

## VARIETIES OF COLON BACILLI ISOLATED FROM MAN.

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The discovery of the colon bacillus by Emmerich in 1885 in the blood, organs, and alvine discharges of cholera patients in Naples, its later isolation from normal and abnormal faeces by Weisser and its further accurate differentiation from other intestinal bacteria coupled with a minute account of its biological characters by Escherich, were the three scientific achievements which laid the foundation of our modern knowledge of the flora of the alimentary canal.

In the decade and a half which have passed since the observations of these men, a more or less universal interest has been centred in the varied reactions of this organism under artificial laboratory conditions, while the elucidation of the problems connected with its widely spread habitat in nature and the growing belief in its power as a pathogenic agent to cause serious lesions in man and animals, have become more and more the excuse for a careful study of its life history.

Since the original description of the colon bacillus, many allied forms have been isolated in normal and pathological conditions, from sources both within and without the animal body, and bacteriologists have become convinced that this organism, instead of being the simple and possibly only constant inhabitant of the lower bowel in man, should in reality be looked upon as a group of bacilli, the many members of which differ considerably from each other in their cultural features and their pathogenic action.

Within a short time after Escherich's work Booker, in an exhaustive study of the bacteriology of summer diarrhoea, isolated seven different members of the colon group related to each other in their fundamental characters, but separated by important, although minor tests. In the then state of our knowledge of this organism Booker was unable to give a classification of these forms which he considered satisfactory and contented himself with naming the different varieties and calling attention to their principle reactions.

The experience of Booker in regard to the differentiation of these colon forms has been duplicated in many laboratories since the publication of his results and the confusion which necessarily arises from the

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