of the other lung used as a control. In the fourth case the H-ion concentration of the pneumonic lung and the other lung was the same.

The pneumonic exudate in experimental Friedländer and pneumococcus pneumonia in dogs was likewise more acid than the press juice of other organs and the blood. In one dog, with experimental pneumococcus pneumonia, the H-ion concentration of one involved lobe was 6.00, and that of another 5.40. From the former, pneumococci were grown in pure culture, but from the latter no growth of pneumococci was obtained.

An increased acidity, indicated by a determination of the H-ion concentration, may be demonstrated also in sputum obtained from patients with lobar pneumonia. It is also found, however, in the purulent sputum from other patients, in empyema pus, and pus from abscesses due to other organisms than the pneumococcus.

The pneumococcus can usually be cultivated from the exudate of lobar pneumonia, even when the acidity is high. Since, however, that part of the lung involved in lobar pneumonia is in a measure isolated from other parts of the body, it is possible to conceive of important local changes of a biochemical nature taking place within it, such as the inhibiting effect of acid production on the growth of the pneumococcus and the favoring influence of increase in acidity on enzymatic action.

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STAINING OF BACTERIA IN TISSUES FOR BACTERIOLOGIC STUDY OF PNEUMONIC FOCI

A MODIFICATION OF METHOD, AS APPLIED ESPECIALLY TO THE PFEIFFER BACILLUS

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There are many rules and directions laid down for the staining of bacteria in tissue, especially when microphages and macrophages are concerned; but the most important requirement is that, while the cell protoplasm shall be moderately bleached, the nuclei and the bacteria shall become and remain plainly visible. Last fall a pandemic of influenza swept over Japan. In investigations undertaken to ascertain the morphology and the incidence of the bacterial phenomena, many of the staining methods did not produce the best results, but with my modification of the carbolfuchsin staining-fluid satisfactory results were achieved.

MODIFIED STAINING METHOD

1. The frozen sections should be cut as thin as possible and glued to the object glass by means of an egg-white glycerin mixture.
2. They should be stained for a period of from ten to twenty minutes in a solution of carbolfuchsin which has been prepared by dissolving 1 c.c. of carbolfuchsin in 10 c.c. of water.
3. The differentiation is accomplished by the use of weakly acidulated warm water (two drops of glacial acetic acid to about 250 c.c. of water). The sections should be left in the solution until they take on a rose-violet hue.
4. The sections are now rinsed in water.
5. They are then dried in the air, no alcohol being used.
6. They are afterward transferred to a xylene bath and are then embedded in a neutral balsam.

FINDINGS

The bacteria are stained all the way from a light to a very dark red. The nucleus takes on a deep red hue, while the protoplasm is almost colorless.

This method is adapted to the staining of any prepared sections in connection with bacteriologic study.

The Perfect Man.—The hygienic ideal continues to be the same as expressed in the Roman proverb, "mens sana in corpore sano," which as interpreted by the Spanish physician Letamendi, means the body of an athlete, the mind of a scholar, and the soul of a saint.

Special Article

HOSPITAL SERVICE IN RURAL COMMUNITIES

A PRELIMINARY REPORT

PREPARED BY ERNST C. MEYER, DIRECTOR OF THE DEPARTMENT OF SURVEYS AND EXHIBITS OF THE ROCKEFELLER FOUNDATION INTERNATIONAL HEALTH BOARD

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(Continued from page 1293)

PART III. SERVICES WHICH SMALL HOSPITALS IN RURAL COMMUNITIES CAN RENDER

Future Role.—The essential work of a hospital lies in the field of curative medicine. It is hardly necessary, however, to point out that to care for properly and to cure disease is also to prevent it. In fact, it is not unlikely that when the hospital has found its place of greatest usefulness in the scheme of work for health preservation, its influence as a preventive agency will overshadow even its highly important function in the curative field.

Growing the Hospital from the Hearts of the People.

—All experience would seem to point to the fact that a community hospital in order to enjoy its full measure of usefulness must be grown from the hearts of the people whom it is to serve. To do this, public sentiment must as a rule be painstakingly educated. The idea of hospital service is new, and prejudice against it widespread. It is of peculiar interest that this prejudice should be greatest among those who would benefit most by the service. Wherever it was possible, through a tactful, energetic and thorough campaign to coax a community hospital from an originally indifferent, because unknowing public, the benefits have been so evident and so widely enjoyed that the hospital has invariably had warm support and has experienced constantly increasing usefulness.

A hospital is one of those institutions which is peculiarly helpless unless the public comes to it. Those who wish to establish such an institution must seek to find the right way rather than the quick way to do so. Not the grafted hospital—in the form of a private benefaction—but the home grown variety, seems to appeal the most. There is the difference between going after something that is wanted, and receiving something not thought of before. In the first instance, use and enjoyment are immediate and spontaneous. In the second, liking and desire must first be cultivated. It has been found that during this period of cultivation the hospital is apt to go through a stage of hard times both financially and medically.

Aside from these general thoughts, certain advantages of a specific character may be enumerated. They are grouped with respect to their bearing on the patient, the community and the physician.

BENEFIT TO THE PATIENT

A few illustrations of what proper hospital care means in specific types of sickness will serve as an introduction to this rather trite summary of the bright side of the community hospital.