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Weatherstripping Doors

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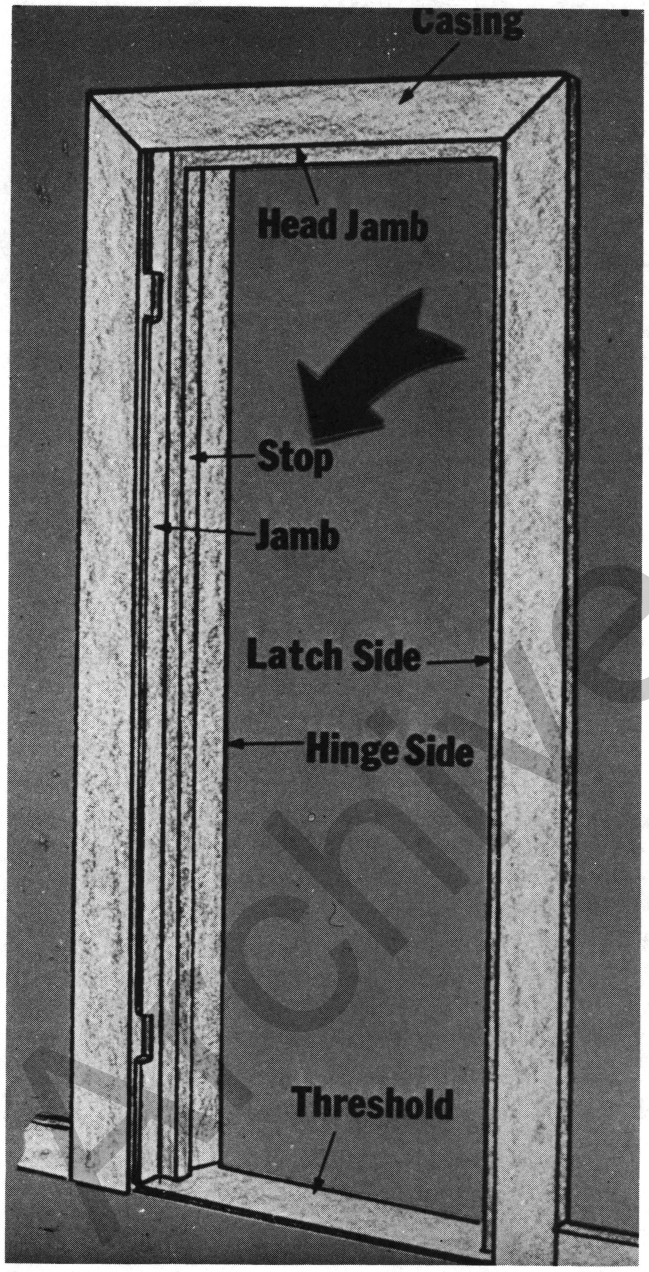

Door Terminology

Purpose of guide: To tell readers how to weatherstrip their own doors to reduce heating and cooling costs of their homes.

Factory-applied weatherstripping on doors is only a recent innovation. As a result, the exterior doors in thousands of homes throughout the state possess little or no weather stripping. Most doors are installed with a space between the bottom of the door and the floor or threshold. Sometimes this space can amount to as much as one fourth of an inch or more. If weather stripping is not used this crack allows large amounts of air to flow in and out of the house. This is known as infiltration.

As a matter of fact, on a typical 36-inch entry door this small crack equals a nine square inch hole through the wall of your home. To put things in perspective this is approximately equal in size to a standard duplex receptacle or the familiar switch plate.

Tape Products

One of the most effective and economical methods of weatherstripping doors is pressure sensitive vinyl foam tape. When shopping for vinyl tape, look for a closed-cell vinyl. It is a better insulator than its rival, open-cell, because the pores in the tape are adjacent rather than connected to each other.

A similar product, pressure sensitive sponge rubber, is also available. However, due to its rather low compressibility, this material is not recommended for use as door weather stripping. The vinyl foam tape is a better insulator and provides better compressibility and adhesiveness.

It is on the door stop that most weather stripping products are applied. The stop derives its name from its function which is to stop the door from swinging through the upright sides of the door called the jamb.

When using any form of pressure sensitive or stick-on weather stripping, clean surfaces are a must. Any exterior door jamb is sure to have a film of dust which must be removed prior to application of the product. A cleansing rag dampened with fast drying lacquer thinner or denatured alcohol will take off this film.

Nail-On Products

Spring metal products have long been used to weatherstrip doors and windows. However, these materials are harder to install and often not as effective as the closed-cell vinyl tape.

Three types of coiled tubing are most often used for weather stripping. Installation is simple, requiring only a hammer, nails and a pair of shears or tin snips. For doors,

the tubing is pressed against the closed door and nailed to the face of the door stop. Other devices similar to the tubing include those with a pre-formed body made of white pine which are applied in the same manner.

Door Bottoms

Door bottom weather stripping is available in several materials. While easy to apply, these products can interfere with door swing and require a reasonably level threshold beneath the door. Simple hand tools are all that are required to install any of these door bottoms. After cutting it to size with a hacksaw or tin snips, the door bottom is surface mounted to the inside of the door using wood screws normally provided by the manufacturer.

A fairly new innovation in weather stripping is the mechanically operated, "automatic" door bottom. In this model a vinyl seat is automatically lowered against the floor when the door is shut. The seal retracts when the door is opened.

Thresholds

A more attractive method of wind-proofing the bottom of a door is with a threshold. While most are very effective at cutting down infiltration, the average homeowner may find them difficult to install.

A popular threshold is an aluminum model with the flexible vinyl "bubble." When new, this threshold is effective, but under constant use the bubble soon collapses leaving a sizable crack beneath the door. In most cases the vinyl is replaceable provided a dealer selling that particular model can be located.

Though not the easiest to install, the combination vinyl door bottom and aluminum threshold is long-wearing and provides effective weather-proofing. Since the vinyl is mounted in an aluminum extrusion fastened to the door, the aluminum threshold bears the brunt of wear. The one disadvantage of this system is possible interior frost accumulation on the threshold during extremely cold weather.

Storm Doors

For aesthetic reasons many new homes today are being built with exposed single (or even worse, double) entry doors. While certainly attractive this practice must be questioned because of the heat loss or gain. By covering an exterior door with a storm door, conduction loss and infiltration through that door can easily be reduced by 50 per cent.

Many people object to the appearance of the traditional aluminum combination self-storing storm door. Manufacturers are now offering a full-length, glass storm door particularly suited for those homes with exposed entry doors. To be sure, these doors are potentially hazardous. However, Missouri law now requires tempered safety glazing in such doors, and attractive decals and appliques can be attached at eye level to make sure the glass door is noticed.

Garage Doors

Another source of large amounts of infiltration can be found around practically any overhead garage door. A one-eighth inch crack around the average single garage door yields almost 50 square inches of area—enough to be concerned about especially if the garage is attached to the house.

To begin winterizing a garage door, first purchase a "garage door bottom." Usually available in rubber or vinyl, the bottom is simply cut to measure and nailed to the bottom edge of the door with rust resistant nails.

The final step should be the installation of an overhead garage door weather strip kit. One brand uses a vinyl leaf which fastens into an aluminum frame. Installation requires only a hammer and hacksaw and is accomplished by nailing the aluminum strip to the face of the door stop allowing the vinyl leaf to "float" against the face of the garage door.

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