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## DESTRUCTION OF BACTERIA WITHIN THE BODY.

A number of researches have been made upon this subject during the past few years. When Metschnikoff published his observations upon the immunity of the frog towards anthrax, and founded the doctrine of "phagocytosis," he certainly introduced a very plausible explanation of a previously unexplained fact. From a theoretical side, the doctrine that the leucocytes eat up the bacteria leaves nothing to be desired, but, unfortunately, it does not seem to be in accordance with the facts. Careful observers have failed to recognize these alleged powers of devouring bacteria not only in the white-blood corpuscles, but in the other cells of the body. Baumgarten\* has published a larger number of observations upon the destruction of bacteria within the body, and finds that in animals which possess immunity from anthrax, the bacilli are not taken up by the leucocytes. Osler (lecture before Alumni Association of New York Academy of Medicine) failed to observe anything like phagocytosis in malarial blood. On the other hand, the fluids of the body appear to possess a marked power of destroying bacteria. Nuttall (*Zeitschrift f. Hygiene*, 1888) and Buchner (*Central. f. Bacteriologie*, 1889) have shown that, while blood serum which has been sterilized by heat forms an excellent culture medium for bacteria, serum which has been received into sterilized vessels, but not heated, is capable of destroying anthrax and typhoid bacilli. T. M. Prudden of New York has recently confirmed these results, and has tested ascitic and pleuritic exudations to

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\* Beiträge, Path. Anat., Vol. VII.