

# Controlling Clothes Moths and Carpet Beetles in the Home

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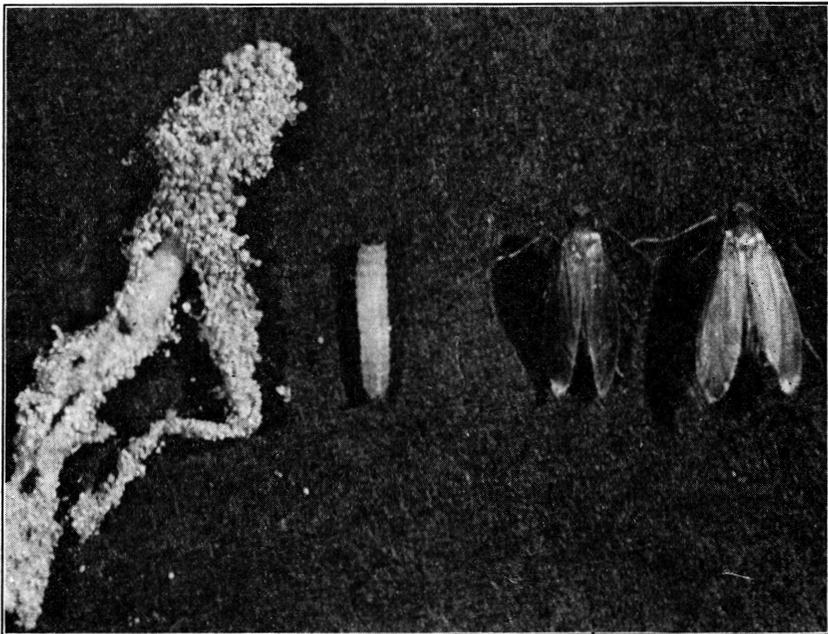


Fig. 1.—Larvae and adults of webbing clothes moth. Larva at left in silken, excrement, covered tube. Enlarged  $3\frac{1}{2}$  times.

Of all the insects that invade the home, the clothes moths and carpet beetles are probably the most injurious. Every year many wool garments, blankets, furs, hair brushes, feathers, upholstery, rugs, and other materials made of animal fibers are ruined by these pests whose destructive feeding is often not noticed until it is too late to save the article. Damage is caused by the larvae or growing stage feeding on the fibers and nap and causing holes or scarred and weakened spots in the material. As the army increases in size and requires

more and more wool, and the supply for civilians shrinks, it is important and necessary for each housewife to protect such articles from the attacks of these insects.

Three species of clothes moths and four carpet beetles are pests in the home.

### Clothes Moths

Of the three species of moths, the *webbing clothes moth* (Fig. 1) is the one most commonly seen. Its soft white larvae form silken webs and tubes in which they hide and from which they feed. The silken threads are often the means for detecting the presence of this insect pest. The *casemaking clothes moth* larvae build tough, grey, silken cases which they drag from place to place as they feed, and in which they change to the pupa stage. The *tapestry moth* also spins a silken web, but it is far less common than the other two species.

The young larvae of the three species may live from six weeks to more than three years, depending on the temperature and humidity of their environment. It is only in this growing stage that the insect does any harm. The adult moths, which do not feed, measure less than one-half inch in wing span, and are often seen fluttering about in closets and in the dark corners of rooms. They live only to mate and lay their tiny white eggs in among the fibers upon which their offspring will later feed. The eggs are usually laid on clothing that is stored away in dark closets and boxes and which has not been disturbed for some time. Pellets of excrement are often mistaken for the much smaller eggs.

### Carpet Beetles

Of the four kinds of carpet beetles which may damage woolen fabrics, the *black carpet beetle* (Fig. 2) is the most injurious in Mis-



Fig. 2.—Larvae, pupa and adults of black carpet beetle on damaged wool material. Enlarged two times.

souri. The adult is a small black beetle measuring about one-eighth inch in length. It may be seen at windows in the late spring and early summer months, trying to escape to the outdoors. It is generally believed that the adults lay their eggs indoors on the larval food material and then go out to feed on the pollen of spirea and other blooms. A close examination of spirea flowers will often reveal numbers of other little beetles, which have a checkered appearance. These are the adults of the *buffalo*, *variegated* and *furniture carpet beetles*. Of these three, the buffalo beetle is the more common one in many localities. The adult is a handsome little insect with red, black and white scales on its wing covers.

The larva of the black carpet beetle is carrot-shaped, golden brown to dark brown in color, with a long tuft of hair at the rear end of the body. Including the tail, it may grow to be as much as one-half inch in length. The larvae of the other species are shorter, stubby and hairy and have prominent tufts of hair that stand upright on the sides of the rear part of the body.

The life history of all species is about the same. The adults appear in the spring months from April to June. Eggs are laid and the larvae usually feed until the next spring when they change to delicate, white, hairy pupae and then into the active adults.

### Control

Clothes moths and carpet beetles are dangerous pests because they feed in dark places, such as closets, boxes, hot and cold air furnace pipes, and on the felts in pianos, where their presence is often not suspected until after much damage has been done. Therefore, one should always be aware of the possibility of their presence and do everything to keep the house free of them. This may be done in several ways.

Good housekeeping is one method. Frequent vacuuming and airing of rugs and overstuffed furniture, moving of furniture so that the same area of rug will not be darkened all the time, cleaning out closets and storage rooms, sweeping and dusting to free cracks from dust and lint, beating and shifting rugs and carpets periodically and other similar practices do not allow time or place for the pests to become established.

Another way to prevent damage is to provide safe storage for woolen clothing, blankets, furs, and other articles that are not used during warm weather when the insects are most active. The first step is to make certain that all such materials are free from insects. Hanging the clothes out in a bright hot sun and brushing them thoroughly will kill or remove all eggs and larvae from them, or they may be placed in an oven and heated for six hours at 135° F. Any articles that are soiled should be washed or dry cleaned because the larvae

feed more readily on soiled material. Many drycleaning establishments will treat clothing so that it is protected from these insects for from one to five years. This process is called "mothproofing." Some of these chemicals are available at drug stores and may be applied by the housewife herself. Many of them protect the garment until the next washing or drycleaning. Valuable furs or other clothing may be taken for safe keeping to cold storage vaults where the temperature of below 40° F. is too cold for any insect activity.

Clothes may also be fumigated to rid them of clothes moths and carpet beetles. Carbon bisulfide at the rate of one pound to 100 cubic feet may be used if no flame or fire is near. Caution must be observed as this gas is very inflammable when exposed to fire. Carbon tetrachloride may also be used in the same way except that the dosage should be doubled. This liquid is non-inflammable and may be purchased at most drug stores. The liquid is poured into a shallow pan and placed on the top shelf of a closet or at the top of a trunk or box. All cracks should be taped shut, and the box or closet not opened for at least 24 hours.

If a whole house is found to be infested with these insects, general fumigation may be necessary. This is usually done with hydrocyanic acid gas or carbon bisulfide and by experienced operators. If this is not practical, spraying infested materials and places with pyrethrum, rotenone, or thiocyanate household sprays will kill all those insects that are hit. Individual pieces of infested furniture may be sent to commercial companies that do vacuum fumigation and who will also mothproof the pieces against future attacks.

When clothes are packed away for storage, they should be protected from future attacks by the use of paradichlorobenzene or naphthalene flakes. These crystals should be spread between the clothes on thin sheets of paper at the rate of one pound to 20 to 50 cubic feet of space. The fumes are distasteful to the clothes moths and carpet beetles and they will stay away from areas where the odor is sufficiently strong. Many small pads or cakes sold in stores have a base of one or the other of these chemicals, but one or two of them hung in an open closet may not give off a strong enough odor to keep all of the insects away.

Clean clothes may also be wrapped tightly in heavy paper or may be hung in garment bags, if all openings are taped shut. The addition of the naphthalene or paradichlorobenzene crystals is a further insurance against damage. Cedar chests do not kill any of the life stages of the carpet beetles, nor do they kill the half or full grown larvae of the clothes moths. Therefore, care should be taken that the clothes are free from infestation before being placed in these containers.

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