phoid vaccines for their therapeutic effects, and my reply has lately been this: We recognize the fact of the absolute protective powers of prophylactic doses of typhoid vaccines; we recognize also that it is the infected typhoid gall-bladders that make our "typhoid carriers"; that the typhoid vaccines relieve these cases and render the carrier innocuous; that I believe in every case of typhoid fever therapeutic doses of vaccines should be used, more for their effect upon the gall-bladder; and I am sure that in this contention I am correct, and in every case of cholecystitis, in which there is a typhoid history, the typhoid vaccines should be given. The typhoid infection may exist in the gall-bladder for a great length of time, as has been shown in a number of cases. Hunner records one case in which there was a typhoid cholecystitis eighteen years after the attack of typhoid fever. There are also authentic cases in which the typhoid organism has been found in cholecystitis without the patient ever having had typhoid fever. Blumenthal records a case in which he obtained pure cultures of typhoid bacilli from the gall-bladder in a patient who had never had typhoid fever herself, but who had nursed her husband and one brother during an attack of the disease six or eight years previously.

In the other most frequent type of infective cholecystitis and cholangitis, *viz.*, that of either pure colon bacillus infection, or where the colon bacillus is found in conjunction with other bacteria, I am also a firm believer in the early and even frequent administration of appropriate vaccines. I think that I have recently secured some wonderful results in these cases from the early administration of colon bacillus vaccines. We know the positive results of these vaccines in pyelitis and pyelocystitis, and from these we can now reasonably expect the same marked and positive results in such infections of the gall-bladder. So, also, in infections from pneumonia and influenza, suitable vaccines may be given with just as much expectancy of positive results as in other cases.

Conclusions.—Cholangitis and cholecystitis are always medical cases in their incipiency, and for a reasonable length of time, excepting under emergency conditions as previously stated.

The remedies to be used in these cases are sodium glycocholate grains v, salol grains v, sodium benzoate grains x, urotropin, or better, its citrate, helmitol, in ten grain doses; aspirin grains xv (where pain is present), the other salicylates, alkaline waters, limited and restricted diet, rest in bed, and the administration of suitable and appropriate vaccines.

RELATION OF MUNICIPAL HOSPITALS TO MEDICAL EDUCATION.

BY

HENRY C. WRIGHT,
New York City.

First Deputy Commissioner, Dept. of Charities, New York City.

The empirical and case methods of study are generally accepted today as the best process of preparing students for the practice of medicine. When body construction and pathological conditions were chiefly taught from books, medical colleges could be located without regard to population centers. Under the methods now employed, teaching must be done where there are many subjects to observe. Thus the largest cities are the most strategical places