

JIM. But they say there is a better way lately found out. They spray the trees with water containing Paris Green, and they are not troubled with the insect at all.

T. You are right. Since your plan was discovered only a few years ago millions of dollars worth of fruit have been saved by it in America.

JIM. A neighbor of ours got a force pump and sprayed his trees so thoroughly that nearly all the leaves were withered, and he lost all his apples instead of saving them. What was the trouble?

T. Paris Green contains a deadly poison called arsenic, and if too much is applied even to the leaves of a tree they die.

S. How can people know how much to use?

T. One ounce of Paris Green, thoroughly stirred up in every fifteen gallons of water, is found a good proportion. Paris Green does not dissolve in the water, so that you must remember the water is to be kept well agitated while the spray is being thrown.

JIM. But the apples would be poisoned, wouldn't they, with the Paris Green?

T. The trees are sprayed once, just when the blossom falls, and the apple is very small; so that the amount of poison on one of them would not injure a human being. But before the apples are ripe in autumn every particle will be washed off by the rains.

JIM. But how, then, could the poison get into the core of the apple to kill the boring larva?

T. Where would the larva be just as the blossom is dropping off?

S. It would only be just hatched, and commencing to eat its way into the apple.

T. Correct. And the smallest amount of Paris Green is sure death to it; and some think it also frightens the moth away. Why do they spray the trees, then, just after the fall of the blossom?

S. Because about that time the eggs are being hatched, and the very first food the larvæ try to take poisons them.

T. When is a tree made sufficiently safe by spraying, would you think?

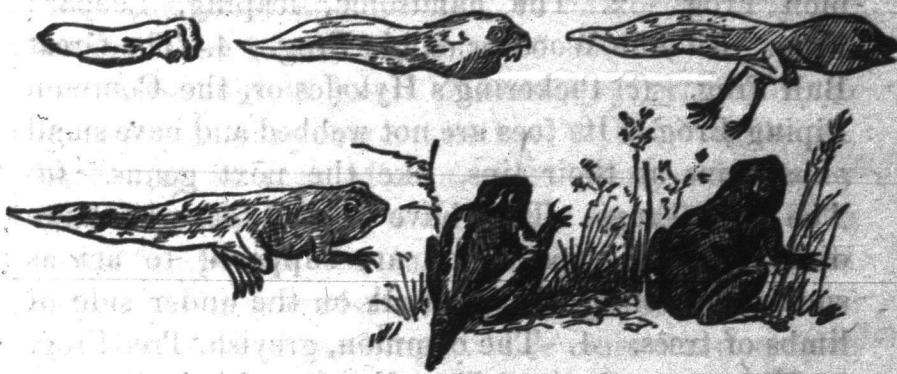
S. When every little forming apple has been touched by the poisoned spray.

T. What precautions should be taken where this remedy is used in an orchard?

VARIOUS S. Not to put more than one ounce in every fifteen gallons of water....To keep the water well stirred....To spray when the wind is calm, in the morning....To spray about the time when the first eggs begin to be hatched....Not to let any animals drink the poisoned water....Not to have any poisoned water and Paris Green where children might get at them....To be very careful always.

FERNDALE NOTES.

No. IV.—THE FROG AND ITS RELATIVES.



THE DEVELOPMENT OF THE FROG.

The frog belongs to the animal province *Vertebrata* (Latin, *vertebra*, a bone of the back), and to the Class *Amphibia* (Greek, *amphi*, both; *bios*, life). They breathe by gills when young, as fish do in water. When mature, in our species, the gills disappear, and breathing is performed by lungs.

To study the development of the frog, take a pickle jar, with water and a little moss from a swamp, and a small portion of one of the gelatinous masses of frogs' eggs which abound during this month in every section of the country. Change the most of the water daily. The eggs are surrounded by a thick layer of albumen, the same as the white of a bird's egg. This swells very much in the water. When the minute egg is hatched a small tailed animal, like the first above, appears, with a tuft of fringe (gills) on each side of its neck. The hind legs appear, then the fore legs, the gills disappear, and finally the tail. Under a microscope the eggs and young tadpoles are very interesting, as they are more or less transparent, and show, in some stages very conveniently, the circulation of the blood.

Two orders of the amphibia are well illustrated in the Atlantic Provinces. 1. The *Urodela* (Greek, *oura*, tail; *delos*, visible), which never lose their tails. These are wrongly called lizards in these Provinces. But lizards are not *amphibians*; they belong to the *reptilia*. The order *Urodela* includes—(a) the Water Salamanders or Newts, which live in water, with tails flattened vertically, four fingers on its fore feet, and five on its hind feet. (Lizards have five toes on each fore foot, and are not found in Nova Scotia). Produced from eggs. Fore feet developed first. One species in collection of Pictou Academy. (b) The Land Salamanders. Produced alive. Tail not flattened. Found under old logs, stones, etc.

The second order is *Anoura* (Greek, *a*, without; *oura*, tail. The tails as well as gills of these disappear in the mature animal. We have three genera—(a) the Toads, of which one species is common. No teeth in its jaws. Hind limbs not so well developed