

to the full action of the sun. It is better, if possible, to plant with a northern exposure, or where they will be shaded for part of the day. Use a heavy mulching, water occasionally, syringe freely in the evening during the hot time when there is little or no dew. We do not think the buds fail after the weather begins to cool, and until then dahlia buds are poor at the best.

Propagation of Carnations.

699. SIR.—Kindly tell us also how carnations are propagated from cuttings.
W. A. B., *Mount Forest.*

Reply by Webster Bros.

Carnations are propagated by cuttings inserted in a sand bench, (they will root in a pot) and kept moist. They root most quickly with a bottom heat, but it is not a necessity. November to March is the best time for the operation.

The Oyster-Shell Bark Louse.

700. SIR.—Is the sample of bark louse enclosed injurious to the tree, and if so, what is the best remedy?

R. J. BISHOP, *Round Hill, N.S.*



FIG. 742.

The pieces of bark enclosed are covered with scales of the Oyster-shell bark louse, something like the picture, shown in the margin. The insect is by no means rare in Ontario, indeed some large orchards almost ruined with it. So small is the insect, that the owner is often perfectly unconscious of its presence until his trees cease to grow, and begin to show limbs besmeared with the scales. These remain where they are during the winter months, but, about the 1st of June, the young lice hatch out and begin hunting about for tender portions of bark, where they can insert their beaks and begin sucking the juices. Since these increase nearly one-hundred-fold yearly, it is plain that they soon become a serious pest.

In Fig. 742, 2 represents one of the young lice as shown under the microscope, 3 one after remaining in one place for a few days, 4 a still farther change, while 5 and 6 show the louse as it approaches maturity; 7 shows the scaly covering secreted toward the end of the season, under which it lives and matures. By the middle of August this female louse is little else than a bundle of eggs. To destroy them, the bark of the trees may be scraped in winter; but the most effective remedy is a thorough spraying with kerosene emulsion, about the 1st of June. The scraping will expose the trees more fully to the action of the spraying liquid. In the absence of spraying apparatus, the trees may be scrubbed with the emulsion, or with a strong solution of washing soda and water.