

(i).—LIGHT GREEN FALSE SPAN-WORM.

Length, 7 to 8 mm. Three pairs of prolegs, on segments 9, 10 and 13. Elongate and rather slim, light green in colour. Segments not longer than wide; with but very few short hairs, each arising from a minute pale brownish dot in centre of a rather indistinct tubercle, a dozen or so to each principal segment. Head likewise with hairs, which arise from less plain dots. In addition to these, there is on each side of segments 5 to 11 a conspicuous black tubercle bearing a hair, these tubercles being of same form as the others, but appearing much more conspicuous and larger because of the black pigment they possess.

Two specimens, swept May 12, 1891. (No. 80.)

NOTE.—The measurements given above were made from the alcoholic specimens, and are somewhat (usually a millimeter or so) less than what the same specimens measured in life.

CORRESPONDENCE.

REARING SPHINX CHRYSALIDS.

Sir: On the 30th of July, 1892, I saw a Sphinx larva digging into the ground at the foot of an ash tree, evidently with the intention of burying itself preparatory to transforming. I put it into a box I had in my satchel, and forgot it until three days after. When I opened the box there was a perfectly formed chrysalid instead. I placed it on the same bed that the *Quinquemaculata* of my former record had matured upon (CAN. ENT., Vol. 24, p. 237), and paid no further attention to it. On the 20th of June, 1893, that chrysalid gave forth a *Sphinx chersis*, Hub., large in size, perfect in form and rich in colouring. This surely proves that moisture is not an absolute necessity for the maturing of Sphinx pupæ, of these kinds at least.

In my earlier efforts to obtain moths from Sphinx pupæ I had no success. Being under the impression that moist soil was necessary for their maturing, all the careful attention I could give them was unavailing; they invariably died. Observing that soil getting between the segments of the abdomen irritated them greatly, and kept them constantly wriggling, I got some growing moss, put it on a plate, placed the chrysalids on it, moistening it slightly, when all my troubles with them disappeared,—no more moulding or drying up, they matured without fail, and the moths emerged in perfect condition. This simple method was to me a most gratifying success. I could now obtain the moths with no special attention required for the chrysalids.

In nature, the larva makes a cavity in the soil to transform in, pressing the soil firm and making the inside of the cavity as smooth as that of a silken cocoon. So that the pupa lies perfectly free, which will account for the fact that when placed in soil they always work themselves to the surface. Freedom from irritating matter is then, I suspect, one of the principal factors for successful maturing of them. And to those that have passed the winter in natural conditions, moisture may be another, but those that have begun their pupal existence in unnatural conditions do not seem to feel the need of it.

We know that it is comparatively an easy thing to get the pupa from a sphinx larva, besides getting the imago from the pupa; if, then, such pupæ can be matured without the labour and care required to get up and maintain "natural conditions," with the probability of a disappointing failure at the end of it all, what an inducement it would offer to many to undertake the rearing of them who are now prevented from attempting it by the elaborate preparations that seem required to ensure success. Whilst, if safety and a soft bed is all that is required for success, many a valuable chrysalid that is now rejected or neglected, under the impression that it would be hopeless to attempt to rear it with the means they have on hand, might be reared to add rare forms to a collection, or even to aid in the identification of earlier stages of some of the species. An experiment on an extensive scale in this direction is well worth the making.

J. ALSTON MOFFAT.

BOOK NOTICE.

BRIEF GUIDE TO THE COMMONER BUTTERFLIES OF THE NORTHERN UNITED STATES AND CANADA: by S. H. Scudder. Henry Holt & Co., 12mo., pp., XI + 206., 1893.

It has been known for some time that Mr. Scudder has in preparation a Manual of the Butterflies of the Northern United States and Canada, similar to Gray's Manual of Plants, and all must agree that such a work is much needed. The present "Brief Guide" has, however, been produced in the meantime to meet a demand for something even less technical, by means of which boys and girls might be tempted to enter the ever charming fairy-land of science by having an easy way laid open before them. There are few objects in nature which so soon thrust