

*medulla oblongata* and *spinal cord* now begin to be affected, as shewn by the difficulty of respiration, strabismus, dilated pupils and tetanic spasms. Richardson tells us that the action of alcohol upon the red globules of the blood is to extract the water from them, thereby reducing their size and altering their shape. He further says, "I found by experiment, that in presence of alcohol in the blood, the process of absorption of oxygen was directly checked and that even so minute a quantity as one part of alcohol in five hundred of blood proved an obstacle to the perfect reception of oxygen by the blood. Hence we may expect the blood to assume a venous character under its influence. The poisonous effect of alcohol upon the blood and nervous matter, is antagonized by the efforts made by the system to get rid of it. Recent observations go to show that it is partly eliminated by the lungs, skin, bowels and kidneys. But the amount thus eliminated is so small that it does not account for all that disappears. Carpenter thinks that a combusive process takes place in the blood, at the expense of the oxygen it contains, converting it into carbonic acid and water, while the experiments of E. Smith and others go to show that there is no increase of carbonic acid produced. And Anstie and Thudicum contend that it is consumed in some way in the economy, though how they do not say. Acknowledging that alcohol is consumed in the system, it cannot be classed as a tissue producing food. It does not supply those substances which go to build up the various parts of the body. But the evidence before us, is, I think conclusive, that when taken in proper quantities and under proper circumstances, it diminishes or arrests the waste of the tissues and probably in some way supplies the place of deficient aliment.

It is urged by Beale, Binz, &c. that alcohol possesses the property of restraining the rapid growth of young cells, and like quinine of checking the multiplication of the white corpuscles of the blood. The muscular system when performing the movements of the body, obeys the will through the nervous system. For the due maintenance of their respective powers, both systems require *materials of growth and regeneration*, which can only