subject, but hope that in antitoxin we may find a real and active remedy against diphtheria, will find a straw of comfort on page 262, where the author says—"Our own observations record an improved mortality in nasal and laryngeal diphtheria, with a diminution in death from mechanical obstruction."

Mental Physiology, especially in its Relation to Mental Disorders.

By THEODORE B. HYSLOP, M.D. London: J. & A. Churchill: 1895.

IN the introduction to his book Dr Hyslop discusses various hypotheses as to the nature of mind and its relation to the brain, which we pass over, only repeating his warning: "Many of the existing psycho-physical formulæ are the results of unsafe hypotheses within the domains of psychology and physiology respectively. The student will find that the blind ends of physiology and psychology are covered respectively by unverifiable hypotheses."

In the first chapter he describes the structure of the brain substance and the different characters of cells and nerve fibres, and the functions which microscopists have been pleased to assign to them. It is still doubtful whether nerve cells have simply nutritive functions, or serve for the transmission of nerve impulses, or whether the giant cells have got their size by their place and their age, or whether their function is to influence the larger group of muscles, or whether the nerve cells are connected with one another. The functions of the cells of other patterns are still more obscure. It is not perhaps Dr Hyslop's fault that his summary of what is known about the chemistry of the brain and nerve substance will be taken up with difficulty and easily forgotten; but his description of the vascular supply of the brain affords grounds for reflection for the physician and surgeon. His observations on the circulation in the brain and the relation of the pressure of the cerebral fluid to the blood supply are given in a masterly manner. In the chapter on cerebral localisation the author shows a watchful critical power, and our knowledge of what is often called the "brain centres" or "spheres" is brought down to a small and uncertain amount.

In the chapter on the theories of mind, sensation, perception, attention, memory, the emotions and the will, Dr Hyslop shows much philosophical power. He takes nothing on mere authority, and shuns no question, however difficult, though he sometimes quotes the opinions of other writers when he thinks them happily expressed. It is customary in English works on psychology to keep wide of some questions, such as the relation of the mind to the brain, which nevertheless must ever excite interest, but Dr Hyslop has no such timidity. He also deals at length with the question of the functions of the double brain, which psychologists so often avoid.

The chapter on the will is remarkably well written. He observes

that "It is just the conscious selection of the most appropriate reaction to circumstances, and the voluntary activity thereby involved, that constitutes what is known as the will."

We naturally expect that the author will take advantage of his opportunities at Bethlem and other asylums in treating of sensory perversions and hallucinations; nor are we disappointed. In handling these difficult subjects the author shows a ripe knowledge, with originality and justice of view.

The last two chapters are on the causes of idiocy and insanity, in which he sustains the same high level of thought and writing. Where he treats of "external factors," social environments, mental epidemics, children's pilgrimages, sorcery, and religious impostors, he has evidently often consulted the original sources, which is rarely done by those who mention these matters in treating of insanity. At p. 489 he tells us:—"The assumption of divine power by John Nicolls Thom in Cornwall was followed by confinement in an asylum, but not until his exhortations and denunciations had induced an enthusiastic fervour amongst his vast concourse of deluded followers." Here Dr Hyslop's knowledge fails him. John Nicolls Thom was indeed born in Cornwall, and confined for some time in an asylum, but it was in Kent that he led his band of deluded rustics against the military, when he, with six of his followers, was shot dead.

If we were asked to point out any portion of the book less carefully done, we should mention that on illusions in dreams, which is mainly taken from one book. The diagram intended to show the successive phases during sleep, which he borrowed from Lyman, who borrowed it from a French medical dictionary, seems to us constructed upon unproved assumptions. Dr Hyslop observes, that "the general paralytics who say that they have walked millions of miles (hyperkinæsthesia), or who feel that they are treading on air, have probably some change in the sensibility of the articular surfaces, which act in reality as predisposing factors of illusory states. The sensations of flying through the air, of extreme buoyancy, or of having leaden limbs, difficult movements, etc., may all be explained from this point of view," but the talk of walking millions of miles is due to the exaggeration and the want of measure in the mental faculties of general paralytics. The sensation of flying is not uncommon in the dreams of healthy people, and has been better explained as the result of changes in the general sensibility and the respiration. This is the very explanation which Dr Hyslop gives for the subjective sensation in which the body seems to shrink or expand. But we have found very little in this book with which we can disagree, nor is there anything of importance bearing on mental physiology which is not considered. If in some parts it seems difficult to read, this is mainly owing to the obscurity of the subject, and those who study the work carefully will find that their time and attention have been well bestowed.