

Lectures on Anatomy and Physiology as Applied to Practical Nursing.

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INTRODUCTORY.

For the last twenty years, it has been recognised that Probationers should be taught Elementary Anatomy and Physiology, in order that they may gain a general knowledge of the structure and functions of the human body in health, and thus be able the better to comprehend the signs and symptoms shown by patients suffering from injury or disease. Indeed, it is obvious that, without such knowledge, the duties which are now-a-days entrusted to the trained nurse could not be carried out by her with the intelligence which is essential, if her work is to be efficiently performed, to the satisfaction of the doctor, and to the comfort of the patient. But a great difficulty, of which many probationers complain, is that the teaching of Anatomy and Physiology, as a general rule, both in the classroom and in text-books, is entirely technical, theoretical, and, therefore, more or less uninteresting and difficult to remember. In the case of the same subjects taught to medical students, although they cover all that is known, vivid interest is aroused by every anatomical fact being illustrated by dissection on the dead body, and every physiological truth being proved by some experiment or demonstration. Nurses have no such incentives to memory or active interest, and it would therefore seem the more advisable in their case to make the teaching of these theoretical subjects as illustrative as possible. This is usually done by means of skeletons, diagrams and so forth; but many years' experience in lecturing to nurses has convinced the writer that a still better method of arousing their interest and assisting their memory is to unite Theory with Practice—to show not only what the different tissues are, but what may happen to them from injury or disease. It is only by realising the latter that the probationer can obtain a clear mental grasp of what her patient is suffering from; why such and such treatment is ordered for his relief, and how she can best carry it out; what such and such symptoms denote, and why she must watch for them, and most accurately report their occurrence. Such knowledge, in fact, raises Nursing from a mere mechanical matter of rule of thumb, to an occupation full of the highest human sympathy and scientific interest.

It is in the hope of doing something to assist nurses in their invaluable work, and simplifying the theoretical part of their educational studies, by showing how it explains the practical duties which they have to carry out in the wards, that the writer has consented to publish a course of Lectures under the above title on a somewhat novel system. Each tissue and each organ in the body will be described in turn, its anatomy and its physiology explained, and then the changes which are caused in it by injury or disease, the method in which such changes are treated, and therefore the nursing which in each case is required.

Let us, in the first place, clearly understand some of the terms which will be constantly employed in these Lectures.

If the body is examined carefully, it will at once be observed that it is formed of many different parts—differing in form, in constitution, and in outward appearance—in other words, differing in *structure*. These various parts differ in the work which they do or the purposes which they serve, that is to say, they differ in *function*. Various parts in the body which differ from one another in structure and in function are termed *organs*; and in the succeeding Lectures the word *organic* will be used to denote parts which are living and organised, whereas *inorganic* denotes such things as are lifeless, or unorganised. For example, for the purposes of these Lectures the liver, the stomach, the kidneys, the heart, the eyes, and so on, are organs. When the natural structure of one of these parts is permanently altered by illness, there is said to be *organic* disease. When, on the other hand, there is merely some temporary derangement of the action of an organ, the condition is said to be only "*functional*" disturbance.

It is well to remember this distinction between permanent alteration in the tissue of an organ caused by disease, as opposed to the temporary interference with its functions caused by some accidental injury or illness. For example, a patient who has the walls of his heart softened and weakened by the change of part of the muscle into fat, will suffer from "palpitation" on exertion, and this irregular and excited action of the heart is caused by actual organic disease. But just the same symptom—this tumultuous action of the heart—occurs in hundreds of people simply as a consequence of indigestion, and then the symptom is, of course, due only to functional disorder. In the former case, the patient is in a very serious condition, and, as we shall see later, requires most careful medical care and nursing. In the latter case, the regulation of

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