

scheme, and (3) not more than one quarter appointed by the County Council, from persons experienced in Poor Law and charitable work, including a fair proportion of women.

Should this scheme be eventually adopted we hope that as the new authority would be concerned so largely with the work of trained nurses, experienced nurses will be included in the proposed Committees and Boards.

Medical Matters.

AUTO-INOCULATION IN MEDICINE.

Dr. Clive Riviere, in a paper read before the Therapeutical and Pharmacological Section of the Royal Society of Medicine, on the "Rôle of Auto-Inoculation in Medicine," and reported in the *Lancet*, said: Nature was the earliest "vaccine-therapist." The processes by which infections are naturally overcome in the body form the basis on which the science of vaccine-therapy is being built up. As soon as the invader "lands" in a tissue there is a call for more blood, blood plasma acts on the microbe and its toxins, destroying them both by chemical processes (oxidation, hydration, dehydration, etc.) and by the action of specific antibodies, and leucocytes rush out to ingest the foe. If this proves insufficient further antibodies are formed in response to the toxins carried over the body in the blood stream, and the resistance of the plasma bathing the lesion is thereby raised.

We thus have two natural processes to study and imitate: (1) "*Irrigation*" of the infected area with plasma and leucocytes, and this by itself may be enough to cure a mild invasion. (2) *Auto-inoculation*, or the washing of the bacterial products into the blood stream to stimulate in the tissues the formation of antibodies specific to the invading micro-organism. These are the processes (other than the injection of vaccines) which the physician can direct with success, and it is this "natural vaccine-therapy" that was exploited with success in the time-honoured practice of applying heat (poultices, etc.) to an inflamed area. By this means not only was irrigation assisted, but such irrigation, itself of value, necessarily led to an increase of that auto-inoculation on which the improved resistance of the body depends. Such an effect is obvious so far as the poultice is concerned, but it is not so obvious, and it is my purpose to point out, how also the drug treatment of infective diseases may have depended for its success, so far as it has been successful, on a similar encouragement of these processes of "*irrigation*" and "*auto-inoculation*."

Fatigue in School Children.

The following abstract of an address delivered by Dr. D. M. Taylor, M.A., D.P.H., (School Medical Inspector to the Education Committee of the Borough of Halifax), to the Halifax Child Study Society, which we have somewhat abridged, appears in the current issue of *The Child*, a delightful monthly journal devoted to child welfare, edited by Dr. T. N. Kelynaek:—

Fatigue, its nature, and its causation, have received but scant scientific investigation in England, and one has to turn to the works of Continental observers—French, German, Italian—for information regarding the results of experimental research on the subject. Fatigue is the root problem of nearly all educational schemes. In its study there is no call for elaborate technique, and teachers especially, who have always abundant material to hand, could, by simply devised experiment continuously and conscientiously applied, add much to our knowledge.

DEFINITION AND VARIETIES OF FATIGUE.

It is rather unfortunate that our English language only supplies us with one word to describe two very different states. The French language is here more discriminating, and the word "*fatigue*" is used to indicate that ordinary or normal fatigue, which is repaired by itself, without any effort or thought on our part. On the other hand, when fatigue has ceased to be simple, and is passing into a chronic state—which we might describe as "*weariness*" or "*jading*"—a condition no longer repaired by itself, and requiring special means, *e.g.*, prolonged rest, drugs, etc., for its repair, then we have the condition called by the French "*surmenage*." The anticipation and determination of the latter condition in school children is of vital importance in guarding against the disastrous effects of over-pressure on the young, growing unformed brain tissue and nerve cells.

Fatigue is common to all living matter, and presents the same characteristics in animals, children, and adults, although varying somewhat in quality and degree. It is more marked in the young, their reaction being slower and less efficient.

Much controversy obscuring the issue has raged round the varieties of fatigue, and artificial distinctions between muscular and nervous have been recorded. It is preferable to regard fatigue as a symptom complex, and due to one and the same cause, whether regarded as toxic, or central, or due to an exhaustion of nerve excitability. Every movement

[previous page](#)

[next page](#)