Part Second.

REVIEWS.

Contributions to the Mechanism of Natural and Morbid Parturition, including that of Placenta Prævia; with an Appendix. By J. Matthews Duncan, President of the Obstetrical Society. Edinburgh: Adam and Charles Black.

The book before us is a collection of papers, all bearing more or less directly upon the mechanism of parturition, natural or morbid. The term "mechanism," however, must, in reference to this work, be understood in its wide meaning as embracing our knowledge of the nature of the processes and the mode of action of the various forces which determine the onset of labour, and effect parturition; including, but not merely consisting of, a description of the manner in which the foetus and placenta traverse the genital passage. All the papers are exceedingly valuable and highly interesting. Some of them are of surpassing merit, and far above praise.

The subjects treated are so varied and vast, and the amount of learning compressed into each paper is so great, that on every one of them an essay might easily be written. Our space, however, forbids us going into detail, and compels us to content ourselves with briefly alluding to a few of the more prominent papers.

As almost all the papers have been already published in this Journal at the time of their original appearance, our readers are acquainted more or less intimately with most of them. Besides this, several of them, having already been published in the author's work entitled "Researches in Obstetrics," were noticed by us at the time of the publication of that work, and consequently do not require to be again referred to here.

We observe, however, that all the chapters which were published in that work bear internal evidence of having been subjected to a rigid revisal, and, whenever the advancement of obstetrical science required it, of having been corrected and improved up to the present date.

It is much to be regretted, we think, that Dr Duncan had not attempted to work the individual essays more into a conglomerate whole, and have thus made the work bear more directly upon the mechanism of parturition. The value of these separate contributions, undoubtedly great though they be, would have been much enhanced had there been a better arrangement among, and stricter concatenation between, the various chapters which constitute the work. A good deal of repetition would have been thereby avoided,
and a more clear and impressive idea of the subject would have been communicated to the reader. As evidence of this want of system in the book, we may instance that, between a chapter of the highest scientific value, on the mode of progress of the science of natural parturition, and another, of at least equal value, on the curves of the developed genital passage, is inserted a paper upon long delay of labour after the discharge of liquor amnii, of little importance relatively, and certainly having little logical connexion with the main purport of the work. Again, a paper of no great merit, on the chief directions and extents of uterine shrinking, is placed between two papers of very great importance and originality, viz., those on the efficient powers of parturition, and on the tensile strength of the fresh adult foetus. Lastly, the author’s excellent address on Obstetric Medicine, delivered at the meeting of the British Medical Association in 1873, is appended to this work, for reasons that are not obvious, considering the very slender bearing it has upon the mechanism of parturition.

These blemishes, however, are but like spots on the sun compared with the intrinsic merits of the work, and we are only sorry that those slight defects of form exist, as they are not unlikely to deter the superficial reader from entering into the scientific treasures contained in the volume.

But to briefly consider some of the leading papers.

In the paper on the curves of the developed genital passage, the author, while maintaining the ordinary view that the axis of the impregnated uterus in the case of a well-formed pelvis coincides with the axis of the brim, combats ably, and, we think, most successfully the recent views of Schultze and Schatz, that the uterus has normally a posterior obliquity, and rejects the somewhat absurd practice, founded on this theory by Schultze, of placing a pillow below the loins of the parturient woman during the latter part of the second stage to facilitate the labour. If such an attitude facilitated labour, it is very strange, as our author suggests, among other very many and cogent reasons, that instinct directs a woman, straining in labour, to adopt an attitude nearly the opposite of that implied by extension of the spine, viz., one of a certain degree of flexion.

In connexion with this subject, we may note that upon the fact of the existence almost universally of lateral obliquity of the uterus, Dr Duncan elaborates a beautiful and original theory of the mode of production of presentation of the face. This is the subject of Chapter XIV., but may be considered along with Chapter III.

According to Dr Duncan, face cases most frequently arise in consequence of the uterus being usually bent to the right side or the left—most commonly to the right. This bending of the uterine axis converts the developed lower segment of the uterus into a bent tube. That aspect of this tube corresponding to
the side towards which the organ is inclined, being necessarily convex, consequently presents relatively greater resistance to a body passing over it than the opposite aspect, whose surface is concave. To understand how a face case arises according to Dr Duncan's theory, let us now suppose we have a case of right lateral obliquity of the uterus, with the foetus presenting the vertex occiput to the right. It is plain that when the uterus begins to press the head downwards, there is a tendency for the occiput to be retarded by the relatively greater frictional resistance presented by the convex surface of the lower part of the uterus on the right, whilst descent of the forehead is facilitated by the relatively less obstruction it meets with as it passes over the concave left side, and thus there arises a tendency for the head to become extended on the trunk so as to convert the vertex presentation first into a brow, and ultimately into a face. Suppose, in addition to this, that we have a degree of dolichocephalus present, which Hecker has shown to be very frequently the case in the heads of children presenting by the face, and we see that the long posterior lever would act in such a manner as to aggravate the existing tendency of the occiput to be retarded.

This theory, which is at once very much more clear than the mystifications of Schatz on this subject, and much more definite than the loose and painfully general views lately enunciated by Ahlfield, explains the previously observed fact, that face cases, with the chin to the left, occur more frequently than they ought to happen were they simply the result of extension of cases of occiput to the right. For in the other fact, that the lateral obliquity is so much more frequently to the right than to the left, Dr Duncan's theory finds an easy and consistent explanation of the above-mentioned circumstance, viz., because that the occiput experiences relatively much more frequently obstruction to its descent when it is towards the right, than when it is towards the left. Again, the relative rarity of presentations of the face in British, compared with German practice, is explained by Dr Duncan, by the fact that the left lateral position, which is that usually adopted in British practice, undoes right lateral obliquity of the uterus, and consequently removes the great cause of face presentation, whilst the dorsal decubitus, usually adopted in Germany, does not do so.

It is interesting to observe, as Dr Duncan points out, that Baudelocque entertained this idea of the origin of face presentations, though his less accurate knowledge in regard to uterine obliquity prevented him from stating the case with the same precision as Duncan, who, however, was led to his present opinion by independent and original investigation, before he saw Baudelocque's statement.

Chapter VII. contains an able refutation of the wild views enunciated by Haughton some years ago, relative to the amount of the force which he holds a woman may exert through the voluntary abdominal muscles. Our author's views on this subject...
cannot fail, we feel sure, to find acceptance with every practical accoucheur.

The article on uterine shrinking is original and thoughtful, but its importance is not very evident. The same cannot be said of Dr Duncan's experiments on the tensile strength of the fresh adult foetus, which is the most perfect contribution which has yet appeared to the solution of the much vexed question as to whether long forceps or turning is the preferable operation in cases of slight narrowing of the pelvic brim. Only experiments, such as Dr Duncan has instituted for the solution of this difficulty, can solve this problem. From these experiments, five in number, made by attaching heavy weights in successively increasing amount to the ankle of the foetus, whose head was held in an aperture so cut in hard wood as to represent a narrow pelvis, our author comes to the conclusion that,—

1st. The life of the child is compromised, if a force of about 100 pounds is exerted on the neck, as the spinal column was found to give way when weights varying from 90 to 147 lbs. were put on.

2d, That on an average a weight of 120 lbs. will effect decapitation of the foetus.

3d, That one leg for traction purposes is quite enough, as by one limb you find weights are invariably held in suspense which are sufficient to effect decapitation.

These experiments cannot well be overestimated, as they invest with scientific accuracy problems that have led to endless guessing and to a terrible waste of words and logic; whilst they prove that not much if any greater force need be exerted by traction on the child's body without compromising its life than can be employed with forceps.

With the author's views in regard to Kyneke's doctrine of the synclitic motion of the foetal head we entirely agree, and even think that Dr Duncan wastes his powers in bestowing so much attention upon the refutation of a view so plainly incorrect. Kyneke's synclitic motion of the foetal head we hold to be much of a piece with his extraordinary observations on the opening of the cervix uteri during labour from below upwards, instead of from above downwards, as it is found to dilate in the hands of all other observers we have yet heard record what they have seen. Kyneke we hold to be a very ingenious writer, but we cannot help feeling he is mentally better fitted for being a poet than an accoucheur, because his imagination is so apt to run away with his judgment. We may well forgive him, however, for being the occasion of inducing the author to communicate to the British profession the exceedingly interesting observations of Dohrn, Fankhauser, and other German authors upon the shearing (verschiebung) of the foetal head under the influence of strong pains during the second stage. These remarks occur in the course of Dr Duncan's paper on the synclitic movement of the foetal head; they are beautifully illustrated by two engravings, copied from Fankhauser's origi-
nal paper, and altogether deserve the careful study of every scientific obstetrician.

In respect to his views and deductions therefrom regarding the mechanism of the third stage of labour, or the mode in which the placenta is expelled, which is the subject of Chapter XVI., we may state that we entirely and absolutely agree with Dr Duncan, and that, too, after extensively testing the truth of his opinions. We have found that invariably the edge of the placenta presents at the os, if the natural mechanism is left to act undisturbed. We have also seen smart hæmorrhage and other troubles proceed from traction on the cord and consequent derangement of nature's mechanism.

The publication of the supplementary part of Braune of Leipzig's Homolographic Atlas is the occasion of Chapter XVIII., which contains a short but good description of the changes undergone by the cervix uteri during labour, supported specially by reference to Braune's plates.

We have left ourselves space merely to name the chapters on the increased length of the cervix uteri after labour, and on the production of inverted uterus, and must pass on to the last and certainly not least important subject treated at large in the work, viz., the chapters on Placenta Prævia.

This is the subject of five chapters, XXI.–XXV. inclusive, which embrace observations on—

"1st, Hæmorrhage during pregnancy in cases of placenta prævia.
"2d, The spontaneous separation of the placenta when it is prævia.
"3d, The causes of unavoidable hæmorrhage during miscarriage or labour when the placenta is prævia.
"4th, The sources of hæmorrhage during miscarriage or labour at full term in cases of placenta prævia.
"5th, The mechanism of arrestment of hæmorrhage in cases of placenta prævia."

We have thus in this part of the work a real and very successful attempt at systematizing our knowledge on the mechanism of this department of morbid parturition.

Our author holds that there is no real distinction between accidental and unavoidable hæmorrhage, but that hæmorrhage during pregnancy in cases of placenta prævia, before the onset of labour pains, is really accidental, and occurs so frequently in cases of placenta prævia merely because the position of the placenta over the lower segment of the uterus favours accidental bleeding. He enumerates the following four ways in which he believes such hæmorrhage may occur during pregnancy:—

"1st, By rupture of a utero-placental vessel at or above the os uteri.
"2d, By rupture of a marginal-utero-placental sinus within the area of spontaneous premature detachment, when the placenta is inserted not centrally, or covering the internal os, but with a margin at or near the internal os.
"3d, By partial separation of the placenta from accidental causes, such as a jerk or fall.
"4th, By partial separation of the placenta, the consequence of uterine pains producing a small amount of dilatation of the internal os. Such cases may be otherwise described as instances of miscarriage commencing, but arrested at a very early stage."

The most interesting and original part of the author's handling of this subject is, however, his paper on the spontaneous separation of the placenta when it is prævia.

The author, rejecting the old view that separation of the placenta is due to development of the cervix during pregnancy or labour, for the very good reason that the placenta is never, and can never be, attached to the cervix—and also the view that the separation is due to uterine contraction of the placental site, inasmuch as if that were the case, every labour ought to be accompanied by spontaneous separation of the placenta during the first and second stages, since there is no evidence to show, or ground to believe, that the uterine contractions do not diminish the uterine area to an equal amount in all its parts—refers it to the expansion which is necessary to convert the lower portion of the body of the uterus into a tube for the transmission of the foetus. We give here the author's views in his own words. At page 345, Dr Duncan says:—

"Expansion of the placental insertion in the first stage of labour is the distinguishing specialty of placenta prævia, and has detachment as its distinguishingly peculiar result. This kind of expansion is only rarely a cause of detachment under any other circumstances. Hydramnios may produce placenta membranacea, and is liable to produce detachment by uterine expansion. In placenta prævia, expansion of the lower part of the body of the uterus in early labour regularly produces, first, stretching of cotyledons and expansion of placental surface, and then separation. While detaching expansion of the uterine site of a prævious placenta, or of a prævious portion of a placenta, is going on in directions transverse to the axis of the uterus, shrinking is going on in a direction parallel to the uterine axis; and this contraction pushes the detached placenta or detached portion into the developing or expanding and elongating cervix, and in the early part of the first stage brings it within easier reach of the examining finger, while at the same time the seat of former placental attachment is getting more and more distant from the external uterine orifice and the examining finger."

We think, in reference to this subject, that there can be no doubt but our author is right in attributing the separation of the placenta to expansion of the lower segment of the uterus, and that separation of the placenta in placenta prævia does not and cannot take place as a result of contraction of the placental site in all directions, as is the case in separation of the placenta after expulsion of the foetus. But we think he makes too much of the ultimate question as to whether the placental area as a whole is contracted or expanded. Looking at the homolographic sections of Braune,
it seems to us that there can be little doubt but that ultimately the placental area is contracted absolutely, for the stretching of the dilated, thinned, and distended cervix, we conceive, so great as to allow of this; and this, we think, supports the author’s views very much in reference to the effect of longitudinal contraction, or, as he calls it, shrinking of the bared placental area, as a means of arresting hemorrhage. Had Braune’s plates appeared before the original publication of this chapter, we think it would have to some extent modified the author’s views, and made him think less about the lateral expansion of the placental site. The separation, after all, seems to us to be due more to the development and stretching of the cervix, by which the placental site is allowed to move upwards, under the contraction of the uterus, away from the placentae, than from any absolute expansion of the placental area. It would form a good mathematical problem, and we think, too, a possible one, seeing that we have Braune’s homolographic sections to guide us, to determine whether the hemispheroidal lower uterine segment within the spontaneously detaching area is or is not greater in area than the same segment when developed into a cylindrical segment of the uterus, after the limit of complete dilatation is reached. This, being determined with certainty, ought to be an important step towards settling the question whether the placental area is ultimately contracted or expanded on the whole.

One result of Dr Duncan’s researches into this troubled question cannot, we think, be overestimated, on account of its valuable practical importance. We mean the definite manner in which he conditions and determines the amount of the spontaneously-detaching area. One need not have read much of the literature of this accident to notice that a great deal of uncertainty has possessed the minds of authors on this point. And if writers who profess to teach the profession have been at sea on the subject, the practical accoucheur cannot be expected to have been guided by clearer ideas. Much good service had already been done by Barnes in this direction, but then his ideas about zones and so forth were far too indefinite to be practically useful.

Our author, however, by a process of close and irresistible reasoning, having first shown that spontaneous detachment must cease in ordinary cases so soon as the dilated inferior segment has reached a diameter of four inches, applies measurement to determine how far we have to pass along a meridian of the uterus, measuring from the inner os, ere such a diameter is reached, and thus accurately determines the extreme limit of spontaneous detachment.

The following are Dr Duncan’s chief statements regarding this matter (page 349):—

“With these principles in view, I have examined the shape of the lower uterine hemispheroid in actual or authentically depicted uteri, and I find that a meridian leaves the vertex or centre of the internal os in a direction nearly at right angles to the uterine axis, and that after it has described an arc of one and a half to two
inches in length, it becomes nearly parallel to it. At about two and a half inches from the vertex the diameter of the uterine cavity is four inches, and this is about one and a half inch above the vertex, measuring along the uterine axis. A canal of about four inches in diameter is large enough to transmit the foetus. There is therefore no need for expansion to any considerable amount above that circle of latitude, which is distant two and a half inches, measured along a meridian, from the centre of the internal os. The measurement will of course be less than two and a half inches, if taken from the edge of the internal os instead of its centre. It is thus seen that the area of the lower uterine hemispheroid, over which dilatation of the internal os necessarily involves great expansion of uterine surface, nearly corresponds with the extent of area which must be expanded in order to transmit the foetus. Expansion beyond a diameter of four inches would ensure very slight extension of uterine surface, and a consequent slight detaching power—so slight, indeed, as to be probably more than counter-balanced by placental expansibility. I therefore conclude that the detaching area of the lower uterine hemispheroid, covering a portion whose vertex is the centre of the internal os uteri, has a meridian semi-length of about two and a half inches, and that its chord measures about four inches."

No practitioner need now be in serious doubt as to when he may expect separation and consequent bleeding to cease of themselves in a case of placenta prævia. There is thereby effected a precision hitherto unknown in the solution of the practical questions as to when an operation is necessary, and at what time it ought to be undertaken in such cases.

In regard to the arrest of hemorrhage in placenta prævia, Dr Duncan refers it chiefly to shrinking of the placental area, and insists also considerably more than is usual upon the effects of changes in the degree of intra-abdominal pressure in causing or retarding such haemorrhage, and finishes up with a condemnatory criticism of the views of Gooch, concerning the occurrence of haemorrhage although the uterus be firmly contracted. In this we feel certain he is right. Very many other points in these and the other papers deserve to be noticed, but space will not permit.

We must say, in conclusion, that we have read the book with pleasure and satisfaction, and regard it as a valuable contribution towards placing obstetrics upon an exact and scientific basis. It is the work of a physician whose mind is replete with knowledge both scientific and practical, to whom the obstetrical profession, already very largely his debtor, is thus laid under fresh obligations.

It ought to be in the library of—and, what is more important, ought to be diligently read and re-read by—every accoucheur who wishes to see the science of his department built up on true principles and more and more approximated to an exact science. We cordially recommend the work to the attention of our readers.
Heredity and Hybridism: A Suggestion. By Edward W. Cox, S.L., Author of "What am I, or a Popular Introduction to Mental Philosophy and Psychology," etc. London: Longman and Co.: 1875.

We are sorry to learn that in publishing his "Suggestion," Serjeant Cox anticipates that he will be "scared by abuse, and put upon the moral rack;" and although the thumb-screw and the stake are for the present out of fashion, the Serjeant doubts how long they will continue to be so "in the present state of religious rancour." We have not found Mr Cox's work a production likely to bring upon him the sufferings or honours of martyrdom. He sets himself to the task of explaining what appears to be a waste of power in nature in the requirement of two parents for that which might be more readily produced by one. At first sight, the Serjeant is disposed to think with a celebrated Roman that the existence of two sexes is something clumsy and needless. What is the use of sperm-cell and germ-cell, when their functions might have been performed within one cell-wall? But if we adopt his theory, nature, as the learned Serjeant brings out, is not guilty of a clumsy and needless contrivance. Every living being has two parents; but then every living being has two sides; every living being is composed of two halves, more or less symmetrical, joined together at the middle line. Mr Cox thinks that every organism is produced from two germs, one furnished by the father, and the other by the mother. "With animals, the nerve system expands and grows, and builds the body about itself," and with plants it grows with some other "formative force." These germs cannot be seen, even with the aid of the most powerful instruments, but they have a real morphological existence, and can be demonstrated by reasoning like the hooked atoms of Epicurus. As the male furnishes one germ, and the female another, this explains why the offspring has the qualities of both, and many other difficult questions of hereditary peculiarity and hybridism. The learned Serjeant does not explain, if the mother furnishes one half and the father one half, and their joint product is connected in the middle line, why one half the body is not like the father, and the other like the mother. Ought we not to expect, for example, that when a white man marries a black woman, the result should be a child white on the one side and black on the other? He, however, is disposed to think that something of this sort may actually be the case, for he suggests, "it would be a curious subject for inquiry, by persons who have leisure and opportunity, how far, in respect of strength and similarity of shape, each of the two sides of the body resembles the father or the mother."

If the Serjeant's theory were discussed at greater length, time
and space might be occupied which in a medical journal could be better taken up by other subjects; but we may observe, in conclusion, that it is difficult to see how nature can be exculpated, even by so subtle an advocate, from requiring two things to accomplish what might be the work of one. Physiologists ask for two cells, a sperm-cell and a germ-cell, and Serjeant Cox asks for two germs. In either case, you have the figure 2. But then, says the Serjeant, you have a double set of organs. But why have we a double set of organs when one set would do the work? Here we come to a standstill. The learned Serjeant is an acute dialectician, and as people nowadays are fond of speculating on the origin of things, his theory may excite some discussion amongst our modern Epicureans.

Heredity: A Psychological Study of its Phenomena, Laws, Causes, and Consequences. From the French of Th. Ribot, Author of "Contemporary English Psychology." London: Henry S. King and Co.: 1875.

M. Ribot has read all the separate treatises that have been published on the subject in French, English, and German, and looked over most of the articles in the contemporary periodicals, and bringing to the work a clear intellect and a respectable amount of learning, he has made a very readable book. Naturally, many of his facts have already done service in other works on the subject. But he has managed to make his book more complete than any previous publication which we have read. The views of Darwin and Herbert Spencer are of course introduced and discussed; but M. Ribot does not seem inclined to give any definite adhesion to their theories. If he has not collected the facts he uses, M. Ribot has at least thought carefully upon them. We have a great many statements made, and a great many questions asked, but the conclusions seem very doubtful. Few observing people will deny that many features are transmissible from the parent to the child; children are like their father or their mother, or resemble both; or sometimes they resemble neither; but it is impossible to predict beforehand whether the particular child will resemble his parents, or in what manner he will do so.

Strength of body, comeliness, and longevity are often hereditary, as are weakness, scrofula, or insanity, but they are not always so. When we come to the hereditary transmission of mental qualities, the vagueness of our knowledge becomes greater. The children now and then have some of the distinctive mental and moral qualities of their parents; often they have none of them, or only one of them: and this is really all we know; we cannot give the how or why.

A breeder of horses or dogs or fowls, confidently expects to get superior animals of the kind he desires. Human beings cannot
be experimented on in this way; but we have made a large number of observations, and these have not given us any results which enable us to predict consequences. If we assume that attempts to found hereditary families have had any serious purpose beyond conferring privileges on their descendants, they have proved utter failures; and the hereditary castes of India are composed of very poor craftsmen. M. Ribot's attempts to prove the hereditary character of all kinds of genius form the weakest part of the volume. Some of his proofs or illustrations have no scientific value. For example, in the chapter on the Heredity of the Imagination, he states that upwards of twenty out of fifty poets had illustrious relatives. Among these is Burns, who, we are told, appears to have inherited from his mother that excessive sensibility which made him one of the first poets of Britain. Schiller's mother was a remarkable woman. Racine's son was a good verse-maker. Byron's daughter is put down as an illustrious relative from her talents for mathematics. Goethe took his physical constitution from his father, but his character from his mother. Goethe's children were stupid, because their mother was a woman of low rank and of no great mental vigour. Cromwell married a woman of gentle disposition, on which account "his male issue were Arcadian shepherds, his daughters more fanatical than himself." We have no time to go through facts like these, which can be turned this way or that way with the greatest ease. If there were no better matter than this in M. Ribot's book, we should say that it was only fit to be read to the British Association, or some other quasi-scientific body. We are ready to admit that talent runs in families, at least it sometimes does; but it does not seem to be the highest talent, and when this admission is made, we can say no more.

But some of the facts which M. Ribot brings forward are of real interest. His proofs of the hereditary character of a genius for music are very striking. The book has a completeness about its form which somewhat contrasts with the vagueness and scantiness of our knowledge on a subject in which we have many concrete facts, and few generalizations or scientific explanations. We have chapters upon the moral consequences of Heredity, treating of Heredity and Liberty, Heredity and Education, upon the part played by Heredity in the Genesis of Instincts and of Intelligence. As may be supposed, these chapters are full of difficult and subtle questions, which are ably handled by the author.

The subject, however, is too interesting and important to be lost sight of; and M. Ribot's book tells the reader as much as is known about it, and perhaps a little more.

We have not seen the original, but the translation seems to be well done. It reads smoothly, and is free from Gallicisms. Altogether, we can recommend this work to those interested in heredity.
A Practical Treatise on the Surgical Diseases of the Genito-Urinary Organs, including Syphilis. Designed as a Manual for Students and Practitioners. With Engravings and Cases. By W. H. Van Buren, A.M., M.D., Professor of the Principles of Surgery, with Diseases of the Genito-Urinary System, and Clinical Surgery, in Bellevue Hospital Medical College, etc.; and E. L. Keyes, A.M., M.D., Professor of Dermatology in Bellevue Hospital Medical College, etc. London: J. and A. Churchill: 1874. Pp. 666.

This is at once a difficult and a pleasant book to review—difficult, because the authors have taken so much care to make it at once concise and exhaustive, that there is not much that can be extracted or given in abstract; pleasant, because there is so little to find fault with, and so much to praise. The authors speak from the result and outcome of much experience carefully weighed and accurately digested. There is little evidence of idiosyncrasy, petulant self-consciousness, or egotism in the work of either of them. Much evidence of an honest desire to instruct, and of a practice and theory each guided by and subordinated to common sense.

The copious material of the work is so well arranged, and so liberally indexed, as to be thoroughly under command for reference; the practical details of treatment are precise, without being wearisome in detail; the cases are accurately recorded without prolixity; and the illustrations, if rough, are practically useful to the student.

Professor Van Buren's portion, which occupies fully two-thirds of the book, is to our mind more satisfactory than that of Professor Keyes. This is owing to the nature of the subject, for the preciseness and accuracy of our knowledge of diseases and injuries of the bladder and urethra, is in pleasing contrast to the vagueness and doubt with which theories of syphilis and its varieties are still beclouded.

We had marked many passages for quotation or remark, but space forbids, and quotation is hardly needed from a work which will doubtless have a large circulation.

The varieties of so-called gonorrhoea are well described (pp. 55-58). Extravasation of urine and its consequences receive more attention in a scientific or experimental point of view than in most works (pp. 143-145). Some very interesting experiments originated by Dr Van Buren are detailed, in which on many occasions large doses, 30 to 60 minims, of healthy urine were subcutaneously injected in healthy patients, instead of morphia. In all of these absorption was perfect; in none, did abscess or local death of tissue follow the injection.

Stricture and stone are both treated practically, concisely, and sensibly, and in both the treatment in America seems to be very similar to our own, with the exception that a greater preference is
shown for soft bougies in the earlier stages of the treatment of stricture than is usual in this country.

The chapter on Varicocele is excellent. In its treatment Dr Van Buren says, "No operation offers a fair prospect of relief without serious accompanying risks, except excision of the scrotum" (p. 471).

We cannot give details of many interesting points in the description of syphilis. We conclude this brief notice by referring to an important paragraph, containing instances of rapid absorption of the syphilitic virus, in one of which a small abrasion cauterized freely with nitric acid within twelve hours of the infection, still was followed by manifestations of constitutional syphilis (pp. 508-9).

We would recommend this work in high terms of praise to surgeons wishing a full account of injuries and diseases of the genito-urinary organs in a single volume, and in an easily accessible form.

Syllabus of Materia Medica, for the Use of Teachers and Students. Based on the Relative Values, and on a Selection of the Articles and Preparations in the British Pharmacopoeia. Second Edition, including the "Additions" in Reprint (1874) of British Pharmacopoeia. By ALEXANDER HARVEY, M.D., Professor of Materia Medica in the University of Aberdeen; and ALEXANDER DYCE DAVIDSON, M.D., Assistant-Professor. Pp. 17 and 45. London: H. K. Lewis: 1874.

The title-page of this little book so far exhibits the purpose it is intended to serve. It is, in fact, an attempt to give practical effect in the branch to which it refers to the principle of a "Definition and Limitation of the Areas of Instruction and Examination,"—a principle first pointedly brought into view some years ago by the General Medical Council, and on which, in as far as relates to the examination of candidates, and in respect of four branches—to wit, Botany, Zoology, Chemistry, and Materia Medica—the Council has last year put its imprimatur.

Our review of this most admirable little work has been far too long delayed; for to review it aright, the great question of medical education in relation to future examination on the one hand, and future usefulness in practical work on the other, should be discussed.

Limitation of the area on which examinations are to be conducted, seems really now to be necessary, from the extraordinary increase in bulk and extent, as well as in exactness, of the knowledge we possess, not only in practical subjects required in medical study, but in the allied sciences which the student has to master. The dedication or preface to this little work to the President and Members of the General Medical Council discusses the whole subject with great pith and power, and deserves careful perusal.

In the work itself, in very small compass, and with admirable
arrangement, we find a limitation of the area of study of materia medica by, (1) An estimate of the relative values of the articles and preparations in the Pharmacopoeia, and (2) A selection of the more important of these. This is done in the most careful way, and with such aids of type, numerals, etc., as to strike the eye, and command the attention even of the most desultory student.

We recommend the work most cordially to the notice of every teacher and student of materia medica who can read the English language. It is a model to be followed by teachers in other departments.

*Dental Pathology and Surgery.* By S. J. A. Salter, M.B., F.R.S. London: Longmans and Co.: 1874. 8vo.

*De l'Evolution Pathologique de la Dent de Sagesse.* Par M. V. Pietkiewicz. Gaz. des Hopitaux, Novembre 1874.

Within the last quarter of a century our acquaintance with the pathology and treatment of dental disease has wonderfully increased. Many erroneous theories have been exploded,—much that never was dreamt of has been revealed, and an amount of medical and surgical knowledge expected of its practitioners that entitles dentistry to a very different position from what it occupied prior to that time. Nowadays a considerable number of those who used to be courteously denominated *surgeon*-dentists really are surgeons; some of them, such as the author of the work before us, deservedly standing high in the ranks of medical science. When such men devote themselves to writing upon a departmental section of surgery like that under notice, the result is at once apparent, not only in the grasp and thorough knowledge of the subject displayed, but in the ease and precision with which its phenomena are linked with, or referred to, its surroundings in the animal system as a whole. It is here that the mere specialist is distinguishable from the fully qualified practitioner. The one must seek for the disease, and its cause, and its cure, within the limits of his own province; the other sees its origin and its relief lying in some region which, if not altogether a *terra incognita* to his neighbour, is at least a territory where it would be dangerous to venture too far, and on which, if a wise and modest man, he will not encroach.

Mr Salter's work consists of an octavo volume of some 400 pages, interspersed with no fewer than 133 illustrations. While, perhaps, the greater portion of the treatise may more immediately interest and concern the dentist, there is much to attract the attention of the surgeon in the broader aspects of practice. Such are the chapters on odontomes, on gum tumours, on dentigerous cysts, and jaw necrosis. Many of the morphological changes, commencing in or confined to teeth, frequently excite little notice until they have acquired an extent and character apt to lead to errors of diagnosis.
But even at this late stage, an acquaintance with, and recognition of, what might be considered unimportant circumstances sometimes saves a patient from an unnecessarily severe operation. Thus, in speaking of dentigerous cysts, Mr Salter reminds us that "one of the most usual symptoms, which is also an important diagnostic sign, is the absence from the mouth of some tooth or teeth, which should have appeared, and which have never been extracted." . . . "In some instances, considerable portions of the jaw-bone—even as much as half the inferior maxilla, have been removed for dentigerous cysts. In all these cases, I believe," says he, "the operation was undertaken from an incorrect diagnosis. A knowledge of the real nature of the disease and an early interference would have rendered such proceedings quite unnecessary."

An interesting chapter is devoted to the discussion of "Phosphorus disease" or maxillary necrosis from the fumes of phosphorus. Here the author strongly upholds the view that dental caries must exist during exposure to the phosphorus fumes in order to such consequences as maxillary necrosis being produced. A little haziness, however, mingles with this theory when, in the chapters following, he classes it with the occasional action of fever poisons on various organs in the patient's body. In whatever manner the fumes of phosphorus may act, they must always be considered among inorganic agencies; while the nature of a fever poison, on the other hand, must be held as acting through the medium of its vital endowments, and, so far as its secondary local effects—such as jaw necrosis, cancrum oris, or other affections of the mouth—are concerned, only acting in the same manner as when gangrene of the extremities is so produced; the poison, if poison it be, acting from within, and confined in such secondary effects to the patient in whom it has been developed. There seems no doubt that the influence of phosphorus fumes is the cause of the terrible malady attributed to it, and that their action is a local one. Lorinser, who first wrote upon this subject so early as 1839, Strohl, Heyfelder, Roussel, Gendrin, Sédillot, Von Bibra, Geist, and Ebel, all adopt this opinion in a general manner. The poison, according to them, acts locally through the saliva, or by direct contact, or in both ways. Drs Jüngkeen and Helfst supposed the disease to be a merely accidental complication occurring in the debilitated condition of those exposed to the fumes, the cold, the moisture, and other incidental vicissitudes of match-making; while Martius of Erlangen, and Dupasquier of Lyons, ascribed it to arsenic, as an impurity of the phosphorus employed. All these opinions have, however, long been shown to be easy of refutation. And although Dr Bristowe, in his report before the Privy Council in 1863 on the manufactories where phosphorus was employed, disputed the fact of carious teeth necessarily pre-existing in order that the disease could be produced, he did so merely upon the statement of patients upon a point which Mr Salter justly observes as one requiring a
particular and special knowledge and habit of search to discover, and one which would be excusably overlooked by any ordinary practitioner of medicine or surgery. We may therefore assume it as established that the primary and essential cause of this form of maxillary necrosis is the direct application of oxidized phosphorus to the exposed tooth pulp.

In his remarks on jaw necrosis after eruptive fevers, the author adduces a number of interesting and instructive cases, from which he concludes that, the teeth being members of the dermal system, we should naturally expect them to share the effects of such fever poisons as spend their chief force upon the skin. And it is here, at p. 310 of his book, that he makes the statement, the correctness of which we have already called in question—"that the necrosis and exfoliation of bone and teeth after the eruptive fevers is essentially the same as the maxillary necrosis in the victims of phosphorus fumes, and that it is the result of the local application of a specific poison to the vascular parts of the teeth." But there is much yet to be worked out in the pathology of maxillary necrosis, from whatever source it may arise. The late Professor Syme used to describe, in his clinical lectures, a condition of the jaw and superjacent gum where, although a probe could be passed down to the bone in various spots, it was not necrosed, and his mode of cure was to strip the gum from the alveolar surface, and probably with it a part of the periosteum—the result being that exfoliation of a portion of the weak bone was induced, and a rapid recovery of the patient in every case ensured.

Dental caries is a subject almost unavoidably entered upon in a work of this kind, and we are glad to find Mr Salter leaning towards, if not wholly supporting, the view of its being a vital process, rather than one of mere chemical decomposition, as is upheld by some authorities even at the present day. Some interesting observations are brought forward by him on the process of decay as seen in the walrus and hippopotamus tooth-bone blocks formerly used in the manufacture of artificial teeth. Such specimens, however, can be compared with true dental caries only after the dentine is devitalized by previous disease. He may not be aware of the subject being discussed in the pages of this Journal somewhere about twenty years ago.

The serious consequences sometimes resulting from abnormal development or evolution of the third molar or wisdom tooth is largely alluded to by Mr Salter, and forms the whole subject of M. Pietkiewicz's paper. Epilepsy, delirium, paralysis, and diffuse burrowing suppuration have been recorded as proceeding from this source. In the major work under review, the author writes as follows:—"The French surgeons have been particularly alive to the interest of such cases, and have published valuable contributions to their illustration. Velpeau delivered an interesting lecture on this subject in the hospital of La Charité, a translation
of which appeared in the Journal of the Provincial Medical Association for 1841. . . . Another and more recent lecture on the same subject has been published by M. Nélaton, in the Journal de Médecine et de Chirurgie Pratique, Fevrier 1862, entitled 'L'Accidents produits par l'Eruption des Dents de Sagesse.' He also adduces the memoir of Toirac as the first writer on this subject, and the cases of M. Nélaton where the symptoms produced were mistaken for caries of the jaw, syphilis, and cancer.

A chapter on Cleft Palate closes Mr Salter's excellent and instructive volume. Nothing very new or original is cited in reference to this distressing imperfection. The avoidance of everything tending to enlarge the fissure, such as the fitting into it of indiarubber vela, is strongly urged. All obturators of the kind he recommends to lie upon, not within, the opening. A paper bearing on such points was, not many years ago, read before the Royal Society of Edinburgh, and quoted in some of the works on such matters recently published in London, showing that not only does the avoidance of introducing foreign substances between the edges of the cleft prevent its enlargement, but that the natural tendency of this lesion, if not interfered with, is of itself to diminish in width as the patient grows up. Neither this paper nor the theory inculcated in it, however, seems to have come under Mr Salter's notice as strengthening the position he takes up on this particular topic.

In conclusion, we can only reiterate that the book is, from beginning to end, written in a scientific spirit, and is an interesting and valuable addition to our literature of the subject of which it treats in so able and practical a manner.

On the Curative Effects of Baths and Waters: Being a Handbook to the Spas of Europe. By Dr JULIUS BRAUN, Spa Physician, Rehme-Oeynhausen. Including a Chapter on the Treatment of Phthisis by Baths and Climate, by Dr ROHDEN of Lippspringe. An Abridged Translation, with Notes, edited by HERMANN WEBER, M.D., F.R.C.P., Physician to the German Hospital. London: Smith, Elder, and Co.: 1875.

Dr Braun's work, on its first appearance in Germany a few years ago, created quite a sensation among balneologists. It was searching and sceptical, and perhaps too subversive of received opinions. Still, it was hailed as a vigorous attempt to place the principles of balneological practice on a scientific basis. We have to thank Dr Weber for presenting the book to us in an English dress, and for having enriched it with notes of his own, referring chiefly to climatic health resorts. The book derives something of a special character, owing to more than one sixth part of it being occupied by Dr Rohden's monograph on the Treatment of Phthisis.
It would be easy to offer various criticisms on it—for instance, it is questionable whether it would not have been better to have given the mineral contents of the waters in the 10,000 parts rather than in the 16 oz., according to the old fashion: whether, also, in a work of this size, a few tables, giving the whole instead of only the chief contents of many of the principal waters, might not have been introduced: whether, too, the editor has done well in inserting the names of a certain number of local practitioners, Dr Braun having thought it better to omit all names in his third edition. In an ordinary guide-book, no doubt, it is convenient to find the names of doctors as well as of hotels, but this book aspires to a higher position.

As the arrangement of the work renders it necessary to make several references to the index, in order to get a tolerably complete account of any particular station, the volume will scarcely fulfil its purpose as a convenient Handbook to the Spas of Europe, in spite of its excellences in other respects. Nevertheless, we commend it to the profession, as one that will help to make the principles of balneology better understood by English practitioners.

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Part Third.

MEETINGS OF SOCIETIES.

MEDICO-CHIRURGICAL SOCIETY OF EDINBURGH.

SESSION LIV.—MEETING V.

Wednesday, 3d March.—Dr D. R. Haldane, President, in the Chair.

Exhibition of Patient:—

I. Mr Joseph Bell showed a patient, G. K., whose case, along with some others, he had brought before the Society [vide Journal for September 1874, p. 216]. The formidable wound, of which they now hardly saw the cicatrix, had been accidentally inflicted with a very sharp scythe; and extended from the lower edge of one sternomastoid obliquely across the neck to the upper end of the other sternomastoid, notching the anterior edges of both. In this way a large triangular flap was reflected downwards. Both the carotids escaped, but the larynx was cut into, the thyroid cartilage being divided into four pieces; that is, it was split mesially, and each half divided into two parts. The vocal cords, however, escaped injury. Mr Bell, along with Drs Thomson and Lucas of Dalkeith, saw him shortly afterwards. He first stopped all bleeding, and then performed tracheotomy. He then carefully stitched up the larynx by means of catgut sutures put through in all directions, but not tied until all had