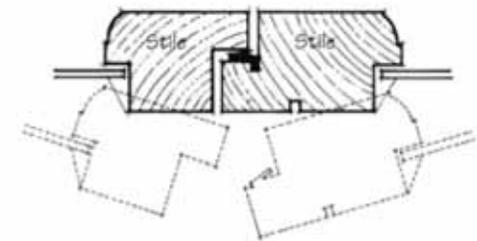


Figure 2 Example of escape window with stile of opening casement incorporating fake mullion.

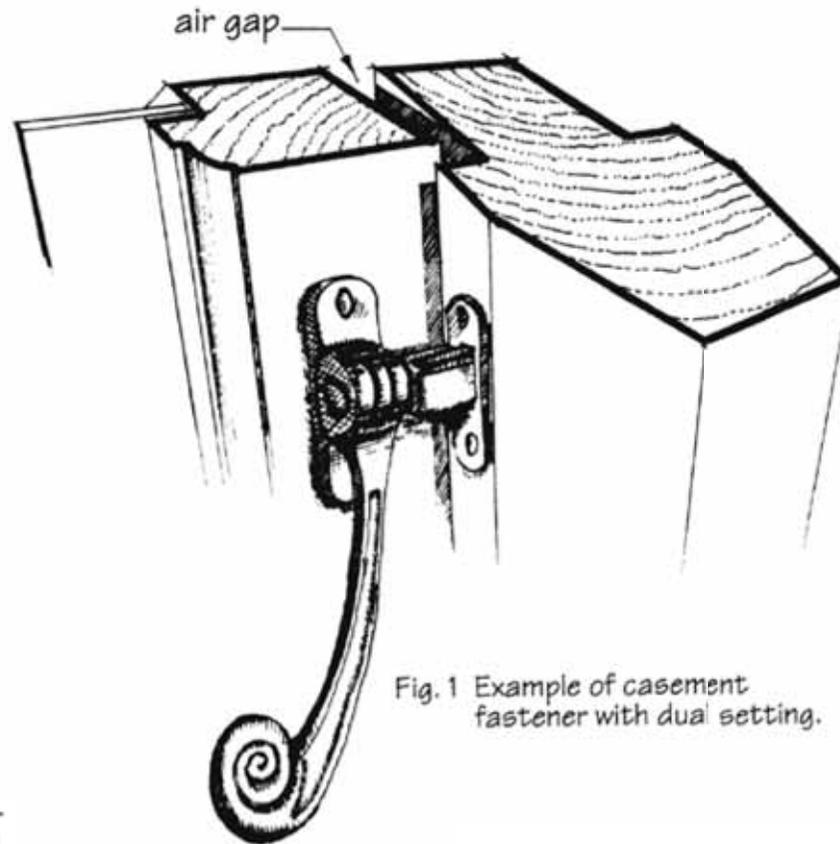


Fig. 1 Example of casement fastener with dual setting.

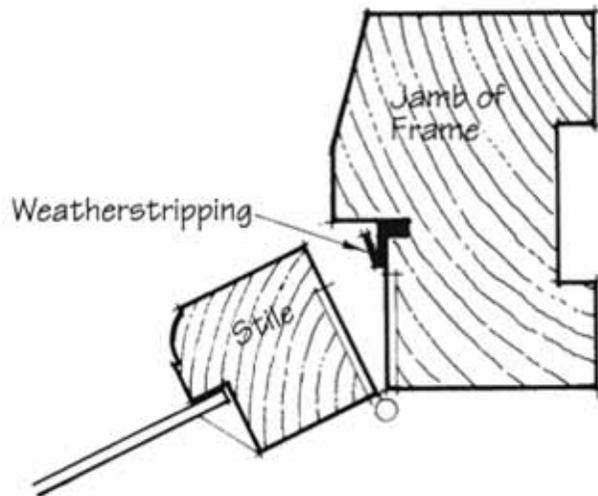


Fig. 2 Example of weatherstripping.

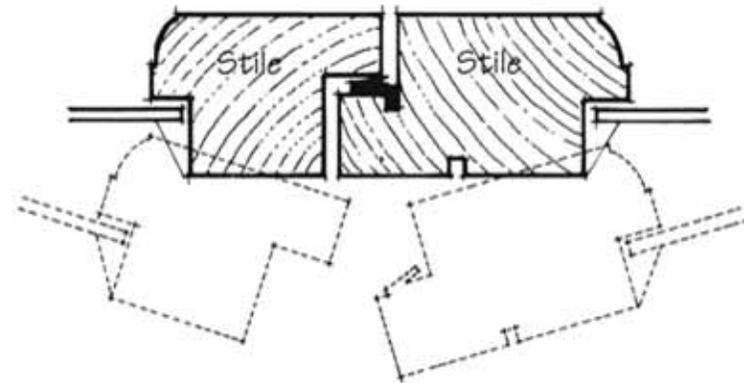


Fig. 3 Example of escape window with stile of opening casement incorporating fake mullion.