

small rod and very delicate tackle, for over four hours, and finally succeeded in bringing him to basket. And some years ago, a military friend of ours, hooked a sixty pounds fish about 4 p. m. on a July afternoon, and "played" the monster up-stream and down-stream till nightfall. Every artifice known to both angler and fish were put in requisition. Several times did the Salmon throw himself out of the water, as if with an effort of intelligence to smash the tackle. Then he turned sulky, and as darkness approached, he sank like a stone to the bottom of a dark, deep pool, and sullenly refused to move. Stones were hurled in beside him, but to no avail. Our piscator, therefore, seated himself on a stone, lighted his pipe, and philosophically prepared to wait till it again should suit the pleasure of his majesty of the stream to move. Daylight found the fish and the fisherman in the same relative positions. Towards 8 a. m. a party of fellow-anglers rendered assistance, and the fish was safely captured. He was a noble fish; and testified by his size, courage and endurance, to the skill of his captor.

## Entomology.

### Silk-producing Moths.

Mr. William Paterson, of Ramsay, C. W., has sent us, for identification and notice, a whitish tough oval cocoon, composed of fibres of silk firmly agglutinated together by a gummy substance; it is about an inch and a half long, and at the first glance, bears considerable resemblance to a discoloured egg, which he not unnaturally supposed it to be.

There are two of our largest and handsomest moths whose caterpillars produce cocoons of the kind before us. In their larval and pupal states they are remarkably similar, in deed their cocoons can hardly even be distinguished; but the moths themselves are as different in shape and colour as can possibly be conceived. One of them (*Tropaea luna*, Hübner) is by far the most lovely insect we have in this country, and is most appropriately termed "the Queen of the night." Its wings are of a delicate pale green colour, edged with purplish-brown in front, and expand to a width of about five inches; the hind wings have the ends prolonged into long curved tails often an inch and a half in length. Near the middle of each wing there is a small transparent eye-like spot, surrounded by wings of different bright colours, the body and inner edges of the wings are covered with white wool-like hairs. Its caterpillar is pale green, and feeds during the summer months on walnut, hickory, and a few other trees; the cocoon remains on the ground among fallen leaves all winter, the perfect insect coming out about the end of May or beginning of June.

The other moth (*Teia polyphemus*, Hübner) into which the cocoon before us may possibly turn, is of quite a different shape and colour from the Luna moth. The hind wings instead of being tailed, are almost square, and have a large spot in the middle of each very much resembling that at the extremity of the tail feathers of a peacock; all the wings are yellowish, with various minor markings. The ac-

companying illustration will render unnecessary any minute description of this very handsome insect.

The caterpillar of the "Dyed Emperor," as this moth is popularly called, feeds on oak, elm, basswood, walnut, and many other trees. It is not at all uncommon, but may easily be collected and reared. As we have already noticed in this journal (vide page 30 of this volume), the manufacture of silk from its cocoons has lately been successfully attempted in the United States, and we can see no reason why it should not form a profitable branch of industry in this country. The difficulty of dissolving the gummy substance by which the silken fibres are so closely united together, may be overcome in the following simple manner.—"Boil the cocoons two hours and a half with 25 per cent. of their weight of white soap, and sufficient water to submerge them entirely. This operation should be repeated a second time, with 10 per cent. of their weight of carbonate of soda, for one hour." This receipt we give on authority of Dr. Morris, of Baltimore, U. S., but we have not yet tried it ourselves; we should be very glad to learn from any of our readers who feel inclined to try the experiment, whether it is efficacious or not.

There are two other other silk-producing moths common enough in this country, of which good use might also be made, viz., *Samia cecropia*, Hübner, the largest of all our Lepidoptera, and *Colosamia promethea*, Drury.

### Apple-Tree Bark Lice

Mr. DEL. HARWOOD WHITE writes from Douglas Harbor, Grand Lake, New Brunswick, asking infor-



mation from us respecting the lice on apple-trees. He states that he has "a young orchard of one hundred trees, which, until two summers ago, were very thrifty, but now most of them have lice on them. Some of the trees are completely covered with them. The lice have killed some of the trees, and unless he can hear of a remedy, he fears that he must lose more of them."

Of all the numerous enemies that the apple-tree has, the minute insect referred to by our correspondent is perhaps the most pernicious. Everywhere throughout the British Provinces and the Northern States, where the apple is cultivated to any great extent, it appears to infest the orchards, destroying many trees, and injuring many more. A description of this well-known pest would be superfluous here, suffice it to say that it appears in the form of small brown scales, in shape somewhat like an oyster-shell, affixed to the smooth surface of the bark, usually in enormous numbers. In the spring, the eggs are covered by these scales, between thirty and forty being usually under each, though often very many more; from these the larvae are hatched out in the spring. At first, the young are whitish in colour, very minute, and nearly oval in form; they move about for some days, but afterwards become stationary, and (usually in

June) exude a quantity of bluish-white down, prior to completing their transformations. The males acquire a pair of wings, but the females are wingless, and lay their eggs in the place where they have been feeding. When this work has been accomplished, the mother dies, and the dead relics of her body form the scale-like covering which protects the eggs till the next brood is forthcoming. There are usually at least two broods in the year.

A large number of remedies for this noxious insect have been put forth from time to time, some of which are utterly useless, while others are more or less efficacious. In our last issue, among other "Precautions against Destructive Insects," we mentioned two simple remedies for Bark Lice which have been highly recommended; we beg to refer our correspondent to these. We have since observed in the *Practical Entomologist* that kerosene oil has been used with advantage, when the insects do not infest the whole of the tree, but only a few branches. Anyone covering the whole of a tree with oil, would undoubtedly find the remedy infinitely worse than the disease.

In the conclusion of his letter, our correspondent states that "last year he tried boring into the trunks and filling the holes with sulphur, but it had no effect." We should think not,—as far at least as the insects are concerned. This is an old nostrum, now completely exploded. It used to be highly recommended for the extermination of the Tent caterpillar, but of course without any real success. Dr. Fitch, in his second Report, gives an account of a series of

experiments he made with sulphur, applied to the trees both internally and externally. The conclusion he arrived at was that "so far from being in the least degree prejudicial to the caterpillar, the sulphur had rendered them more healthy and robust, rapidly accelerating their growth! And hence it is quite probable—heads—that those hundreds of persons in our country, who have spent more or less time in inserting sulphur in the trunks of trees infested with

worms, have hereby benefited these vermin more than they have injured them."

**KILLING THE INSECTS.**—An exchange says that a gentleman in New Jersey saved his plums by the erection near the trees of what he called "altars," whereon blazing fires were lighted in the evening and early morning during the flight season of the curculio moth, the result being the destruction of millions of moths by fire and a more bountiful crop of unpierced plums than had ever been produced in that neighborhood.

## Poetry.

### Evening.

The stream is calmest when it nears the tide,  
And flowers are sweetest at the eventide,  
And birds more musical at close of day,  
And saints divinest when they pass away,

Morning is lovely, but a holier charm  
Lies folded close in Evening's robe of balm;  
And weary man must ever love her best,  
For morning calls to toil, but night, to rest.