PART III.
HALF-YEARLY REPORTS.

REPORT ON ANÄSTHETICS.

PART II.

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We quite agree in the main with the principle enunciated by Dr. Rottenstein—"on ne doit jamais pratiquer une opération douloreuse sans anesthésier." Many apparently trivial operations are exceedingly painful, and while we possess such anesthetics as nitrous oxide and ether it is surely inhuman to withhold them from a patient if they are at hand. Absolute rules are not possible, as Dr. Rottenstein remarks—"En tout, il faut éviter l'exagération et chercher le juste milieu." Some patients bear pain much better than others, suffer from less shock, and under such circumstances, especially when they do not wish for an anesthetic, we had far better not press its use. For purposes of diagnosis, when muscular relaxation is required, in delicate manipulations, in critical operations, even if not very painful, anesthetics are indicated. Take, for example, the assistance we obtain in exploring the bladder for stone, removing a foreign body from the ear in children, or a calculus from the urethra, or the careful examination of an injured globe, the diagnosis of a fracture, the reduction of a dislocation, the detection of a phantom abdominal tumour, the division of fistulae, the examination of joints and the detection of mimicry in affections of these, the operations of tracheotomy and removal of the tonsil in children, or staphyloraphy and at times tenotomy. In our essay on "Medical Responsibility in the Choice of Anästhetics" (Lewis, London, 1877), we referred to the suggestion of Dr. Lauder Brunton as to the cause of sudden syncope from chloroform during the extraction of teeth. The same
remarks apply to the evulsion of a toe-nail for onychia. Dr. Brunton (Brit. Med. Journal, Dec. 4, 1875), having referred to the reasons adduced by the late Professor Syme why he had so few deaths from chloroform—viz., "first, we always use good chloroform; and, second, we always use enough of it"—proceeds to show how in reality many of the deaths attributed to chloroform are really due to shock. He quotes a case where Professor Miller having decided to operate, at Sir J. Simpson's request, for the first time under chloroform, the bottle was accidentally broken; none was administered; the man died on the table. Had chloroform been given, death would assuredly be attributed to its effects. Dr. Playfair, in his "Science and Practice of Midwifery," details the case of a lady—a large, stout woman, with feeble circulation—who insisted on having chloroform during instrumental delivery. Commencing the operation he noticed some suspicious appearances about the patient. He stopped the anaesthetic and delivered her without it. Just one month afterwards she died in the dentist's chair under chloroform. Dr. Brunton instances deaths occurring suddenly under chloroform from removal of a portion of diseased bone from the hand, evulsion of a toe-nail, and extraction of teeth. He discusses the effect of shock in causing sudden stoppage of the heart, produced by an empty state of the abdominal veins, the secondary consequence of a relaxation dependent upon the atonic condition of the vasomotor nerves. Goltz, of Strasburg, showed this by his experiments on frogs, by suddenly striking the abdomen—the heart being at the time exposed. Stoppage of the heart and empty vessels are the coincidents of shock. The sensory nerves are the most potent factors in the causation of these phenomena. Their irritation can produce a reflex stoppage of the heart (Hering and Kratschmer's experiments on rabbits)—a stoppage, however, which is not fatal if at the same time the arterioles are stimulated to contract through the fibres reaching them from the cerebral hemispheres, thus preventing venous collapse, the arterial pressure being sustained. The requisite provision is a supervising power on the side of the brain. Arrest the function of the hemispheres by chloroform, &c., and the blood-pressure is reduced, and the irritation of a sensory nerve becomes specially dangerous. This is what the little dose of chloroform just does, destroying the reflex action which maintains the tone in the vessels, while it has not yet reached the medulla and cerebral ganglia, allowing these latter to exert their reflex stoppage on the heart. The full dose prevents