tying the various flowers or newly-formed fruits together with silken threads, it revels on their substance, soon causing them to blacken and wither. To the amateur fruit-grower, whose garden and crop is comparatively small, these are often particularly annoying, and destroy hopes fondly cherished. We know of no better plan than that of hunting this creature out and destroying it by hand. Its presence is soon made apparent by the unhealthy and withered look of the affected buds. Figure 9 represents both the caterpillar and moth of this species.

Fig. 9.

LONDON BRANCH OF ENTOMOLOGICAL SOCIETY OF ONTARIO.

The regular monthly meeting of the London branch was held on Tuesday evening, the 3rd ult., at the residence of the Vice-President, Mr. J. H. Griffiths.

A report of the proceedings of the Parent Society at the Toronto meeting was given by Messrs. Reed and Saunders, in all of which the members heartily concurred. The requisite alterations were then made in the by-laws to bring them into conformity with the new constitution.

Mr. W. Saunders read a letter from Mr. J. T. Whiteaves, Secretary of the Natural History Society of Montreal, stating that Mrs. Ritchie had accepted the offer of the London branch for the purchase of the cabinet of insects belonging to the late Mr. A. S. Ritchie.

Several of the members brought with them excellent microscopes, which added greatly to the interest of the proceedings. Many entomological objects were thus submitted to high magnifying powers, and the marvellous details of their structure clearly shown.

ENTOMOLOGICAL GLEANINGS.

Paper No. 4.

BY W. SAUNDERS, LONDON, ONT.

The eggs of the Vaporier Moth, Orgyia leucostigma.

Attentive readers of the entomological portion of the late Report of the Commissioner of Agriculture for the Province of Ontario, will have noted the fact already well known to entomologists, that the female moth of this species is wingless, and lays her eggs on the outside of the cocoon from which she has escaped. Last fall the moths were unusually common, and their nests of eggs are now so abundantly distributed among our fruit trees that unless some effort is made to destroy them the larvæ will probably be exceedingly numerous and destructive during the approaching season.

Fig. 10 represent the full-grown caterpillar of this species, which, when about to change to chrysalis, selects a leaf on which to undergo its next transformation, and this in such a position that, while the chrysalis is firmly

Fig. 10.

attached to it on the one side, it is firmly secured by silken threads to the under side of a branch on the other, thus securing the leaf from falling to the ground in the autumn. The female, after its escape from the cocoon, rarely moves more than a few inches from it, waiting the attendance of the male moth, after which she

at once commences to place her eggs in the position already indicated. But how are the eggs, when laid, kept in their place on the top of the cocoon? Dr. Fitch says that the eggs are extruded in a continuous string, which is folded and matted together so as to form an irregular mass. On removing this mass of eggs from its place of attachment, the surface of the cocoon appears covered with fragments of a transparent gelatinous-looking substance, which has evidently been applied in a fluid state. The bottom layer of eggs will usually number 100 or more, and their interstices are well filled with this same gelatinous substance, which adheres so strongly to the eggs that, when the nest is torn open, they cannot be separated without bringing away portions of this material firmly attached. Another irregular layer of eggs is placed on this, then a third, and sometimes a fourth, before the total number is exhausted, and through the whole of these the gelatinous matter is so placed as to secure every egg, not by being imbedded in a solid mass, but surrounded by the material worked into a spongy or frothy state. Possibly this may be to economize the amount used. Over all is a heavy layer of the same, with a nearly smooth greyish-white surface, the whole number of eggs being placed so as to present a convex surface to the weather, which effectually prevents the lodgement of any water on it.

Within this enclosure are deposited from 375 to 500 eggs. We give these numbers because we have counted the contents of several, and 375 is the lowest number and 500 the highest we have found. The egg is nearly globular, flattened at the upper side—not perceptibly hollow—with a dark point in the centre of the flattened portion surrounded by a dusky halo. Its surface is smooth under a magnifying power of 45 diameters; but when submitted to a higher power appears lightly punctured with minute dots. Its colour is uniformly white to the unaided vision; but the microscope reveals a ring of dusky-yellow surrounding it immediately below the flattened portion. Its diameter is 1.25th of an inch.

A careless observer seeing a dead leaf here and there upon his trees might readily conceive that it was accidentally blown into the position it

occupied, and perhaps held there by a spider's web, or something of that sort; but, as will be seen from what we have said, a closer examination will furnish food for thought, in the wise arrangements made by the parent moth in providing for the safety of her future offspring; and at the same time may well excite alarm in the fruit-grower's mind when he perceives promise of the approaching birth of such a horde of hungry caterpillars as even one of these will produce.

MISCELLANEOUS NOTES.

COLEOPTERA.—The following notes upon the localities for finding certain species of *Coleoptera*, all taken in April, in Massachusetts, may be of some use to collectors:

Under much decayed butternut bark were found *Omosita colon*, *Hister Lecontei*, *Ips fasciatus*, *Phenolia grossa*, *Cucujus clavipes* and *Cossonus platalea*. About fresh-cut maple and birch stumps where the sap was flowing, *Ips fasciatus*, and *sanguinolentus*, and *Staphylinidæ* of various species. Under loose pine bark, *Boros unicolor* and *Rhagium lineatum*. Around fresh-cut pine wood, where the pitch was oozing out on sunny days, *Tomicus pini*, *Hylurgus terebrans*, *Pissodes strobi*, *Hylobius pales*, *Clerus nigripes*, and *trifasciatus*, were very abundant.

To collect those species of *Scolytidæ* and *Curculionidæ* that live upon pine, it will be found very successful to go out just at dusk after a sunny day, when they have taken refuge under the chips about fresh-cut pine wood-piles. They can then be taken in abundance.—GEO. DIMMOCK, Springfield, Mass.

OMISSION.—A valuable paper by V. T. Chambers, Esq., of Covington, Kentucky, U. S., on "A New Species of *Ceniostoma*"—one of our Canadian *Micro lepidoptera*, belonging to the family *Tinetna*—was received too late for insertion in the present number, but will appear in our next, which we hope to issue during the month.—ED. CAN. ENT.

REMITTANCES

Received since January 1st, 1871.

J. G. G., Toronto, \$1; R. V. R., Kingston, \$6; G. D., Springfield, Mass., \$2.24; T. L. M., New York, \$1.12; O. S. W., Chicago, \$3.37; J. P., Grimsby, \$2; Dr. M., Grimsby, \$2; A. S. F., New York, \$1.80; V. T. C., Covington, Ky., \$1.12; Dr. E. S. H., Grand Rapids, Mich., \$4; Dr. G., Bayfield, \$1; J. M. J., Halifax, N. S., \$3; W. H. E., Toronto, \$1; J. B., San Francisco, Cal., \$4.45; C. J. S. B., Port Hope, \$1; N. H. C., Stratford, \$2; P. S. M., Detroit, Mich., \$1.

EXCHANGES, Etc.

LEPIDOPTERA.—Canadian Lepidoptera desired in exchange for British. E. H. COLLINS, *Daily News* office, Kingston, Ont.