

## Medical Matters.

### THE PRINCIPLES AND LAWS OF HEREDITY.

Dr. G. Archdall Reid, author of "The Principles and Laws of Heredity," who was the principal guest of the Authors' Club, Whitehall Court, at a dinner at which the Earl of Ronaldshay, M.P., presided, said that everybody believed in evolution, which implied adaptation to the environment. Degeneration implied the contrary. The right theory of evolution and the right theory of heredity must fit in with this fact of adaptation. Only one theory of heredity fitted the facts—Darwin's theory of natural selection. Selection implied a selective mortality, that the fittest survived and the unfittest perished, as a general rule. Many people died young. Who were they? Those who were weak against various microbic diseases. Each disease would in its own habitat weed out the unfittest. One other source of elimination was alcohol, to which people varied in susceptibility. If the ill-conditions which affected the parent did not, as a general rule, tend to alter offspring then since the offspring did vary spontaneously the fit would be preserved and the unfit would be weeded out, and the race would undergo protective evolution. A very unhealthy condition was to be found in the slums of great cities. There were parents who were unhealthy and children who were puny. What was the connection between the puniness of the children and the unhealthiness of the parents? Were the children puny because their parents were unhealthy, or because they were reared under unhealthy surroundings? Since the fit would survive the race would go on getting more and more resistant to slums. Were children living in slums getting resistant to slums, or were they degenerate? The races most exposed to slum life were Jews and Chinese. Those races had not grown degenerate. There had been selection and the races had undergone protective evolution. The races longest exposed to consumption were most resistant to consumption. In every case it was not degeneracy but evolution. Taking alcoholic disease as an instance the English to-day were, he said, more temperate than their ancestors, and the most temperate of all were the upper classes, who took as much as they wanted, but did not want much. In every case, one got protective evolution. Offspring were not rendered degenerate by the misfortunes of their parents, but races underwent evolution owing to the fire to which they had been exposed. Sufferings did not affect a race; it was the deaths of the race that affected it; it was not the illnesses

but the illnesses which ended in death that changed the race. Nearly all microbic diseases originated in the Old World.

### SANATORIUM TREATMENT IN PULMONARY TUBERCULOSIS.

Dr. F. Rufenacht Walters, F.R.C.S., Physician to the Crooksbury Sanatorium, writes in the *British Journal of Tuberculosis* on the above subject:—

The value of the modern methods can be much better gauged by clinical than by statistical evidence, and a few months spent in a good sanatorium will soon convince the impartial observer of the efficiency of these methods within certain limits. "The open-air treatment of phthisis, intelligently carried out, is an immense advance on former methods." Dr. Paget Tomlinson says: "Nothing in the whole range of medical practice has impressed me so much as the contrast between the impotent, not to say injurious, treatment of consumptives in the old days and the hopeful and satisfactory results of the present open-air methods wisely carried out."

It would be a great misfortune if the open-air treatment were only applicable abroad. Fortunately, on the testimony of many who have first-hand experience of it in this country, it can be employed here with the greatest advantage in many cases. For most patients the open air has no terrors here, provided they have sufficient clothing and protection against wind.

Whether treatment should be carried out in a sanatorium or not depends greatly upon circumstances, chief of which is the pecuniary position of the patient. Just as in a hospital more complete arrangements are possible for treatment at a lower cost, so in a sanatorium. Other advantages are, more systematic treatment, more suitable buildings and situation, and the personal influence and attention of one who is of necessity a specialist, and who is able to give his whole time to the problem. Sanatorium treatment is not merely stuffing and exposure to fresh air, but a graduated course of treatment and training designed to raise the resistance of the body to the disease. Sanatoria are, unfortunately, not all equally efficient, and it is to be feared that the inefficient have given a bad name to all. "If the value of any particular institution be educative rather than curative, we may justly infer that the cases it deals with are far too advanced; that it is under-staffed and the patients do not have the constant supervision which is essential; or that the sanatorium is controlled by a pessimist."

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