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FERMENTATION IN THE MOUTH CAVITY AND ITS BEARING ON DENTAL CARIES.*

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By the term fermentation we understand usually, that decomposition of organic matter of a carbohydrate character, due to the action of micro-organisms, which results in a series of simple chemical compounds. The term fermentation is thus restricted to this decomposition of carbohydrates, whilst the similar decomposition which occurs in proteid and albuminous material we call putrefaction. There is really no reason why these two terms should be given to two processes which are essentially similar; but the terms have come to us as a legacy from the days when the processes were not understood. The decomposition of carbohydrates is frequently associated with the active evolution of carbondioxide gas, and from the bubbling and boiling of the fermenting mass due to this evolution of gas the term arose. At first, of course, fermentation and putrefaction were supposed to be due in some way to the chemical action of the air, as the results of the decomposition were found to contain a greater percentage of oxygen than the bodies decomposed—*i.e.*, that the process was one of oxidation. It took some time before these ideas were overthrown, but finally, due chiefly to the labors and experiments of Pasteur, it was shown that the decomposition was due to the presence of minute plants, either yeast or bacteria, and that without

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