# Che Campian Unitomologist. 

VOL. XIV.
LONIOON, UNT., NOVEMBER, 1882.
Nu. Ir

# DESCRIPTION OF THE PREPARATORY S'IACES OF GRAPTA INTERROGATIUNIS, Fab. 

By W. H. EDWARDS, COALBLRGH, w. vA.

Egg.-Conoidal, the base flattened and rounded; marked by 8 or 9 vertical ribs, which near the base are low, but on upper third are considerably elevated, increase graciually in prominence and terminate abruptly around a small flat space at summit ; these ribs are thin and their sides are grooved perpendicular to the surface of the egg; color pale green. Duration of this stage from 3 to 4 days in summer, in April and early May Io days.

Young Larva.-Length 24 hours from egg .s inch; precisely like Comma at same stage ; cylindrical, even from 2 to 7 , then tapering slightly to extremity ; on 2 is a chitinous dorsal patch on which are six tubercles, three on either side the medio-dorsal line, eacin with hlack hair; below are two tubercles on either side; on 3 to 13 are two dorsal rows of large tubercles, one to each segment, on the anterior part of same, each with long curved hair, from 3 to 7 turned forwards, the rest back; next, a row of small tubercles from 3 to 13 ; on 3 and 4 , these stand under the dorsals, but on the other segments they are behind the line ; a third row of small tubercles from 5 to 13 , under the dorsals, and on 2 to 4 is an extension of this row below the line of the other segments; on 3 and 4 is a short row, in line with the spiracles, and a corresponding tubercle appears on 13 ; below spiracles, on the posterior part of each segment from 5 to 13, is a minutc tubercle; and finally, along base of body is a row of minute ones from 2 to 13 , on 2 to 4 one to each segment, also on 13 , but on the other segments, two to each; from all these proceed hairs, those of the basal row depressed, but of the other rows, from 2 to 7 they are turned forward, the rest back; color at first whitish-yellow, semi-translucent, and some examples have the dorsum crossed by brownish patches alternating with the yellow; as the stage proceeds the body becomes redbrown, with white on dorsum of segments $4,6,8,10$, with variation in

