

be obtained from blood charged with oxygen and purified in the course of its circulation through the body, and this blood can alone be obtained from food, alcohol containing none of the constituents necessary for its production. It is quite true that the *stimulating* effect of alcohol upon the nervous system, increases the nervo-muscular power, which may be forced for a time beyond its natural limit, but cannot be sustained without rest and a renewed blood supply, which, as already stated, cannot be produced by alcohol. Its action upon the muscular power of the heart is such as to increase the beats of that organ in proportion to the quantity taken. According to Richardson the man who swallows 8 ounces of alcohol in 24 hours, increases the number of beats of his heart from 100,000 to 124,045 during that period. Hence we can readily understand the exhaustion consequent upon such increased action. The brain being the instrument by which all mental power is exercised, requires for the proper performance of its functions, the healthy nutrition of the nervous system, and a due supply of oxygenated and depurated blood, neither of which can be afforded by the alcohol. Yet it must be conceded that the first effect of an alcoholic stimulus is to produce a *temporary* excitation of mental activity. The individual under the influence of it feels an exhilaration of spirits, a sense of gayety, is pleased with himself and others, his ideas flow rapidly, and he pours forth his thoughts with force of expression and richness of conception. But like the candle burning brilliantly in an atmosphere of oxygen soon burns itself out. So the over stimulated brain becomes exhausted, and demands rest, upon the well known principal that undue mental excitement from any cause, is invariably followed by depression and languor. The general warmth experienced for a time when a glass of spirits is taken on a cold day, is the cause of the prevalent belief that alcoholic liquors possess the property of enabling the body to resist the depressing influences of extreme cold. Animal heat is maintained by the combination of the carbon and hydrogen contained in certain materials in the blood, with the oxygen taken in by the lungs. Fats and sugars in the blood yield the carbon and hydrogen, and while