of horn than to any other animal product; yet in their chemical composition they differ from all the usual forms of albuminous matter. The substance to which they owe their characteristic properties is of a very peculiar nature; it has been termed *Chitine* by M. Odier,* and *Entomoline* by M. Lassaigne.† This substance is found in large quantity in the wings and elytra of coleopterous insects. It is remarkable for not liquefying, as horn does, by the action of heat; and accordingly the integuments of insects, even after having been subjected to a red heat, and reduced to a cinder, are found to retain their original form.‡

With this substance there is blended a quantity of colouring matter, which has usually a dull brown or black hue. But the colour of the external surface is generally owing to another portion of this matter, which is spread over it like a varnish, and being soluble in alcohol and in ether, may be removed by means of these agents. The colours which are displayed by insects, and which arise from the presence of this latter substance, are often very brilliant, and, as is the case with many other classes of animals, the intensity of the tints is heightened by the action of light. The elytra of tropical insects display a gorgeous metallic lustre depending on the reflection of the prismatic colours; and the same variegated hues adorn the scales of the butterflies of those regions.

Hair grows in various parts of the surface of insects. Where the integument is membranous and transparent, these hairs may be distinctly perceived to originate from enlarged roots, or bulbs, and to pass out through apertures in the skin; as is the case with the hair of the larger animals. Their chemical composition, however, is very different, for they are formed of the same substance as the integuments, name-

* Annales de Chimie, tom. 76.

† See the work of Straus Durckheim, p. 33.

‡ M. Odier had concluded from his experiments that no nitrogen enters into the composition of this substance. That this conclusion has been too hastily adopted has been proved by Mr. Children, who, by pursuing another mode of analysis, found that the chitine of cantharides contains not less than nine or ten per cent. of nitrogen. See Zoological Journal, i. 111—115.