

much that is being done. I will not therefore attempt even a slight sketch of the work of the past year, but confine my remarks to one subject, which in late years has received the attention of many investigators.

“The name of Lister must stand among the foremost of those who have done much for the advancement of professional knowledge. I do not say that in the antiseptic method which he instituted and did so much in improving the profession has by any means reached an ultimate result beyond which it is impossible to pass. Such does not seem to be his own view—he still hopes for better methods to accomplish his aims. The great merit of Lister’s work lies in this, that it was by his writings the attention of the Profession was called to the agencies through which the decomposition of organic substances is effected. I know that by some it is held that when organic substances are removed from the sphere of vital action, the tendency is towards decay. I have heard it stated that decomposition is, as it were, a law of nature, that as all organic forms live for a time and fulfil their place in the life, their decay is inevitable; that their ultimate particles are held together by so loose a bond, that when life departs the forces of chemical affinity soon resolve them into simpler forms. Noticing the effects of the atmosphere—its water—its oxygen, etc.—upon the various inorganic substances presented to its action, the wearing away of the hardest rocks, the oxidizing of metals—what more natural than to suppose that organic substances are likewise changed, and that all the phenomena of putrefaction are due to the same influences? As practitioners of medicine, however, we must recognize that while chemical affinities may and do play their part, the decompositions with which we have to deal, are attended with and seem to be dependent upon the growth and development of vegetable forms; such appears to have been shown by the investigations of Pasteur, as

well as by those of other observers. It is possible that organic substances exposed to the influence of the atmosphere, apart from that of vegetable life, might in the course of time become decomposed; this however would probably be a very slow process, for we constantly witness the long continuance of organic forms when means are taken to preserve them from the effects of vegetable growth; and, upon the other hand, of the putrefaction which takes place with the growth of vegetable life. The housekeeper knows well how surely the appearance of mould indicates that the fruit is no longer in a state of preservation, and in its absence she is equally certain that her labour has not been lost. The influence of chemical knowledge upon our minds has rendered difficult the acceptance of the theory that the decomposition of organic matter is due to vegetable growth; although it is hard to understand how a ferment, which does not through chemical affinity take part in the change, may determine it. We were taught and constrained to believe that such was the case, seeing that no other cause for it was known to exist. When we reflect, however, upon the forces which are displayed in vital action, and witness the readiness with which living forms appropriate the materials suitable for their growth, an easy explanation seems to be given of the rending asunder of matter that has ceased to live, and whose elements are fitted to nourish other forms that are always present and able to appropriate them.

“In a solution composed of a small percentage of potassium phosphate and magnesium sulphate, with a further percentage of phosphate of lime and tartrate of ammonia, bacteria are found to grow rapidly; from the ammonia salt they are able to derive the carbon and nitrogen necessary for their formation, and if their vital forces in the action of growth and multiplication are equal to the decomposition of the salts of this solution, it is easy to understand how organic substances may be changed and the