These anhydrides show mostly in striking chemical affinities, swell in water or dissolve generally with difficulty in it; they withstand the action of the atmospheric oxygen, and, so far as it can yet be made out, have very large molecules.

Animals and plants are, as regards these substances in general, not different, though certain substances, as albuminous matters, fats, and inosit, appear in both; others, as cellulose, starch, cane-sugar, tannic acid, and malic acid, only in plants; others, again, as glycogen, less in plants than in animals; finally, certain substances, as gelatin, urea, and creatin, are formed only in animals.

The line of demarkation which it was once thought could be drawn in regard to chemical structure and life-processes between plants and animals has been, in consequence of recent investigations, more and more obliterated.

The discovery of inosit, glycogen, and allantoin in plants; the establishment of closer relations between the caffeine and theobromine of plants and the xanthin and guanin of animals, especially the presence, without exception, of globulin substance, lecithin, cholesterin, nuclein, and potassium in all cells formed under normal or pathological conditions so far as yet investigated, whether in man or in the highest or lowest animals and plants—all these considerations must bring us to the conviction *that definite fundamental chemical formations and changes are common to all living beings, and that the life-processes common to them all, especially their growth through formation of their own substance and their propagation without limit under conditions peculiar to them, must be formed in the presence of those chemical constituents; that also in the further processes of change, often appearing so different in the different classes, orders, and families of animals and plants, many processes can take place according to a conformable fundamental type; and that finally in the life-processes of man these parallels*