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Walker, Lloyd R./Weatherstripping doors



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**Quick Facts**

Air leakage around loose-fitting doors can cause a significant amount of heat loss from a structure.

Weatherstripping is a low-cost energy conservation measure that can pay for itself quickly in energy savings.

Types of weatherstripping for the tops and sides of doors include adhesive-backed foam, rolled vinyl with aluminum channel backing, foam rubber with wood backing, spring metal, interlocking metal channels and fitted interlocking metal channels.

Types of weatherstripping for thresholds of doors include sweeps, door shoes, vinyl bulb thresholds and interlocking thresholds.

Each type of weatherstripping varies with effectiveness, durability and degree of installation difficulty.

Fitted interlocking metal channels and interlocking thresholds should be installed by a carpenter.

Air leakage around loose-fitting doors can cause a significant amount of heat loss from a structure. Weatherstripping will seal these air leaks.

Several types of weatherstripping made for doors are available, each type with its own level of effectiveness, durability and degree of installation difficulty. A homeowner should choose the type which will best suit individual needs and ability.

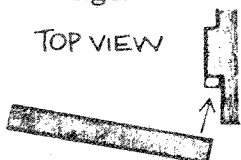
The following methods, 1 through 6, are options for the top and two sides of the door. Methods 7 through 10 are to be used on the threshold of the door.

Weatherstripping the doors in a dwelling is a low-cost energy conservation measure that can pay for itself quickly in energy savings.

**Methods and Materials**

- 1) Adhesive-backed foam

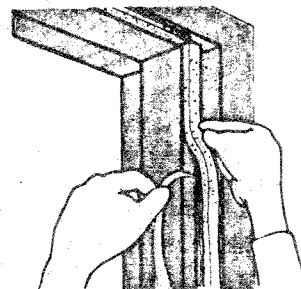
Tools needed—



knife or shears, tape measure.

Evaluation—extremely easy to install, invisible when installed, not very durable, more effective on doors than windows.

Installation—stick foam to inside face of door jamb.

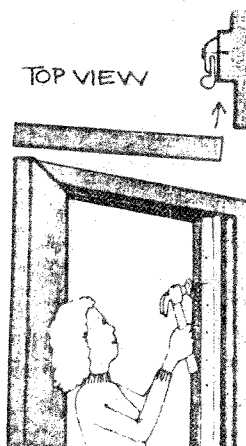


- 2) Rolled vinyl with aluminum channel backing

Tools needed—hammer, nails, tin snips, tape measure.

Evaluation—easy to install, visible when installed, durable.

Installation—nail strip snugly against door on the casing.

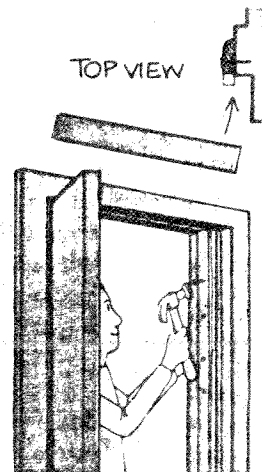


- 3) Foam rubber with wood backing

Tools needed—Hammer, nails, hand saw, tape measure.

Evaluation—easy to install, visible when installed, not very durable.

Installation—nail strip snugly against the closed door; space nails 8 to 12 inches (20-30.5 centimeters) apart.



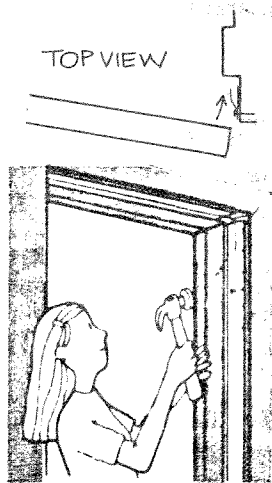
<sup>1/</sup>Lloyd Walker, CSU research associate, agricultural engineering; fact sheet adapted from "In the Bank... or up the Chimney," U.S. Department of Housing and Urban Development (revised 3/1/80)

#### 4) Spring metal

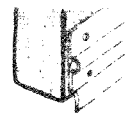
Tools needed—tin snips, hammer, nails, tape measure.

Evaluation—easy to install, invisible when installed, extremely durable.

Installation—cut to length and tack in place; lift outer edge of strip with screwdriver after tacking, for better seal.



Installation—cut sweep to fit 1/16 inch (1.6 millimeter) in from the edges of the door; some sweeps are installed on the inside and some on the outside; check instructions for the particular type.

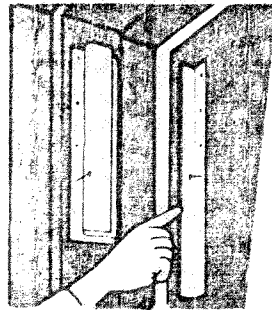
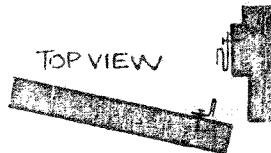


#### 5) Interlocking metal channels

Tools needed—Hack saw, hammer, nails, tape measure.

Evaluation—difficult to install (alignment is critical), visible when installed, durable but subject to damage because they are exposed, excellent seal.

Installation—cut and fit strips to head of door first: male strip on door, female strip on head; then hinge side of door: male strip on jamb, female on door; finally lock side on door, female on jamb.

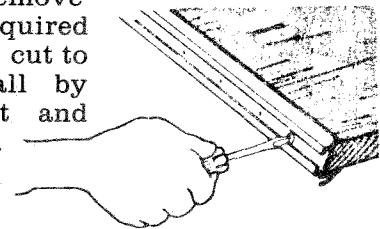
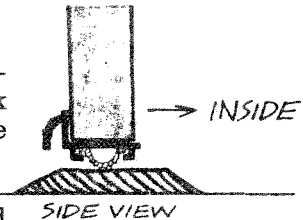


#### 8) Door shoes

Tools needed—screwdriver, hack saw, plane, tape measure.

Evaluation—useful with wooden threshold that is not worn, very durable, difficult to install (must remove door).

Installation—remove door and trim required amount off bottom; cut to door width; install by sliding vinyl out and fasten with screws.

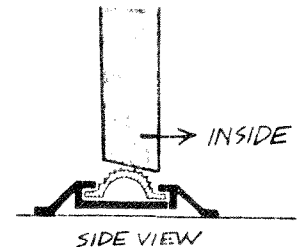


#### 9) Vinyl bulb threshold

Tools needed—screwdriver, hack saw, plane, tape measure.

Evaluation—useful where there is no threshold or wooden one is worn out, difficult to install, vinyl will wear but replacements are available.

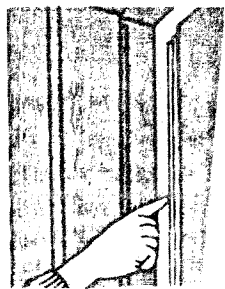
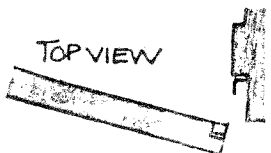
Installation—remove door and trim required amount off bottom; bottom should have about 1/8 inch (3.2 mm) bevel to seal against vinyl; be sure bevel is cut in right direction for opening.



#### 6) Fitted interlocking metal channels (J-strips)

Evaluation—very difficult to install, exceptionally good weather seal, invisible when installed, not exposed to possible damage.

Installation—should be installed by a carpenter; not appropriate for do-it-yourself installation unless done by an accomplished handy person.



#### 7) Sweeps

Tools needed—screwdriver, hack saw, tape measure.

Evaluation—useful for flat thresholds, may drag on carpet or rug.



#### 10) Interlocking threshold

Evaluation—very difficult to install, exceptionally good weather seal.

Installation—should be installed by a skilled carpenter.

