

*different, appear to owe their fundamental structure to an original chemical organization, with properties common to them all.*

In the preface to his "Animal Chemistry," Liebig, in 1842, said: "The new chemistry has, with all its discoveries, furnished only insignificant service to physiology and pathology, and no one can deceive himself as to the causes of this failure who takes into consideration that all the methods introduced into the realm of inorganic chemistry, the knowledge of the behavior of the simple bodies, and the compounds that might be made in the laboratory, could be brought into no sort of relation with the living animal body and the character of its components." Since that time this has been changed; but it would be vain to reckon on a further advance in physiology from the side of the chemist when the questions of biology lie so very far away from him — questions whose answers bring for the theoretical chemist but very little profit. While theoretical chemistry and chemical technique are closely linked with one another — while the one derives great advantage from the other — the relation to physiology and to the whole of medicine is entirely different. But even the technique has found it necessary to take the solution of certain problems in hand, with what good or ill luck might follow.

For the chemical manufacture of dye-stuffs, for the sugar industry, for beer and brandy manufacture, there now exist special, and in part excellently directed, laboratories, in which for special objects these branches are practiced and partially taught. In all civilized countries there are now laboratories for the objects of agriculture. Physiological and pathological chemical laboratories have also been established, but, with very few exceptions, they have restricted means and no independence. The importance of chemistry for the development of physiology and pathology did not