of the pelvic outlet, when that same structure is in a state of alternate dilatation and contraction. We find the muscular fibres composing the fundus of the uterus contract during labour, while those round the cervix dilate. Now is it too much to suppose that, while the abdominal muscles contract, the perineal ones dilate, or that the dilatation found in the lower segment of the uterine cavity may not be extended to the maternal outlet. Dr Murphy teaches an inherent dilatability of the perineum; but I maintain there is more, there is an action of much greater power, viz., that of alternate dilatation and contraction.

Since making this observation, I have had many cases of midwifery; and though in some there was the same decided action of dilatation and contraction, still in most of them (especially primapara) I could make out that force in action to a greater or less extent. It cannot be denied that the foetal head does act as a dilator in most cases; but still cases do occur in which this inherent power is the only force in action. It remains to be decided whether or no this action is brought into play in every labour.

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**Part Second.**

**REVIEWS.**

*Saint Bartholomew's Hospital Reports.* Edited by Dr Edwards and Mr Callender. Vol. I. London: Longmans & Co.: 1865.

We are glad to find that the medical and surgical staff of Bartholomew's is following the example set by Guy's, and very recently by the London Hospitals, and is entering upon the publication of an annual volume of reports. No hospital in the kingdom affords a wider field of observation than St Bartholomew's; we find from the summary of statistical reports that between five and six thousand cases are admitted annually, among which is included an unusual number of serious and interesting cases. The volume before us is entirely the work of the Hospital staff, as they thought it right to take the initiative in the matter; but the editors express a hope that subsequent volumes may contain contributions from members of the school in other parts of the country.

The first paper is by Mr Paget, and is entitled "Cases of Chronic Pyæmia." Under this designation, Mr Paget describes a state which resembles acute pyæmia in the formation of purulent collections; in the occurrence of rigors, profuse sweatings, and inflammation of joints; and in the probable causation; but which
differs from it in its much more protracted course, and in the absence in its later stages of severe disturbance of the health, and of nearly all danger to life. There is, indeed, an intermediate class of cases, commencing with acute symptoms, assuming a chronic course, and very slowly terminating fatally, of which Mr Paget speaks as follows:

"It may be generally said of them that, after presenting the ordinary signs of acute pyaemia, the disease continues week after week steadily destroying the health. Its course is indicated by slow wasting; all the tissues becoming dry and shrivelled; by increasing pallor; by decreasing muscular and mental power, the voice becoming weak, the mind slow and dull, and at night often wandering; by quickness and feebleness of pulse and breathing; by frequent and sometimes profuse sweatings, especially when there is much suppuration; by less frequent chills or rigors; by increased thirst and usually aversion from food; by dryness and shrinking of granulations. I do not pretend that the general signs of pyaemia can in every case of this kind be distinguished from those of hectic, or of mere exhaustion; yet commonly they are distinct enough, and the distinction becomes very nearly certain when, as it often happens, there appear occasional patches of redness on the skin, or abscesses with flaccid walls, or oedema of a foot or hand, or indications of pneumonia."

It is not these cases of which Mr Paget treats, but of those which are chronic from the first and which are distinguished not only by their slow progress, but by the comparative mildness of the general symptoms. Mr Paget describes four cases of this kind; the first occurred after ligature of the subclavian artery; the second after lithotomy; the third after acute necrosis of the os calcis; and the fourth after catheterism on account of stricture of the urethra. Of these all terminated in recovery except the first, where death occurred from secondary hemorrhage on the sixty-fifth day after the operation.

Dr Andrew communicates a paper "on the Diagnosis of Systolic Endocardial Murmurs, whose point of greatest intensity is at or near the Left Apex of the Heart." The author's principal object is to endeavour to show how we are to determine whether a murmur with the first sound at the apex is due to mitral regurgitation or is produced within the ventricle. Dr Andrew's paper is founded upon the observations of 100 cases, an abstract of the details of 30 of which is given, and the conclusions at which he arrives are the following:

"1. That of systolic murmurs, audible at or near the apex, a large number, 34 per cent., do not indicate mitral regurgitation, or for the most part any very serious lesion.

"2. That the decision as to the regurgitant or non-regurgitant character of a murmur rests principally upon its presence or absence posteriorly."
3. That intensification of the second sound in the pulmonary artery, as a gauge of the obstruction to the blood stream on the left side of the heart, is of great value, but that in estimating it there are certain precautions to be taken.

4. That the occurrence of a non-regurgitant systolic murmur may be explained by changes on the inner surface of the ventricle, or by dilatation of its cavity leading to undue tension of the chordae tendineae.

In reference to these conclusions, we have two remarks to make. In the first place, it is certain that we may have a murmur at the apex, due to a certain amount of regurgitation, independent of any organic disease of the mitral valve, and occasioned by irregular action of the papillary muscles, or some defect of the innervation of the heart. This murmur of dynamic origin is of course far less serious than that due to organic disease, and though it is highly important to be able to distinguish it, we do not find that Dr Andrew alludes to it. And, second, Dr Andrew omits all mention of what we believe to be the only certain means of determining whether or not a mitral regurgitant murmur indicates real and primary disease of the mitral valve, namely, the presence or absence of an auriculo-systolic or pre-systolic murmur. If a pre-systolic murmur co-exist with a systolic, we may be certain that the mitral valve is diseased; but if it is absent, we have no certainty that the systolic murmur is not of dynamic origin or is produced by some change within the ventricle.

The next paper, entitled "Brief Notes of the Surgical Practice of the Hospital," by Messrs Callender and Willett, two of the assistant-surgeons, contains a notice of some of the groups of cases which came under observation during the year 1864. The classes of cases chiefly alluded to are diseases and injuries of the joints, diseases and injuries of the bones and periosteum, hernia, and tumours. The following extract gives a brief account of a case where the tongue was successfully removed by the écraseur:

A male, set. 50, was admitted for cancerous disease of his entire tongue; his difficulty in swallowing and speaking was so extreme that he was advised to have the organ removed. This was done under chloroform, and without any great difficulty.

The mouth was widely opened and firmly fixed so, and the tongue was drawn forward. To facilitate this latter step the mucous membrane and the soft parts on the floor of the mouth, including the attachment of the genio-hyoglossi muscles to the inner side of the symphysis, were cut through close to the bone. The tongue was thus in great measure released from its anterior and inferior attachments, and could readily be drawn forward, so that the wire of an écraseur was without difficulty passed round its root, including the entire organ to its connexions with the larynx. The wire was tightened by degrees, and there was some free but not dangerous bleeding where the mass was detached.

The man's recovery was uninterrupted and very rapid. Indeed he regained his power of swallowing in so short a time that he soon ceased to require special attention in feeding, and before the end of a week he could make himself intelligible by imperfect speech; so much so, that it would have been hard, without actual inspection, to have believed that the entire tongue had
been removed. The patient continues well, with tolerable articulation, and it is now more than twelve months since the operation was performed."

The next paper, by Mr Bowater Vernon, describes a case of hypertrophy of the tongue occurring after scarlatina, under the care of Mr Paget, in which the protruding portion was successfully removed by the ecraseur. The case, however, was tedious, as the stump showed a great tendency again to take on excessive growth.

Dr Greenhalgh communicates the first part of an interesting paper on "Tumours of the Pelvis and neighbouring parts, complicating Pregnancy, and impeding Labour." The following extract from Dr Greenhalgh's paper contains a summary of its contents:

"Out of fifteen cases of affections complicating pregnancy and obstructing labour, the nature of the cases and the results were as follows:

"One case of thrombus of the labium and vagina.
"Four cases of tumours of the ovaries.
"Four cases of tumours of the uterus.
"One case of tumour of the rectum.
"One case of tumour of the kidney.
"Four cases of extra-uterine foetation.

"Eight of the patients reached the full period of uterine gestation; in the remaining seven, pregnancy terminated at some period between three and seven and a half months of gestation.
"In four cases labour set in spontaneously.
"In two cases labour was induced artificially.
"Four patients were delivered by the natural efforts at the full period, one at the third month.
"In fourteen cases the labours lasted for periods varying from five to thirty hours.

"Of the fourteen children, eleven presented with the head, one by the feet, one by the arm, and another by the breech.
"Twelve were males, four females.
"Turning was had recourse to in four cases, but was completed only in three, the fourth being subsequently terminated by the Caesarean operation.
"Two were delivered by the forceps.
"Five of the mothers and eight of the children were lost; of the former three died from exhaustion and two from hemorrhage."

Mr Thomas Smith records a case of restoration of the lower jaw after its entire removal. A lucifer-match-maker had suffered from symptoms of necrosis of the lower jaw for three years. He was admitted into St Bartholomew's Hospital in September 1864, and under chloroform, the jaw was removed by dividing it at the symphysis, and dragging the two parts out separately. The dead bone came away completely denuded of soft parts, and without the slightest remnant of periosteum. "After the removal of the bone, on introducing the finger into the mouth, a firm fibrous mass was found occupying the substance of the gum in front of the chasm which had contained the jaw; but its outline was fused in the
surrounding swelling and induration; the only spot where bone was to be felt was in front of the position of the symphysis." His recovery went on satisfactorily, the only unpleasant symptom being that during the night when in the recumbent position he was frequently seized with fits of choking, due doubtless to falling back of the tongue, the original attachments of which to the jaw had been destroyed, and the new attachment which had formed brought the organ much nearer the hyoid bone and the upper opening of the larynx than was natural. He was discharged six weeks after operation, but died the same night. After his return home he had, it appeared, indulged somewhat freely in stimulants, and during the night woke suddenly with symptoms of suffocation. His wife stated that he caught at his throat with his hands, and after gasping for breath for a minute or two, he sank back and died. The most interesting point in the case is, that on post-mortem examination the jaw was found to have been almost completely restored. The new bone consisted chiefly of three portions, of which two were formed by the coronoid process and condyle together of either side; while the third and largest portion represented the right ascending ramus, the angle, horizontal ramus, and symphisis, and extended as far as the position of the eye-tooth on the left side. In this case the new bone seems to have grown principally from the soft parts around the periosteum, and around the bone where the periosteum was destroyed.

Mr Savory communicates an important paper, "On the Local Effects of Blood-poisoning in Relation to Embolism." It contains the details of many experiments, and the conclusions arrived at are the following, which are essentially the same as those of Virchow.

"The causes of the local congestions and suppurations in pyæmia may therefore be thus classified:—

"Stasis due to mechanical action. A blockade produced by the impaction of solid particles. According to their size:—

"Arterial embolism. By fragments too large to pass through the smaller arteries.

"Capillary embolism. By fragments small enough to pass into the capillaries.

"Stasis due to change in the blood produced by the admixture of morbid fluid. The local effect of blood-poisoning, properly so-called.

"Capillary obstruction.

"Stasis due to a combination of the two above-mentioned causes.

"In all cases stagnation and congestion first ensue. The subsequent changes, whether towards resolution, suppuration, or gangrene, are determined by—

"The action of the morbid fluid or obstructing substance. The changes it provokes.

"The constitution and state of health of the individual."
Mr Alfred Willett gives an account of the cases in which large arteries were tied during the year 1864. The cases were ten in number, and were performed under the following circumstances and with the following results.—First, The external iliac was tied by Mr Wormald, on account of aneurism of the common femoral. Diffuse inflammation and suppuration of the cellular tissue took place, and the patient died on the eighth day. Second, The femoral artery was tied by Mr Laurence on account of aneurism by anastomosis. Death from secondary haemorrhage occurred on the tenth day. In the third, fourth, fifth, and sixth cases, the superficial femoral was tied for popliteal aneurism by Messrs Wormald, Coote (twice), and Savory. Three of the cases did well, the ligature coming away on the twenty-third, twenty-seventh, and sixteenth days. The fourth case terminated unfavourably, death having occurred, apparently from exhaustion, on the eleventh day after the operation. On post-mortem examination, the femoral artery and vein at the side of the wound had sloughed to the extent of an inch. "The artery was well plugged both above and below the ligature." The patient, 58 years of age, is described as having been "a feeble, cachectic-looking man;" "the viscera were all more or less fatty. Seventh, The femoral was tied by Mr Paget, an inch and a-quarter below Poupart's ligament, on account of secondary haemorrhage, twenty-three days after amputation of the thigh. The ligature came away on the fifteenth day, and the patient made a good recovery. Eighth, The axillary artery was tied by the house surgeon, on account of profuse haemorrhage coming on thirteen days after primary amputation of the arm. The patient did not rally, but died eight hours after the operation. Ninth, Mr Holden tied the common carotid, on account of haemorrhage from a suicidal gunshot wound of the cranium. The patient died four hours afterwards, having never rallied from the injury. Tenth, Mr Paget tied the brachial for haemorrhage from a punctured wound of the upper arm. The patient recovered; the ligature came away on the tenth day.

Dr Reginald Southey communicates a paper on the "Minute Structure of the Human Kidney;" perhaps his most important conclusion is the following:—"We consider the tortuous or glandular tubes proper, as signified by their structure, contents, and intimate annexation with blood supply, to be that portion of the tubes in which the separation of the more solid constituents of the urine and its colouring matters takes place; but we regard the Malpighian bodies themselves neither as the especial seats of water filtration, as assumed by Bowman, nor as that of urea secretion, as Dr Isaacs, of New York, has from his experiments surmised; but rather, as their position and structure appoint them, as blood regulators."

Mr Holmes Coote contributes "Remarks on the Operation of Excision of the Knee-Joint." It appears that the operation has been performed in St Bartholomew's ten times since August 1863.
The results have not been satisfactory, far less, indeed, than they have been elsewhere. We give them in Mr Coote’s own words,—

"Of these ten cases two died, being a mortality of one in five. Amputation was performed once, and an unsatisfactory condition of the limb existed in several of the recoveries. Now all these patients were particularly favourable subjects for operation, the eldest being only twenty years of age, the youngest was nine; they were ‘selected cases,’ and, consequently, present this operation under its most favourable aspect.

"The result of my own experience in the treatment of knee-joint-disease, especially in the young, is adverse to the operation of resection. I feel more confidence in the treatment by long continued rest, and the application of those principles comprehended by the term orthopaedic surgery. And this opinion seems in consonance with the feeling of the upper classes, among the children of whom I have not yet heard of one instance of the performance of resection.’

"When disease is so far advanced as imminently to threaten life, amputation is the preferable operation. To this rule the exceptions are, I believe, very few.”

The remaining papers in the volume consist chiefly of the records of cases lately under observation in the hospital, but space prevents us from alluding to them more particularly.

It only remains for us to congratulate the hospital staff on having made so auspicious a commencement, and to express a hope that their example may be imitated in other hospitals which do not, as yet, publish any account of their proceedings.

A System of Instruction in Quantitative Chemical Analysis. By Dr C. Remigius Fresenius, Professor of Chemistry and Natural Philosophy, Wiesbaden. Fourth Edition. Edited by J. Lloyd Bullock, F.C.S., and Arthur Vacher, F.C.S. London: Churchills: 1866.

The works of Fresenius on Qualitative and Quantitative Analysis are too well known both in Germany and in this country to require any recommendation from us. They have long since taken the position of being the best works on the subjects of which they treat. We have only to say of the volume before us that no pains have been spared by the author and editors in bringing it fully up to the present position of chemical science. It has been extended by the addition of about 100 pages as compared with the previous (third) edition, and either the student or the practical chemist may have recourse to it with the full confidence that he will find the newest and most accurate information with regard to any topic connected with quantitative chemical analysis.