BIBLIOGRAPHIC NOTICES.

An Anatomical Description of the Human Gravid Uterus and its Contents. By the late WILLIAM HUNTER, M. D., &c. &c. Second Edition. Edited by EDWARD RIGBY, M. D., &c. &c. London, 1843, pp. 75. Plates.

THE generally irksome task of criticism assumes quite another aspect, and becomes a gratifying occupation, when, with candour and sincerity, we can offer the author, in recompense for his exertions and labours, the well-deserved meed of eulogy and approbation; and in such a pleasing position we now find ourselves placed.

Dr. Rigby is already well known to the Profession in these countries, not only as the son of one whose name is familiar wherever British midwifery is known, but on his own account also, as an accomplished physician, and successful practitioner, in the great metropolis, and as the author of more than one valuable treatise on subjects connected with obstetric medicine; and on the present occasion he has rendered a most acceptable service to his brethren, by undertaking to place before them a new edition of a work celebrated all over the world, but becoming latterly so scarce that it was only procurable with great difficulty; and besides, although highly valuable, was necessarily deficient in all those numerous facts and opinions with which more modern investigation and discovery has so largely and usefully enriched the anatomical and physiological departments of midwifery.

Originality does not appear to have been Dr. Rigby's aim in re-editing this work, nor, indeed, could it well have been; but he has well supplied, from a variety of sources, referred to in his notes, such information as was required to bring the consideration of the matters treated of up to the level of our present knowledge, and added many judicious and accurate remarks thereon.

At p. 40 *et seq.* the editor has given a full and satisfactory analysis of the more modern opinions on the structure of the

placenta and its mode of union to the uterus, to which he has added a theory of his own, for which we must refer the reader to the work itself.

We perceive, with satisfaction, in his notes on the *decidua*, that Dr. Rigby refers, and most justly, the discovery of the decidual cotyledons to Dr. Montgomery of this city, and we perfectly agree with him in thinking

“That no one can read Dr. Montgomery’s description of them, after that quoted from Dr. Sharpey, and examine the diagrams of Plate V., particularly fig. 4, without coming to the conclusion, that the decidual cotyledons of Dr. Montgomery are identical with the uterine glands of Dr. Sharpey.”—p. 52.

And we must add, that we think it would have been, in Dr. Sharpey, more in unison with the liberal spirit of scientific inquiry, towards one who had anticipated him, had he more fully and candidly acknowledged the previous discovery of Dr. Montgomery than he has done in the very slight and equivocal allusion to it, in his Paper on the subject.

On the whole, we have, in this volume, a most desirable addition to our works of reference. Its size is far more convenient than that of the original edition of 1794, edited by Dr. Baillie. As to the “getting up,” nothing could be more elegant; and of the Plates we cannot speak too highly,—they are at once tastefully designed and beautifully executed; while the price is so moderate, as to place the work quite within the reach of the student, as well as of the senior members of the Profession, of whom, we venture to predict, few will be without a copy of this valuable treatise.

We cannot, however, agree with our author in his doubts (pp. 20, 21) of the reality of the nerves of the uterus discovered by Dr. Robert Lee, and so beautifully represented in his Plates. Having inspected Dr. Lee’s dissections, we are prepared to state our opinion to be in unison with that of Mr. Lawrence, Mr. Stanley, and Sir B. Brodie, as expressed in their letters on this subject, viz. that Dr. Lee has succeeded in displaying ganglia and nerves, of which he has given correct representations.—Vide *Medical Gazette* for January 19, p. 523. And we think it but justly due to Dr. Lee to say that he has, in this instance, made one of the most brilliant additions to modern discovery connected with the organization of the uterus.

Anatomical Manipulation; or the Methods of pursuing practical Investigations in Comparative Anatomy and Physiology. Also, an Introduction to the Use of the Microscope, &c. By ALFRED TULK, M.R.C.S., M.E.S., and ARTHUR HENFREY, A.L.S., M. Mic.S. London, 1844.

In the study of human, as well as of comparative anatomy, the accuracy of our observations, and the justness of the inferences deduced from them, must, in a great measure, depend upon the manner in which the various complex structures, which enter into the composition of animal bodies, are displayed and prepared for examination.

To the student, therefore, it is of the highest importance to acquire a practical knowledge of the contrivances to be adopted, the instruments to be used, and the general means to be employed in his researches.

Although several very excellent works on these subjects have been published in this country, yet, owing to the present advanced state of the sciences of Comparative and Structural Anatomy, and especially to the recent application of improved microscopes to the investigation of these subjects, the "Instructors" referred to are but little available as useful guides to the anatomist.

In order to supply this deficiency, the work before us has been produced,—a work which we feel assured will afford valuable assistance to every one entering upon the studies of comparative anatomy and physiology.

The authors inform us that they have taken as their model the treatise of M. Straus-Durckheim, entitled "*Traité Pratique et Theorique d'Anatomie Comparative*," following his plan more or less closely in the First and Third Parts, condensing and translating his matter, and making such additions and alterations as they considered needful; while the whole of the Second Part has been written anew.

The First Part treats, in a very comprehensive manner, of the mechanical arrangements required in the dissection of animals; leaving it to the student to select those portions which may be best adapted to his means, and the particular direction of his investigations. Under the head of Mechanical Arrangements are included dissecting rooms and tables, workshops, troughs, skeleton frames and boxes, tools, &c.; an excellent description is also given of the various instruments invented for injecting vascular tissues, the different kinds of injections used by anatomists, and the substances employed in preparing and

preserving animal structures. This section of the work contains much useful information, and is illustrated by a number of well executed wood-cuts.

The microscope forms the subject of the Second Part, which commences with a brief summary of the optical principles on which these instruments are constructed. The laws of refraction, and the effects of different forms of lenses upon rays of light passing through them, are well explained; and the action of simple magnifiers, their imperfections, and the means by which spherical aberration and chromatic dispersion are corrected, are described in a clear and intelligible manner. The different improvements in simple microscopes are next detailed, by the adoption of which the aperture can be increased, so as to give penetration without losing distinctness or definition.

The author then proceeds to the consideration of the compound microscope, and the relative advantages of various eye-pieces and object glasses. A second chapter is devoted to the mechanical construction of microscopes, the best methods of illumination, and the modes of using the camera-lucida, polarizing apparatus, micrometers, and other accessory instruments. For the dissection, preparation, and preservation of minute objects, and the general manipulation of simple and compound microscopes, many valuable directions are given to the student, and the descriptions are, in most instances, accompanied by accurate diagrams, which very much enhance the excellence of the work.

The Third Part, by Mr. Alfred Tulk, contains directions for dissecting and preparing the various systems of organs in the different classes of animals. In his introductory remarks the author gives the following good advice to students:

“ Next in importance to the dissection of an animal, it is indispensable for the student of comparative anatomy to acquire the art of *describing* with accuracy, perspicuity, and distinctness, the various objects which his scalpel has disclosed; a faculty, indeed, by no means attainable at first, and which can be gained only by practice and a strict observance of the meaning of the terms used in scientific language. It is almost needless to insist upon *drawing*, as most useful in aiding our actual researches, and the pen. Lastly, in preparing to investigate any point in comparative anatomy and physiology, if with a view towards publishing the results of his labours, the observer should never neglect to make himself acquainted with all that has already been done (if any) upon the subject, both by the old and recent authors of this country and the continent. In this way much useless pains, and subsequent disappointment as regards originality, will be frequently avoided.”

The best course to be pursued in dissecting animals, when circumstances admit of it, is to proceed from without inwards, and to study carefully each part in succession as it presents itself: in accordance with this plan, the author has arranged his ample and judicious directions, treating separately of each system in the vertebrata, articulata, mollusca, and radiata. We cannot follow him in detail through this important, because practical, portion of his subject, but we can assure our readers that the matter and manner of this section are fully equal to the preceding parts of the work. To every student of comparative anatomy and physiology we strongly recommend this treatise, as an instructive companion and useful guide to the study of these sciences.

- Traité de Toxicologie.* Par M. ORFILA. Quatrième Edition ; revue, corrigée, et augmentée. Paris, 1843. Two vols.
A Manual of Medical Jurisprudence. By ALFRED S. TAYLOR, Lecturer on Medical Jurisprudence and Chemistry in Guy's Hospital. London : John Churchill. 1844. pp. 679.
Principles of Forensic Medicine. By WILLIAM A. GUY, M.B. Cantab. ; Professor of Forensic Medicine, King's College, London. London : Renshaw. 1843. Parts I. and II.

OF the many distinguished ornaments of the French School of Medicine, none have laboured more indefatigably—more successfully, than M. Orfila. For some years past valuable monographs on various of the most important subjects of public medicine, have emanated in rapid succession from his pen, most of which are distinguished by his accustomed accuracy and research. During the above period his celebrated treatise on Legal Medicine has passed through three editions, its author being at the same time charged with the important functions of Professor of Medical Chemistry, and Dean of the Faculty of Medicine.

His treatise on Toxicology, the first edition of which appeared about twenty years since, has justly gained for him (what in the language of his compatriots is termed) an European reputation. The important accessions which the science has acquired by the recent labours of this distinguished public physician, entitle him to the gratitude of all who duly estimate the importance of forensic medicine. And here, were the occasion a suitable one, we should feel tempted to inquire how it has happened, that although few are disposed formally to deny that

a knowledge of public medicine is indispensable to the well-informed practitioner, yet practically, in our medical circles, its facts and principles fall upon the ear of the majority as idle tales.

It would doubtless be not uninteresting to trace the origin of that misconception and apathy, which in these countries have assigned a position of mere tolerance to a department of knowledge of confessed public utility, one which has occupied some of the most trenchant intellects, and has largely engaged the attention of such men as Paré, Louis, Haller, Hunter, and Foderé.

In very truth, the conventional language even of many engaged in medical instruction, assigns to forensic medicine a position amongst the "minor courses," placing it lower than natural history in the scale of practical utility, and consequently, as at present circumstanced, it drags on a disputed scholastic existence. The root of all this is to be found in various circumstances, of which some of the most prominent are, ignorance of the basis on which a knowledge of the science reposes; the irremunerative nature of public medical services; and the intrinsic difficulty of the subject itself, as compared with other departments of medical science. We have no intention, however, of entering, *ex cathedra*, into the consideration of these topics, or of discussing the most feasible methods of effectuating a more rational state of opinion and feeling, in regard to the subject. We shall content ourselves with adducing in evidence of the condition of things just noticed, the fact (a singular one doubtless), that the College of Surgeons of England, we believe not five years since, formally repudiated forensic medicine, which had a short time previously found favour in its sight; it now declares it, by the mouth and act of its council, a superfluous branch of medical acquirement.

Such a procedure on the part of a body, which ostensibly represents the Profession in England, and which should be the guardian and motive instrument of medical education in that country, is calculated to awaken surprise, and merits the severest reprehension. The progress of medical science in Ireland and Scotland, as on the Continent, has led to the incorporation of legal medicine with the ordinary branches of study, as indispensable to the aspirant for public favour; the incredible announcement, on the contrary, of the London College, almost tempts us to inquire whether the position of the English practitioner is of such a nature as to confer upon him an exemption from contributing his quota to the public safety. If indifference to the study of forensic medicine exist amongst ourselves, it is

surely not surprising, that it should prevail in at least an equal degree amongst the various grades of the legal Profession, to whom, notwithstanding, an acquaintance with its leading topics is frequently indispensable. This is even more strikingly apparent amongst the higher functionaries, whose peculiar office it is, or should be, to secure the development of such scientific facts and principles as are required in evidence in our courts of judicature. These persons, however, for the most part, exhibit a lamentable want of acquaintance with judicial medicine, and fall frequently moreover into the error so prejudicial to the interests of justice, of considering that an extensive acquaintance with medicine in its *curative* relations, constitutes the medical witness a suitable guide to a jury in the decision of medico-legal questions. Thus, it suffices, in the eyes of such persons, that an individual should be an expert anatomist, to constitute him a proper referee in a question of strangulation; whilst the evidence of an eminent practitioner, albeit such an one may be wholly uninstructed in medico-forensic inquiries, outweighs that of individuals who have wisely considered it necessary to be instructed in *both* departments, and have taken the proper and only satisfactory mode of becoming so, namely, that of studying the *public*, as they would any other special department of their Profession. To so monstrous an extent has this practice hitherto prevailed amongst our judges, that in any case of unusual occurrence, an instructed witness is placed in danger of being considered ignorant, should his opinion have the misfortune to contravene that of some practitioner of repute.

It would be well if those engaged in the practice of such departments of law as bring them in contact with medical evidence, would take the trouble to compare and ascertain the disparity of the facts of curative and judiciary medicine; they would then become aware of the propriety of the question which Dr. Smith has proposed to be put *in limine* to every medical witness, "Whether he has studied Medical Jurisprudence?"*

Nothing, in our judgment, tends more powerfully to lead to a correct estimate of the real scope and value of forensic medicine, and also to prove that despite of the dicta of colleges, a more wholesome tone of opinion has already commenced, than the treatises and monographs on medico-legal subjects, which have of late years emanated from the British Press.

To our continental neighbours in Germany and France must be conceded the credit of having initiated the collection of facts and principles in public medicine. To the stimulus thus given there has been a response in the works of Male, Smith, and Paris, which, in spite of all their imperfections, have done much to

* In the conventional sense of the term.

awaken the interest of medical men to this important department of their duties.

The great frequency of charges of poisoning, the critical and strictly medical character of the inquiries to which they give rise, and the momentous consequences which from the nature of the crime they necessarily involve, have led to a greater advance in the toxicological, than in the other branches of medico-legal science. It would not be difficult to show, that from the nature and connexions of the latter, such must necessarily be the case, but these considerations must give place to a brief exposition of the works named at the commencement of the foregoing remarks.

There does not appear to be any material alteration in the arrangement of the subjects comprised in the present edition of Professor Orfila's treatise. The main feature in which it differs from that which preceded it, is to be found in the copiousness and novelty of the details into which he enters in the consideration of individual poisons.

M. Orfila adheres to the classification adopted in the third impression of his work, namely, one based on the physiological action and vital manifestations of the various substances; the inconvenience and imperfection of which are evident from the fact, that under varying circumstances of quantity, state of aggregation of the poison, &c., on the one hand, and peculiar conditions of the stomach and system, and certain more obscure influences on the other, the action of our commonest poisons is subject to singular variations. Thus with the exception of certain local powerfully corrosive poisons, and a few narcotics, a large number of deleterious agents might be indifferently, and with equal propriety, ranged in the class either of irritants, or narcotico-acrids. In the present state, however, of our knowledge of the action of poisons, probably no better one can be proposed. The last of Orfila's divisions, the septic poisons, is of doubtful propriety.

Having disposed of some generalities relative to the methods to be employed in studying the agency of any special substance, and added some new observations on the imbibition of liquids in the living and dead body, our author enters on the consideration of the class of irritants, which occupies the greater part of the first and the commencement of the second volume.

Most important alterations have been made in the chapters on the mineral and oxalic acids, which may be said to have been re-written. In the section on sulphuric acid will be found some elaborate investigations relative to the detection of that substance considered in the free state, a satisfactory mode of effecting which has been till lately a desideratum in judiciary

injuries. The Professor seems, however, on this as well as other topics, to be unacquainted with, or at least passes over in silence, the researches of his German and English cotemporaries.

The chapter on Arsenical poisons is replete with most important details, embodying the author's more recent researches on the absorption, and especially the detection of arsenic in the blood, and in organs remote from the seat of its primary application; researches which have gained him great celebrity, and attracted universal attention.

In the present edition the observations on the physiological action of arsenic have been in some respects, and, we think, disadvantageously, curtailed; this is perhaps more than compensated for by the elaborate mode in which the subject of the detection of the poison is treated. In handling this important topic, M. Orfila has not omitted the indispensable precaution of discussing the various heresies and errors with which this subject has been encumbered by numerous assailants, whose pertinacity, as is often the case, appears to have been only commensurate with their ignorance of the matter under discussion. Amongst many others, the professor has dealt summary justice to the speculative objections of M. Raspail, whose fertile imagination, aided by his scientific acquirements, would have sufficed to nonplus a less practised opponent. The methods proposed by the author for the detection of the poison in a state of complex admixture (*haud imperiti loquimur*), are in some respects unsatisfactory. The carbonization by nitric acid is undoubtedly one, which if used as a preliminary to the employment of Marsh's method, is only likely to succeed in M. Orfila's hands. The method of carbonization by sulphuric acid is much simpler, and more effectual, and, under certain modifications, is not subject to the objection which applies with considerable force to the mode which our author seems to prefer to all others—that of deflagration with nitrate of potass. The latter mode is undoubtedly most effectual to the complete destruction of the organic matter; but open to the serious objection of dissipating in some cases even a considerable amount of the arsenic. The recent method of precipitating metallic arsenic as devised by Reinsch, is considered in an appendix, and reported on not very favourably, a result which we are disposed to attribute in part to the natural unwillingness of the professor to abandon methods which have led to such brilliant results in his own hands. We are, however, satisfied by repeated experience, that the method of Reinsch, under proper management, is adequate to the detection of arsenic in proportion fully as minute as that to which

Marsh's proceeding is responsive, provided that in the case of the blood, liver, &c., one or more preliminary carbonizations by sulphuric acid are employed.

The consideration of the irritant poisons is followed by a new chapter on the chemico-forensic relations of compound poisoning, a subject to the practical investigation of which several instances of late occurrence have directed the attention of medical jurists. The narcotics and narcotico-acrids are discussed with the same care and accuracy evinced in other parts of the work.

Without wishing in the least to detract from the intrinsic merits of Professor Orfila's performance, and while fully acknowledging its many excellencies, we cannot state that the volumes before us, practically important as they are, and exhibiting as they do so vast an amount of labour, can be considered as embodying the present state of medico-legal science in reference to poisoning. Many important discussions of frequent occurrence in courts of justice, are either but slightly touched upon, or wholly omitted; e. g. the quantity of the various substances required to destroy life, the smallest quantity which has been known to cause death in the previously healthy human subject; the largest quantity from the effects of which individuals have escaped with life; the period within which the various poisons usually prove fatal, &c. The chapter on poisoning in the abstract sense, without reference to any particular substance, and the medico-moral relations of poisoning, are dismissed with comparatively slight notice; and this is the more to be regretted, not only from the vast experience of the author, but also from the fact, that such considerations frequently present themselves forcibly to the attention of the forensic physician. The work of Professor Orfila is not free from the same fault, which pervades those of the majority of his countrymen, and in which respect no obvious sign of amendment is discernible, except in the productions of Rayer and a few others, namely, a neglect of, or want of acquaintance with, the labours of his brethren in other countries, especially in Germany and Great Britain, from which sources his work might have derived most important accessions. The above-mentioned deficiencies in the recent edition of Professor Orfila's Treatise, the forensic physician will find in a considerable degree compensated for, by a production which has recently appeared from the pen of Mr. Taylor, Lecturer on Forensic Medicine in Guy's Hospital, London, entitled, "A Manual of Medical Jurisprudence." Were we to judge from the title, taken in conjunction with past experience of the various mutilated compilations which have appeared in the guise of

Manuals, we should not be inclined to presage great things concerning it. The reader, however, will meet with an agreeable disappointment when he finds the modest "Manual" an elaborate and valuable treatise on forensic medicine, the work of one practically acquainted with his subject, possessing an ample experience, and evincing a discriminating judgment in the selection of all that is most important in the labours of his cotemporaries. We must confess, however, *in limine*, our regret that Mr. Taylor should have so far deferred to established custom as to retain the term "medical jurisprudence;" we say this, notwithstanding the sanction of high authority, which our author might plead in support of his retention of the title; but as we are impelled (possibly from mere obstinacy) to enter the ancients' protest, "nullius addictus jurare in verba magistri." We appeal to the fact that jurisprudence being the knowledge of law, medical jurisprudence (and in this sense the French writers properly accept it) is the science or knowledge of those legal matters which relate to medicine; as, for example, to the liabilities, privileges, and immunities of medical persons, the enactments relative to medical corporations and education, and finally, the legal provisions regarding those subjects which involve medical evidence in courts of justice, as injuries to the person, or incompetency of mind, &c., the character of which enactments no doubt materially influence the *nature and extent* of the inquiries of forensic medicine, but are yet essentially distinct. It is, therefore, evident, that while every instructed writer on forensic medicine must present to his readers an intercurrent exposition of medical jurisprudence, the great body of his work must be constituted by those *medical* facts and principles which are suited to the exigencies of the practitioner appearing in the forum. Were we even to concede the title "Medical Jurisprudence," still that department of knowledge, in its conventional acceptation, embraces within its precincts the extensive subject of medical police, or public health, on which the great majority of writers in these countries (professedly) on medical jurisprudence, are nearly or altogether silent. Practically, the chief objection to the designation lies in its tendency to misguide the student, by leading him to the belief that his studies in this department are to be largely of a legal character, an idea to which the very superfluous proceeding of delegating in part to the barrister the conduct of a course of forensic medicine, has afforded a colourable pretext.

Having indulged, however, our critical longings for the extinction of the *title*, we find the CONTENTS of the manual com-

elling us to a very different mode of feeling. Mr. Taylor is obliged, partly by the nature of the subject (notwithstanding the *systematic* treatises of the German school), to act the eclectic, and hence the various topics are arranged rather in the order of their importance, than in relation to their supposed mutual connexion, which, even when effectuated in treatises, however it may assist the memory, will be found sadly disjointed in the coroner's court or crown solicitor's office, where the subtle arrangements of pains-taking medico-legal authors are unceremoniously deprived at once of their beauty and their value.

Mr. Taylor occupies about one-third of his work with the practical consideration of the subject of poisoning, which topic he handles with much accuracy and ability.

Our author has wisely abstained from those curious disquisitions on the history of poisoning, in which so many medico-legal writers delight to indulge, and which, apart from their interest to the imagination, serve only to occupy the place of more important matter. This practice has been carried into many departments of the science; surely, however, it can be of little practical moment to the forensic physician whether the hemlock, at the hands of which Socrates met his fate, was the *Conium* or some other deleterious herb, or to possess an accurate acquaintance with the relative frequency of infanticide in the various countries from Kamschatcha to Peru.

Mr. Taylor, in opening the consideration of the subject of poisoning, has addressed himself to the practical questions connected with the definition of a poison. We may here remark, that in charges of poisoning, as in questions relative to insanity, counsel not unfrequently endeavour to involve the medical witness by requiring definitions, in which the latter are sometimes exercised to their no small discomfiture. The questions discussed by our author hold relation to the statutable provisions regarding this crime, as modified by 1 Vict. c. 85, s. 2. The following observations embody his judgment on the matter:

“The fact that a poison has been commonly regarded as a substance which produces serious effects when taken in small quantity, has induced many who have adopted this arbitrary view to assert, that certain substances which have actually caused death are not poisons; and this doctrine has been apparently strengthened by the fact, that were not some such distinction adopted, it would be difficult to separate the class of poisons from substances which are reputed inert. In answer to this view, it is perhaps sufficient to show, that there is no good reason for assuming this as the distinguishing character of a poison; for it is impossible, even among substances universally admitted to be poisonous, to make any division according to the effects

produced by the quantity taken. In relation to the quantity required to operate fatally, the difference is not so great between cream of tartar and oxalic acid, as between oxalic acid and strychnia. If we consider nitre and cream of tartar to be poisons, there seems to be no good reason for excluding common salt (the chloride of sodium). Medical practitioners would scarcely be prepared to admit this last-mentioned substance into the class of poisons; but it is to be observed that in a very large dose, it is capable of acting as a powerful irritant, and of inflaming the mucous membrane of the alimentary canal to the same extent as much smaller doses of other well-known irritants. An instance of common salt having caused death occurred in the north of England in the year 1839. A young lady swallowed, it is supposed, about half a pound of this substance, for the purpose of destroying worms. It was considered to be a harmless substance, according to the common notion; but in the course of about two hours, some alarming symptoms made their appearance, and medical assistance was sent for. She was found to be in a state of general paralysis; and although the stomach-pump and other antidotal means were speedily employed, she died in the course of a few hours. After death there were found the post-mortem changes generally indicative of the effects of a violent irritant on the alimentary passages.

"This case is deserving of attention, not merely from its novelty, but from the evidence which it furnishes of the fallacy of the popular doctrine, that what is taken so freely in small quantities, without mischief, may be taken, with equal impunity, in large doses. In a toxicological point of view, we do not see how the effects of salt, in this case, are to be distinguished from the action of the sulphate or acetate of copper; nor how, if we agree to call the latter substances poisons, we can consistently refuse this appellation to the former. It may appear to be a violation of common language, to call the chloride of sodium a poison, but assuredly it would be a greater inconsistency, to refuse to consider it as such, merely because it requires to be exhibited in a larger dose than some other irritants."—p. 2.

"In Medical Jurisprudence, therefore, we must look to the effects produced by particular substances on the system, and their adequacy to cause death under symptoms of poisoning, rather than to the mere quantities in which they may have been taken.

"These remarks on the looseness of the common definition of the term poison have been suggested by the fact, that medical men have been severely pressed in cross-examination on trials for certain criminal offences, to state what is strictly a poison, and what is not. We shall see hereafter that in charges of attempted poisoning, or of criminal abortion by the administration of drugs, it is not an indifferent matter for a witness to be able to say what substances are noxious and what are inert; or to show, how some bodies, commonly reputed inert, may, under certain conditions, act deleteriously on the system.

"There is another point of view in which this question may require to be considered, namely, What is to be understood by a *deadly*

poison? In most indictments for poisoning, it is customary to describe every poison as *deadly*, a form of expression decidedly bad, and calculated to give rise to legal objections. The substance administered might with equal propriety be described as poisonous, or of a destructive nature; but those who draw up indictments are but little informed on such matters, and they can never speak of a poison without describing it as deadly.”—pp. 3, 4.

“It appears to me that the term *deadly* can be used with respect to those poisons only which may prove speedily fatal in small doses, such as strychnia, morphia, prussic acid, and arsenic, and that it could not with any sort of propriety be applied to such substances as the sulphate of copper. The error essentially lies in the legal wording of the indictment, with which, of course, a medical witness is not concerned. If an objection of this kind is to be held valid, and a question of criminal poisoning to be dismissed on so trivial a point, it is reasonable to expect that greater care should be used in drawing up indictments, as also that medical terms should not be employed by non-medical persons without proper supervision. Otherwise, it is obvious that the ends of justice must be defeated. Differences of opinion among educated medical witnesses are not likely to exist where slight previous reflection has been bestowed upon the subject.”—pp. 4, 5.

“In legal medicine, it is difficult to give such a definition of a poison as shall be entirely free from objection. Perhaps the most comprehensive definition which can be suggested is this: ‘A poison is a substance, which, when taken internally, is capable of destroying life without acting mechanically on the system.’

“Under this definition, it might be objected that the whole class of medicines, and numerous substances of an inert nature, would be included. Thus it is well known, that there are many cases on record, in which cold water, swallowed in large quantity, and in an excited state of the system, has led to the destruction of life, either rapidly by shock, or slowly by inducing gastritis. Any cold liquid, such as iced water, beer, or ice itself, may have an equally fatal effect. The action of water or cold liquids, under these circumstances, cannot be said to be mechanical; it appears to be due to the shock suddenly induced on the nervous system through the lining membrane of the stomach, and yet it would be inconsistent to class these inert liquids among poisons.

“In all cases of this description, it appears to me, that we are justified in drawing the following distinction between poisonous and non-poisonous substances. If the deleterious effect does not depend upon the nature of the substance taken, but upon the state of the system at the time at which it is swallowed, the substance cannot be regarded as a poison. All poisonous substances are *per se* deleterious, the state of the system, setting aside for the present the peculiar effects of idiosyncrasy and habit, has very little influence on their operation. The symptoms may be suspended for a time or slightly modified in their progress, but sooner or later the poison will affect the

healthy and diseased, the old and the young, with a uniformity in its effects, not to be easily mistaken. A distinction of this kind cannot, however, be drawn except by a professional man, who has given attention to the subject of toxicology, and, therefore, it is no matter of surprise that poisoning should have been in more than one instance erroneously imputed, in cases where death has followed the drinking of cold liquids.

"In thus giving the medical definition of a poison, it is necessary to observe, that the law never regards the manner in which the substance administered acts. If it be capable of injuring the health of an individual, it is of little consequence so far as the responsibility of a prisoner is concerned, whether its action on the body be of a mechanical or chemical nature. Thus a substance which simply acts mechanically on the stomach, may, if wilfully administered with intent to injure, involve a person in a criminal charge, as much as if he had administered arsenic, or any of the ordinary poisons. It is then necessary that we should consider what the law means by the act of poisoning. If the substance criminally administered destroy life, whatever may be its nature or mode of operation, the accused is tried on a charge of murder, or manslaughter, and the whole duty of the medical witness consists in showing that the substance taken was the certain cause of death."—pp. 5, 6.

Again, in adverting to the term in the statute, "destructive thing," he has interwoven with the text many most important cases and inquiries relative to mechanical irritants, as pounded glass, pins, &c.

In the chapter on the Physiological Action of Poisons, the student will find the most recent information. The conclusions of the author on this subject are as follows:

"1. That the remote influence of poisons is sometimes conveyed through the medium of the blood. 2. That it may be conveyed by contact with the sentient extremities of nerves, probably of the ganglionic system. 3. That some poisons may act in both ways at different times."—p. 19.

Our author very properly rejects the fantastic and unsupported speculations of Liebig, as to the intimate nature of the remote action of poisons.

Those who are called on to conduct the medical investigation of a charge of poisoning, or to perform a *post-mortem* inspection in such cases, will do well to study carefully the instructions given in the fourth chapter, the majority of which, though highly important, are commonly neglected by practitioners; they tend strongly to correct the prevailing practice of merely opening the stomach or the head, as suspicion may happen to point in the direction of narcotic or irritant poisoning. By such mode of

proceeding the real cause of death very commonly escapes notice; thus we were lately consulted in a case in which the attention of the inspector was exclusively directed to the stomach, the contents of which were submitted to analysis, the cause of death being probably connected with the head.

Our space will not permit us to dwell on the chapter on General Poisoning, which we shall only heartily recommend to the consideration of the medical jurist. The illustrative cases have a special value, as they are derived from the various circuits and other sources not usually available, and hence convey to the practitioner a much more instructive view of the actual nature of the inquiries to which he must hereafter devote his attention.

Mr. Taylor has conferred a marked benefit on the forensic physician in the consideration of a variety of questions constantly arising on trials, as to the minimum dose of various poisons, and other inquiries, to which we have alluded in speaking of Professor Orfila's recent work, and to which medico-legal writers have hitherto devoted but little attention.

In the chapter on Arsenic, various novel and valuable observations of this kind will be found. The author, in treating of the antidotes to this poison, seems unfavourably disposed towards the hydrated sesquioxide of iron, and adduces, in support of his views, certain experiments of his own, which tend to confirm those of previous observers. To such, however, we must decidedly object; as the factitious mixtures employed in such trials can never represent the natural secretions of the stomach; and although we may concede, with Mr. Taylor, that pulverent arsenic and hydrated sesquioxide of iron mutually react in but a slight degree, yet it is evident that the principal mischief is effected by the absorbed arsenic, and as solution is an essential preliminary to absorption, the experiments made on the reputed antidote with solutions of arsenic are not wholly irrelevant. We would also state, that within the sphere of our own observation, instances have occurred strongly inclining us to a favourable opinion of the antidotal powers of the oxide, which, of course, should not be employed to the exclusion of the mechanical methods of expulsion, and which also, for reasons now well understood, should be administered in considerable quantity, and its use persisted in as long as there is reason to believe that the *primæ viæ* retain any of the poison.

The forensic chemistry of poisons is amply, indeed minutely, discussed, of which the disquisitions relative to arsenic afford an excellent example. Several of the lately proposed methods of verifying arsenical sublimates which have "*encumbered*" science "with their aid," have been justly left unnoticed; in

reality, without adding anything valuable, they tend only to exhaust the memory and disgust the student. In treating of the various substances employed as poisons, Mr. Taylor has thought proper to superadd instructions for their *quantitative* analysis. This latter is frequently required where questions arise concerning the amount of poison administered in suspected articles, with reference to its adequacy to the production of dangerous or fatal results, or even (as occurred in a recent case), to determine the intent of the accused. Quantitative analysis may be useful also, not only in imputed poisoning, but also in regard to a query constantly and ignorantly propounded by barristers, coroners, &c.,—whether the quantity found in the stomach was sufficient to have caused death?

Our author has dealt with the mercurial poisons in an able and instructive manner. He has not neglected a topic which has recently come before the public, and which is of much moment to practitioners—the distinction between mercurial salivation and *cancerum oris*, which are sometimes confounded, and which, apart from the history of the case, are not always easily distinguishable. In discussing the suitable antidotes to the soluble mercurial preparations, Mr. Taylor does not pronounce positively as to the constitution of the compound formed by the agency of a solution of albumen upon that of the bichloride, which, as our readers are aware, was formerly considered, on the authority of Orfila, as a compound of calomel and albumen. This theory, which has been recently abandoned by the Professor, has given place to one equally erroneous—that it is a direct combination of the corrosive sublimate and albumen. The latter view is based on the solubility of the precipitate in chloride of sodium and the extraction of a soluble salt of mercury from the compound so produced, by the agency of sulphuric ether. We find, however, that peroxide of mercury, acted on by chloride of sodium, gives rise to the double chloride of sodium and mercury, which (and not sublimate) is extracted by ether.

Were any additional facts necessary to establish the opinion so well substantiated by Rose,* namely, that the compound under consideration consists of albumen, united with peroxide of mercury, the following observations which we have made on the matter seem conclusive :

1. The compound may be formed directly by the union of albumen and the hydrated peroxide of mercury.†
2. It may be procured by precipitating with albumen a solution of pure pernitrate of mercury as nearly neutral as possible.

* Poggendorf Annalen, B. 28, St. i., 135.

† The solution of albumen (holding suspended the oxide in small quantity), being freely and continuously agitated.

No explanation appears to have been hitherto offered of the different effects produced by sublimate on the mouth and mucous membrane of the stomach; the slate-grey tint sometimes observed in the latter case, indicating that the compound formed contains metallic mercury, probably mixed with albuminate of the peroxide, as occurs when a solution of albumen is added to proto-nitrate of mercury.

Practitioners, in employing albumen as an antidote to sublimate, should be aware, that it may be given in too great quantity, as the compound formed is soluble in an excess of albumen, and, we doubt not, is the deleterious combination which enters the blood, and produces the remote influence of the poison. So long as the vomited matters contain a white opaque material admixed, the antidote should not be withheld; when the *ejecta*, on the contrary, become transparent, the further employment of the remedy is generally useless, and may be injurious.

The observations of Orfila on this antidote deserve mention:

“ Il résulte de ces expériences et de beaucoup d'autres analogues, 1° que le précipité d'albumine et de sublimé corrosif peut être pris sans danger à forte dose; 2° qu'il est vénéneux lorsqu'il est dissous dans l'albumine, mais qu'il l'est beaucoup moins que le sublimé corrosif; 3° que lorsqu'on administre du sublimé corrosif mêlé avec une quantité de blanc d'œuf plus considérable que celle qu'il faudrait pour obtenir le précipité, les animaux périssent, si on a empêché le vomissement, ce qui dépend de la dissolution du précipité d'albumine et de sublimé dans l'excès d'albumine: toutefois, l'action de ce mélange est beaucoup moins énergique que celle du sublimé, puisque les animaux tardent beaucoup plus à périr, et qu'après la mort on trouve à peine ou on ne découvre point des traces d'inflammation dans le canal digestif (voy. expér. 20^e, p. 541); 4° que les chiens qui ont avalé 60 ou 75 centigrammes de sublimé, et auxquels on a laissé la faculté de vomir, périssent rarement lorsqu'on leur fait prendre *abondamment* du blanc d'œuf délayé dans l'eau, ce qui dépend de la propriété qu'a l'albumine de se combiner avec le sublimé qu'elle trouve dans l'estomac, et de favoriser le vomissement: en effet, le poison est rejeté à mesure qu'il se combine, et l'on a par conséquent peu à redouter l'action de la portion du précipité qui pourrait être dissous par l'excès d'albumine; 5° que tous les animaux qui ne prennent pas une assez grande quantité de blanc d'œuf meurent au bout de trois ou quatre heures, lors même qu'ils n'ont avalé que 60 centigrammes de sublimé, ce qui est d'accord avec ce que j'ai établi ailleurs, savoir que le sublimé corrosif, mêlé avec une quantité moyenne d'albumine, donne un liquide dans lequel il y a encore du sublimé, et qui doit par conséquent agir comme poison; 6° enfin, que de toutes les substances proposées jusqu'à ce jour comme antidote du sublimé corrosif, l'albumine, employée en quantité convenable, est la plus utile, quoiqu'elle ne neu-

tralise pas complètement les propriétés vénéneuses de ce poison, parce qu'elle peut être prise impunément, qu'elle forme avec le poison un corps nullement délétère lorsqu'il n'est pas dissous, enfin parce qu'elle est à la portée de tout le monde, et que son application peut être faite immédiatement après l'ingestion du poison."—pp. 543, 544.

Recent observations have shown that the *yolk* of egg is an equally, if not more, efficacious counter-poison.

The multiplied medico-legal questions relative to wounds next occupy Mr. Taylor's attention, the importance of which subject with that of the preceding, is evident from the fact, that in one year in the United Kingdom, there were no less than 1213 trials, involving questions of murder and manslaughter by wounding or poison. We feel it incumbent on us to state the discussions relative to wounding are conducted with a completeness, skill, and judgment, reflecting the highest credit on the author, who evinces in every department a sound practical knowledge of the subject. This chapter will be found of signal utility to the practitioner in the performance of his forensic duties, connected as they are with the solution of the following problems and considerations, each of which our author accurately investigates.

"What is a wound? Is the wound dangerous to life, or did it produce 'grievous bodily harm?' Whether the wound was inflicted before or after death? By what means was the wound inflicted? If by a weapon, what kind of weapon? How or by whom was the wound inflicted? Circumstantial evidence? Was the wound the direct cause of death? Death may follow a wound but not be caused by it; was the wound the indirect cause of death? For how long a time has the wound been inflicted? How long did the deceased survive? Acts indicative of volition and locomotion in persons mortally wounded; on wounds as they affect different parts of the body; fractures and dislocations; gun-shot wounds; on burns and scalds; burns from corrosive liquids."—pp. xii. xiii.

The inquiries connected with secondary causes of death in wounding are fully entered upon. Such investigations are of moment, not only to the continental medical jurist, but also in these countries; because, although the law looks to the *intent*, rather than the *result*, yet a discretionary power is vested in the hands of our judges, in awarding the amount of punishment.

In the present work will be found a detailed account of the mode of identifying blood-stains, an inquiry of frequent occurrence, and which occupied attention in a very important trial for murder, by wounding, which has just terminated in this city.

The chapter on Infanticide has been constructed with very considerable care, and evinces correct and deliberate judgment. The author has cut away the foundation on which reposed much of the sentimentality observable in the writings of Wm. Hunter, and other English authors on this subject, and which had its origin in a Draconic enactment of the period of James the First, rendering live birth and wilful destruction of offspring synonymous—a statute which, although long since abrogated, one might conceive, from the repeated objections of counsel on the score of the hydrostatic test, to be still in force. Notwithstanding the pains bestowed on this chapter, it is evident, from what has occurred on the different circuits within the last few years, that owing to the severity of our legal enactments, acquittals will probably continue to be obtained in spite of clear evidence of criminality; legal precedents requiring proof of conditions altogether transcending the skill of the most accomplished forensic physician.

The discussions connected with death from the various forms of obstructed respiration, are treated of in a practical and able manner. In adverting to the question of strangulation, our author, we perceive, has not omitted to notice the important case of *The Queen v. Byrne*, which was tried a couple of years since in this city, on which he remarks :

“ The state of the countenance alone, will scarcely warrant the expression of an opinion; for there are many kinds of death in which the features may become livid and distorted from causes totally unconnected with the application of external violence to the throat. Let not a witness, then, lend himself as an instrument in the hands of a counsel for the condemnation of a person against whom nothing but a strong suspicion from circumstances may be raised, and where medical evidence is unable to throw any light upon the probability of death having resulted from strangulation. See the trial of Mrs. Byrne, for murder, Dublin Commission Court, Aug. 1842. This trial is full of interest to the medical jurist. Some post mortem changes appear to have been mistaken for marks of strangulation.”

To which we would add that, probably, there has not for a long period occurred an instance more strikingly illustrative of the lamentable effects of popular prejudice, and non-acquaintance with forensic medicine, more especially observable on the case of certain legal functionaries, who, having to develop and place in order before a jury the facts of an investigation *on which a life depended*, should feel it their duty to be instructed on such topics.

The chapters on Rape and Insanity contain much useful information; we should be glad to see them enlarged in the next edition of the work, which might also include a chapter on

the signs of death, not in reference to medico-political precautions, but as presenting matters incidentally useful in various questions of violent dissolution, infanticide, &c. Nor should we object to a section on pseudo-morbid appearances, and their diagnosis, a subject, we may observe, by no means as precisely understood, or as much attended to, as the modern exclusive zeal for morbid anatomy would lead us to believe, and one moreover, of grave moment in public practice. The sections on abortive and retarded births contain, in a condensed form, much novel and useful matter.

In undertaking the task of presenting to the medical man a *practical* guide in the performance of his public duties, Mr. Taylor has acquitted himself with no ordinary ability and success. He has evidently not sought the construction of a treatise embodying *all* the known facts of the science; thus wisely avoiding a mode of proceeding, the adoption of which has loaded most modern works in this department, with incongruous details, but has rather brought his extended experience to bear on the practically important and every-day discussions of the forum. The author manifests an accurate acquaintance with the present state of medico-legal science, and has availed himself of the most important recent accessions of the German and French schools. A circumstance, however, which we consider of much importance, and which exhibits at once the industry of the author and his devotion to the science, is to be found in the numerous illustrations of the various topics of juridical medicine, which appear for the first time in the present production. Thus the practitioner may learn what is unquestionably of the highest moment, not only the *facts* required of him, but also their varying *combinations*, from the latter of which new departments of inquiry constantly arise.

The publisher has co-operated with the author, and has performed his part efficiently. The volume, which is well got up, contains, for its size and price, a very unusual amount of matter.

The intrinsic merits of Mr. Taylor's labours must speedily place his work in a distinguished position, as a guide and indispensable companion to the practitioner, in the exercise of his public functions.

Of Dr. Guy's work, two parts only have appeared, and consequently we are not as yet in a position to estimate accurately the value of his labours: those already before us, without professing to add much original matter, are plainly constructed with care, and evidence an orderly and perspicacious mind. The article on Insanity is valuable and elaborate, more especially that part of it which regards the criminal responsibility of the

insane. The discussions, also, relative to infanticide, develop the latest information, and incorporate the author's recent researches relative to the statical evidence of live birth. The writer has observed a lucid order in the discussion of the various topics already published. In reference to works on public medicine in general, we would remark, that while we should be far from depreciating the importance of that quality, and its uses to the student, we are yet free to confess, that in *practice* the advantages of systematizing will speedily be found overrated, especially if (as we conceive has happened in the case of many modern writers) it implicate the substitution of the ideal for the real. In truth, their productions not uncommonly realize the conception embodied in one of our English classics,—that of a consultation relative to the occurrence of death *per plethoram*, after removal of a limb, a result which, it was argued, *must* necessarily take place; experience, however, controverting the preconceived notions of the physicians, the latter, not a whit disconcerted, stoutly averred that the consequence alluded to *ought* to have occurred.

Lectures on the Theory and Practice of Midwifery, delivered in the Theatre of St. George's Hospital. By ROBERT LEE, M.D., F. R. S.

ANY publication from the pen of Dr. Lee is deserving of the careful attention of the Profession, inasmuch as his productions are marked by care, accuracy, and minute observations; and although we do not always agree with his conclusions, it is with diffidence and caution we dissent from him.

Some time ago we noticed in this Journal his work on Clinical Midwifery, and expressed a regret, that along with the cases he had not given more detailed conclusions. In the present volume, however, Dr. Lee has supplied that deficiency, and it shall be our endeavour to lay them before our readers.

In order to do this, however, we must pass over the anatomy and physiology of the organs of generation—not that the chapters do not deserve a careful analysis, but because our limits do not admit of both, at least at present—and we think it better rather to complete the subject of operative midwifery, than to touch upon many others.

We pass then, at once, to Lecture 28, upon the Forceps. Lecture 27 is occupied with the history of its invention, but contains nothing new. Dr. Lee opens the Lecture with an allusion to the great variety of modifications which the instrument has undergone, and after stating that he prefers “Cham-

berlen's forceps, with the lock and wooden handles of Smellie—in fact Denman's short forceps, covered with leather," he proceeds:

"But in truth I attach comparatively little importance to the shape and dimensions of the forceps you use; I think it nearly a matter of indifference whether it has a pivot lock, or Smellie's lock, and whether the handles consist of wood or metal, provided the case will justify the use of the forceps, where it is had recourse to, and you know the principles which ought invariably to guide you in its employment."

It is quite possible, however, to have a very bad pair of forceps, and although the hand that is to use them is of the highest importance, yet a little attention to the curves of the blades, and to the temper and finish of the instrument, is of great consequence also. The greatest curvature should be near the point of the blade, and so managed, that when applied, and in action, the widest part of the instrument shall be that part of it which embraces the widest part of the head of the child.

Dr. Lee properly observes that the forceps is not calculated for labour when the cervix uteri, or soft parts, are swollen and inflamed, or undilatable, nor where there is considerable mechanical obstruction to the transit of the child. But

"It is chiefly in cases of protracted and difficult labour, from feeble and irregular, or partial uterine action, from passions of the mind, original or accidental debility in the mother, and other constitutional causes, which impair the energy of the brain, and nervous system of the uterus, that the forceps are used with advantage, and where, if any disproportion exists between the fœtus and pelvis, it is only in a slight degree. The forceps is not applied because there is a great deficiency of space in the pelvis, a great want of due proportion between the head and the pelvis, but because there is a want of power in the uterus to propel the child through it, the want of which power we endeavour to supply with the forceps. This is the only legitimate ground on which we can proceed in the application of the forceps, whether it be exhaustion, convulsion, hæmorrhage, or whatever the circumstances may be which renders immediate delivery necessary to preserve the life of the mother and child. It is not for our own convenience, to spare ourselves the anxiety and fatigue of a protracted attendance upon any case of labour, to acquire skill and dexterity in the use of the forceps, that the instrument is to be applied, nor because it is in our power to do so, but because of certain local and constitutional symptoms appearing in the parent, or because the child is in danger from long-continued pressure, that we have recourse to artificial delivery. The gradual cessation of labour pains, and the descent of the head being arrested, are unquestionably the best indications we can have for the propriety of the

interference of art. If the uterine contractions cease, and the head, swollen and compressed, becomes arrested and impacted in the pelvis, and there is exhaustion, fever, and disturbance of the brain, and we believe that the head of the child will not be expelled by the natural efforts, it is our duty to endeavour without delay to extract it with the forceps. To apply the instrument when it is known with absolute certainty that the child is dead, would betray, to use the mildest expression, the highest degree of insensibility and folly."—p. 301.

With a little modification we agree with this quotation ; but if the head be "impacted in the pelvis," we should not certainly consider it exactly a case for the forceps, nor do we quite think it the "highest degree of insensibility and folly" to extract a putrid head with the forceps, when, as we know by experience, we thereby avoid a much more tedious operation with the crotchet.

Dr. Lee agrees with the practitioners of this city in objecting to the use of the long forceps, on account of the danger to the mother : and in his reprobation of applying this, or any other instrument clandestinely, we heartily agree with him.

The instructions for the mode of applying the forceps are clear, minute, and judicious, but as they do not differ from those given in the standard authors, we do not think it necessary to quote them.

The next operation we shall notice is Craniotomy :

"When the child is dead, where a great disproportion exists between the head and the pelvis from any cause, and the os uteri is imperfectly dilated, and the parts swollen and rigid, and an ear cannot be felt, and circumstances occur demanding immediate delivery, recourse must be had to the perforator and not to the forceps. It is, in difficult labour from distortion of the pelvis that we are most frequently compelled to open and extract the head ; and where this exists in a high degree, and the brim is so contracted that the head cannot enter it, the operation of craniotomy often requires the employment of strong extracting force for several hours, and fatal contusion and laceration of the uterus, bladder, and vagina can only be prevented by the greatest caution and dexterity, and a perfect knowledge of the structure of all the parts. It unfortunately happens that in some cases, before the operation is performed, the soft parts have already been injured by the long-continued pressure they have sustained ; the same thing happens here which takes place in strangulated hernia when the operation has been delayed too long, and sloughing follows. In cases of slight disproportion between the head and pelvis, or when there is none, but delivery becomes necessary in consequence of convulsions, hæmorrhage, or exhaustion ; the operation is attended with little difficulty and danger ; much less than the application of the forceps."—p. 313.

This is rather too loose an assertion ; that there is little difficulty when there is no disproportion, may be quite true, but when the necessity for craniotomy arises from exhaustion, even though there be no difficulty, there is often very great danger. In many such cases which have come under our notice, the patient has died in consequence of the shock of the operation, superadded to a prolonged labour. In these cases of extreme distortion, " requiring the employment of strong extracting force for several hours," to the imminent risk of the patient, as Dr. Lee justly observes, we have derived most effectual aid from a pair of long slight forceps (not what are called craniotomy forceps, for which we have as great an aversion as Dr. Lee), by which the bones of the head can be broken off and taken away piecemeal, until only the base of the cranium remains. This instrument was recommended and used by the late Professor Hamilton, though Dr. Lee does not seem acquainted with it. The following observations upon these cases are of great practical value.

" Great care must be taken in perforating the head in cases of extreme distortion, that the os uteri be not wounded with the sharp edges of the instrument. To obviate this, if the outlet be not so much contracted as to prevent the hand from being introduced, the fore and middle fingers of the left hand, or all the fingers, should be passed up within the os uteri, to the most depending part of the head, and the opening made in the same manner as already described, while the orifice is protected by the fingers expanded. The undilated state of the uterus adds greatly to the difficulty.

" In extracting the head with the crotchet, it not unfrequently happens that the bones of the cranium are all torn to pieces, and removed before the base of the skull has entered the brim of the pelvis. It is impossible, under such circumstances, to fix the point of the crotchet in the foramen magnum, as some recommend ; and the best mode of proceeding is to pass the fingers of the left hand over the head as far as possible, and to slide up the crotchet between the fingers and the outside of the head, and fix its point in one of the orbits ; about the angles of the lower jaw, or wherever a secure hold can be obtained. In this manner, as recommended by Smellie, I have sometimes succeeded in extracting the head in a short time, where I had begun to despair of ever doing so by fixing the crotchet in the inner surface of the base of the cranium, or by any other means."—p. 317.

The section on "induction of premature labour" is much too short to be of use to junior practitioners. Dr. Lee agrees in its morality, safety, and utility, not only in cases of distorted pelvis, but in some of the dangerous diseases of pregnancy, and remarks :

" In cases of slighter distortion recourse should not be had to this operation, until it has been proved by one or more labours that a child

at the full period could not pass without lessening the head. Labour should not be brought on until the seven and a half month of gestation, or a little later, where it is known that the pelvis is very little contracted. In cases of very great distortion of the pelvis, the induction of premature labour at an early period, even of the first pregnancy (as has already been stated before the sixth month) is likewise known to be a safe operation, and to render craniotomy and the Cæsarian section wholly unnecessary. The only effectual method of bringing on premature labour is to puncture the foetal membranes, and discharge the liquor amnii. I have repeatedly detached the membranes with a catheter, from the lower part of the uterus, but labour has not followed. I have strong objections to the exhibition of ergot for the purpose of inducing premature labour, without taking the uncertainty of its effects into account."

Whilst agreeing with Dr. Lee as to the most effectual means of exciting uterine action, our experience rather confirms that of Dr. F. Ramsbotham, as to the value of the ergot of rye. Dr. Lee then adds:

"I have successfully employed the probe-pointed catheter, with a stiletto, in many cases, to puncture the membranes, when I could not do so with instruments less curved, and having sharp points. When you are about to induce premature labour, pass up the forefinger of the right hand to the os uteri, and when you have ascertained its precise situation, slide up along this finger the fore and middle fingers of the left hand to the posterior lip, then withdraw the forefinger of the other hand and take the handle of the instrument with it, and pass up the point into the groove formed betwixt the fingers of the left hand, to the os uteri, and gently press it forward along the cervix into the cavity of the uterus, about an inch and a half or two inches, when the membrane will generally be felt offering a slight degree of resistance. The stiletto should then be pressed forward with the thumb, and a second puncture made through the membrane before withdrawing the instrument. The blunt point of the catheter enables us to pass it into the uterus with safety, when the os uteri is so high up that the finger cannot even reach the anterior lip."—p. 319.

We have thus laid shortly before our readers the opinions of Dr. Lee upon the principal obstetric operations, and we have done so especially in reference to the notice we gave of his little work on Clinical Medicine, and not because of the superiority of this part of his lectures. There are many other subjects of great interest upon which he has entered more fully, and with equal or greater ability, and at a future period we hope to lay them also before our friends. Meantime, it hardly needs our recommendation to insure an extensive sale for this volume. Dr. Lee's reputation stands among the highest, nor will it be

lessened by the present publication, and we take our leave of him for the present, with respect for his zeal, industry, and talent.

Natural History, Pathology, and Treatment of the Epidemic Fever at present prevailing in Edinburgh, and other Towns. By JOHN ROSE CORMACK, M. D., &c., &c., &c.

It is well known that occasionally, during the prevalence of our ordinary typhus or typhoid fevers, there occur isolated cases of what have been termed sporadic yellow fever, such as occurred in Paris in the end of summer, 1822, and have been met, we should suppose, by most physicians engaged in extensive fever practice in this country once or more in the course of their lives.

But it rarely happens that such cases become the epidemic disease of the season. Such, however, was the case, to a certain extent, in Dublin, in 1826-7, and in the large towns in Scotland during the past year. Of the former, we have a description in a very able lecture in Dr. Graves's Clinical Medicine, in which he draws an analogy between the Dublin epidemic, and the yellow fever of warm climates, showing that the pathology of both is the same, that they differ but in degree. The Scotch epidemic has excited the interest of medical men in that country, and called forth a number of essays from Drs. Alison, Henderson, Smith, &c. &c., and the volume now before us, from Dr. Cormack, whose opportunities of observation seem to have been ample, and to have been diligently made use of for the purpose of this treatise. He himself informs us, during the whole time of his connexion with the new Fever Hospital, he has daily devoted a large portion of time to observing and recording the features of the prevailing Epidemic, both when interfered with by medicines, and when allowed to run its natural course.

We have already, in the last Number of this Journal, announced the publication of this interesting work, and in pursuance of the promise then made, we proceed to give a brief analysis of its contents. Dr. Cormack arranges his observations under the heads of—1. Ordinary, or moderately congestive form of the disease. 2. Highly congestive form. 3. Pathology of the disease. 4. Sequelæ of the disease. 5. Treatment of the disease. 6. Statistics of the cases.

The following is his description of the *ordinary* form of the disease :

“ In ordinary cases the countenance of the patient has a peculiar appearance, which we may designate *bronzed*, for want of a better

term. Though no words can accurately convey what is thus meant to be described, the appearance itself is very characteristic, and has never failed to arrest and interest the medical visitors to the hospital to whom it has been pointed out.

“The symptoms of invasion are in all cases remarkably similar, both as to their nature and order of occurrence.

“The patient is first seized with coldness, rigors, head-ach, pain in the back, and more or less prostration of strength; but the latter symptom, it must be remarked, is often not at all urgent, many walking a long distance from the country to the hospital, especially during the first days of the disease, and a still greater number of the destitute town patients lounge about in the streets after their seizure, and come in to us on their legs.

“After a period varying from less than half an hour to several hours, the cold fit terminates, when the severity of the head-ach greatly increases, and a dry, burning heat comes over the whole body, accompanied by much thirst and general uneasiness.

“The hot stage is succeeded by a sweat, usually very profuse, continuing for a number of hours, and seldom attended or followed by any relief to the head-ach, or other pains.

“Sometimes, though rarely, there is no sweating for two or three days after the seizure. Occasionally also there is no well-marked hot stage between the cold and sweating fits; and, at least in a few cases, the sweat breaks out on the face and upper part of the body, while the patient is yet in his initiatory rigors.

“It is proper to remark, that during the whole course of the disorder, the perspiration has a characteristic disagreeable smell, and is decidedly acid, as is proved by its reddening litmus paper, and that sometimes with intensity. During the three stages of the initiatory paroxysm the pulse is rapid, being sometimes as high as 150°, seldom below 90°, and commonly ranging between 90° and 120°. During the rigors I have in several cases found it wiry and tremulous; in the hot stage, it is often hard, and not very easily compressed; at the sweating period it becomes fuller and softer, and does not exhibit that deficiency in strength shown after and during the perspiration of a more advanced period of the fever.

“For the first forty-eight hours the tongue commonly continues moist, exhibiting at the same time a white, or brownish-yellow fur, excepting at the point, where there is usually a clear space, extending over a space often (as in *typhus abdominalis*) shaped like a triangle, the extremity of the tongue forming the base. Afterwards the tongue becomes dry, and longitudinally streaked on the centre with brown, in which state it continues till the approach or arrival of the crisis at from the third to the ninth, but in the majority of cases on the fifth day.

“During the first four days some of the patients have occasional short rigors; but most commonly they are in a state of dry, ardent fever, with occasional sweatings. These sweatings occur, or at all events commence, in most cases between 2 and 9 A. M.; but to this

rule there are many exceptions. In a considerable proportion even of the ordinary and mild cases, nausea and vomiting usher in and attend the sufferings of the first days. Pain at the scrobiculus cordis generally accompanies these symptoms; not unfrequently it is present without them. A symptom which uniformly occurs during the first four days, is severe muscular and articular pain. General uneasiness or pain in the abdomen (but particularly above the pubes, and over the liver and spleen when pressure is made on these regions) are very commonly, but by no means uniformly met with.

"So long as the patients suffer much from the symptoms now described they sleep badly, and frequently not at all, unless opiates are administered. The severe pains in the joints and muscles are often sufficient to account for the bad nights complained of, but even with those who do not suffer much from this cause, sleeplessness is a distressing symptom up to the crisis.

A remission on the third day is very common. It occurred in all the cases which I have had an opportunity of attentively observing, from the invasion onwards.

"On or about the fifth day, there is an evident manifestation of the violence of the disorder being expended, and this change for the better is often very sudden and complete. One day we hear the patient moaning and groaning in pain, and on the next he is at ease and cheerful, his only complaints being of hunger and weakness. This state is generally ushered in by a copious sweat, or by epistaxis or diarrhœa. The sweating was by far the most critical evacuation till the beginning of October, when diarrhœa and dysentery, formerly rare occurrences, became common, and at the present time (Oct. 30) they are as usual as sweating. After this change the pulse, tongue, and skin are quite natural, and the facial bronzing often becomes less striking. For several days, or till about the fourteenth or fifteenth day of the disease, there is a period of intermission during which a great deal of lost strength is regained, and a steady improvement goes on in all respects.

"On or about the fourteenth or fifteenth day from the beginning of the disease the patient relapses; or, in other words, has a paroxysm of fever similar to that which began his first attack. The relapse takes place late or early, just according to the date of the first convalescence, as will be clearly seen from all the cases to be detailed. It sometimes happens that the onset and progress of the second attack is attended by severer and at other times by milder symptoms than those of the first. In the relapse the abortions most commonly take place. In it also the muscular and articular pains are very often most severe. Cases which in the first attack were strictly mild and ordinary, have in the second become signalized by jaundice, delirium, diarrhœa, dysentery, and other grave symptoms. Such occurrences are, however, not common.

"A large number of patients have a second and generally mild relapse on or about the twenty-first day. As these relapses take place often after dismissal from the hospital, it was some time before I discovered the frequency of third attacks.

“ In those who are young and of good constitution the convalescence is rapid and complete. In the old and debilitated it is otherwise ; but I have never seen any one, old or young, die of the ordinary form of the fever.

“ The above is a succinct account of the course of the disease in its most common form.

“ Some cases are subjoined which, I beg the reader to remark, are given not so much as illustrations of the treatment, as of the natural history of the fever.”

Passing over these, which, we may remark, appear to be reported with much care and accuracy, we come to the author's description of the *highly congestive form of the disease* :

“ Although many of the cases issuing in death, or characterized by extreme severity, present symptoms very different from those hitherto detailed, there can be no doubt that the disease is essentially the same, the difference being only one of degree, as will be more especially unfolded hereafter. Both forms are undoubtedly the result of the same morbid poison.

“ One of the most common symptoms in the highly congestive form of the disease is yellowness of the conjunctiva and of the whole surface of the body. It generally appears between the third and seventh day, and is always most intense on the face, neck, chest, abdomen, and thighs. The hue of the neck and chest is the most vivid ; then comes, of equal or nearly equal brightness, the abdomen ; then, somewhat fainter, the thighs ; then, considerably paler still, the legs, arms, and forearms ; the hands and feet get their colour later, always to a much less extent, and sometimes not at all. The yellowness occasionally appears during the relapse, and not in the first attack. I have seen it present in both. Associated with the yellowness there are generally depression, more or less delirium, dusky and often porter-coloured urine, black, melæna-like stools, and hæmorrhages from some of the mucous membranes. In the worst of the cases, black, coffee-ground-like matter is ejected from the stomach and passed per anum. In some cases the black vomit occurs without the yellowness ; and, on the other hand, at the autopsy of yellow patients who have had no black vomit, this matter has been found in the stomach and other parts of the alimentary canal.

“ Enlarged liver and spleen and tender and tympanitic abdomen are less constant, but still very usual symptoms in cases characterized by yellowness or extreme congestion. Difficult micturition has been complained of by several of my yellow and purple patients. A deep persistent colour of the face appearing before or immediately after the invasion of the disease is a certain prognostic of danger, and is seldom absent in those destined to be yellow. Since I first made this observation it has received, among others, two notable verifications in the cases of my assistant, Doctor Hende, and Mary Wallace, one of the nurses. Doctor Hende, I pointed out to my other assistant, Mr.

Reid, as deeply purple, at noon, when we were engaged with the visit : at 3 P. M. he was in the initial paroxysm of the fever. Mr. Reid and I remarked Mary Wallace becoming first bronzed, and at last purple, before she was laid up, and in consequence advised her to take the chlorinated solution, which she did not do. Both became yellow, and both narrowly escaped with their lives.

“ With the exception of the purple countenance, the symptoms which usher in the congestive form of the disease differ little from those attending the disorder in its milder degree. As has already been remarked, there is some considerable difference in the cases as to the time at which the yellowness appears.

“ Generally in the severe cases there is merely a remission about the seventh day, but no intermission ; and even in those who died a few days later, a slight amendment was noticed about the usually critical period.

“ In my dissections of the purple and yellow cases I have uniformly found bile in the gall bladder, a pervious state of all the bile ducts, and bile in the duodenum. Excessive capillary congestion was always met with ; and in the severe cases exuded blood was found between the muscular and mucous coats of the intestines.”

This last passage naturally leads us to the question, what is the origin of the yellow tinge of the skin in these cases, and in yellow fever ? and passing by for a time the author's remarks on the pathology of the disease, we shall notice his views of this part of the subject as well as those of other writers :

Several explanations have been offered ; as that of Thomassini, that hepatitis, sometimes recognizable by dissection, sometimes not so, is in all cases present. That of Broussais, that violent irritation of the duodenum is propagated to the secreting organ. Doctor Graves's opinion that spasm of the ducts is the cause : and, lastly, the opinion favoured by our author, that the cause is in the blood, and probably is connected with the non-elimination of bile from that fluid.

The first and second explanations may be answered in the language of Dr. Graves.

First, as to an *internal* hepatitis, that

“ As no such inflammation to our knowledge has been detected in those cases of yellow fever which present an apparently healthy state of the liver, and as the most accurate descriptions of the morbid anatomy of yellow fever with which we are acquainted report a healthy state of the liver in a majority of cases, we must, for the present at least, consider the jaundice of yellow fever as independent of hepatitis.”

Then as to duodenitis, the same writer observes :

“ If the irritation or inflammation of the duodenum was propagated to the liver, we must expect to find that organ inflamed.”

Dr. Graves thus states his own opinion (18th lecture):

“ It is well known to pathologists, since the time of Broussais, that jaundice is as frequently produced by duodenitis as hepatitis, if not more so: but I do not think that the explanation he gives is applicable to our cases. He concludes that when the mucous surface of the duodenum is thrown into a state of excitement, we may have a consequent affection of the liver, for the duodenum bears the same relation to the liver as the mouth does to the parotid gland; and we know that an irritation of the orifice of the ducts leading from this and the other salivary glands is immediately followed by an increased flow of their secretions. But our dissections have shown that the small intestines were affected not only by inflammation, but were acted upon by violent spasms, producing invaginations of different portions of the canal; and there can be no doubt that the ducts (possessing such considerable vital contractility), participated in these spasms, and thus prevented the flow of bile into the duodenum as effectually as if they were tied by a ligature, or their canals obstructed by calculi; and this explanation obtained great support from the fact, that the jaundice came on suddenly in most of the cases, and was always preceded or accompanied by violent and convulsive contractions of the abdominal muscles and intestines.”

Dr. Cormack thus expresses his opinion that the yellow tinge is one of the effects of the introduction of a morbid poison into the blood.

“The yellowness of the skin in yellow fever has been ascribed to general ecchymoses, and possibly in some instances it may originate in this cause; for Andral has shown that it is this which produces the saffron colour of the skin, in what is improperly called the jaundice of new-born children. I have noticed that in my cases the yellowness was always most intense when the blood had been drawn to the surface by blisters, sinapisms, or other means. However, if this explanation be adopted in regard to yellow fever, it can only apply to those cases in which the yellowness is partial, or limited to particular parts of the body. Moreno, Gilkreest, and others have seen the sheets stained yellow with the perspiration, and this we could hardly expect were it merely ecchymoses which discoloured the skin. Moreover (as in the present epidemic) the fluid in the cavities, and the urine, have often a yellow tinge, and John Hunter states that the latter stains linen rags yellow, like that of a person in the jaundice. Fordyce attributes the yellow skin to a redundant secretion of sebaceous matter. Saunders believed that it depended rather upon a particular state of the lymph in the cellular substance of the parts, than upon the absorption of bile into the circulating mass. The most rational explanation seems to be that it is the result either of an absorption of bile, or of its non-elimination from the blood. There may be instances in which the former is the cause; but when we remember the disordered state of the secretions, and the diseased condition of the blood,

it seems more natural to conclude that the bile has either not been secreted, or secreted in very small quantity.

"The bite of a particular kind of viper possesses the remarkable property of causing the skin to become deep yellow, and that sometimes within the space of an hour. To produce this effect, however, the poison must be in a concentrated form, and actually introduced into the circulation. The primary effect both of the poison of yellow fever and of the viper, seems to be upon the blood, and in both instances there is a partial or complete suppression of the secretions. As intimately connected with this subject, it may be mentioned that yellowness of the skin, yellow sweats, and yellow urine, have ensued from eating certain kinds of poisonous fungi and fishes; and it may also be stated that there is a remarkable resemblance in the effects produced by the poison of animal and vegetable putrid matter, and the poisonous principle of certain fishes and fungi. Thomas states that from the effect of the fish poison he has seen the whole body become yellow, and the urine and sweat assume the same hue, the latter giving a deep yellow tinge to linen. He observed these symptoms in several cases, and particularly in himself, from eating the *pirea marina*, a poisonous rock fish. The resemblance between the post mortem examination in cases of poisoning from fungi, to those detailed as characteristic of yellow fever may be seen by consulting Christison on poisons."

Our predilections for a humoral pathology would induce us to lean to this explanation, rather than to any of the foregoing; it is supported by a very striking case of sudden supervention of jaundice in typhus in which on dissection the liver and ducts were found healthy, and the heart and vena cava enormously distended with fluid frothy blood (page 90), as well as by observations instituted by Dr. Cormack and others, which prove the blood to be in an altered and dissolved condition during, and even prior to the disease under consideration.

"There seems good reason to believe that a number of individuals who do not actually succumb under the influence of the epidemic, are nevertheless affected by it in a marked and characteristic manner, such as by slight chills and sweatings, some headach and vomiting, with prostration of strength. All of these symptoms in a mild form may occur combined, or some of them only may be present. In one instance in which the whole of the group of symptoms occurred, along with the bronzing of the countenance, they entirely disappeared within twenty-four hours, an emetic having been given three hours after their invasion. . . . Probably change of air, either alone, or conjoined with the use of certain remedies, such as Labaracque's chlorinated solution of soda, might in a considerable number of cases have proved sufficient to ward off, or perhaps, more correctly speaking, to arrest the disease *in limine*. This belief is principally grounded upon the

fact that for some days before there exists any other evidence of the presence of the disease, the countenance assumes a peculiar premonitory hue, indicating, I apprehend, a dissolved state of the blood, and a want of tone in the capillary vessels. When the vital fluid is still more dissolved in the subsequent stages of the disorder, we also find an increased inability to circulate in the capillaries, from the enlarged calibre, or relaxed state of these vessels, disabling the organs of secretion from performing their functions, from congestion, as is frequently manifested by the scanty urine and yellow skin, which latter symptom, as the cases detailed sufficiently prove, does not arise from any obstruction in the biliary ducts, but depends upon the bile not being separated from, or being reabsorbed by the blood. Another class of symptoms produced by this capillary congestion, is hæmorrhage from the mucous membranes, with occasional black vomit. That the blood really is in a dissolved state was made manifest to us, *first*, by the imperfect coagulation which it underwent when drawn from the veins of the patients, a homogeneous and spongy mass being formed in place of a firm fibrinous clot, with a supernatant serosity; *second*, by the ecchymoses which was uniformly observed to surround flea-bites, or other slight injuries of the skin; *third*, the frequent occurrence of purpurous spots; *fourth*, the hæmorrhage; and *fifth*, the discoveries made by the microscope.

“ Professor Allan Thompson had the goodness to lend me his able assistance in examining the blood of a number of my patients, by means of the microscope. A few drops were taken from the thumbs on the same day (Oct. 24th), of about a dozen persons, some of them in the pyrexial, and others in the apyrexial stage of the disorder; and it was found that in all of them there were an unusual number of pus globules, and in some cases, in addition to this, all the globules were found serrated and notched. One gentleman present on this occasion was observed to have his blood exactly in the same state as the fever patients, and within two days he was seized and went through two mild attacks, or to use conversational phraseology, *the fever and the relapse*. The blood of some other healthy persons was also examined at the same time; it exhibited nothing unnatural and none of these latter individuals have taken the fever, although more than a month has now elapsed since the observation was made.”

These observations are highly interesting, and accord with those of several writers on the yellow fever in America. Our readers are no doubt familiar with the reference to these contained in Dr. Twéedie's article on fever, in the *Cyclopædia of Practical Medicine*. Dr. Potter, whom he there quotes, states that it was remarkable

“ In all cases in which it was deemed expedient to bleed, the blood wore the same general appearances. After a separation the serum assumed a yellow shade, often a deep orange, and a portion of the red globules was invariably precipitated.”

He also found the same condition prior to the attack in the blood of those who resided in the malarious district, while in the blood of those who lived in a healthy district no such appearances were to be met; and he further states, that of the six apparently healthy persons whose blood gave such indications, four were seized with fever during the epidemic, the other two escaped any formal attack, but complained occasionally of head-ach, nausea, and other indications of disease.

Would not this orange hue of the serum explain the appearance of the skin and secreted fluids, without the necessity of supposing actual jaundice (though this is no doubt mostly present) in these cases? and does it not countenance the seemingly fanciful hypothesis of Saunders, that the colour of the skin depends rather upon a particular state of the lymph in the cellular substance of the parts, than upon the absorption of bile into the circulating mass?

To return to Dr. Cormack.

"The present epidemic," he considers, "possesses positive and negative characters strikingly distinguishing it from the fever which generally prevails in Edinburgh, viz.:

"1. *The sudden and violent invasion of the disease.*

"2. *The bronzing, hardening, and purpling of the countenance before seizure.* This was one of the most remarkable peculiarities of the prevailing epidemic."

By one it seems it was compared to the Walcheren epidemic. By another to the aspect of the inhabitants of the marshy districts of Italy, and it appeared to our author to bear a resemblance to the descriptions of Andouard and Blanc, of the change of colour of the countenance before it assumed the yellow cast in patients affected with yellow fever in warm climates.

"3. *The almost uniform occurrence of one or more relapses.*"

So great is the tendency to this, that the author says most confidently, unless anti-periodic remedies are employed, one or more relapses will occur with hardly a single exception. He does not offer any explanation of this peculiarity. It may be remarked, that in some parts of this country the prevailing fever of the past year has shown a similar tendency in a greater degree than we ever remember, but of course in nothing like the same proportion as the above. It is a remark of Dr. Cheyne, that in Ireland *short fevers* especially are prone to relapse.

"4. *An unusual number of cases exhibiting yellow skin, black vomit, and hæmorrhage.*

"5. The short duration of the pyrexial state, and its mode of termination."

In these particulars, as well as the preceding, Dr. Cormack shows that the epidemic resembled the Irish one of 1826, while it bears an equal resemblance to yellow fever, a term, he contends, which should be banished from the nomenclature, inasmuch as yellow skin, and black vomit, black stools and urine, and hæmorrhage are consequences of congestion liable to occur in fevers of all types and countries.

"6. Severe muscular and articular pains in the disease, and during convalescence."

These the author thinks may possibly depend on the presence of urea in the blood.

"7. The rosy, elliptical eruption resembling measles is absent in almost every case in the present epidemic."

This, the author truly observes, is one of the most remarkable distinctions between the symptoms of this epidemic, and that which has been common in Edinburgh for a number of years past. He starts the inquiry, suggested by its *occasional presence*, whether the two fevers, though apparently so different, are not the results of modifications of the same morbid poison? As the question of the speciality of Typhus will come under our notice shortly, when examining another work now upon our table, we shall not dwell upon it at present. Dr. Cormack does not, we conceive, throw much light upon it, indeed he states that his own opinions are not settled, having been modified by recent experience, and he says:

"If some think that on this point there has been exhibited an undue reluctance to enter fully upon an important pathological inquiry. I beg to remind them that data are yet wanting to entitle us to discuss it fairly and with profit. This may be attempted in a subsequent publication at the close of the epidemic."

We hope so, and shall expect to receive much information upon a most interesting question, from so candid and painstaking an inquirer as the author.

"Severe vomiting is much more common, as are likewise gastric, gastro-hepatic, gastro-splenic, and gastro-enteric symptoms."

"In the mild cases the matters vomited are generally the ingesta tinged with green of various degrees of intensity."

"In the most malignant of the yellow cases there is sometimes a fine inky sediment in the vomit, at other times the grounds are gru-

mous, in consistence like the thick part of hare soup, and varying in colour from dark brown to black.

"The grumous matter of the black vomit, in its various forms, is unquestionably blood extravasated from the capillaries of the stomach, and chemically altered by the action of the acids of the stomach upon it."

The acute pain which patients often complain of when pressure is made over the stomach and duodenum seems, Dr. Cormack thinks, to depend, in the majority of cases, upon flatulence alone. At all events, when accompanied by gaseous distention, which it generally is, he has found far more advantage from turpentine enemata, carminatives, and fomentations, than from leeches. A valuable remark.

Fulness of the liver has been noticed during life in some cases, but not so frequently as the same affection of the spleen, which becomes so much congested and enlarged, and gives so much pain on pressure, as to simulate *splenitis*. The enormous congestion, however, of this organ has, according to Dr. Cormack, as little to do with inflammation as any of the other congestions met with in the fever.

On the origin of the epidemic Dr. Cormack does not throw any light; he states, that "facts are not wanting to give colour to the belief that the disease has been imported into this country." What these are he does not state. He considers the disease is contagious:

"Of this we have sufficient evidence in the fact, that almost all the clerks and others exposed to the contagion have been seized. Dr. Hende and his successor, Mr. Reid, in the new Fever Hospital; Dr. Bennet, my successor there; Mr. Cameron, and his successor Mr. Balfour, in the adjoining Fever house, as well as most of the resident and clinical clerks in the Royal Infirmary, have gone through severe attacks during the past summer and autumn. Hardly any of the nurses, laundry women, and others coming in contact with the patients, or their clothes, have escaped," &c.

It does not seem to spread by contagion out of doors, at least not in the *new town*, where isolated cases of great severity have occurred, but have not propagated the disease. Probably, as Dr. Cormack seems to think, its power in this respect is not strong, requiring the aid of the *consortus ægrotorum* for its diffusion. In other words it might perhaps be termed by obstinate opponents of the doctrine of infection, a *factitious* contagion created by accumulation of sick persons, and not originally belonging to the disease.

The structural lesions caused by the fever are shown by a

summary of all the dissections made by Dr. Cormack. The following seem to have been the usual appearances :

Bile ducts pervious ; inspissated bile in the gall bladder ; black matter similar to that vomited contained in the stomach ; mucous membrane of stomach and intestines dark coloured from congestion, and with occasional patches of submucous exudation or extravasation of blood. Liver sometimes yellow, and resembling the condition described by Louis,—sometimes dark and tinged with blood. Spleen generally soft, sometimes enormously distended, weighing, in one instance, two pounds. Frequently, general internal congestion and yellowness of tissues.

“ Enough has been seen,” says the author, “ to indicate at least the nature of the lesions to be expected in similar cases, viz. 1. abundance, or even an excess of bile, and a pervious state of the biliary ducts ; and 2, more or less congestion of organs, with, frequently, extravasation of blood in various situations. These appearances are either identical with, or analogous to, what the majority of observers have noticed and described as being those which are found in persons dying of yellow fever. It may be interesting to refer to a few of them.”

Want of space forbids our extracting these.

The chapter on the sequelæ of the disease consists chiefly of extracts from Dr. M'Kenzie's Paper in the Medical Gazette for 24th November, on the peculiar form of Ophthalmitis affecting Convalescents ; and remarkable from its resemblance to that which occurred in persons recovering from the Dublin Epidemic of 1826, described by Doctor Jacob in the fifth volume of the Transactions of the Association of Physicians.

The remarks on treatment are highly judicious and important, and merit the study of all who may be called upon to treat this disease. He thus states the principles upon which his practice was founded :

“ At an early period of my experience I became convinced that there were three states most apt, either separately or conjointly, to cause death, and which, therefore, ought to be anxiously looked for, and, if possible, promptly corrected. They are :

“ 1st. *Congestion of the mucous membrane of the stomach and intestines, terminating in effusion of blood and subsequent destruction of large portions of this tissue.*

“ 2nd. *Congestion of one or more of the abdominal viscera, particularly of the liver and kidneys, disabling them from the performance of their secretive function, thereby causing bodies to circulate with the blood which ought to be separated from it, and which bodies we know to act as poisons when not so eliminated from, or when directly introduced into the circulation.*

“ 3rd. *Debility and sinking.*

“ 4th. *It will also be necessary to speak of the measures to be adopted to prevent or modify relapses.*

“ The best means by which to prevent these evils are the cautious but steady use of purgatives, the determination of blood to the surface and extremities, and in some cases its abstraction. When the kidneys are not performing their functions, a small bleeding from the lumbar region by cupping, or even a dry cupping in those in whom depletion would be hazardous, proves of signal benefit. Of course when there is debility and a risk of sinking, cordials and stimulants must be administered; and if, along with this, which is no uncommon case, there be nausea or vomiting, they must be combined with sedatives.

“ It has seemed proper to make these general statements before speaking separately of the various therapeutic agents, which will now be done.

“ *Abstraction of Blood.*—This powerful method of interference, for good or for evil, most naturally claims our attention, as to it have been ascribed numerous and great advantages. Several medical friends who have visited the hospital have urged me to practise it both generally and topically, from the success which they imagined had attended it in many cases. I have been told, for instance, and that very confidently, that patients bled in an early stage of the fever seldom relapsed or became yellow, and rarely suffered, except to a very small extent, from muscular and articular pains. Though I certainly did not expect to reap these advantages from the abstraction of blood, yet observing that the fever was attended in its commencement by much arterial excitement and congestion, it appeared to me both reasonable and justifiable to make some experiments upon the effects of venesection in suitable cases. In most, if not in all the instances, the headach was either relieved or entirely removed for a short time, and the hard and frequent pulse was rendered softer and slower. These beneficial changes were often not effects though sequences of the bleeding, as was satisfactorily proved by the very same changes frequently occurring as suddenly and unequivocally in patients in the same wards, and affected in the same way, *who were subjected to no treatment whatever.*”

He thus states his preference of general to local bleeding :

“ It is supposed by some that leeching is less objectionable than general bleeding, but I think the contrary of this supposition is often the truth. In opening a vein and allowing the blood to flow when the patient is sitting up, we have in the effect produced at the time, an accurate index by which to regulate the quantity to be taken; and then it is almost always easy to arrest at pleasure the flow of blood from the brachial vein. With leeches it is different, and especially in the present epidemic, where the tendency to hæmorrhage, and the difficulty of arresting it, are so great, that I have several times seen alarming depression caused by the oozing from one or two leech bites,

between the time when they had been removed in the afternoon of one day and the noon visit of the next. The special objection to leeching is the danger of causing the loss of an uncertain quantity of blood.

“In several cases of pulmonary inflammation of various forms and degrees, I have seen all the symptoms disappear under the use of antimony and morphia combined, or the liberal use of the morphia and ipecacuan lozenges. These remedies, when used along with fomentations, sinapisms or blisters, are safe, and generally efficient substitutes for local bleeding, in thoracic complications. As the result of my experience then in this matter, I would say that the cerebral, pulmonary, and abdominal complications in which it is proper to abstract blood are extremely rare, and that in very many such instances it is a most hazardous practice. The statements which have been already made sufficiently justify this opinion, so far as the cerebral and pulmonary symptoms are concerned, and, with regard to the abdominal affection, this will be equally easy.

“In some of the most severe and threatening cases of abdominal pain and extreme tenderness on pressure, the patients have been well brought through simply by the diligent use of copious warm poultices and fomentations: enlarged and tender spleens have often done well with this simple treatment. I do not mean to say that it would be proper in all such cases to abstain from abstracting blood; but am anxious to point out how exceedingly valuable these remedies are, and how much safer it is in weak persons to rely on them, than to take away any blood. Francis Rose (*vide* page 60), when far spent in strength, was seized with acute symptoms of enteritis and diarrhoea. A little morphia was added to the whiskey which he was taking, to sustain his feeble and fluttering pulse, and his abdomen was most assiduously fomented. Contrary to all expectation, the symptoms abated, and recovery ensued. Depletion in any form would, I think, have killed him.”

The internal use of diaphoretics he disapproves of, but he recommends the use of external heat and moisture.

“Although of opinion that all diaphoretic and sudorific drugs are of little advantage, and that violent sudorific doses are injurious, I am yet of opinion that I have very often seen the best possible results from other means employed for the purpose of diaphoresis and sweating, such as the wet blanket, the partial warm bath, and tepid sponging. The general warm bath is apt to produce exhaustion. I had three young patients affected with ardent fever, and dry, hacking cough, closely wrapped up in a blanket wrung out of hot water; above this were placed several dry blankets. They sweated most copiously from ten to fourteen hours, and were then removed to a dry bed, where they all sweated again so freely, as to require to have their linens changed. They emerged from this sudorific regimen perfectly free from fever, cough, and pains, but excessively weak and languid.”

He also speaks highly of cold sponging in severe head-ach, and of the aspersion of the arms and chest with cold water in cases of irritability and restlessness.

Purgatives form, in the author's estimate, a most important part of the treatment :

"The great aim in administering these medicines in this and other fevers, should be, to clear out the bowels fully, and, if possible, daily, at the same time carefully avoiding such substances and doses as might cause gastro-intestinal irritation, or debility from catharsis."

Compound powder of jalap, compound colocynth pill, with blue pill and calomel combined, in cases of irritable stomach, with a quarter or half a grain of opium, the black draught, aloes and assafoetida, and castor oil, were those mostly used. Croton oil he considers a very suitable purgative in this disease.

His experience is unfavourable to the use of mercury, which he has latterly never used.

"The cases have gone on at least as well as formerly, during the pyrexial stage, and convalescence has been more rapid from there being no retardation of it from sore mouth." "As the biliary secretion is excessive, and not diminished in the yellow patients, it seems absurd to give a medicine which unquestionably acts as a direct stimulus on the liver."

To relieve the muscular and arthritic pains, colchicum was given without any good effect. The hydriodate of potass appeared to be useful, especially during convalescence; an observation which, our experience leads us to say, might be extended to other fevers.

Different tonics were given with good effect, more especially quinine, and the saccharine carbonate of iron.

The work concludes with a statistical table of cases.

The length of our extracts sufficiently shews the sense we entertain of the importance of this work. It is a modest and brief, as well as a faithful and learned account of the epidemic. We cordially recommend it to our readers, and again express our opinion that it deserves to be placed beside Cheyne and Barker's Report, in the library of every medical practitioner.

Minor Surgery; or, Hints on the Every-day Duties of the Surgeon. By H. H. SMITH, M. D. Illustrated by Engravings. Philadelphia.

THIS is a very useful little work, and we know no book published in England which gives such minute and satisfactory descriptions of the uses and modes of application of bandages,

straps, splints, &c., each description being illustrated by a good, though rather coarse wood-cut. There are a series of these illustrations, which exhibit the use of the handkerchief in various diseases of the head, body, and extremities, in a variety of ingenious ways, many of which were not known to us before, and their adoption we think will be likely to be found useful.

"The handkerchief, or square linen, may," he says, "replace all the bandages that we have before treated of, and in its dimensions, as well as in the tissue composing it, must be regulated by the size of the part to which it is to be applied, or the circumstances of the moment. It is, therefore, a matter of indifference whether it be of silk, cotton, or linen; and if too short to go round a part at the time of its application, may be easily lengthened by attaching to its extremities two pieces of tape or ribbon. From this original piece we may form various other shapes suited to circumstances, viz., the triangle, the long square, the cravat, and the cord, made by twisting the cravat on itself.

The following is his account of Baynton's plan, and will convey a specimen of the style of the work :

"As the treatment of ulcers by the use of adhesive strips is of considerable importance, a detailed account of Baynton's plan is here given.

"Several strips of adhesive plaster, the manner of preparing which has been already described, of about two inches in breadth, and sufficiently long to pass round the limb and leave an end of about four or five inches; several longitudinal compresses made of soft calico, and a calico roller about three inches in breadth, and varying from four to six yards in length, according to the size of the limb, are first prepared. Then one of these strips is to be applied to the sound side of the limb, opposite the inferior part of the ulcer, so that the lower edge may be placed about an inch below the lower edge of the sore, and the ends drawn over the lower part of the ulcer, with as much gradual extension as the patient can conveniently bear; the other strips are then applied in the same manner, each above and in contact with the other, until the whole surface of the sore and of the limb is covered from one inch below to two or three inches above the affected part.

"The whole of the leg, if it is the part affected, should then be covered equally with the longitudinal compresses, and the roller applied round the limb, from the toes to the knee, with as much firmness as the patient can support without complaint. One or two spiral turns of the roller should be first passed round the ankle-joint, then as many round the foot as will cover and support every part of it, except the toes, and the same continued up the limb as far as the knee; the roller should be carried from the ankle upwards in reverses, as many of them being made as the parts require, in order that each turn may

lie flatly on the limb. Should the parts be much inflamed, or the suppuration be very abundant, the applications are to be wetted frequently with cold spring water. The patient may take exercise if he pleases, as this will be found to alleviate the pain and tend to accelerate the cure. The bandage ought to be daily applied soon after rising in the morning, when the parts are most free from tumefaction; and the force with which the ends of the plasters are drawn over the limb gradually increased as the parts return to their natural state of ease and sensibility. When the cure is thus far accomplished, the roller should be applied with as much tightness as the patient will bear, more particularly if the limb be in that enlarged or compressible state denominated scorbutic, or if the edges of the wound be thickened.

"We may remark, that this bandage is liable to produce excoriations of the limb, but these are never serious except when they occur over the tendo-Achillis. To prevent them or accelerate their disappearance, Mr. Baynton recommends the application of a small shred of soft leather under the adhesive plaster: or a bit of sheet lead may be used in place of the shred of leather, as it answers better.

"During the years 1830 and 1831, several of the most eminent surgeons of Paris submitted Baynton's method of compression to a series of experiments, which, as the result will show, were highly favourable to it. Velpeau found the average time of cure ten, fifteen, or twenty days, for ulcers of three, four, or five inches in circumference. Ph. Boyer, who perhaps pushed the experiments further than any one else, found the average period of treatment calculated upon a large number of cases, to be twenty-six days; and this result is so much the more striking, as Duchâtelet was noticing at the same period the average length of time required by the older methods, which he found in six hundred and ninety cases to be fifty-two days and a half, giving a difference of more than half in favour of Baynton's plan. In the course of these experiments some modifications were introduced; as, for instance, that by Velpeau and Ph. Boyer, of the substitution of good diachylon plaster for the mixture of Baynton. So, with respect to the breadth of the plasters, the above surgeons found them more advantageous when only an inch or an inch and quarter broad. In the course of the experiments, Roux and Ph. Boyer found that the inflammatory state of the ulcer did not counter-indicate the employment of compression, which often arrested even its secondary effects. Marjolin, however, recommended the reducing of the inflammation before proceeding to compression. Velpeau and Roux extended the compressive treatment to contused wounds with disorganization of the skin, which were getting into an atonic state, and also, to every species of wounds with or without loss of substance, when the cicatrization was slow, or otherwise checked by a general vice of the constitution, attending, however, in the latter case to internal remedial agents calculated to benefit the system. Ph. Boyer endeavoured to cure syphilitic and scorbutic ulcers by compressive strips alone, but without success; while, by exerting this species of

compression, and employing, at the same time, the ordinary internal remedies, the cure was remarkably hastened.

“ Ph. Boyer's observations all tend to support the opinion of Baynton himself, that, when the leg is properly bandaged, walking, at least moderately, tends to facilitate the cure, and renders it more complete. With regard to the periods of renewing the bandage, Velpeau found it quite sufficient to change it every three, four, or five days, according to the degree of irritation. Boyer never dressed them oftener than once in forty-eight hours. Valbrune considered it necessary to renew the bandage oftener, if the cessation of swelling caused it to become relaxed, but agrees with Velpeau and Boyer in thinking that the less often the bandage is disturbed the better.”