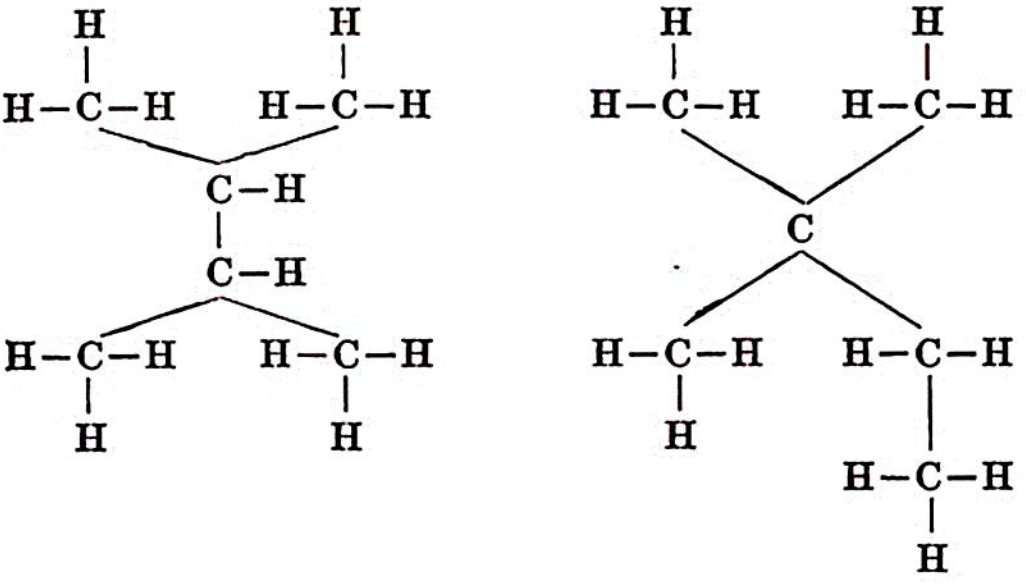

In each of the compounds represented by these formulas every carbon atom is believed to have four valences and every hydrogen atom one.

As the number of carbon atoms in the molecule increases the number of possible forms, isomers so called, multiplies with great rapidity. Of compounds C_7H_{16} there are 9 forms; for C_8H_{18}, 18; for C_9H_{20}, 35; for $C_{10}H_{22}$, 75; for $C_{11}H_{24}$, 159; for $C_{12}H_{26}$, 355; for $C_{13}H_{28}$, 802; and for $C_{14}H_{30}$, 1855 possibilities.[1] There can be no reasonable doubt that the preparation of each and all of these compounds would be possible, and that once formed they would be very stable substances. In truth, no one

[1] Cayley, *Berichte*, 8, 1056 (1875). F. Hermann, *Berichte*, 13, 792 (1880); 30, 2423 (1897); 31, 91 (1898). Losanitsch, *Berichte*, 30, 1917, 3059 (1897). "Optical isomers" are disregarded in the estimate.