

manifests its disturbing influence by slight numbness, convulsive twitchings, and involuntary quivering of the lips. Its vaso-motor fibres discover their palsied state by flushings of the face, redness and watery condition of the eyes. The spinal nerves have now shown signs of the general malady by a feeling of numbness and general impairment of the muscular sense in the extremities. The muscles loose their subordination to the will; the voluntary acts become vague and indirect, the movements unsteady and uncertain, and the hands are affected with a nervous tremor. The further stages of drunkenness consists in more or less noisy delirium, passing gradually into coma; paralysis of voluntary motion and sensation becoming more and more complete; the medulla-oblongata, or portion of the brain which governs respiration is paralysed, and breathing stops; while, last of all, the organic nerves of the heart loose their power to perform their functions and life ceases.

The changes of structure which alcohol produces in the brain consists essentially of a peculiar atrophic or wasting modification by which the true elements of nervous tissue are partly removed. The total mass of nervous matter wastes, serous fluid is effused into the ventricles (or cavities) and between the membranes (or coverings,) while there is a marked development (according to some observers,) of fibrous tissue, granular fat, and other elements which belong to a low order of vitalised products. The arteries are found in the brain of drinkers to be engorged, inflamed and abnormally distended; their walls often diseased or degenerated; there is effusion into the brain substance, and rupture of a blood vessel is of frequent occurrence in such subjects; followed, of course, by either paralysis, mania or furious delirium.

During life, the brain is kept almost always in a state of congestion, amounting almost to a chronic inflammation; and the delicate structure or brain substance becomes hardened and its texture decidedly altered. To sum up, the morbid influence which alcohol exerts as a poison in the system, may be included under three heads:—1st, upon the digestive organs; it arrests digestion and impairs nutrition; 2nd upon the heart and blood-vessels, it impoverishes the blood and destroys the textures of these organs. 3rd It has a special affinity for the nervous system, in which it produces atrophic or degenerative changes, resulting in morbid or diseased action, mental debility, paralysis, insanity and death. The lungs and kidneys are greatly overtaxed in their efforts to get rid of the alcohol, their structure becomes diseased, and we have Bright's disease of the kidney and, in many individuals, tuberculous consumption, pure and simple, is superinduced. It has lately been accused by Drs Hanfield Jones, and Dr Wilks of Guy's Hospital London, of being a fruitful cause of Paraplegia and Epilepsy. Dr. Wilks has met with numerous cases where the spinal cord being particularly affected by the alcohol, paralysis became the leading symptom, and he combats the notion that it is unsafe to leave off the use of stimulants in a few hours. "No harm but only good," he says—will ensue from its withdrawal, and he considers the same rule should apply to all persons. He mentions some very striking cases also, in which the absolute and instant withdrawal of alcohol snatched the patients from the very jaws of death. My own views upon the treatment of alcoholic poisoning, and delirium tremens, is that we should never continue to administer a single drop of alcoholic spirits to these patients; and as they are already greatly prostrated and debilitated, it seems equally absurd to administer such a powerful arterial sedative as digitalis. Such treatment is invariably attended with great mortality. The remedy, *par excellence*, in all cases of alcoholism, or drunkenness, I believe to be liquor ammonia acetates, antidoting the effects of alcohol, and supplying an innocuous stimulation which prevents collapse, and saves a very large per cent of the patients to whom it is administered.

In conclusion,—there can be no doubt that alcohol is man's greatest enemy; it contents not itself, as we have seen, until it has attacked the citadel, has entered the "dome of thought—the palace of the soul," has dethroned the reason, and has produced hopeless disease, or has sent its victim wandering up