greater number by species of Cynips. It is impossible to read M. Lacaze-Duthiers' discussion and doubt that the poisonous secretion of the insect causes the growth of the gall; and every one knows how virulent is the poison secreted by wasps and bees, which belong to the same group with Cynips. Galls grow with extraordinary rapidity, and it is said that they attain their full size in a few days;[50] it is certain that they are almost completely developed before the larvæ are hatched. Considering that many gall-insects are extremely small, the drop of secreted poison must be excessively minute; it probably acts on one or two cells alone, which, being abnormally stimulated, rapidly increase by a process of self-division. Galls, as Mr. Walsh[51] remarks, afford good, constant, and definite characters, each kind keeping as true to form as does any independent organic being. This fact becomes still more remarkable when we hear that, for instance, seven out of the ten different kinds of galls produced on *Salix humilis* are formed by gall-gnats (*Cecidomyidæ*) which "though essentially dis-"tinct species, yet resemble one another so closely that in "almost all cases it is difficult, and in most cases impossible, "to distinguish the full-grown insects one from the other."[52] For in accordance with a wide-spread analogy we may safely infer that the poison secreted by insects so closely allied would not differ much in nature; yet this slight difference is sufficient to induce widely different results. In some few cases the same species of gall-gnat produces on distinct species of willows galls which cannot be distinguished; the *Cynips fecundatrix*, also, has been known to produce on the Turkish oak, to which it is not properly attached, exactly the same kind of gall as on the European oak.[53] These latter facts apparently prove that the nature of the poison is a more powerful agent in determining the form of the gall than the specific character of the tree which is acted on.

As the poisonous secretion of insects belonging to various orders has the special power of affecting the growth of various

[50] Kirby and Spence's 'Entomology,' 1818, vol. i. p. 450; Lacaze-Duthiers, ibid., p. 284.

[51] 'Proc. Entomolog. Soc. Philadelphia,' 1864, p. 558.

[52] Mr. B. D. Walsh, ibid., p. 633, and Dec. 1866, p. 275.

[53] Mr. B. D. Walsh, ibid., 1864, pp 545, 411, 495; and Dec. 1866, p. 278 *See* also Lacaze-Duthiers.