

cule. To illustrate our meaning, let us take as examples, the state of combination of the molecules constituting the different varieties of sugar.

Sugar from the cane, in its purest state, and when as free as possible from accidental water, is, according to the present language of chemists, composed of 9 atoms of carbon and 8 atoms of water. Now, we suppose these 9 atoms of carbon, and 8 atoms of water, to be associated into two supermolecules, weighing (9×6) 54, and (8×9) 72, respectively. So that, we conceive a molecule of sugar from the cane to be a binary compound, of a supermolecule of carbon weighing 54, and a supermolecule of water weighing 72. Again, the sugar of honey, according to the present language of chemists, is composed of 9 atoms of carbon, and 12 atoms of water; or, according to our view of molecular arrangement, the sugar of honey is composed of two supermolecules, one of them, carbon, weighing 54, as in the sugar of the cane—the other, water, weighing no less than (12×9) 108. A similar statement may be given of the composition of Lignin, another of the saccharine class of bodies. Lignin, which, in all its various forms appears to consist essentially of equal weights of carbon and water, may be said to be composed of 9 atoms of carbon, and 6 atoms of water; or, according to our views, of two supermolecules weighing (9×6) 54, and (6×9) 54, respectively.