

not occur. In the more generalized larvæ, tubercles iv and v occur side by side, in line, neither one higher than the other. In certain Tineids this position begins to fluctuate, in some iv being a little higher than v, in others v a little higher than iv. In the Bombycid phylum (culminating in Noctuidæ and Arctiidæ), the tendency of iv to be elevated is emphasized, and it rises as high as the top of the spiracle, or even a little above it, on certain segments of some Noctuidæ, while v remains in its original subventral position. Mr. Tutt accepts this interpretation, and does not feel called upon to invent hypothetical setæ to account for the change in position of tubercle iv. Now, in the Sphingidæ the tendency of v to be elevated is emphasized, while iv remains in the original subventral position. The dorsad movement of v in the Sphingidæ is not greater, not so great, in fact, as that of iv in the Bombycid phylum, yet here Mr. Tutt finds a difficulty, and wishes to regard v as absent and represented by a new seta. This seems to me a gratuitous assumption, intrinsically improbable, and contradicted by the very palpable homology of the primary Lepidopterous setæ. Mr. Tutt would homologize "the so-called" tubercle v of the Sphingidæ (page 367) with "the prespiracular wart of the Lachneids." This wart is secondary, as shown by my figure of *Tolype* (Proc. Bost. Soc. Nat. Hist., XXVII., 144, 1896) and *Malacosoma* (Psyche, VII., 259, 1895), but it is accompanied by other secondary structures, while the primary tubercles are all accounted for. He can hardly really mean this, as he does not draw the obvious inference of a close relation between the Sphingidæ and Lachneidæ.

Mr. Tutt's references to the Lachneid tubercles are far from clear. He says that in *Pachygastris trifolii* (p. 23), "iv and v form a subspiracular, many-haired wart," and of *Lasiocampa quercus* (p. 60), "iv + v almost postspiracular." This would imply a union of tubercle iv and v, which I have never observed in the Lasiocampid phylum. These tubercles remain separate, but become reduced, while the large lappet is formed from tubercle vi. It is unfortunate that Mr. Tutt did not bring out clearly the complicated but pretty homology of the Lachneid warts. Figures would have been useful here.

Finally, a word on the relationship of *Dimorpha (Endromis)* and *Chelepteryx* (p. 230). My own view is that these forms are nearly related, though I have not the material to prove the point. It is true that the mature larvæ look very unlike, one being a smooth Sphinx, the other a big, hairy Lasiocampid. But these characters are only