Analyses OF COMMUNICATIONS IN MS. RECEIVED FOR PUBLICATION IN THE LANCET.

"L'auteur se tue à allonger ce que le lecteur se tue à abrégé."

ON THE EMPLOYMENT OF CHLOROFORM IN MEDICAL PRACTICE.

CHLOROFORM: ITS POWERS AND ITS ABUSES.

By D. R. RANKIN, Esq., Surgeon, Carlisle.

"Has chloroform not yet had its full allotment of victims? Is the anæsthetic mania not yet over? Surely the time has arrived when dispassionate inquiry might begin!"

"The experiments of Mr. Wakley, jun., given to the world early in January last, and those of subsequent inquirers, go far to prove that the conditions resulting from the application of chloroform-vapour are all but identical with apoplexy and asphyxia in conjunction, and the phenomena consequent on its use, in the majority of instances, correspond with such a view.

"With a host of strange, jarring, and startling facts on record, the unprejudiced mind will not find it difficult to establish from that record, not only that the use of chloroform in great surgical operations answers a most humane and desirable aim, but that in midwifery it has accomplished impossibilities enow; acting, as it seems, in obedience to the will in overcoming any complication!"

"Art has no portion in ordinary parturition, which, in all strictness, is a natural function; and preternatural cases are rare in the practice of calm and sober-minded practitioners. The introduction of chloroform into midwifery practice in ordinary cases displayed little sagacity. When the fearful risk is calculated, not to hint at the unseemly scenes enacted, the attainment of the highest aim in view is as nothing. The numerous mishaps which have arisen from the application of chloroform in midwifery have been carefully suppressed, or, like the fatal cases in other branches of the profession, wonderfully smoothed by a ready pen.

"At what have we arrived? The vascular engorgement of the brain and lungs—the dark, almost black state of the blood—the diminished circulation caused by the inhalation of chloroform, added to the alarming announcement of Professor Simpson, that the skin and mucous surfaces become inflamed to a painful extent, under the action of the vapour of chloroform, are grave facts. Surely, with such knowledge, to go no farther, no responsible person would readily administer to a female in labour, during five or six hours, through the medium of the delicate tissues of the lungs, diluted though it be by the atmosphere, an agent so powerful—so fatal! Early experiment and sound advice was not enough to mar the career of enthusiasm, and the penalty has been heavy. For the sake of humanity, it is very desirable that the profession, and society generally, should be in possession of a true history of the rage and ravages of chloroform."

A LETTER TO PROFESSOR SIMPSON, OF EDINBURGH, ON THE FATAL CASE OF INHALATION OF CHLOROFORM THAT OCCURRED AT NEWCASTLE.

By HENRY WIGLESWORTH, M.B. Lond., Surgeon to
the Swansea Infirmary.

Dr. Wiglesworth long since sent this letter, to be addressed to Professor Simpson through our pages: we have preferred placing it in juxtaposition with other communications bearing reference to the subject of chloroform, and the necessity for caution in its employment; by which arrangement, numerous conclusions being presented to the mind of the reader, we think additional interest is given to the subject under consideration, and additional force to the ideas of the several writers. The great pressure on our space has in this, as in many other instances, compelled us to abridge a valuable paper into the form of an analysis, but we consider that the observations of Dr. Wiglesworth will lose none of their spirit by our so doing.

Dr. Wiglesworth recalls attention to the remarks of Professor Simpson, in THE LANCET of Feb. 12th last, in which, as he says, the latter has "given, clearly and candidly, a series of reasons for the conclusion that death, in the instance referred to, arose, not from the chloroform administered, but 'from the effects of the means used to restore her from the state of anæsthesia.' Equally candidly, (says Dr. Wiglesworth) I

will state my opinion that those reasons are not in accordance with sound physiological doctrines.

"The views of the Professor may be shortly stated as follows:—that brandy-and-water were poured into the throat of the patient while in a state of syncope; that, swallowing in this state being impossible, the fluid necessarily accumulated in the pharynx, blocked up the entrance to the lungs, and thus, by rendering breathing impossible, at once destroyed life.

"Without entering into the question, whether breathing was possible or not, or whether the patient did or did not, could or could not, swallow, I have no hesitation in stating, that in consequence of the 'state of syncope,' the 'weak and torpid state' into which the girl had fallen, the necessity for breathing was reduced to a minimum, and that even its complete absence in this state would not satisfactorily account for death in three, or three times three, minutes.

"You appear, Sir, to have fallen into the error of considering that air is as much required for the arterialization of the blood and for the maintenance of the functions of life in the state of syncope as in the active condition of the body. I do not know any authority to whom I can better refer for proof that there is a wide difference in this respect, than Dr. Carpenter, whose writings you have drawn upon, to prove that the poor girl was 'choked, or asphyxiated,' by the brandy-and-water.

"The following extracts are taken from Carpenter's 'Principles of Physiology,' third edition, § 778; and the same author's 'Manual of Physiology,' § 707. As to the time required for producing death by asphyxia, in an active animal, Dr. Carpenter says, 'It may be stated as a general fact, that if a warm-blooded animal, in a state of activity, be deprived of respiratory power, its muscular movements, with the exception of the contraction of the heart, will cease within five minutes,—often within three,—and that the circulation generally fails within ten minutes.' The chief exceptions are then mentioned—viz., divers, whose power of remaining under water is 'acquired by habit;' also diving animals, such as the whale, whose structure fits them for keeping below the surface; after which Dr. Carpenter continues as follows:—'Another exception exists in the case of hibernating mammals, which are reduced for a time to the condition of cold-blooded animals, and which can, like the latter, sustain a prolonged suspension of the aerating process. And there is reason to believe, that in the state of syncope or fainting, in which the circulation is already reduced to a very low amount, in consequence of a partial failure in the heart's power, all the functions of the body being nearly suspended, and the demand for aeration being consequently very small, the respiration may be suspended for a long period, even in the human subject, without fatal results. Thus more than one case has been credibly recorded, in which recovery has taken place after complete submersion for more than three-quarters of an hour; and it is probable that in these instances a state of syncope came on at the moment of immersion, through the influence of mental emotion, or of concussion of the brain.'

"Now, if we turn to your own description of the case of this poor girl, we shall find that it agrees almost to the letter with the above quotation, that all the conditions necessary for a protracted suspension of respiration without death resulting were present. You say, 'It evidently appears that the girl fell into a state of syncope at the time of operating,' with 'the respiration temporarily suspended,' and that in this condition, instead of 'letting her alone,' brandy-and-water were 'allowed to rest in and fill up the pharynx,' producing the same results as 'if the whole head and face had been submersed in the same fluid,' or, in other words, that the patient's condition exactly resembled that of a fainting person plunged into water; and hence that she was actually in the very state in which, instead of dying directly, she ought to have lived for a protracted period—of all conditions, in the most favourable one for the continuance of life without the continuance of the respiratory process.

"The question then naturally suggests itself, and perhaps you will favour the profession with the reply—Why was life in this case almost instantaneously extinguished, when the conditions were all favourable for its prolongation?"

"It appears to me, that the quotation you have made from Mr. Guthrie's work does not in any way support your view. Mr. Guthrie merely says, that fluids put into the mouth 'might possibly enter the larynx, and destroy.' He does not say that it would be quite sufficient to destroy a fainting person in two minutes. Indeed, if such were the fact, how is it we have not coroners' inquests on similar cases every day?—for surely, nothing is more common than to put a 'little brandy' and water into the mouth of a fainting person.

"In the same number of *THE LANCET* in which your paper appears, the following case is recorded:—

"In performing many minor operations I have used chloroform, and, with one exception, with the usual success. In the instance alluded to, the patient, a boy, nine years of age, had sustained an extensive lacerated wound of the face. Before proceeding to apply sutures, I administered by inhalation forty drops of chloroform, which induced syncope. The wound was in the meantime dressed, but the extremities were cold, and a considerable time elapsed ere the pulse was perceptible at the wrist. The effects of a larger dose in this case it is not difficult to guess.*

"Between this case, indeed, and that of the poor girl at Newcastle, there appears to me to be a pretty complete parallel. Both patients inhaled small quantities of chloroform, and both were young: the girl was the older, but she was debilitated by suffering; she inhaled a drachm—the boy only two-thirds of a drachm; death followed in her case, and the boy was almost *in articulo mortis*. Had the boy inhaled as much as the girl, the result would probably have been the same. Your remark, therefore, that the dose of chloroform exhibited by Dr. Meggison was so small as to render it exceedingly improbable that it could have been the essential cause of the death of the patient, will not stand the test of facts.

"I believe, indeed, with the jury, with Drs. Meggison and Glover, Sir John Fife, and all those who, being immediately concerned in the case, were best calculated to form a correct opinion, that the poor girl died from the effects of chloroform, and nothing else. Is it probable, I would ask you, that if the patient had been suffering from syncope only, the chloroform producing no deleterious influence, that she would have parted with life so easily as she did? Her state could not be compared with that of submersion, for the liquid which 'filled the pharynx' was capable of being readily displaced; and although it might have been 'partially drawn into the larynx,' yet air would certainly have been drawn in too—sufficient to have prolonged life, if not to have saved it. I think, indeed, that 'simple asphyxia' could not possibly have been produced without a long-continued struggle; and that the girl, admitting all you assume to be correct, could be only partially, and not entirely, excluded from air."

REMARKS ON THE EMPLOYMENT OF CHLOROFORM IN MIDWIFERY PRACTICE.

By JOHN BEAUMONT, Esq., M.R.C.S.E., &c., Cheshunt.

"I differ equally in opinion from those who recommend the indiscriminate use of chloroform, as from those who determine against its adoption under any circumstances.

"I have heard of a lady, who, in engaging her medical attendant for her approaching confinement, signified to him her wish to escape entirely the sufferings incidental to her situation, by being kept under the influence of chloroform from the commencement of her labour-pains; and I understood it was his intention that her wish should be gratified; but, although an advocate for the proper and judicious use of this agent, I am of opinion that such a course would be wrong, as well in a physical as in a moral point of view.

"That every woman about to pass through the ordeal to which she is doomed by the laws of Nature, under the interesting circumstances of her becoming a mother, should henceforth be rendered insensible throughout the whole of the proceedings, is alike repulsive to good taste and sound judgment.

"In very many cases where the process is completed with only a moderate amount of suffering, I should never propose, nor even sanction, its use; but towards the close of every case, accompanied with pains of a severe, urgent, and exhausting nature, then, I think, the judicious use of chloroform is not only desirable, but is little short of an imperative duty,—assuming that it is the province of the physician to allay, by every means within his reach consistent with the safety and well-being of his patient, the pangs of suffering humanity. It converts a scene of almost indescribable suffering and distress into one of comparative calmness and serenity.

"And here I am pleased to add my testimony to that of those who find that all these good effects may be produced without carrying the patient to a state of perfect insensibility. In all the cases in which I have used this agent, my patients have been aware of what was passing around them, although

unconscious of suffering. They have been sensible of parturient efforts, but not of parturient pain, although the pain attendant on those efforts was previously becoming almost insupportable.

"But however delightful and satisfactory its effects in this respect, they yield, I think, in importance and utility, to those produced in rendering necessary less parturient effort, and, consequently, preventing that extreme exhaustion—amounting in some cases to actual danger—which follows a severe and protracted labour.

"I have felt much surprise in seeing it reported in *THE LANCET*, by those inimical to the use of this agent, that it has no good effect in producing relaxation in cases of rigid perineum. This opinion I am satisfied cannot be held by any one who has carefully noted its effects in this respect; they are invariable, so far as my experience goes.

"A striking instance, illustrative of this fact, occurred in my practice, only a few days since, in a case of first labour, in which rigidity of the perineum was the great difficulty. After many hours of severe suffering, I administered chloroform; the result was, an immediate relaxation of the parts, and the birth of the child followed within twenty minutes of its application. I give this patient's description of her feelings in her own words: "Up to the time of inhaling, the pains were most severe, and were becoming insupportable; but they appeared to do no good. I felt as if there were an insuperable bar across, which effectually resisted the force of the pains, and I felt in despair; but from the moment that I became under its influence, that resistance appeared to give way, and every effort seemed successful."

"In this instance, judging from analogous cases, I believe that she would have suffered some hours more of intense agony, followed probably by great exhaustion, which, indeed, was rapidly supervening before the employment of the chloroform. As before observed in other cases, she was not unconscious of what was passing around her, but was sensible of every successive expulsive effort, and afterwards asked me why I had asked the nurse for a pin. She had heard me ask for the pin, but did not feel its severe application to the back of her hand.

"I have never on any occasion witnessed one untoward symptom resulting from its use.

"In a case of contracted pelvis which occurred in my practice about a month since, in which craniotomy was had recourse to, and the foetus brought into the world with the craniotomy forceps, crotchet, and blunt hook, the patient inhaled an ounce and a half during the four hours occupied in the operation; but no bad result followed this unusual exhibition, and she recovered most satisfactorily.

"The apparatus I employ is that invented by Dr. Protheroe Smith, in using which not a drop of the spirit can be wasted, on which account, as well as in every other respect, it is admirably adapted for midwifery purposes.

"It was asserted by one of your correspondents in a past number of your journal, that a feeling of aversion (to use no stronger term) pervades the minds of females of rank and education in this country to the use of anæsthetic agents. I have, however, lately met with a striking instance to the contrary in the case of a lady of high moral and religious feeling, who, remembering the excess of suffering and danger attendant on her first and only previous accouchement, in which, after very protracted agonies, delivery was at length effected with instruments, was most urgent in her request that chloroform should be administered, and, indeed, did not scruple to make it almost the condition of my attending her. Her wish was complied with, and the result proved most satisfactory. She is thankful for the great blessing which she is convinced she has enjoyed, and is assuredly not harassed by any qualms of conscience, in the belief that she has been saved by such means from a repetition of the sufferings and danger of the former occasion."

Reviews.

British Cholera; its Nature and Causes Considered in Connexion with Sanitary Improvement, and in Comparison with Asiatic Cholera. By SPENCER THOMSON, M.D., L.R.S.E., &c. London: John Churchill, Princes-street, Soho. 1848. pp. 110.

THIS little volume resolves itself for our notice into two very distinct portions. First, a sketch of English cholera, its nature, causes, and treatment; and secondly, a comparison with its deadly namesake. The work is sensible, and well

* "Chloroform, its Benefits and its Dangers." By Robert Selby, Esq., Bannockburn. *THE LANCET*, vol. i. 1848, p. 190.