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## THE RESINS AND THEIR CHEMICAL RELATIONS TO THE TERPENES<sup>1</sup>

THE closing years of the eighteenth and the beginning of the nineteenth centuries found chemists engaged in the study of chemical problems related to both plant and animal life. Organic chemistry during this early chemical epoch was exactly what its name implied, a study of those substances which are produced through life processes, either plant or animal. During this early epoch, the problems in plant chemistry were more inviting to the chemist than those in animal life, first, because the compounds appeared to be simpler substances and, second, because they crystallized more readily and were therefore more readily obtained in pure form. As a result of these characteristics, early organic chemistry was largely confined to plant life, consisting, however, of little more than the simple preparation of the substances themselves.

Scheele was the first to point out that the plant and animal world is made up of definite compounds, just as is the inorganic world. He proved the assertion by isolating a number of organic substances, among them tartaric, citric, malic and uric acids. He even went so far in his study of the organic compounds as to suggest what the modern physiological chemist calls metabolism, as a means of explaining certain physiological processes. Owing, however, to the extreme difficulty in obtaining physiological compounds in crystalline

MSS. intended for publication and books, etc., intended for review should be sent to the Editor of SCIENCE, Garrison-on-Hudson, N. Y.

<sup>&</sup>lt;sup>1</sup> A part of the address of the vice-president and chairman of Section C, American Association for the Advancement of Science, Washington, December, 1912.