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## THE INFLUENCE OF CERTAIN AGENTS IN DESTROYING THE VITALITY OF THE TYPHOID AND OF THE COLON BACILLUS.

DURING the last year a series of researches upon the influence of light, of desiccation, and of the products of certain micro-organisms upon the vitality of some

of the pathogenic bacteria has been carried on in the Laboratory of Hygiene of the University of Pennsylvania, by Dr. Adelaide W. Peckham, in accordance with a general scheme for such investigation prepared by Dr. Weir Mitchell and Dr. Billings, the Director of the Laboratory, and with the aid of a grant from the Bache fund. A portion of the results obtained in this research has been communicated to the National Academy of Sciences at its meetings in April and in October, 1894 ; but as the volume of the Transactions of the Academy which will contain these papers will not be issued before next year, it has been thought best to publish some account of these experiments without further delay.

That direct sunlight kills or stops the growth of certain bacteria has been known since 1877, when Downes and Blunt presented to the Royal Society a report on "Researches on the effects of light upon bacteria and other organisms."\* Since that date a number of papers on this subject have been published, the most important one in relation to the typhoid bacillus being that of Janowski in 1890.† The first series of experiments by Dr. Peckham was made with the *staphylococcus pyogenes aureus*, the object being mainly to determine the best methods of investigation.

\* Proc. Roy. Soc. 1877, vol. 26, p. 488.

† Zur Biologie der Typhus Bacillen, Centralbl. f. Bakteriologie, etc., VIII., 1890, pp. 167, 193, 230, 262.