

opaque; and the opacity thus communicated to the water can be shewn to be the result of a compound formed by the union of the carbonic acid, which has evidently been given out from the lungs, with the lime previously held in solution in the lime-water.

Let it now be kept in mind that a hundred cubic inches of carbonic acid gas, under ordinary circumstances, weigh a little more than forty-six grains; and that a quantity of the same gas weighing a hundred grains contains twenty-eight grains of carbon; and the following statement will be easily intelligible. It appears, from experiments which have been made for the purpose, that during the process of respiration in an individual of ordinary size and health, about twenty-seven cubic inches and a half of carbonic acid gas are given off from the lungs in the course of one minute; which at the end of twenty-four hours would amount to 39,600 cubic inches, or in round numbers 40,000; and as 100 cubic inches weigh $46\frac{1}{3}$ grains, 40,000 would weigh 18,532 grains. Then, since a quantity of carbonic acid gas weighing 100 grains contains twenty-eight grains of carbon, a quantity weighing 18,532 grains would contain 5190 grains, or nearly eleven ounces, at 480 grains to an ounce: so that a quantity of carbon equaling two thirds of a pound in weight is daily dis-