

These slight infections are kept in circulation in settled regions, for there are always diphtheria "carriers" about; but in isolated places they may never occur at all, and the opportunity for building natural resistance will be correspondingly absent. Then when a really serious infection is introduced it spreads rapidly among a highly susceptible population.

Dr. Doull cites a case somewhat analogous to that of Nome, which was studied by Dr. A. J. Metcalfe, an Australian physician, only a year or so ago. Off the north coast of Australia, in the Torres strait, there is a bit of land called Thursday Island. The population is largely a mixture of Malays and Asiatics, with surviving native elements. Dr. Metcalfe used the Schick test on a large number of children in the schools, ranging between the ages of six and fifteen, and found that nearly 97 per cent. of them were susceptible to diphtheria. With this nearly complete susceptibility Dr. Doull contrasts the figures obtained in Baltimore, which has been more thoroughly surveyed for diphtherie statistics than any other city in the United States. Here 93 per cent of the children one year of age were shown to be susceptible; but at six years the susceptibility had fallen off to 69 per cent., and at fifteen to 27 per cent. Figures for the semi-isolated conditions of rural life in American stand intermediate between those for crowded cities and those for this highly isolated island.

Another fact mentioned by Dr. Doull which supports this apparent relation between crowding of populations and the development of immunity to diphtheria, is the high rate of natural immunity found in asylums and similar institutions for the care of children.

A further suggestion developed in the discussion was the possibility of the development of an especially virulent type of the disease in isolated and highly susceptible communities, which might be more dangerous and difficult to combat if brought back to more thickly settled communities. It is a well known fact that a strain of disease germs gains in virulence upon being "put through" several successive non-immune persons or animals, and this suggests a possible danger from the present Nome epidemic.

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#### TABLOID BOOK REVIEW

EXPERIMENTAL VEGETATION: THE RELATION OF CLIMAXES TO CLIMATES: By Frederic E. Clements and John E. Weaver. 172 pages; 15 plates. Washington: The Carnegie Institution of Washington. (Publ. No. 355 ) 1924.

THE PHYTOMETER METHOD IN ECOLOGY: THE PLANT AND COMMUNITY AS INSTRUMENTS. By Frederick E. Clements and Glenn W. Goldsmith. 106 pages; 11 plates. Washington: The Carnegie Institution of Washington. (Publ. No. 356) 1924.

These two books are valuable additions to the literature of ecology that is being built up by Clements and his associates who have for years been at work on the western grasslands. They mark a distinct advance in the development of quantitative and physiological methods in this branch of botany. The method of using plants themselves as instruments for the measurement of ecological factors while not strictly new is here taken seriously and treated thoroughly; so that the phytometer method may fairly be said to date from this publication.

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