

sensibility is lowered, and consequently the power of distinguishing every kind of perception (acoustic, optical, tactual, &c., impressions) becomes uncertain and defective. The sense of perception decreases. All fatigue shows itself locally in the first place, and generally later on; locally not only and not principally in those muscles which are chiefly taxed, but especially in the auxiliary muscles exerted during work, which proves the fact that static work (standing) is more fatiguing than dynamic (the work itself). If the disturbances of the automatic regulation are not readjusted by rest and nourishment, acute or chronic inflammatory processes may occur in those organs which are principally exerted. As a result of overstrain we see acute inflammation develop in single muscles, sinews, and joints; for example, in the tendinous ligaments of the leg after a strenuous march. We may also mention the symptoms of over-fatigue which find their expression in an over-irritation of certain sensory nerves, especially of sight and hearing. In other cases, as a result of local over-exertion, involving the particular nerve centres, neuralgia and crampy conditions develop. To these may be added the affections of the heart, from simple nervous palpitation to enlargement of the heart, particularly of the right side, which, in consequence of the thinner parieties, more easily gives way. Excessive manual labour may result in disruption of the valves, and in the formation of aneurisms (dilatation of the principal arteries). It also favours the growth of arteriosclerotic changes (calcification of the veins) in the vessels. The appearance of albumen in urine and the enlargement of the liver may also be included in this category of obstructive symptoms. In addition, excessive bodily and mental exertion favours diabetes in those who are predisposed.

The more the body is saturated with substances resulting from fatigue, the more evident are the visible signs of chronic fatigue or overstrain: principally digestive disturbances, disturbances of the circulation, anæmic symptoms, nervous disturbances (neurasthenia); further, general decline, of which chronic fatigue is a principal feature. There is no doubt that the condition of the organs, the constitution, and the thereby affected bodily endogenous causes, are of decisive importance on the early or late period at which fatigue, and, later on, overstrain, begins. For instance, where the heart muscles are originally weak, enlargement of the heart takes place sooner; diabetes only shows itself in the predisposed. The same applies to over-irritation of the sensory organs, &c. Therefore we find considerable irregularity of the circulation in the anæmic and neurasthenic after such slight exertion as would leave no impression on the healthy.

Of the exogenous factors, the mode of living in the most important for the normal issue of automatic regulation of metabolism, especially an allowance of sufficient rest and nutrition. This is proved by practical experience; in certain industries, underfed workmen have proved

inefficient. For this reason intelligent business men have always been solicitous about the feeding of their workpeople; while others, at least in time of pressure of work, have turned their special attention to the question of nutrition. As for nightwork, it can easily lead to over-fatigue, when, as is often the case in large city tenements, the workman does not find sufficient opportunity of taking rest by day.

The lack of sleep,

'sore labour's bath,

Balm of hurt minds, great nature's second course,
Chief nourisher in life's feast.'

as Shakespeare so aptly calls it, is also a reason why there is a retrogression in nutrition amongst nurses employed on night-duty for a term generally lasting from four to six weeks. There is no need to dwell on the fact that the mode of life, the avoidance of enfeebling causes, and the right use of times of rest are of great importance with regard to the question of fatigue.

THE PSYCHICAL FACTOR.

Besides the intensiveness of work and the bodily constitution, the mode of living and nourishment, another factor must be considered with regard to the effect of work, the psychical factor, the importance of which must not be under-rated. It has been ascertained through physiological experiments that the fatigue of the psychical centres—that is, of the parts of the brain which are the seat of mental activity—always corresponds to the fatigue of the motor centres—that is, of the parts which affect the motor nerves. So the more bodily labour is coupled with mental exertion, the greater the claims made on the responsibility and attention of the worker, the sooner fatigue begins. It is of great importance for the continuous efficiency of workers that they should be constantly under competent supervision. In the province of combating the poisoning risks incurred in those branches of industry in which poisonous materials are used, the most important task lies in the earliest possible knowledge of poisonous effects. A timely recognition of the first symptoms of bodily or mental overstrain, especially of the disturbances in nutrition and the influence of sensory organs and other organs, as well as anæmia, chlorosis, and neurasthenia, the result of an unsuitable mode of living, insufficient food, &c., renders, under favourable conditions, a counter-balance possible."

OUR PRIZE COMPETITION.

We regret to state that we are unable to award a prize this week on the subject "Give your most interesting experience on active service." Few papers have been received, and these do not deal with "active service." Evidently nurses are too busy just now to write competition papers.

[previous page](#)

[next page](#)