

weeks before the child, several of the hens died with "ulcers in the throat." 5. In Talcahuano Street, a child died from diphtheria (all these cases that I am relating died from this disease). This child was in the habit of playing all day in the back yard, where the hens were kept. In those days when the child sickened, several hens died from an affection, where the "throat was swollen, and membranes were extracted from the nostrils." 6. In Jehallos Street, two children died of diphtheria in the month of May. Back yard without pavement. A month previous to the death of these children the hens suffered from ulcers in the throat. 7. In Belgrano Street, a girl, 16 years of age, died of diphtheria. The yard was paved, but imperfectly so. A hen house was kept in the yard. A few days before the girl died two of the hens had suffered from ulcers in the throat. 8. In San Antonio Street there is a large lodging-house, where several children had died of diphtheria at different times. There is a yard without pavement. The man in charge of this house informed me that it is a common thing for the hens kept there to suffer from ulcers in the throat. 9. A physician in Buenos Ayres lives in a two-storey house. On the ground floor a hen house

is kept on one of the "patios." One day he saw one of his children playing amongst the hens, and reminding that he had once assisted at a fatal case contracted from a diphtherial hen, he called out to his child to come upstairs. Next day the child sickened with diphtheria, and subsequently died. It was found that the hens at the time were suffering from ulcers in the throat.

These cases which I have selected would of themselves point strongly to the direct infection of children from hens and other animals; but, taken in conjunction with recent observations made in England and on the Continent, they are a strong testimony to the truth of the theory which ascribes diphtheria in animals to the presence of a damp soil, and diphtheria in the human subject to contagion from animals so infected. I do not for a moment wish to state that diphtheria in the human subject has no other origin than that just mentioned. It is, however, ascertained that diphtheria in the human subject may be due to dampness, to the removal of mixed deposits of vegetable and animal matter after they have been in intimate union for some time, to infected milk, and lastly, but very rarely, to infected water.

MISCELLANEOUS NOTES AND EXTRACTS.

PROFESSOR VAUGHAN ON INFECTIONS.

Bacteria alone, even those of the most virulent type, are not capable of causing disease, unless the conditions be favorable.... The spread of infectious diseases is combated and limited by the physiological resistance of the living body. This has been demonstrated to be true in the case of the lower animals. The domestic fowl, in its ordinary condition of health, is not susceptible to inoculations with the bacillus of anthrax; but, as Pasteur has shown, if the temperature of the fowl be lowered by the continuous application of cold water to the surface, it falls a victim to the germ. On the other hand high

temperatures weaken and enervate the frog. At his normal temperature this animal possesses complete immunity against anthrax, but when weakened by being kept in warm water, it also becomes susceptible. There is, then, inherent in all animals, and manifest to a greater or less extent, physiological resistance to the infectious diseases. Were this not true the world would have long since been depopulated. If water laden with the germs of cholera or typhoid fever be taken into the stomach, they will survive or not according to the predominance of one or the other of the following conditions. 1. The number of germs introduced is one factor.