some being perfectly linear, others larger at one end than the other, and still others oddly twisted and angled so that they adhere closely to the eurled up larva when at rest. The silk which lines the nest is white, quite tough in texture and spun into a closely woven web which seems to protect the caterpillars from cold and dampness.

With the first bursting of the buds the tiny larvæ may be seen leaving their winter nests in search of food. They quickly attack the opening buds, feeding first on the tender green tips, but soon bore their way into the centre of the blossoms where they feast upon the more tender flowers, destroying great numbers of them and reducing the season's erop materially. If after the larvæ have emerged, and as they are boring their way into buds there occurs a snap of cold weather, the eaterpillars seek shalter again in the old hibernacula. In such cases the partially eaten buds as well as the old nest are covered with silk threads, while a series of these threads is woven between the two.

When the blossoms have fallen, the larvæ feed upon the expanding leaves tying them together with silken threads. The petiole of one of the leaves is often nearly severed, when the edge of the leaf is rolled into a tube and lined with silk to form a nest in which the eaterpillar lives during the summer. While feeding, it draws other leaves towards it and fastens them together to form a loose bulky nest, rendered quite conspieuous by the partially eaten leaves wilting and turning brown.

Occasionally an apple may be drawn into the cluster of leaves composing the nest in which ease the larva feeds on the apple as well as on the leaves, eating a small hole into the apple, and eausing an injury closely resembling the work of the green fruit worms. The injury differs, however, in not healing up so smoothly thereby leaving a thick seab, and on account of the thick covering of leaves there often develops a growth of mould due to the collection and retention of moisture. This type of injury although occasionally found is by no means common.

In 1915, the first larva emerged from winter quarters on May 9th, and the last on May 23rd, giving an emergence period of 15 days. In a small percentage of eases the larva emerging late in the season and after the tips of the buds have expanded, do not enter the apex of the bud but tunnel their way into the side at the point where the leaves and the bud scales meet, or into the bud seales themselves. In either case the larva bores into the eentre of the new stem and kills the whole shoot.

Between Juno 24 and July 19 pupation took place, the larvæ transforming within their nests to shiny brown pupæ, from which the small greyish or whitish moths commenced emerging on July 11th, and continued to do so for 33 days.

In captivity the first eggs were laid on the under surface of the leaves on July 15th and after incubating thirteen days, commenced hatching.

After gnawing its way out of the egg, the young larva wanders over the under surface of the leaf within a short distance of the egg. At the end of twenty minutes on half an hour feeding commences, the tiny caterpillar eating a small circular hole through the lower epidermis. Very soon after hatching the larvæ commence to spin oceasional silken threads, although up to this time no regular shelter has been constructed. Feeding is spasmodie, the larvæ feeding and resting alternately. About an hour after emergence they commence to weave roof-like shelters of silken threads close to their favourite feeding grounds. These shelters, however, they use for only a short time, soon leaving them to wander more widely over the leaf, usually in the neighbourhood of one of the larger veins. After several hours of feeding and resting, the caterpillars select a suitable spot, preferably near the midrib or one of the larger branches of the midrib, and there they construct a tubular shelter, open at both endand parallel to the vein. The adjoining area over which the larvæ feed is covered by a flat web-like shelter which is extended from time to timo as new feeding groundare required.

In the fall when picking the fruit, the orchardist often finds an apple with one or more leaves securely attached to it. Upon removing the leaf, it is found that the surface of the apple beneath has been attached by some insect and shows as a result, a