Garden and Orchard.

Summer Flowers.

Those who have a sheltered border of free, fertile soil, may raise plants of the best quality by sowing during the present month. By that time the soil has become sufficiently warm to ensure the germination of the seed, provided it is not placed in the ground when the earth is in a wet, pasty condition. The surface having been made quite fine, draw drills four or five inches apart with the finger, and in these scatter the seeds thinly—that is, they should not quite touch each other, and cover less than a quarter of an inch deep with the finest soil at command. There let the plants grow until they touch each other across the spaces between the drills, when they must at once be transplanted on dull, damp days, if possible.

If a rich bed of double stocks is wanted, the plants should be inserted five or six inches apart, or even a little closer if the seedlings are plentiful. In the course of a week or two the plants will show a truss of flowers in the point, and before these expand the singles can be easily distinguished by their long, thin buds; those of the double flowers being round, with very short stems. The plants producing flowers should be drawn out and thrown away, and the doubles will branch and soon fill the vacant spaces. Some persons imagine that stock seed can be had that has been saved from double flowers, and hence expect that all succeeding flowers will be double also. This is not so. No really double flower can produce seed, for the sufficient reason that the organs of fructification are transformed into petals. All stock seed is saved from single flowers, but by selection, good culture, and ripening under favorable conditions, a very large percentage of the plants produce flowers of the desired kind.

Aster seed may be sown precisely in the same manner and at the same time as the preceding. There are no more massive and beautiful late summer and autumn flowers than asters, but to have them of the first order of merit the plants must be grown in rich soil; if as rich as that prepared for celery all the better. There are many kinds of asters named in catalogues; it becomes necessary, therefore, to point out a few of the most distinct. If we were limited to one kind we should grow the Victoria. The plants grow a little more than a foot high, and produce beautiful imbricated flowers in a great variety of color. As a second type we should choose the Dwarf Chrysanthemum flowered, or Bouquet Aster. It flowers a little later than the other, the plants being about eight inches high, and densely covered with flowers, so as to resemble a bouquet. Totally distinct from the above, and admired by many, is the German Quilled Aster, which has small, globular flowers composed of an infinite number of fluted or quilled florets, the others having flat petals, as also has the largest of all asters, the Emperor, the flowers of which are of great size, but less symmetrical than those of the Victoria. These four kinds will suffice for most gardens, and any of them, if well grown, will give satisfaction.

Zinnias are beautiful summer flowers, unsurpassed for richness of color. There are double and single varieties each in many hues, but the latter are generally the most satisfactory. They are rather more tender than stocks and asters, and if the seed can be sown in boxes, and covered with squares of glass, or under a handlight, it will germinate the more freely, though we have raised hundreds of plants without such protection. Zinnias grow about two feet high; they like rich soil and a warm, sunny position.

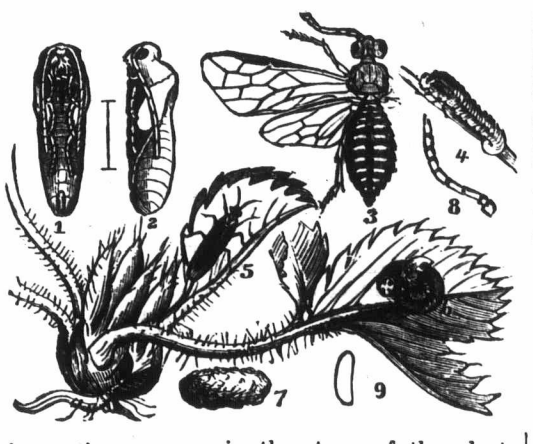
Everlastings are largely grown, and deservedly so, for they are attractive in the garden, and the flowers are particularly welcome for room decoration in the winter. By far the most useful of this class of flowers are the Helecrysums. They are readily raised from seed in the manner described for stocks, and they grow freely in any fertile soil, attaining a height of two feet or more. For drying, they should be cut as soon as expanded, and suspended in a dry room. For mixing with everlastings, ornamental grasses should be grown, the best thing, perhaps, *Briza maxima* (the large quaking grass) and *Laquerus oratus* (the hare's tail grass). Sow the seeds now in the open border, covering them lightly, and immediately the young plants can be handled thin them out to an inch or two apart, as it is impossible that good plumes can be had if the plants are overcrowded.

All kinds of hardy annuals may be sown, and the sooner the better, not forgetting mignonette and sweet peas, nor, for perfuming the garden at night, and night only, the Night-scented Stock (*Matthicola becornis*). Also those beautiful climbers, the Morning Glory (*Convolvulus major*), and the Canary Creeper (*Tropacolum peregrinum*) may be sown now in the open air for covering poles, porches, walls and fences.

Strawberry Worms.

The strawberry false worm (*Emphytus maculatus*, Norton) is a soft, dirty yellow, 22-footed worm, that feeds externally on the leaf of the strawberry, and is illustrated in all its stages in the accompanying figure.

The parent flies may be seen hanging to and flying around strawberry vines during the present month. They are dull and inactive in the cool of the morning and evening, and at these hours are seldom noticed. They are of a pitchy black color, with two rows of large transverse, dull, whitish spots upon the abdomen. The female, with the saw-like instrument peculiar to the insects of the great family (*Tenthridinidæ*) to which she belongs, deposits her eggs, by a most curious and



interesting process, in the stems of the plant, clinging the while to the hairy substance with which these stems are covered. The eggs are white, opaque, and .003 of an inch long, and may be readily perceived upon splitting the stalk, though the outside orifice at which they were introduced is scarcely visible. They soon increase somewhat in bulk, causing a swelling of the stalk, and hatch in two weeks, more or less, according to the temperature; and from the middle of May to the beginning of June the worms attract attention by the innumerable small holes which they make in the leaves. After changing their skins four times the worms become full grown, when they measure about three-quarters of an inch.

Enemies of the Squash.

The New York *Times* says: "The enemies of the squash are numerous. It is too often supposed that the 'squash-bug,' as it is called, does all the mischief inflicted upon this plant. But there are at least four different insects—one bug, two beetles, and a moth—which prey upon the vine. There are some mistakes, too, in regard to the habits of these insects, which are based upon very incomplete observations. The writer has grown squashes for several years past with a view to investigating the habits of these pests. The worst of all is the vine-borer, which lays its eggs upon the vines near the joints, and not only near the roots, as stated in some works on entomology; the larva bores into the vine and eats out the heart, which causes the leaves to droop and die. The moth is related to the currant borer, the peach borer, and other borers. It is orange and black in color, and goes to work in the afternoon near sundown. To prevent damage from this pest the soil should be richly manured, the vines covered with soil at every joint where new roots will form, and may also be brushed over with a paste of cow dung. When the worms are in the stems, their whereabouts may be found by a scar at the place of entrance. If the vine is carefully slit with a pen-knife on one side, the grub may be taken out and killed, and no harm will be done to the vine, if it is covered with soil. The next worst pest is the ash-gray bug, which sucks the sap from the stem of the vine near the root, and also from the ribs of the leaves on the under side. It lays its eggs on the under side of the leaves and also on the steam. The young bugs feed on the under sides of the leaves, and young and old may be seen feeding together at times. This pest must be caught and killed. It is useful to heap soil around the stem, wholly covering it, and spraying Paris green or cayenne pepper water upon the leaves on the under side. Corn-cobs steeped in gas-tar and laid under the leaves will keep them away by its trong scent to some extent. Another pest is a species of ladybird, which, however, differs in its habits from the ordinary kinds in feeding upon the leaves, both in its larva and mature state. It is about one-fifth of an inch long and oval, of a greenish color, with 15 black spots. The larvæ are hairy grubs which eat the leaves on both sides, leaving a network of fibres only behind them. This may be *Mysia quinque-decem punctata*, of which no complete history is given in any work upon entomology. Or it may be related to *Diabrotica duodecim punctata*, which is said to injure the leaves of the dahlia. The fourth and last is the well-known striped squash beetle, yellow and black in color. This eats the stem near the root below the ground and above it. It may be destroyed by spraying the stem of the squash with Paris green, and perhaps covering the stem wholly with a hill of soil. With all these pests, every one of them very active and persevering in their occupation, it is only by the exercise of constant and close vigilance that one can grow squashes in localities where they are abundant.

Cabbage Worms.

Take a handful of hellebore, sift it fine into a large water-pot, pour three quarts of boiling water on it, stir it well, and fill pot full of cold water. Take a syringe, or fine rose of a water-pot, and sprinkle the cabbages. In a few hours the worms will be killed.

In reference to the culture of pansies, a correspondent of the *Country Gentleman* says: "Pansy seeds should be sown in sandy soil, mixed with an equal portion of very rich compost, and when the plants have five or six leaves, transplant them into the beds or borders where they are to bloom, placing the plants four or five inches apart. Very large flowers can only be obtained by the most liberal use of fertilizers. The pansy is a gross feeder, and will not grow to perfection if its needs are not consulted. The beds should be prepared as richly as for asparagus or celery, and when they begin to flower give them a plentiful showering every night, when rain has not fallen. Hot, dry weather will prevent their making a fine display, if the beds are not well moistened and shaded from the noonday sun. In the hottest weather, water the beds both morning and evening. When the young plants have begun to flower, a weekly watering with liquid stimulants will be found very beneficial, and if yard manure is not at hand, soluble Pacific guano will make an excellent substitute. Dissolve two tablespoonfuls of the guano in a gallon of warm water, and pour it freely about the roots, but not upon the leaves. I find it the best stimulant for all my flower beds. Pansies can be quickly raised from cuttings of the fresh young shoots which spring from their roots, by planting them in sandy soil in the shade. They will make fine plants for autumn flowering, as young plants always bloom the finest. If all straggling branches and seed pods are removed from the plants raised for early spring flowering, they will also bloom luxuriantly in the autumn. With a pair of shears, cut off the first growth by the last of June, and do not let any pods mature excepting those especially desired for seed. It ruins pansies to let them seed plentifully in September and October. Those who gather these flowers with lavish hands for themselves and their friends, always succeeds best in their culture. The standard shape of the flower should be nearly or quite a circle, and the size should equal a silver dollar."

A bit of wire about the size of a knitting needle is an efficient weapon with which to attack the apple tree borer, or the borer in any other tree. Look around the butt of the tree, near the ground, and when you find his tracks, just insert the wire and push it into the hole until it reaches his retreat. It effectually prevents his doing any more mischief. Every tree should be examined and treated in this way every two weeks during the growing season. In old trees which have been neglected and which have been badly bored by these pests, it may restore the tree to vigor more quickly if the holes are plugged with a little grafting wax.