

SOME RECENT INVESTIGATIONS UPON AIR INFECTION

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Recent experiments upon the subject of air infection which have issued from some of the German laboratories have proved so interesting to me in reading, and seem so important from a practical sanitary standpoint that I thought it would be of interest to the members of the Executive Health Officer's Association if a short account of them were given at this meeting.

Although the question of air infection seemed to have been exhausted by the earlier writers, still there were certain contradictions between the results and between laboratory results and practical experience. To aid in explaining these contradictions, Flügge, of Breslau, thought it worth while to turn his attention again to the question and endeavor to throw some new light upon it.

We have generally understood that an exceedingly strong current was necessary to carry particles into the air from the surface of a fluid; a current sufficiently strong to produce active formation of waves and the breaking of these into spray. The conditions were such, however, as to preclude a careful measurement of the rate of these currents, and by more careful methods Flügge has shown that a rate of about four metres per second was necessary, depending of course to a large extent upon the nature of the limiting walls of the pool upon which the current was playing and the angle at which the current impinged upon the surface. Such a rate is, however, not so very great, almost that of an ordinary breeze.

It is doubtful, however, if these out-of-door currents are of any very great significance from a sanitary standpoint. The conditions of drying and sunlight are such that bacteria in the form of dust or enclosed in droplets of fluid will most probably perish before being carried very far. Especially is this so of the majority of pathogenic