ENVIRONMENT

Has environment, then, nothing to do with infectious diseases? Environment acts in two ways: First, unequivocally and without reserve, such environments as permit or encourage or, still worse, necessitate the exchange of human excreta in ordinary life, contribute in the long run to the spread of disease since they insure a similar exchange of infected excreta so soon as the latter are introduced.* Let us take one environmental evil, overcrowding, as an example. Overcrowding, if combined with lack of discipline and order, and lack of facilities for washing, especially for the washing of hands, contributes to the spread of infectious diseases; but not in itself, nor at all, unless infection be introduced into the community. Then overcrowding, because it tends to insure exchange of human excreta, tends also to insure that the infection will spread rapidly and extensively. But overcrowding, if the overcrowded be disciplined, intelligent, and take proper precautions to avoid exchange of excreta, does not necessitate the spread of infection, even if it be introduced. On the other hand, infection may spread, and frequently does, without overcrowding, if the essential factor of such spread exist, i. e., the transmission of infected excreta.

Second. Environments that are bad from a physiological standpoint (bad for the body, regarded as a delicate biological machine) are often held to act in spreading infection indirectly by "depressing vitality" to an extent which makes infection, if received, more likely to develop (and if it develop, more successful in injuring the

^{*}An excellent exposition of this effect of environment on the spread of disease is given by Chapin in the Report of the Providence Health Department for 1910.