

beneath the fissure of Rolando. Of all the cortex of the hemisphere, that forming the "motor" region is the first to be developed. Flechsig, although differing in some details, is yet corroborated in this main fact of development. The pyramidal tract next proceeds downwards through the centrum ovale along the posterior part of the internal capsule, behind the "knee" of this structure, which is formed by the junction of the anterior and posterior bands. In the cerebral peduncle the pyramidal tract occupies generally the middle segment of the lower layer of the crus, and may be seen as an opaque rhomboidal area, when the internal and external segments yet exist as clear spaces, due to the non-development of the medullary sheaths. Owing to the intermingling which takes place, we know but little of the precise arrangement of the fibres under consideration in the pons Varolii. In the medulla the anterior pyramids are the direct pyramidal tracts. The varying amount of decussation, and the situation, size, shape of the direct and crossed pyramidal tracts in the spinal cord are now amongst the more familiar facts of the anatomy of the spinal cord. The knowledge brought to light by developmental, by structural, and by pathological anatomy have conclusively demonstrated the essential contrast between the two constituent parts of a posterior column of the cord. No one can over-estimate the importance of the study of the secondary degenerations of the white fasciculi, not only in the cord but in the brain. A solution of osmic acid has proved of great value in these anatomical studies. In an appendix to the work some fresh evidence of a clinical and anatomical nature is afforded with the view to place amyotrophic lateral sclerosis on a sure autonomous basis. The objections raised by Leyden are here discussed and explained away. With all that we have said, we are afraid that we have done but scant justice to this modern masterpiece. It is but natural that those who read French should prefer the volume in its original dress. Things coming from Charcot, which sound pithily in the foreign tongue, rather lose their freshness when rendered into even readable English.

Artificial Anæsthesia and Anæsthetics. By HENRY M. LYMAN, A.M., M.D. London: Sampson Low and Co. 1882.

If we were asked to write a thesis in support of the proposition that the subject of artificial anæsthesia and anæsthetics was of sufficient importance to require a separate literature, we confess that we should not feel very intensely on the matter, and probably our arguments would be correspondingly lame. Dr. Lyman has, however, composed a work of over 300 pages, and has brought together a large amount of miscellaneous information. In the preface he says "the practised expert will everywhere recognise the quality of Perrin, of Snow, of Simpson, of Sansom, of Anstie, of Turnbull, of Kappeler, and of Rottenstein." No doubt the treatise has been finished at the cost of a great deal of constructive energy, the materials from the various sources having been welded together in a systematic whole by the author; for this labour Dr. Lyman deserves much credit as well as for the modest way in which he speaks of his own share in the work. An opening chapter is devoted to the History of Anæsthesia, in this sundry allusions to ancient authors are made, showing that from the earliest ages of antiquity man has continually sought for the means of obtaining relief from pain. The phenomena observed in the course of the administration of an anæsthetic are carefully described, and the physiology of anæsthesia is fairly well entered into. Attention is next directed to the administration of anæsthetics, the method of producing anæsthesia, and the various forms of inhalers in use. Accidents and the treatment of these are explained; some illustrative cases of apparent death in which restoration was effected by many simple means are also quoted from medical journals. Another

chapter gives an account of many Anæsthetic Mixtures which have been suggested with the hope of diminishing the perils of anæsthesia from the use of chloroform alone. Artificial Anæsthesia and Anæsthesia in Dentistry are the titles of the following two sections. Local Anæsthesia receives adequate consideration, as also does the important question of the Mortality of Artificial Anæsthesia. The Medico-legal Relations of Anæsthesia are of the first importance, and of a very extensive nature. Dr. Lyman mentions most of the many aspects of this subject, and illustrates them by means of reported cases. A description of all the chief Anæsthetic Substances occupies the remaining, and by far the largest, part of the book. Under the heading of Chloroform, the author has collected 393 cases of sudden death from the inhalation of this anæsthetic. Of these, the sex was recorded 370 times, 262 were males and 108 were females. Death occurred 15 times at the commencement of inhalation, 99 times before complete insensibility set in, 70 times whilst the patient was fully unconscious, and 35 times after the completion of the operation (out of a total of 219 available records). Some more tables are given, including one showing the nature of the operation for the performance of which the chloroform was administered. Under the chapter on Ethidene Dichloride, two recorded cases of death from the use of this agency are briefly sketched. The administration of amylene has been followed by death in two cases reported in the *Medical Times and Gazette*, 1857. Alcohol is fully treated of, both from a chemical and physiological standpoint. Cases of death caused by the inhalation of ether, and of nitrous oxide gas are also incorporated in the work. The question of the Production of Anæsthesia by Rapid Breathing and by Electricity occupies the brief concluding chapters.

COMPOUND DEPRESSED FRACTURE OF SKULL; RECOVERY WITHOUT OPERATION.

To the Editor of THE LANCET.

SIR,—The following case may prove interesting to your readers:—

James G—, aged four, was brought into the Ancoats Hospital suffering from an injury to the head inflicted by a blow from a "merry-go-round" driven by steam power. On examination there was found a compound depressed fracture of the frontal bone immediately below the right frontal eminence. The depression, which was a quarter of an inch in depth, was irregularly triangular in shape, one inch and a half long, and half an inch broad. The wound bled considerably. The child, however, exhibited no signs of concussion, compression, or cerebral irritation; in fact, fright appeared to be the only thing troubling him; hence no operative interference was deemed advisable. The wound was dressed with lint and carbolic lotion (1 in 40), a bandage applied, and the child put to bed. Next day the temperature rose one degree above normal, and there was slight flushing of the face. Ten grains of compound jalap powder were given, the wound dressed in the same manner as before, and a light milk diet ordered. For the next six days the wound, which was dressed daily, healed rapidly, the bowels being kept freely opened, no adverse symptoms meantime supervening. At the end of the tenth day after admission the child was transferred to the out-patient department, and has since made an excellent recovery, the wound having healed up, leaving only a depression at the seat of injury.

I am, Sir, yours truly,

CHARLES ROBERTSON,
Junior House-Surgeon.

Ancoats Hospital, Manchester, July 22nd, 1883.

THE Michigan Legislature has just passed, by a nearly unanimous vote, a Bill requiring school teachers to pass an examination in physiology and hygiene, with particular reference to the effects of stimulants and narcotics on the human system.