

arise which are clearly due to the presence of some abnormal poison or deleterious matter in the blood.

Professor Arthur Keith has done a great deal of original work on the functions of the large bowel, the following quotation from a lecture delivered at the Royal College of Surgeons and published in the *British Medical Journal*, Dec. 7, 1912, has an important bearing here. The title of the paper is *The Functional Nature of the Caecum and the Appendix*. "Every year the opinion gains ground that the great bowel from the appendix to the rectum so far as man is concerned is a useless and dangerous structure. Exactly ten years ago, October 1906, Dr. Barker Smith of Cambridge, gave a clear expression of this new conception. Dr. James McKenzie has recognized and described the heart changes consequent on auto-intoxication so thoroughly in his work on the subject reclaiming the normal degree of blood pressure is soon restored to the patient when the large bowel is excluded by operation. His original work has produced such remarkable changes in medicine of the present day, eight or nine years ago at which he had not yet come to the conclusions that he now has that the condition he called 'ex-disease' and C.I.S. are identical. He employed the term 'ex-disease' for the reason that he did not know the nature of the complaint; but one thing he did realize from cultivation of ileal-chyme obtained during life from the subject of constipation almost invariably revealed the presence of numerous micro organisms and that the living bacteria presented in one cubic centimetre of cecal contents are many thousand fold more numerous than those in a cubic centimetre of ileal-chyme in the intestinal tube. The organisms most commonly found are bacillus coli, streptococi, often alive, other organisms are sometimes found staphylococcus citreus, e.g., in Still's disease and bacillus aminophilus.

We will now consider the conditions or so-called diseases which arise in the individual because of the lowered vitality of the tissues by the presence of toxins or poison in the blood. In toxic people the organisms which exist normally in the mouth are able to secure a foothold in the individual between the teeth and gums and manifest their presence as infective or inflammatory process. As a quantity of organisms is grown in these nurseries the absorption of the product into the circulation of the gastro intestinal tract and respiratory apparatus assists in the general process of depreciation, many observers are inclined to regard these secondary foci as primary, but a little consideration will show that removal of the teeth has not relieved the symptoms of intestinal stasis, which was the primary factor. However bad the condition of infection of the gums may be at the time of short circuiting, an immediate and extraordinary improvement in this disease follows on the clearing up of the small in-