

minute bodies, so small that you can scarcely think of their minuteness, an action is set up in the blood, perhaps in the form of a ferment. We find that most diseases consist in some change in the blood itself, or in the flues which nourish and renew the tissues; but a majority consists in a change in the blood itself. In a living body there is a continual change taking place, and the great characteristics of these changes are the processes of decay and reparation, which only terminate at death. Substances pass into the body and are carried to all parts of the body. Waste is taken up in the blood and carried from the body. The body wastes during the day, and during repose it is nourished and the waste repaired. The human being, during one year, loses three thousand pounds by waste of tissue, and the repair equals the waste. However, in youth the repair exceeds the waste, so that the animal gradually grows. In the adult they are just about equal, provided there is a certain amount of exercise. In old age the waste is in excess, and the animal becomes smaller. In disease, something takes place, equilibrium is upset, and there is a change of function or structure. We often see this taking place. An animal is attacked by disease and reduced quite quickly—the result of this poison in the system. Life is maintained in the body by the circulation of pure or arterial blood through the system. This blood is the fluid of the body; whenever arterial blood ceases to circulate, death is the result; or, if it circulates, but becomes impure, there follows a similar result. If the blood becomes changed but slightly, it produces disease very quickly; and if changed to any great extent, it produces death very quickly. Life is an aggregate of the functions which resist death, and is maintained by the blood. Death is the cessation of all the functions, the aggregate of which constitutes life. Now death may occur in different ways, and sometimes it is immaterial how an animal died, but at other times we are called to tell how he died. If no blood circulates, death takes place from syncope, from a want of a due supply of blood to the