

burrow in the earth, form their cocoons and so pass into their long period of rest.

Canker-worms belong to the great order of insects called Lepidoptera. Look up the derivation of this word, and afterwards examine a small portion of the wing of a butterfly or moth under a compound microscope and you will be at once impressed with the appropriateness of the name. The Lepidoptera have four large wings, covered scales, sucking mouth parts, and undergo a complete metamorphosis. The larvae are called caterpillars; they feed mostly on plants, and after becoming full grown and fat, they pass into a resting condition called the pupal stage, from which emerge the imagos, the winged forms which lay the eggs, and thus the life cycle is complete.

As an order, the Lepidoptera is at once the most interesting, and best known of all our insects. This is the order of the busy silk-worm, the dreaded brown-tail and gipsy moths, and of the all-too-familiar tent caterpillars and army-worms; here also belong the scores of bright and beautiful forms that either visit our street lamps at night or make glad our fields in the summer sun.

THE CONTROL OF CANKER-WORMS.

The two species are so much alike in habits that we can apply similar methods in combating them. The best of all methods are those of a preventive nature, and should be begun in the fall. A band of tangle-foot around the trunk of the tree forms a zone in which the females perish. The writer has a record of 125 captured on one tree in one season in this way. If each female lays on an average 125 eggs, it is easy to compute the number of the army of green measuring worms we might have expected in the spring. How then can any tree escape that is not guarded by tangle-foot? Only by the constant care of silent workers, our winter birds. "Nearly all of the common birds feed freely upon the canker-worm, and benefit the orchard by so doing. The chickadee is perhaps the most useful,"—*Agriculture for Beginners*. Another writer says that an orchard can be practically rid of canker-worms by protecting chickadees and attracting them with food. Chickadees are not only fond of the eggs but are said to devour on an average, when they are available, thirty female canker-worm moths a day. These little

bird friends need protection against cats, shrikes, and even thoughtless boys. They are fond of suet, which can be fastened to the trees, and always proves a good drawing card. When suet is plentiful, note how they pick off tiny pieces and hide in crevices in the bark. Watch them at their work gathering the egg masses from the twigs, and eating the food you provide.

OTHER TOPICS.

The Christmas season suggests many other subjects for nature-study. This is an opportune time to give some lessons on our farm animals, especially turkeys, ducks, geese and hens. Name their different parts, note the different kinds of feathers, study their skeletal structures, and point out homologous parts when they are compared with the dog, horse, man and other animals.

[The cuts used in this article are copied from "Agriculture for Beginners," by Burkett, Steeves & Hill, by kind permission of the publishers, Messrs. Ginn & Co., Boston.]

BIBLE READINGS FOR OPENING EXERCISES.

1. St. Matthew XXI, 1-11.
2. Romans XIII, 8-12.
3. Isaiah XXXV, 4-10.
4. St. Matthew XI, 1-5.
5. Revelations XV, 2-8.
6. St. Luke II, 1-15.
7. Isaiah IX, 2-7.
8. St. Matthew II, 1-11.
9. St. Luke II, 15-21.
10. Psalm LXXXV.
11. Acts VII, 55-60.
12. St. John XXI, 19-25.
13. St. Matthew II, 13-23.
14. Psalm LXXXIX, 1-9.
15. St. Luke II, 41-52.
16. Romans XII, 16-20.
17. Psalm CXIII, 1-6.
18. St. Matthew VIII, 5-13.
19. I Samuel III, 1-10.
20. Isaiah LXI, 18-22.

Then let every heart keep its Christmas within,
Christ's pity for sorrow, Christ's hatred for sin,
Christ's care for the weakest, Christ's courage for right
Christ's dread of the darkness, Christ's love of the light,
Everywhere, everywhere, Christmas tonight.

—Phillips Brooks.