

instances was a redness of the margins of the gums, and he found always that the alveolus was absorbed and the periosteum detached. He had never practised the amputation of the end of the root, but had succeeded in removing the nodules after repeated effort, and then made mildly escharotic applications.

Dr. H. Judd said it must be conceded that the origin of these masses is either from inflammatory action or by deposit from the saliva. In the latter case there must be external communication, and in recalling instances to mind they supported this hypothesis. Carbonate of lime, when mixed with fatty substances, forms in globular masses.

Dr. McClelland was of the opinion that deposits from the saliva would be found where that secretion was most abundant; it being found under the gum was conclusive evidence to him that it was thrown out by the peridental membrane.

Dr. McQuillen agreed with the opinion that tartar could not be deposited without an external opening. Referring to the intimation of a doubt whether the hard tissues could undergo change, he said that there was no tissue in the animal or vegetable kingdom, with the possible exception of the enamel, which does not undergo continual change. Have not the investigations and experiments of Hunter, Duhamel, and others proved this most conclusively? Dr. Lienel S. Beale was the first to take exception to the general view relative to changes in hard tissues, and the speaker combated his statement several years ago. He cited, in proof of constant change, the formation of the frontal, sphenoidal, and maxillary sinuses, the diploe in the flat bones, and medullary canals in the long bones, and the process by which the deciduous teeth, after being built up cell by cell, at the proper time, by a retrograde metamorphosis, are absorbed cell by cell. In the permanent teeth the evidences of change were constantly occurring—as in hypertrophy of the cementum, and the not infrequent absorption of the cementum and dentine in other cases. Permanent teeth extremely soft in early life become almost as hard as flint at a more advanced age. Again, teeth which had been quite dense and perfect in their structure, as in the case of females, after the commencement of the maternal functions lose much of their former hardness, owing to the waste constantly going on not being supplied by a sufficient amount of material to meet the demands of mother and child; in which case the latter is nourished at the expense of the former, and the mother's bones and teeth become softened.

Dr. John Allen urged the necessity of providing in the food materials which should supply, atom by atom, the wants of the system. He asserted that, as a nation, Americans have the worst teeth of any people,