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CANADA

MEDICAL & SURGICAL JOURNAL

JUNE, 1887.

Original Communications.

LOCALIZED URÆMIC CONVULSIONS.

BY J. F. WILLIAMS, M.D.,

Resident Medical Assistant, General Hospital, Nottingham, England.

J. S., aged 42, laborer, admitted on Nov. 8th, 1886, under the care of Dr. Ransom, with swelling of legs and abdomen. Had always been a healthy man; worked as a laborer all his life. He gave no history of rheumatism, alcoholism or scarlatina; no evidence of syphilis. Six months before admission he had the ordinary symptoms of acute nephritis; this was followed by several attacks of what he called "colds," at each time his urine diminishing in amount and of a darker color. Five months later, a month before admission, he had a severe attack, followed by general anasarca; he then had to give up work.

On admission, he was fairly well nourished, but anæmic; tongue clean; appetite good; no diarrhœa; no headache. Pulse full, rather high tension, 52; respirations 22; temperature 98° to 99.4°. General anasarca, with ascites.

He passed 34 ounces of urine the first twenty-four hours, which was faintly acid, high color, specific gravity 1012, slight deposit. It contained 80 per cent. (bulk) of albumin on boiling, numerous blood cells, leucocytes, granular debris, and a few hyaline casts. His heart gave evidence of hypertrophy, though the apex beat was not displaced. At apex a systolic murmur was heard propagated a short distance into axilla; a diastolic murmur heard at aortic cartilage and down sternum. He was treated in the usual way.

On Nov. 27th the nurse noticed he was not as bright as usual. On the evening of the 29th he had severe convulsion of left upper extremity lasting twenty minutes. At 4 a.m. had another convulsive attack similar to the first. This came on suddenly, and consisted of violent convulsive movements, clonic spasm, confined to left upper extremity and muscles at back of neck on left side, and some twitching of muscles on right side of face. During this attack, which lasted fifteen minutes, he did not lose consciousness; said it appeared to begin in muscles at shoulder and travel up to head; he had no control over the spasms. The attack ceased suddenly, leaving no paralysis in the arm, but diminished power; speech was slow and somewhat indistinct, and there was fairly well marked right facial paralysis. No evidence of paralysis elsewhere. The facial paralysis lasted for two days, passing gradually away. Up to this time he had no diarrhoea, neither did he complain of headache.

On Nov. 30th he had two similar attacks, lasting the same time; on Dec. 1st, two more; on Dec. 2nd, one. Diarrhoea now began.

On Dec. 4th, had two very severe attacks, lasting 40 minutes each. These began in left upper extremity and muscles at back of neck, then extended to right leg, were violent and accompanied with twitching of right arm. He appeared to be conscious during these, but bit his tongue, which was probably owing to the violent jerking of his head. After the last passed off, the sphincters were relaxed.

Between the 4th and 11th he had several attacks, lasting from ten to fifteen minutes, all confined to left upper extremity, without loss of consciousness. During the forenoon of the 11th had three similar attacks at short intervals. He was conscious and rational at 3 p.m., but not after; died at 5 p.m.

Autopsy forty hours after.—Heart weighed $17\frac{1}{2}$ ounces; muscle rather pale and flabby; ventricles dilated; mitral orifice dilated: right cusp of mitral eroded and thickened, which condition extended to contiguous aortic cusp, involving it. The other two aortic cusps were united by a calcareous plate. Lungs were œdematous, right lung adhering throughout, adhesions

being of recent date. Liver weighed 66 ounces; substance firm. Kidneys weighed nine ounces each, and were fair specimens of the large white kidney. Brain weighed 52 ounces; slight congestion over motor area; vessels at base normal; membranes easily stripped off. On section, ventricles contained a fair amount of fluid; brain substance quite normal, there being no naked eye lesion to account for the convulsions.

Remarks.—The nature of this case was evident from the history and condition whilst under observation, but it is interesting to know, since the localizing of cerebral lesions is being so thoroughly investigated, that localized convulsions without loss of consciousness occasionally occur when there is no organic lesion in the brain. Bright, in 1836, first pointed out the occurrence of convulsive attacks, limited to some particular part of the body, without loss of consciousness, which he looked upon as proof of an organic lesion. Trousseau, in his work on Clinical Medicine, has recorded a case of what he called partial epilepsy, in which convulsions of one side of the face occurred unaccompanied by loss of consciousness; also a case of eclampsia, in which the convulsions affected the whole left side of body, leaving an incomplete hemiplegia which lasted an hour. In this case consciousness was not lost. So rarely has this been observed that Hilton Fagge, in his recent work, states: "We seldom meet with an exception to the rule that there is local disease of the brain in all cases in which attacks of clonic spasm recur paroxysmally without loss of consciousness."

That paralysis may occur in uræmia is now generally recognized. Two cases of uræmic hemiplegia were recently reported in the *British Medical Journal*. The paralysis is always of short duration, which favors the view that it is dependent on overwork of the nerve fibres passing to the muscles which are convulsed.

NOTES ON URINALYSIS.

BY THOS. D. REED, M.D.,

Prof. Materia Medica, Montreal College of Pharmacy, &c. &c.

The immense importance, diagnostically and prognostically, of an analysis, qualitative and quantitative, of the urinary secretion being now universally recognized, chemists and clinicians alike have expended much thought and time in experimentation, in devising simple and reliable tests suitable for use by the general practitioner, not possessing special technical skill nor laboratory facilities, and who might not always have at hand the services of a skilled chemist.

Specific Gravity.—For taking specific gravity, a series of beads thrown into a small quantity of the liquid constitute the simplest and most rapid method, and it is hardly possible to conceive anything better, no special vessel being required.

Albumin.—For albumin, the picric acid and heat test, as recommended by Johnston, is most valuable, and is as simple as any other, with the advantage of portability, in the dry state, and independence of the corrosive nitric acid, so destructive to clothing and instruments. The special committee on albumin tests of the Clinical Society of London reported, in 1886, that no one of the tests heretofore proposed had any marked excellence over all others, and that the nitric acid was as good as any.* The only method practically available for the quantitative estimation of albumin is the approximative one of measuring the depth of the deposited opaque layer; for this purpose, graduated glass tubes are now procurable from the dealers in chemical apparatus. The gravimetric and optical processes, requiring time, skill and special appliances, are unsuitable for ordinary clinical work.

Glucose.—It is in the search for saccharine matter, probably, that most difficulties and mistakes have occurred. Perusal of the text-books and current medical literature is somewhat confusing, and would almost lead one to suppose that the discovery and identification of glucose in urine were matters of much difficulty and uncertainty, and that the path of the uro-analyst was

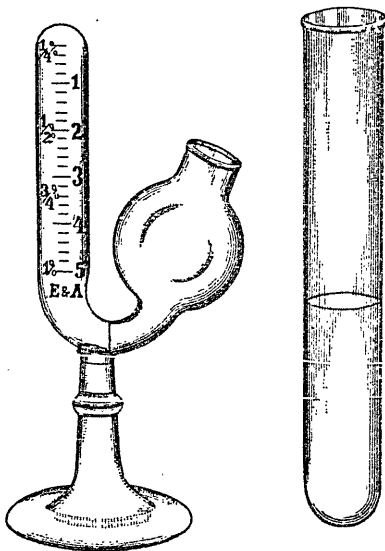
* Vide Millard, N. Y. Medical Record, April 30, 1887.

full of pitfalls, new tests being constantly brought forward to replace those previously used, which are described as defective. According to my own experience, the difficulty is not in failing to get reactions when there is a distinct amount of sugar present; but the fact of misleading reactions due to other elements, no sugar being present, is familiar to most investigators. Chemical authorities generally give the preference to the copper test, in the form known by its admirers as the "unfailing Fehling." The objections to this test are that it is unstable, and the list of possible compounds which might cause a decomposition is a long one.* That it is unstable is well known, because it contains an organic acid, and none of the various plans which have been suggested to make a permanent solution are quite satisfactory. Hence, although it may be trusted in experienced hands, it does not quite meet the requirements of the busy practitioner. Fermentation being the only incontrovertible evidence of the presence of saccharine matter, is just what is wanted for positiveness,† and the method of Roberts, by taking the specific gravity before and after treatment with yeast, is used with much confidence. Instruments have been constructed in which the evolved carbonic acid could be measured, but these have not come into general use on account of complexity and requiring the use of mercury or other heavy fluids as valves. An ingenious little instrument, figured in engraving, has been contrived by Einhorn of New York, which requires only the pouring of a measured quantity of urine, mixed with a little yeast, into a graduated bent glass tube, a process so simple as to be trusted to an intelligent patient or nurse, and the indications can be read off just like reading a thermometer. I have tested this instrument with liquids of known strength; and my colleague, Prof. J. Bemrose, F.C.S., has compared its indications with those obtained by the Fehling's liquor process, and also with the readings given by a very superior polariscope, the result being that we find it extremely easy and sufficiently accurate for clinical purposes. Its use is more satisfactory than the Roberts' process, from the fact that the

* *Vide* Leo in *International Medical*, April, 1887; also Johnson, *British Medical Journal*, Jan. 8, 1887.

† *Ibid.*

volume of the gas is clearly visible, and it is sensitive to much smaller quantities of sugar.



Von Jaksch sent me some time ago a reprint from the *Prager Wochensch.*, relating a case where he had failed to find sugar with previous tests, and which was only discovered by Von Fischer's test, phenylhydracin. As this compound was not procurable here, I had a little made for me, and for which I am indebted also to Prof. Bemrose. The trials of it, however, have not been satisfactory; it requires prolonged boiling and subsequently the use of the microscope to identify the crystalline deposit, hence it has not come much into use.

Johnson's color test with picric acid and alkali is excellent for qualitative estimation, but is not so satisfactory for indicating the quantity. It has the objections of all color tests, that differences of tint are not equally recognized by all eyes. The latest color test is alpha-naphthol. The extreme sensitiveness of this reagent I can confirm, although I did not carry the dilution as far as it is claimed it may be, namely, .00001 per cent.,* or one

* Vide Philadelphia Medical News, Sept 25, 1886.

part in ten millions!! Such excessive sensitiveness has the disadvantage that all urines give the reaction, due to the fact, perhaps, that a minute quantity of sugar is always present. Certainly one grain of sugar passed in *one year* cannot have the slightest significance pathologically.

Urea.—The estimation of the urea is now known to be of considerable importance and assistance in diagnosis in certain cases, as internal malignant disease. The amount can be ascertained immediately and without trouble by a ureometer, consisting of a glass tube graduated to indicate grains per ounce, as I have indicated on a previous occasion.†

Cystine.—This rare body generally requires both chemical tests and the microscope for its recognition. A case is reported where, after injections containing iodoform, hexagonal crystals of the latter, resembling cystine, were found in the urine, and were at first mistaken for it.

Figurate Elements.—For these the microscope is indispensable; and staining, as with iodine, anilines, or osmic acid, is a great advantage.

In conclusion, it cannot be too strongly nor too often impressed upon the young practitioner that a thorough examination of the urine is of paramount importance in every case of sickness in which the diagnosis is not perfectly clear. Life insurance examiners often make unexpected discoveries.

CASES IN PRACTICE.

BY J. A. HUTCHINSON, M.D., OF BRUSSELS, ONT.

CASE I—*Partial Atresia Vaginae.*—On the 8th April, 1887, Miss N. consulted me in regard to a small growth from the meatus urinarius. Upon examination it was found to be an irritable urethral caruncle about the size of a plum-stone. When examining the case I was surprised also to find that the vagina was almost completely closed by a membrane passing across near its outlet. This membrane had near its centre a small opening about the size of an ordinary pea. The caruncle being so

† *Vide* Canada Medical and Surgical Journal, August, 1885.

irritable it had to be removed at once, and I decided to operate on the membrane closing the vagina while the patient was under ether. A few days later this was done. After Dr. Graham had etherized the patient, the caruncle was detached and the bleeding stopped by fuming nitric acid. The membrane had now to be dealt with. By using a three-bladed rectal speculum, which put the membrane on the stretch, the small opening was enlarged by cutting it forwards and backwards sufficient to enter the point of the instrument. It was then dilated by gradually opening the instrument until the vagina was completely pervious. The membrane was about the thickness of a common pane of glass. The bleeding was easily controlled. The vagina was then plugged by absorbent cotton saturated with a weak solution of corrosive sublimate. The greater part of the membrane afterwards sloughed away. A month later the vagina was in a normal condition and almost fully healed. The patient was not aware that there was anything abnormal until told so at the time of the examination of the caruncle. Menstruation had always been regular and painless, the small opening being sufficient to allow of the free passage of the menstrual fluid. No cause could be assigned for the atresia, and I think it was most likely congenital. The young woman had always good health, and never had any accident or illness to give rise to this malformation.

CASE II—*Open Safety-pin Swallowed*.—About twelve months ago an infant aged four months, living near Brussels, accidentally swallowed an open safety-pin $1\frac{1}{4}$ inches long. From the parents' statements it would seem that the pin was for a short time lodged in the œsophagus, but evidently reached the stomach in about ten minutes, when the infant's struggles ceased. Medical advice was applied for, but as the babe was not then suffering, it was deemed best to await events and give only mild aperients and its ordinary nourishment. For the next eleven months the patient suffered at times with severe abdominal pains, and then passed the pin per rectum.

REMOVAL OF A FOREIGN BODY FROM THE NOSE SEVEN YEARS AFTER INTRODUCTION.

BY GEORGE W. MAJOR, B.A., M.D., &c.,

Specialist to the Department for Diseases of the Nose and Throat, Montreal General Hospital; Instructor in Laryngology and Diseases of the Throat, McGill University, Montreal, Canada.

Rhinoliths or nasal calculi are formed by the collection of the alkaline salts of the nasal secretions about foreign bodies which have become impacted in the nasal passages. The following case is of especial interest from the great length of time during which the foreign substance was allowed to remain *in situ* :—

On March 2nd, V. G., aged nine years, was brought to me for advice and treatment for an offensive nasal discharge confined to the right nostril. The disease had already lasted seven years, and was gradually becoming more troublesome. The secretions were extremely irritating and maintained a continual excoriation of the upper lip.

On inquiry as to the possibility of the presence of some foreign substance, I was informed that a button had been introduced into the nose seven years before, but that after an interval of some weeks or months had elapsed it had been removed by surgical interference.

On examining with a probe I could feel diseased bone on a line with the lower turbinated bone at its posterior third. The nostril bled freely on the slightest provocation, and the nasal membrane generally was inflamed and very sensitive. I removed several small spiculæ of bone, and ordered local cleansing. At a subsequent sitting I incised the redundant mucous membrane over the region in which I could feel a large mass with a rough surface, but which was not freely, if at all, movable. After incising I grasped the body with polypus forceps, and using a swaying movement with gentle traction I succeeded in withdrawing an irregularly oval substance considerably larger than a white bean. When soaked in water and the crust removed, the nucleus was found to be an oval metallic boot-button with a copper disc-shank, made on the same principle as an ordinary shirt-stud or collar button. The composition of the incrustation was, as

usual, mucus and phosphate of lime. This button was introduced at the same time as the first one before alluded to as previously removed in England, and the father of the young lady recognized it at once as similar. It had been covered with enamel, but this had disappeared during the period of detention. The necrosed tissue has since come away, and the health of the nostril is completely restored.

The button was firmly impacted between the lower turbinated bone and the floor of the nose, and had become imbedded in the mucous membrane.

In cases where *an offensive or any discharge is confined to one nostril the presence of a foreign body should always be suspected* and looked for, and chloroform or ether should be employed to secure a thorough and searching investigation. The patient should also be examined again after an interval of some days, during which any local inflammation has had a chance to subside.

QUARTERLY RETROSPECT OF OBSTETRICS AND GYNÆCOLOGY.

PREPARED BY WM. GARDNER, M.D.,

Professor of Gynæcology, McGill University; Gynæcologist to the Montreal General Hospital.

Death from Sublimate Poisoning after two Vaginal Injections.—In view of the frequency with which, nowadays, this agent is employed as a prophylactic and curative remedy, the case here recorded is of extreme interest. Since 1885 corrosive sublimate has been used in Breisky's clinic at Prague, except in cases with renal and intestinal troubles and in anæmic and badly nourished women. Up to August 28th of last year 1620 cases were so treated, with no bad result till the following: The woman, aged 17, primipara, had enjoyed good health during pregnancy and been free from all renal symptoms. On the first day of her labor (Aug. 28th) the vagina was douched with 1-2000 sublimate before and after a vaginal examination. Prior to this a small quantity of bloody slime had passed from the vagina. After the second douche pain was felt in the lower part of the abdomen with vomiting and diarrhœa. Carbolic douche was

now employed and laudanum given for the diarrhoea. The child was born on the 29th, the vagina being douched with carbolic lotion after expulsion of the placenta, and catgut sutures applied to the perineal and vestibular tears. The puerperium was briefly as follows: August 29th (afternoon)—Six fluid motions, salivation, scanty urine. 30th—Gums spongy; grayish-white spots below the tongue; throat congested; urine scanty and albuminous, with hyaline and granular casts; kidney and bladder epithelium, and broken-down red-blood corpuscles. The diarrhoea and scanty urine continued, tympanitis began on the 31st, and death from coma occurred on September 5th, eight days after the use of the sublimate. Post-mortem examination showed acute Bright's disease, dysentery, ulcerated stomatitis and pharyngitis, parenchymatous degeneration of the myocardium and liver, pneumonia, acute cystitis, and imperfect involution of the uterus.

Fleischmann discusses this case and comes to the conclusion that corrosive sublimate poisoning had occurred, the sublimate passing into the circulation through small lesions of the mucous membrane at the internal os. He believes with Thorn (Volkmann's *Samml.*, No. 250) that corrosive sublimate should never be used for vaginal or uterine douching, but only for the surfaces of the skin, and by a medical man. Carbolic acid should be employed as a substitute in the former instances.

At the British Gynæcological Society on the 10th of last November, Dr. Granville Bantock of London read a paper "*On Vaginismus.*" Dr. Bantock limits the term to cases in which there is no inflammation, erosion or ulceration of the vulva or vagina, but a morbid condition of the uterine body or cervix, or a displacement, and that the spasm at the mouth of the vagina which renders coitus impossible and digital examination almost equally so, is a reflex spasm. Dr. Bantock reported six cases which were mostly cured by suitable treatment for the morbid uterine conditions present, and in addition in some, by forcible dilatation of the vaginal orifice and the use of Sims' vaginal rests. He concluded by saying that "while a minor degree of vaginismus is very common and passes away under the manipu-

lations necessary for the treatment of the associated condition of the uterus, the more severe form of the disease, causing special symptoms and requiring particular treatment, is not common. This condition appears to me to be essentially of reflex origin. In none of the cases that have come under my observation was there any local cause, such as inflamed follicles or sensitive papillæ. With regard to treatment, my experience goes to show that a cutting operation is not necessary; nor does it appear that this adds much, if anything, to the curative effect of the subsequent dilatation. In the fourth case Dr. Sims himself had performed this operation, and when I first examined the patient the greatest difficulty arose from the state of vaginismus, and I had to desist and resume it under chloroform. In the fifth case the same effect had been produced by a laceration of the perineum in the patient's only confinement. In these it was very evident that the vaginismus kept pace with the amount of uterine derangement."

The President, Mr. Lawson Tait, expressed deep regret that Dr. Marion Sims had ever coined the word vaginismus to explain a condition which he (Mr. Tait) did not for a moment believe existed. His (the President's) difficulty was that some time after Dr. Marion Sims' original papers appeared he (Mr. Tait) undertook a series of dissections in order to see this wonderful muscle to which such great powers were attributed, and out of eleven dissections he only found in one case traces of a few pale irregularly-formed bundles of fibres to represent what in the text-books of anatomy was represented as a powerful structure. He did not believe in strong spasmodic contraction of this muscle, and scouted the theory of vaginismus completely. To say that the few pale fibres which represent a sphincter vaginal muscle, such as he saw, could resist the entrance of the male organ was an absurdity. The muscles which prevented entrance he believed to be the adductors and glutei.—(*Brit. Gyn. Jour.*, Feb. '87.)

Cæsarian Section: a Remarkable Case.—In the recently-published second volume of Tarnier and Budin's *Traite de l'Art des Accouchements* appears the report of a case which illustrates the important problem of how long the foetus in utero may sur-

vive the mother's death. During the Commune of Paris the Fédérés fired several shots in the direction of the Maternité. A superintendent going round found a woman nearly at term dead in her bed. A ball had fractured the base of the skull, entering the brain. Tarnier, who was in the hospital, went up to the ward and prepared to perform the Cæsarian section, but the Fédérés, seeing the lights in the ward, fired into it, so that to avoid giving them a target the lights were put out, and the corpse was taken down to an amphitheatre sheltered from the balls. Here the operation was carried out, and Tarnier extracted a living child, which, unfortunately, sank some days later. What time elapsed between the mother's death and the operation? Perhaps three-quarters of an hour, perhaps an hour, or more. At any rate, it is certain that at least twenty minutes passed from the moment when the superintendent found the woman dead and that the child was extracted.

Forcible Tearing-out of the Uterus and Complete Destruction of the Recto-vaginal Septum.—The following case is of rare interest medico-legally, and as an illustration of how tolerant at times the female pelvic organs are to the most violent injury. A woman of 40 had been drinking with two male companions, who afterwards had intercourse with her consent. She felt great pain in the pelvis and became unconscious. It was fourteen hours later before she was seen by a medical man and the following conditions noted: She looked stupid, her clothes covered with mud and blood, and in some respects looked like a woman who had been recently delivered; the pulse feeble and compressible, but not alarmingly bad; sensorium clear, no fever, and no pain except a burning sensation in the lower part of the abdomen. On examination, a fleshy mass covered with mud and blood, at first sight suggesting an expelled placenta, protruded from the vagina. This, when cleansed, was discovered to be the uterus torn from its attachments, lying outside the vaginal entrance, so that the os looked to the anterior vaginal wall and the fundus to the ground. The whole recto-vaginal septum was torn through and the uterus retained only by the remaining part of the anterior vaginal wall and the left ligaments. At the lateral angles

of the uterus, parts of the round ligaments, the tubes, and the broad ligaments were visible. The ovaries were not in sight, and the bladder and urethra were uninjured. No bleeding. The bladder was allowed to remain full to prevent any further prolapse of abdominal contents. Treatment as follows: The uterus was severed from its remaining attachments, elastic ligatures being employed. The lacerated fragments of vagina and septum were trimmed off, the cloaca washed out with 1-5000 corrosive sublimate, and plugged with iodoform gauze. The woman recovered, and when examined on the twenty-first day the conditions were as follows: A deep cloaca was present, whose anterior and lateral walls were vaginal, the posterior being rectal mucous membrane. Bridges of granulation tissue lay between. A couple of plastic operations restored the recto-vaginal septum and sphincter ani. It would appear that the perpetrator of the injury had passed his hand into the rectum, seized the uterus and forcibly dragged it out, the recto-vaginal septum being necessarily torn. The full bladder, fainting of the woman, and old uterine adhesions seem to have rendered survival possible. The case is reported by Schmalfuss (*Centralblatt für Gynäkologie*, No. 46, 1886).

In my last Retrospect in the February number of this JOURNAL I dwelt upon recent developments of abdominal surgery in the treatment of puerperal conditions. It will be remembered how intensely interesting and satisfactory in results were the cases published by Mr. Lawson Tait and Dr. J. W. Taylor of Birmingham. Still more remarkable is the case recently reported by Prof. Schultze of Jena (*Deutsche Med. Woch.*, Nov. 4, 1886), in which for severe puerperal symptoms he amputated the septic corpus uteri of a bicornuate uterus. The patient, aged 21, had a child born dead in the seventh month of pregnancy. The placenta was retained, and the midwife in her attempts to remove it tore away the cord. Some time afterwards the practitioner who was summoned found the cervix of the double uterus so narrow that he could not reach the placenta. Expression was unavailing. She was taken to hospital, but all the measures adopted, including hot baths, constant current, anæsthesia, etc.,

produced no effect on the cervical canal, which barely admitted the finger. On the third day after delivery the temperature rose to 39.9°C , and there were rigors, with putrid discharge. Another attempt, under anæsthesia, was made on the next day to remove the placenta. A stricture in the right horn admitting the finger was found. The left horn was empty. In the right the placenta lay adherent, and a small stinking piece removed. On the eleventh the temperature was 40.1°C ., and there were rigors and peritoneal disturbance. Schultze had before him three courses, viz., to do a conservative Cæsarian section, removing the placenta only, or, if necessary, to remove the horn with the placenta. Most probably he considered the amputation of both horns would be required. The incision from navel to symphysis was made in the middle line, the uterus turned out with the hand, an elastic ligature applied, the uterus incised, and the stinking placenta removed. The uterine wall was found to be rotten, the putridity extending to 2 mm. below the peritoneal reflexion. As the left horn was also discolored, amputation of both horns was imperative. There was an exudation in the pelvis. The infundibulo-pelvic ligaments (of the ovary) were found so short that a pure Porro's operation could not be carried out. These ligaments, therefore, were tied and divided, the uterus and ovaries brought out, and any part of the broad ligament gaping between the elastic tube and the ligatures stitched with a running catgut suture. It was evidently impossible to treat the pedicle by Schröder's method for fibroids, as pus could be squeezed out of the lymphatics of the stump; it was therefore fastened in the abdominal incision according to Hegar's method, the peritoneum stitched to it below the elastic tube, the surface of the stump seared, and afterwards chloride of zinc applied. The temperature soon fell, and on the ninth day the seared portion of the stump was removed with scissors. Schultze finally lays down the following indications for such interference, viz., the mischief must be in the uterus, and the possibility of septic thrombosis and embolism elsewhere must be excluded.

The frequency of Pathological Conditions of the Fallopian Tubes formed the subject of a paper before the last meeting of the

Obstetrical Society of London by Dr. Arthur H. N. Lewers, and was the outcome of observations on the pelvic organs in a series of a hundred cases in the post-mortem room of the London Hospital, made with the view of assisting in the determination of the frequency with which dilatation of the Fallopian tubes—hydrosalpinx, pyosalpinx and hæmatosalpinx—occurs among the general population. Recently Dr. Henry Coe, in his paper "Is Disease of the Uterine Appendages as Frequent as it has been represented to be?" (*Amer. Jour. of Obstetrics*, June, 1886) said: "Actual disease of the tubes is far less frequent than is generally believed." Others, on the contrary, believed these conditions to be of frequent occurrence. Cases where the contents of the dilated tubes were not distinctly purulent, or were not composed of blood, were classed by Dr. Lewers as hydrosalpinx. Disease of the Fallopian tubes, restricting the expression to pyosalpinx, hæmatosalpinx and hydrosalpinx, was met with in seventeen cases out of one hundred examined. A detailed description of each specimen was given in the paper, which included also a table classifying the chief points of interest in these seventeen cases.

Dr. Galabin thought this communication was of very great value as an addition to the evidence on the subject by Dr. Kingston Fowler. He wished to ask whether the one hundred cases recorded were consequential or selected, as he thought that 17 per cent. was a large proportion of cases of distension of the Fallopian tubes. In 302 necropsies of women above the age of puberty at Guy's Hospital the pathologists had only found twelve cases of distension of tubes, and two of these were very trivial. This was a proportion of only four per cent. There was only one case of pyosalpinx and a doubtful case, the pathologist being uncertain whether two suppurating sacs were tubes or ovaries, as the ovaries could not be found. There were fourteen cases of chronic inflammatory disease about the Fallopian tubes without distension. Of the whole twenty-six cases it was probable that in seven pelvic inflammation was indirectly the cause of death through the medium of general peritonitis, intestinal obstruction, or in other ways. These included the two cases of

pyosalpinx, one of hydrosalpinx, and four of chronic inflammation without distension. Thus in 302 cases, there were of chronic inflammatory disease nine per cent., distension of tubes four per cent., and death indirectly in about two or three per cent.

Mr. Lawson Tait spoke in eulogy of Dr. Lewers' paper. He found conclusions drawn from the post-mortem room as regards causation, progress, prognosis and treatment identical with those which he had been preaching for about ten years on the basis of clinical experience. He confessed that it was somewhat a staggering thing to find 17 per cent. of the women who died in the London Hospital suffering from tubal disease, and this did not include those cases which suffered the most, in which there were adhesions between the ovaries and tubes to the surrounding viscera, more particularly the peritoneal layer lining Douglas's pouch, resulting ultimately in complete retroversion of the uterus with its appendages, and forming one of the most dreadful conditions which the gynæcologist had to deal with. When removed it was difficult for an unskilled pathologist to see anything the matter with them. Dr. Lewers had not included such cases, and they must have been numerous. He thought the explanation of the higher percentage at the London Hospital and the small group at Guy's must be due to locality, and that gonorrhœa was more common amongst the poor at the east end than on the south side of the river. At the out-patient department at Birmingham, ten per cent. of the women who applied for relief suffered from chronic inflammatory disease of the uterine appendages. All these did not require operation. The most staggering conclusion to be derived from Dr. Lewers' paper was the enormous fatality of these diseases. At the London Hospital the death-rate was 24 per cent., while at Guy's it would appear to be 25 per cent. For years Mr. Tait had been arguing in favor of operation in order to relieve suffering, but when the pathologists at the London, Guy's and Middlesex Hospitals showed a death-rate between 24 and 50 per cent., the cry for relief by operation was one that could not be gainsaid. His own results showed that these cases could be relieved by operation, with a mortality not exceeding two or three per cent. The

question as to the sterility caused by these diseases might be settled by ascertaining the period between the occurrence of death and the birth of the child. Mr. Tait agreed with Dr. Lewers that hydrosalpinx seems to precede pyosalpinx.

Dr. Horrocks was surprised at the large percentage of disease of the Fallopian tubes shown in Dr. Lewers' table of cases. He found that in many cases the disease began in the ovary and glued the fimbriated extremity to itself, which led to pathological changes in the tubes. In some cases the affection spread from the vagina to the uterus and from the latter to the tubes. In all his cases there was peritonitis, but in nearly every instance it was a chronic and effete process indicated only by old fibrous bands of adhesions.

Mr. Alban Doran noted that it was remarkable to find some forms of tubal disease so frequent. It must be assumed that milder forms were more common. Catarrh of the tube must involve discharge, which probably escaped through the uterus so as not to produce symptoms. It was not likely that it escaped through the ostium into the peritoneal cavity, else hydroperitoneum would be more frequent, as he had pointed out in his paper on papilloma of the tubes. The severe forms of tubal disease with local peritonitis showed how the tubes were a highway from the exterior into the peritoneum. Their frequency amongst the east-end women suggested that they arose from extension of neglected leucorrhœa and gonorrhœa rather than from sounding or syringing. Disease of the tubal mucous membrane was more probably caused by the passage of fluids upwards than by extension of inflammation. Extension might occur, but mucous inflammations were generally localized in the genital as in the respiratory tract.

Dr. Imlach regarded Dr. Lewers' paper as important, and trusted the investigation would be continued, and that pathologists would scrutinize the ovaries and tubes as carefully as they did other organs. The gonorrhœal origin of these diseases was often assumed. He had examined a large number of women in the Lock Hospitals, but had not found a single example of pyosalpinx amongst them. The question of etiology was important,

and could only be settled by clinical investigation and a large series of gonorrhœal patients.

Dr. Matthews Duncan expressed his sense of the great value of Dr. Lewers' paper, but felt the want of further information regarding the cases. He wished for information as to the symptoms, if any, caused by the pathological conditions. It was probable that these pathological conditions were obsolete, and evidence only of long past disease. This view was confirmed by the ages of the patients. Mr. Tait had said that in his practice the average was 27 to 30, and Dr. Lewers' cases were above 40 on an average and many quite old. Dr. Matthews Duncan was not astonished at there being evidence of disease in 17 per cent. of post-mortems, for he had long known that evidence of past or present disease in the region of the uterine appendages was a very frequent occurrence.

Dr. William Duncan thought it most important that of the seventeen cases reported fourteen were over 40 years of age, and in only one case were definite symptoms of pelvic mischief given, while almost all died from diseases not attributed to tubal mischief, showing the fallacy of the view that most cases require laparotomy.

Dr. Lewers, in reply, stated that the cases were as nearly as possible consecutive, and that the inquiry lasted thirteen months. There were many cases showing more or less extensive old adhesions not included in this list. He did not think gonorrhœa was more common in the east-end than elsewhere in London, and many of the cases at the London Hospital came from the adjoining districts. He thought hydrosalpinx and pyosalpinx were stages of the same disease, and the cases in his table confirmed this to a great extent. If further investigation should establish this view, and that pyosalpinx has a mortality of 40 per cent., we shall not be able to resist the conclusion that dilated tubes should be removed. None of the seventeen cases of dilated tubes came from the obstetric wards, though some of the one hundred cases examined came from those wards.—*Lancet*, May 14, 1887.

QUARTERLY RETROSPECT OF SURGERY.

BY FRANCIS J. SHEPHERD, M.D., C.M., M.R.C.S., ENG.

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Surgery of the Brain.—A short account was given in the Retrospect for December, 1886, of Mr. Victor Horsley's admirable paper on *The Surgery of the Brain*, read before the last meeting of the British Medical Association. A glimpse of what has been done since Mr. Horsley read his paper will not prove unprofitable. The advance in this department of surgery has been rapid. Mr. Victor Horsley has operated in ten cases, with one death from shock. Dr. MacEwen of Glasgow has had three successful cases, and many others have had one each. In many of the successful cases the prognosis without operation was inevitably fatal. There are yet great difficulties in diagnosis of brain cases, and the surgeon not only looks to clinical medicine for further light on the subject, but experimental physiology, as, notwithstanding the vituperation so abundantly showered on vivisectionists, the functions of different parts of the brain have been determined chiefly by experiments on animals.

Cerebral Abscess in connection with Disease of the Ear.—The connection between mastoid disease and cerebral abscess has long been recognized, but only very lately have attempts been made to treat such cases surgically. So far very few successful cases are recorded. In addition to the ones quoted below from English literature, Truckenbrod (*Zeitschr. f. Ohrenheilk.* XV, 1886) reported a case of abscess from mastoid disease operated on by Schede of Hamburg. In this case a discharging sinus was enlarged, the dura mater exposed and punctured, and an abscess the size of a small orange evacuated. Ogston in 1876 (*Brit. Med. Journal*, Dec. 2, 1876) trephined for cerebral abscess consequent on otitis media and evacuated nine ounces of pus between the skull and membranes. Perfect recovery ensued. Here the brain was not opened. Schondorff's case was not one of true trephining (*Archiv Klin. Chir.*, Bd. XXXI, 1885). A fistula which followed acute purulent inflammation of the middle ear was enlarged, pus evacuated, and the opening afterwards drained. No incision into the abscess was made.

The operations reported by English surgeons are much more brilliant than any of the foregoing. The diagnostic accuracy displayed in two of the cases and the masterly manner in which the operations were planned is worthy of imitation. In the *British Medical Journal* for December 11th, 1886, Dr. W. R. Gowers and Mr. Arthur E. Barker report a successful case of "*Abscess of the temporo-sphenoidal lobe treated by trephining.*" The patient, a young man aged 19, had scarlet fever in 1875, since which time the right ear had discharged a thin, yellow fluid, small in quantity and offensive. The last two days of August (1886) he began to feel unwell, and had severe pain in and around affected ear. Sept. 11th he took to his bed, with a temperature of 105°F. Next day the temperature was 103°, and the following evening 99.4°. No history of constipation or diarrhoea. On admission into hospital (Sept. 15th), a careful examination revealed no impairment of any function of the cerebral nervous system. There was, however, slight double optic neuritis. A blister was applied behind the right ear and calomel was given. The temperature ranged from 96.2° to 101.8°. On the 20th, Mr. Barker found a large perforation of right membrana tympani, and through this cleansed the middle ear; there was no swelling in the mastoid or temporal regions, and only a little tenderness. The optic neuritis increased on Sept. 25th. The patient became dull and had a severe attack of vomiting without previous nausea; no headache or squint. On the 28th Mr. Barker opened the mastoid antrum with a gouge in the usual way, half an inch above and behind the auditory meatus. There was no gush of pus, but some came away on the instrument, but on injecting it, pus welled out of the meatus. After thoroughly cleansing the middle ear a drainage-tube was left in the opening and the parts dusted with iodoform and dressed with salicylated wool. The patient improved up to the 2nd of October, when he became drowsy and again vomited. Next day he was delirious. On the 5th the patient had a severe rigor preceded by a temperature of 105°. Dr. Gowers, considering that the rigor and the intense optic neuritis, taken in conjunction with the almost negative result of the previous exploration, constituted evidence of the existence of a cerebral abscess, asked Mr. Barker

to trephine and search for one in the temporo-sphenoidal lobe. This was done the same evening. A V-shaped flap with the base upwards exposed a point one and a quarter inches behind and one and a quarter inches above the centre of the meatus of the ear. At this point the pin of the trephine was inserted and the bone removed. This corresponded to the inferior posterior angle of the parietal bone, close to the squamosal suture. The dura mater was found quite healthy and divided with a knife and turned back, when the surface of the brain was seen unaffected, and there was no fluid in the arachnoid space; a large aspirator needle was now thrust into the temporo-sphenoidal lobe in a direction inwards, forwards and downwards, and when the point had penetrated half an inch foetid pus began to pour out (about $4\frac{1}{2}$ drachms). When no more pus flowed, a Sims' forceps was slipped in and the opening dilated, and two or three drachms more pus was evacuated. To provide for thorough drainage of the cavity, the cortex was scraped away with a small Volkmann's spoon to the extent of the opening in the dura mater. The wound was washed out and dusted with iodoform, and the V-shaped flap cut away at the base to leave the trephine hole uncovered, a rubber tube placed in the abscess cavity, and the whole dressed with carbolized gauze. Next day the rubber tube was replaced by a silver one, which kept better in place. The case progressed most favorably, and on November 12th, thirty-eight days after operation, patient left for the Convalescent Home with the trephine wound quite healed.

In his remarks on the case, Mr. Barker said that in connection with these ear cases where abscess resulted, it was more frequently found in the temporo-sphenoidal lobe than in the cerebellum or elsewhere, because the roof of the tympanum is usually the thinnest part of its walls, but not feeling sure in this case he exposed the mastoid foramen, which was perfectly healthy; if the abscess had been in the cerebellum pus would have escaped by the mastoid foramen, because if there be inflammation in the posterior aspect of petrous bone it can hardly reach the cerebellum without forming a layer of pus under the dura mater of the lateral sinus.

Dr. W. S. Greenfield (*Brit. Med. Journal*, Feb. 12, 1887)

also reports a case of *Cerebral Abscess with Otitis* successfully treated by trephining. The patient was a man aged 26, who was brought to the Edinburgh Royal Infirmary December 31st in a semi-comatose condition. After a severe cold in the head he began to suffer from severe headache, and became heavy and dull. He soon began to vomit his food, and his bowels were constipated. The week before admission the vomiting and headache became much worse. There was no delirium. Had scarlet fever when a child. There was no paralysis of face, nor was there any strabismus. The left eye showed on examination the papilla much swollen, clouded and gray. There was no discharge from the ears. On January 5th there was distinct ptosis of left eyelid, and left pupil dilated; the torpor continued. The tongue deviated to the right, and there was intense optic neuritis in left eye, but none in right. On the 6th, the ptosis was complete, with dilation of pupil and some paralysis of fourth and sixth nerves as well. The left ear now for the first time began to discharge a dirty-brownish fluid, and on examination a perforation of membrana tympani was found. Temperature sub-normal. Dr. Greenfield thought that the symptoms pointed in the direction of abscess in the anterior part of the left temporo-sphenoidal lobe. Operation was now decided on, and on Jan. 8th Mr. Francis Caird made a vertical incision some two inches in length in the temporal region, and the pin of the trephine was applied one inch and a quarter behind the left external angular process, and nearly one inch above the zygoma. The disc of bone removed consisted entirely of the temporal on its outer and lower aspect, and on its inner aspect of temporal, parietal and a small spur of sphenoidal. The exposed dura mater bulged forwards and felt tense, but did not pulsate; on cutting through the dura mater a Graefe's knife was passed for at least half an inch directly inwards, when foetid pus welled up (two ounces.) A drainage-tube was introduced and antiseptic dressing applied. Patient had a restless night, and still tended to lie on his right side and bury his face in his pillow. Next day he was very much better, ptosis was almost gone, was much more intelligent, and answered questions* intelligently; he now lay on his left side. From this time improvement continued,

and he was able to sit up by the 30th. Patient had no mental symptoms after operation. He remembered everything up to three or four days before the new year, after which all was a blank. Patient on Feb. 7th was in good health, though he still had a slight purulent discharge from the left ear.

In his remarks on the case, Dr. Greenfield says that the commonest position for abscess secondary to otitis is in the middle lobe of the cerebrum, and that it frequently lies in close proximity to the roof of the tympanum. But there are frequent departures from this rule, and, moreover, the size and direction of the abscess are very variable. In his case the most definite signs of involvement of nerves suggested the probable extension of inflammation to the inner aspect of the front of the temporo-sphenoidal lobe. As regards the operation, he thinks from the size of the abscess and its communication with the tympanum there is little doubt it might have been reached much further back.

Dr. MacEwen of Glasgow reports (*Lancet*, March 26, 1887) a successful case of trephining for *Cerebral Abscess due to Otitis Media*. The patient, a boy aged 9 years, was admitted into the Hospital for Diseases of the Ear, under the care of Dr. Barr, January 13th, 1887, suffering from septic purulent otitis media and abscess of the brain. A month before admission he complained of severe pain in the region of right ear, which kept him from sleeping. Next day he vomited, after which he became drowsy. The severe pain, drowsiness, feverishness, with occasional vomiting, characterized the first seven days of his illness. On the eighth day he had a rigor lasting a quarter of an hour, and during the next two weeks he had as many as six rigors. He was admitted into hospital on the nineteenth day of his illness. He was then greatly emaciated, had a cough, temperature 100.8° , pulse 108, very drowsy, and complained of pain in right ear, from which there was a very offensive discharge, and there was a perforation of the upper part of the tympanic membranes. The symptoms still continuing two days after entrance, Dr. Barr perforated the mastoid process, opened the mastoid cells, and washed out the middle ear thoroughly. A drainage-tube was then inserted. Two days later the boy had

a rigor, and on the twenty-ninth day of his illness there was a copious discharge of foetid pus from the ear. Dr. MacEwen was asked to see the patient on the thirtieth day of his illness; he was then quite stupid, lying on his right side; had drooping of right eyelid, pain on percussion over right temporal region, but no oedema of mastoid process; pulse slow (50-60) and feeble; had cough and purulent expectoration; bowels constipated. There was a constant flow of excessively foetid fluid from the external ear, greater in amount than would likely come from the antrum; so it was thought that there was a connection with the intra-cranial cavity. Cerebral abscess was diagnosed, situated in temporo-sphenoidal lobe. After washing the scalp well, a half-inch disc of bone was removed from the squamous portion of the temporal bone, one and a half inches above and half an inch behind the centre of the external auditory meatus. The dura mater was slightly congested; when it was opened the brain tissue immediately bulged. A hollow needle was inserted for some three-quarters of an inch, when foul gas escaped, and on pushing the needle a little further offensive pus flowed out. The opening was enlarged, when more pus escaped. The cavity was washed with a saturated solution of boracic acid. As there was still some oozing of pus, an aperture was drilled into the base of the skull just above the osseous boundary of the external auditory meatus, involving the squamo-petrosal suture. The dura mater was found intact; it was penetrated and the abscess cavity reached. A stream of boracic solution was passed from this aperture so as to wash out the cavity of the abscess, and was continued till it freely passed out of the upper opening; bone drains were employed and parts dusted with boracic acid, and sublimated wood-wool pads placed over all. The patient was extremely exhausted, but rallied in a few hours. After the first week he improved rapidly. The wounds were dressed once a week, when the parts were thoroughly syringed. Tubes removed in five weeks, and at end of six weeks child was quite plump. On March 17th still a slight purulent discharge from the ear, but hearing was good.

At the meeting of the Medical Society of London, held Feb. 21st, 1887, Mr. J. Black reported a case of trephining for sup-

posed abscess of the temporo-sphenoidal lobes. The patient was a man aged 22, whose illness began with vomiting and shivering, and continued with rigors and high fever. He had suffered from otorrhœa for many years. There was a perforation of the membrana tympani, and there had been a sinus leading to mastoid cells. The cells were perforated and a free drainage established without much relief. A few days later trephining was performed, the dura mater was laid open, and brain pierced, without result. There was no optic neuritis. The patient, under stimulants and quinine in large doses, ultimately recovered. Mr. Brown inquired whether operation under the circumstances was justifiable.

In this connection there was an interesting discussion at the Medico-Chirurgical Society of Edinburgh in March last (*Lancet*, March 12th, and *British Medical Journal*, March 19th) on the *Diagnosis and Treatment of Cerebral Abscess*. Dr. McBride and Mr. A. G. Miller had a joint paper on cases of abscess following mastoid disease. In the paper Dr. McBride stated that if the vibrations be perceived by the injured ear in contact of the tuning fork with the cranial bones it indicates that the internal ear is intact, that the middle ear is the part affected, and that the abscess is situated above the tentorium. Should the vibrations not be perceptible, the internal ear is affected, in which case the matter is usually below the tentorium on the cerebellum. The operation proposed by Dr. McBride, and carried out by Mr. Miller, is to cut down as near as possible to the source from which the pus has sprung—*i.e.*, by the nearest route to expose the roof of the tympanum. This is done by reflecting the pinna forwards, opening the skull by means of a chisel at a point a quarter of an inch above the osseous meatus. This opens the cranium exactly at the floor of the middle fossa. The dura mater is then raised from the petrous portion for the third of an inch towards the middle line, and the roof of the tympanum thus exposed, any abscess in connection with it being opened, or if contiguous, but not continuous, the abscess may be evacuated by incising the dura mater and a portion of the brain substance. Two cases operated on in this manner were reported. In each case the cerebral abscess was relieved by the operation, but both patients succumbed to septicæmia. In making a diagnosis be-

tween purulent meningitis and brain abscess the temperature was most important. Mr. Miller also drew attention to the relation which frequently existed between sudden cessation of the otorrhœic discharge and the supervention of formidable head symptoms. This appeared an important indication for treatment.

[Readers interested in this subject of mastoid disease and cerebral abscess might consult with profit the two following papers: "Abscess of the Brain resulting from Disease of the Ear," by Dr. Thos. Barr—*Brit. Med. Journal*, April 2, 1887. "On the Surgical treatment of Brain Suppuration following Ear Disease," by Dr. Robt. F. Weir—*New York Med. Record*, April 9th, 1887.]

Trephining for Epilepsy.—Dr. Hughes Bennett and Mr. Pearce Gould (*Brit. Med. Journal*, Jan. 1st, 1887) report a case of epilepsy of six years' duration completely cured by surgical operation. The case is as follows: W. A., aged 36, married; six years before, received a violent blow on right side of head. He was stunned at the time, was taken to hospital, and treated for a scalp wound. He regained consciousness after a few hours, and the wound healed perfectly in a few days. Six weeks later he was seized with a convulsive attack, in which he lost consciousness, and it was observed that the movements of the limbs were confined to the left side. He had a similar attack a fortnight later, and these have continued at irregular intervals ever since, averaging one a week. His general health continued good, but after most of his attacks he was seized with violent mania which rendered him dangerous, so much so that he was confined in an insane asylum for three years. In May, 1886, he was admitted into hospital under Dr. Bennett. He was a tall, delicate-looking man, with all organs and functions of body normal and intelligence unimpaired. Over the right parietal bone was a transverse cicatrix in the scalp. This was movable, and no abnormality could be detected in the bone beneath, and there was no tenderness to touch. No trace of paralysis or loss of sensation. Special senses normal. The exact site of centre of scar was $3\frac{1}{2}$ inches from the longitudinal fissure in a line drawn vertically $2\frac{3}{4}$ inches behind the external meatus of

the ear. During the two months patient was under observation in hospital he had weekly epileptic attacks, most marked on left side, preceded by irritability of temper. These attacks lasted five to ten minutes, after which he was very violent for half an hour and then fell asleep, and awoke in a few hours with headache. Next day he was in his usual condition. Immediately prior to attack he saw a bright red light in front of his eyes. Dr. Bennett advised trephining over the seat of the original injury in the hope of finding a depressed fracture or some other local or removable injury to the underlying cortex cerebri. On July 8th Mr. A. Pearce Gould made a large trephine opening at the seat of the cicatrix. The portion of bone removed was perfectly normal, and so was the dura mater underneath; a circular portion of this was excised, when the exposed cortex was seen to be apparently healthy. The brain was then explored in four different directions for about one inch in depth; nothing abnormal was detected. The wound was then closed and the man recovered, and five months after had had no attack. The operation was performed with the usual antiseptic precautions, the scalp being well washed and rendered aseptic previous to the operation. The wound was united with gut sutures and a drainage-tube used. Morphine (as recommended by Mr. Horsley) was injected before the anæsthetic was administered. The strange part of this case is that nothing apparently abnormal was found in the brain or its coverings, and yet the patient was relieved by the operation. His convalescence was uninterrupted and the wound healed soundly, there being not the least tendency to hernia cerebri.

Mr. Mayo Robson (*Lancet*), March 5th, 1887) reports a case of *Trephining over the Left Brachial Centre for Paralysis of the Right Arm*. The patient, aged 38, was admitted into the Leeds Infirmary, August 9th. Six days previously he was struck from behind over the head by a buck-horn handled stick. He was unconscious for ten hours after, and on recovering consciousness vomited. As soon as he regained his senses he noticed that he had lost the use of his right hand. He was dizzy and confused, and had loss of memory for some days. On admission

to hospital there was a small lacerated wound on the left side of the skull, one and a half inches from the middle line, and a little in front of the mid-point between external occipital protuberance and root of nose. Bare bone could be felt on probing the wound, and at the posterior part was a depression in the bone. The whole of the right fore-arm and hand were markedly paralyzed. Sensation impaired and rhythmic twitching of the fingers. He was perfectly conscious and answered questions rapidly. Knee reflexes exaggerated on right side and some weakness of facial nerves. Well-marked cedema of left optic disc. Operation was decided on, and the depressed bone was trephined through a crucial incision. The inner table of the skull was found splintered, one piece especially depressing the membranes considerably. The fragments were carefully picked out and the dura mater exposed; it bulged slightly and was markedly pulsating; as it seemed perfectly healthy, it was not perforated. The operation, which was done under the strictest antiseptic precautions, only took twenty-five minutes. The case progressed most favorably, and was discharged cured on the 11th of September, both hands and arms being equally strong.

Dr. Robert Weir of New York reports a case (*Medical News*, March 5th, 1887) of an unsuccessful attempt at *Removal of a Sarcomatous Tumor from the Brain*. Mary R., aged 26, admitted to hospital September 16th, 1886, with following history: Has had four operations for sarcoma of the neck, the first two years ago and the last six months ago. Has latterly suffered intensely from headache on right side, clonic spasms of left leg, and cramped feeling of left hand. Left patellar reflex exaggerated. Slight left optic neuritis. The case was supposed to be one of tumor of the upper limit of the fissure of Rolando. Skull trephined in the line of the fissure of Rolando, one and a half inches from median line. Dura mater tense and bulging; opened by a crucial incision and brain explored, but nothing found. Wound healed well, but patient died two and a half months after the operation. At the autopsy a tumor was found springing from the left lobe of the under surface of the cerebellum, which proved to be a spindle-celled sarcoma.

In the *Philadelphia Medical News* for April 16th, 1887, Drs. Birdsall and Robert Weir report a remarkable case of *Removal of a large Sarcoma from the Brain*. The tumor was situated in the right occipital lobe of the brain, and was of large size. The patient was a Polish Jew, aged 42. He first observed that his gait was unsteady in August, 1885, and he had a severe attack of vomiting after a sea bath. Soon after diplopia for distance and increased awkwardness in walking were observed, and about the same time a disagreeable sensation akin to numbness in right leg, hand and shoulders. This and the diplopia were transitory. Headache, usually frontal, was present occasionally, but never severe. In October, 1885, patient consulted Dr. Seguin, who found that in addition to other symptoms he had left lateral hemianopia. The diagnosis of tumor of mesial aspect of right occipital lobe was made. Patient was treated with large doses of iodide of potassium without effect. In October, 1886, he was seen by Dr. Birdsall, who found left lateral hemianopia and double optic neuritis. Smell, taste and hearing normal. No word deafness. No paresis. The diagnosis of tumor of occipital lobe involving cuneus was made, and operation was advised. This was performed by Dr. Weir on March 9th, 1887. The skull was exposed by a U-shaped flap three inches long and three wide, with base upwards so as to cross irregularly the median line, the greater part being over the posterior cerebral lobe. A trephine one inch in diameter was used, and two buttons of bone taken away, one above the other, and the intervening bridge cut away with forceps. The dura mater rose tensely into the space, and when it was cut through the tumor immediately presented itself. With considerable difficulty and some hemorrhage it was enucleated and removed, but not before it was divided. There was a great deal of hemorrhage into the large cavity left after removal of the growth, which was temporarily stopped by sponge pressure. The tumor weighed $5\frac{1}{4}$ ounces, measured $3\frac{3}{4}$ by $2\frac{3}{4}$ inches, and was $2\frac{1}{2}$ inches thick. Owing to the hemorrhage the cavity was stuffed with iodoform gauze, and in consequence the wound could not be properly closed. The patient was very weak after the

operation, and was kept warm and had enemata of whiskey and milk every two hours. In the evening his pulse became weaker and the oozing still continued. Patient was conscious, though dull. Transfusion was decided on, so nearly two quarts of a saline solution was injected into the basilic vein of right arm, with immediate improvement of pulse and consciousness. The dressings were removed and the flaps of scalp separated, with the intention of removing the gauze, but patient rapidly collapsed and the bleeding still continuing, more gauze was packed in and the flaps replaced. Stupor rapidly set in, and notwithstanding a second transfusion, patient died at two a.m.

Mr. Horsley (*Brit. Med. Journal*, April 23rd, 1887) reports ten cases of operations on the brain and cranial cavity, and gives a detailed account of the methods employed. See, also, Mr. Horsley's paper in *Retrospect* for December, 1886.

Mr. Bennett May (*Lancet*, April 10th, 1887) reports a case of *Excision of Tumor of Cerebellum* in a boy aged seven. Child sank a few hours after operation.

Immediate Treatment of Compound Fracture of the Skull.—Dr. P. E. Muskett (*Australian Medical Gazette*, Oct. 15, '86) advocates early operative interference in compound fracture of the skull, and to support his views refers to a previous report of seven recoveries in thirteen cases under the care of the surgical staff of the Sydney Hospital during a period of fourteen months, and gives an analysis of twelve more successful cases of compound depressed fracture of the skull treated by operation. With regard to the indications and objects of such treatment, Dr. Muskett seems to hold views similar to those that have been lately expressed by Dr. Wagner of Königshutter, who is of opinion that the trephine should be used, not so much for relieving or preventing compression, as for guarding the patient against septic inflammation. Dr. Muskett gives the following as the after-results to be feared in compound fracture of the skull if the depressed fragments are not elevated or removed and perfect drainage insured. (1) Septic meningitis setting in on the second or third day after the injury. (2) A spreading encephalitis running on to suppuration, with extensive

destruction of cerebral tissue. (3) If the dangers of acute inflammation have passed off, death may result from softening around the injured part. (4) Subacute encephalitis, which may follow at a remote period. (5) The irritation of splinters from the inner table may eventually cause chronic meningitis, terminating in suppuration. (6) The same condition may induce chronic epilepsy. Dr. Muskett says that the removal of depressed fragments is essentially a procedure for preventing the development of inflammation in the membranes of the brain. In answer to the objection of trephining being a grave operation, Dr. Muskett holds that the application of a trephine, or what is more preferable, of Hey's saw, is not dangerous in comparison with the risk incurred in leaving osseous splinters imbedded in the dura mater.—(*London Medical Record*, January, 1887.)

The Cure of Cold Abscesses by Iodoform Injections.—This method of treatment has been of late years largely adopted on the continent of Europe. It consists in the evacuation of the abscess by means of an aspirator (the largest sized needle being used) and in the subsequent injection of a solution of iodoform in ether; a four or five per cent. solution is the one commonly used for abscesses of large or moderate size, but occasionally the strength is increased to ten per cent. when the abscess is of small dimensions. The quantity of solution to be injected varies according to the circumstances of the case; and it is generally recommended that not more than a drachm of iodoform should be used. The ether holding the iodoform in solution finds its way into every pocket and sinuosity of the abscess cavity and there deposits a film of iodoform. After the injection has been made some little attention is necessary, for as the ether is rapidly volatilized by the heat of the body, and may cause an unpleasant distension of the abscess cavity, it may sometimes be necessary to introduce the needle of a hypodermic syringe in order to give exit to the gas. As a rule, patients suffer little from the operation, and are able to go about as usual after it. One injection is often sufficient to effect a definite cure of the abscess, provided it be not connected with joint or bone disease. Sometimes it is necessary to repeat the operation several times. The pain

caused by the injection is usually pretty severe, and patients sometimes decline to undergo a second operation. Iodoform injections have also been employed with benefit in tubercular bone and joint disease.—(*Medical Record*, March 12th, 1887.)

Fixation of Displaced Semilunar Cartilages.—Prof. Annandale (*Brit. Med. Journal*, Feb. 12th, 1887) describes this operation and narrates four cases successfully treated by himself. The operation is performed by making an incision on the affected side along the upper edge of the tibia from the ligamentum patellæ for some three inches. After securing all the bleeding points the synovial membrane is also incised. The displaced cartilage is put in proper position with a blunt hook, and is secured to the periosteum and fascia over the head of the tibia by several catgut sutures. The external wound is then closed and antiseptic dressings and splint applied.

Intra-peritoneal Rupture of the Bladder.—Sir Wm. MacCormac reports (*Lancet*, Dec. 11th, 1886) two cases of intra-peritoneal rupture of the bladder successfully treated by abdominal section. In each case the rupture in the bladder was closed with silk sutures after Lembert's method, not including the mucous membrane, and so inverting it, after which the bladder was moderately distended to see if it was tight, and then the abdominal cavity was irrigated with a one per cent. solution of boric acid; the peritoneum was not sponged out. The abdominal wound in the first case was drained with a glass drainage-tube. In one case the rent was four inches long, extending from the superior fundus to the recto-vesical cul-de-sac. In the other case the tear involved two inches of the upper and posterior part of the bladder.

Dr. John Homans (*N.Y. Med. Record*, Jan. 15th, 1887) writes that when he has accidentally wounded the bladder in performing ovariectomy, he has sewed up the rent with a continuous silk suture, care being taken not to include the mucous membrane in the stitch. A catheter was placed in the bladder for ten days, and the patients recovered without any vesical symptoms.

Dr. R. F. Weir (*N.Y. Med. Record* for Jan. 22nd, 1887)

reports a case of crushing injury in which he was not sure whether the bladder was ruptured or not, and where he satisfactorily proved the absence of intra-peritoneal rupture by slowly distending the bladder with a weak solution of carbolic acid after having placed a Petersen's pad in the rectum. The line of dullness was noted before and after the injection of the fluid. The solution which had been thrown in was evacuated and measured, and was found to correspond to the quantity previously injected. This, of course, demonstrated the integrity of the bladder. In making this experiment Weir says that not more than seven or eight ounces of fluid is necessary. By making use of this simple method in doubtful cases a useless exploratory incision of the abdomen may be avoided.

Correspondence.

BERLIN, May 1st, 1887.

To the Editors of the CANADA MEDICAL & SURGICAL JOURNAL.

SIRS,—Having arrived in Berlin just in time for the sixteenth congress of the German Surgical Association, and being privileged to attend its meetings, I propose to give you a brief sketch of its work, in the hope that it may be of interest to your readers.

On Tuesday afternoon, April 12th, those of the members who had arrived in Berlin assembled at the Hotel du Nord, where an informal social meeting was held and some preliminary business transacted, the secretary being present with his books, programmes, etc. On the following morning (April 13th), the congress was formally opened by the President, Prof. von Volkmann, in the hall of the Royal University. There were between 250 and 300 members present, besides a number of visitors, and although some of the most noted German surgeons were conspicuous by their absence, the work was carried on with great spirit and lasted four days. After the President had read his address, a programme of over forty papers was entered upon and diligently followed to the end. A number of interesting cases were shown and many others reported in connection with the papers, and a most interesting feature of the congress was

the regular morning visit to the hospitals at eight o'clock. One hospital was visited each morning (as per programme), and the visitors were conducted through the operating rooms and wards by the surgeon in charge and his assistants. At these visits patients were shown and dressings removed and reapplied; special instruments and appliances were exhibited, and special methods of operating discussed. The first of these demonstrations was by Prof. Küster, in the Queen Augusta Hospital, on Thursday morning. Unfortunately, through a misunderstanding, I was not present at this visit, but from what I have since seen of Prof. Küster and his hospital I am sure that this visit was not less instructive than the subsequent ones, and I regret very much my misfortune in being absent on that occasion. The nursing in the Queen Augusta Hospital is carried on by a Protestant sisterhood, which is recruited largely from the ranks of the nobility, and is a special feature of this hospital.

On Friday morning members and visitors were shown by Dr. Hahn through his wards in the Friedrichshain Hospital. Among the patients here shown were several cases of resected intestine, excision of the pylorus, resection of the knee joint, several osteotomies, a case of echinococcus of the liver (convalescent), and a patient from whose gall-bladder 204 biliary calculi had been removed; also a case of removal of the larynx and three cases of extirpation of the thyroid gland. Dr. Hahn is perhaps best known in connection with the operation for movable kidney by suturing the organ to the loin so that it may become adherent in its normal position. After the visit, Dr. Hahn also showed some stomachs which had been removed post-mortem at periods varying from three months to two years and a half after excision of the pylorus, and explained his method of operating.

On Saturday morning, Prof. Bardeleben conducted the visitors through his wards in the well-known Charité Hospital. Very interesting cases were also shown here, but the special features which I noticed were in connection with the extension appliances in use in the treatment of fractures of various kinds and in hip joint disease. In both the Friedrichshain and Charité Hospitals an apparatus introduced by Dr. Phelps of Chateauguay, N.Y.,

is very largely used in the children's cots, and seems to be highly appreciated by the surgeons of these hospitals. It consists of a frame, to which the child is strapped, and is so arranged that after operations about the pelvis or lower limbs the parts can be kept at perfect rest and the dressings kept clean and dry. In all of the hospitals mentioned, a favorite material for dressings is turf-moss cleansed and prepared with corrosive sublimate, and either made into pads by sewing up in gauze or used in compressed sheets resembling spongeopilin. Corrosive sublimate is the antiseptic most largely employed. Chloroform is used to the exclusion of all other anæsthetics.

The banquet was held in the Hotel du Nord on Thursday afternoon at four o'clock, but was not largely attended, about one hundred sitting down to it.

On Sunday a memorial service to the late Prof. Schröder was held in the University.

With the exception of the first meeting, the morning meetings of the congress were all held in the amphitheatre of Prof. von Bergmann's klinik, and the afternoon meetings in the University. On the whole, I think the meeting must be described as a very successful one, and was calculated to create a most favorable impression in the mind of the stranger with regard to German surgery and surgeons. Prof. von Bergmann was elected president for the ensuing year.

J. B.

THE HEREDITY OF ACQUIRED PECULIARITIES.

To the Editors of the CANADA MEDICAL AND SURGICAL JOURNAL.

SIRS,—As tending to maintain the interest in a subject so important, I beg to call attention to the following cases in which peculiarities were inherited:—

Mons. de Quatrefages states that in a certain district the offspring of a five-toed cock have become so numerous that the common variety is no longer to be met with.

But of special interest to physicians are the following cases, reported by a very high authority:

Hereditary Transmission of Injuries to the Nervous System.—In the *Lancet* of January 2nd, 1875, Brown-Séguard illus-

trates the following examples of hereditary transmission : 1. Development of epilepsy in animals born of parents which had been made epileptic by section of part of the spinal cord, or of the sciatic nerve. 2. Change in the form of the ear of animals born of parents which had presented a like change after section of the great cervical sympathetic. 3. Partial closure of the pupil in the descendants of animals in which the pupils had become contracted after section of the cervical sympathetic or removal of the superior cervical ganglion. 4. Protrusion of the eyeball in the young of animals in which the eye had become prominent from lesion of the restiform bodies. 5. Congestion and gangrene of the ears of animals the parents of which had the same lesion following irritation of the restiform bodies near the point of the calamus scriptorius. 6. Absence of the claw from certain of the toes of the posterior extremity in animals the parents of which had the posterior extremity rendered insensible by section of the sciatic or crural nerves.

These experiments are of great importance as bearing on the question of hereditary transmission of peculiarities acquired even in one generation.

Yours truly,

T. WESLEY MILLS.

McGill College, Montreal, May 16th, 1887.

THE "STUPIDITY" OF STUDENTS: WHO ARE RESPONSIBLE?

To the Editors of THE CANADA MEDICAL & SURGICAL JOURNAL.

DEAR SIRS,—I am glad that one of your correspondents has expressed, in the May number, some views on examinations and kindred matters. This opens up a subject on which I have felt keenly for a great number of years. During this time I have in general found any number of people, especially teachers, ready to speak with the greatest freedom of the "stupidity" of students of all ages; the said students being regarded either with contempt or as the necessary product of the working of nature's laws—in a word, born stupid, for whom the organization of their ancestors, or something much vaguer in most instances, was responsible, and as a result considered as hopeless cases—

something to be deplored in nature and irremediable by any human means. With the exception of here and there a protesting voice, not a word is uttered on behalf of such unfortunates. Now I purpose to ask, and perhaps in some degree to answer, the question: Who are responsible for this so-called stupidity?

In order not to be misunderstood, let it be said distinctly at the outset that I admit that there are stupid people, born so, with such a defect in organization that education cannot, however perfect, remedy the condition wholly or even to any great extent; but I wish also, most emphatically, to assert my belief, as the result of very long-continued and close observation, that the number of such is quite small. Leaving out of the account the very few intellects gigantic by nature, the rest of mankind are, originally, probably very much on a par. The differences seen later in life are owing to a great complexity of causes, largely to what, in a word, constitutes *character* as distinguished from intellect. The conquest of the world is for the strong—but mostly for the strong in character rather in intellect merely. What I wish to show in this communication is that much of the “stupidity”—the sort of stupidity teachers encounter—is of their own and others making; that we in our stupidity bring about a state of things we deplore, and in our stupidity fail to see that we have done so.

The dullness complained of by medical teachers is the result of a long chain of causes operating through the greater part of the life of the individual up to the time that he enters college and continued there. A child for some months after birth is little more than a bundle of reflexes; later, it begins to receive sensations consciously, and this goes on, the conscious element gaining in strength and the *natural* unfolding of the mind taking place till that first important era begins—going to school. At once there is an enforced arrest of this natural development. Instead of objects, the child is given words and other *forms*; abstract ideas are substituted for concrete ones, and hazy notions for genuine conceptions that can be grasped. An actual experimental test by a well-known professor of psychology has shown that children under eight years of age, and especially in cities,

have often the most incorrect notions of the significations of the words they use ; and when this experiment is pushed further—indeed, when it is carried on in the college class-room—the same is observed. Throughout our entire educational system, forms—empty forms in many cases—are the only substitutes for real ideas coming through the natural avenues to the mind.

Further in our modern system, so many subjects are presented, the mind is obliged to go with such rapidity from one subject to another that there is not time to acquire well any one thing ; hence more haziness and abounding superficiality.

Now, is it *reasonable* to expect that with such a system of education we can do other than form stupidity ? We entirely pervert nature. The only really rational system of education ever devised for youth was that of Frœbel, the Kindergarten system. It was framed by a man whose loving contact with children gave him a true insight into their minds. . But this system is departed from in the public schools, the higher schools and the colleges. It is not, of course, possible, in a communication of this kind, to occupy space with illustrations to make matters plain. But now as to the college, and let us say the medical college. The only subject in which, up to the present time, a student, even the most zealous, can get his ideas in the *natural way*—*i.e., with a basis in sense perceptions*—is that of anatomy. The principle of work in this department has long been correct, but the execution of it has been time-consuming and crude ; but it did not, at least of itself, induce stupidity to any great degree. This was probably owing to the genius of John Hunter and a few like him rather than to the sagacity of anatomists in general as teachers, for they seem to have made very slow advances in the teaching of that subject as compared with what has been achieved in some others of late ; but be that as it may, it remains that to-day in almost every department the medical student is obliged, even yet, to accept to a large degree forms for substance—the abstract for the concrete, and husks, consequently, for corn—and yet we wonder that he is stupid. I confess I am surprised that he is not more so ! It is to be understood that in some schools greater advances have been

made than in others—*e.g.*, in several now, a student can really investigate for himself diseased objects (patients);—he can get a little, very little, practical knowledge of chemistry, and in a few schools, of physiology. But as a rule, he is asked to stuff into his mind certain statements of these experimental sciences, as so many dogmas, often without a shred of evidence for the views he is asked to accept. Indeed we have heard professors maintain that it was unwise, and impossible, in fact, to attempt successfully anything of the kind. Yet we call the natural revolt of a young mind from this crushing process “stupidity.” Here, indeed, is stupidity, but not on the part of the student.

Now, why are these things so? Here, again, we have a long chain: parents not understanding the mind, teachers and the framers of school systems in the same position, or seeing the evil, unable in consequence of the state of public opinion to alter it. As for the medical schools,—there are too many for the needs of the community; hence an inadequate supply of enlightened and competent teachers; a course altogether too short for what is required to be taught, owing to competition between the schools, etc. As the schools in Canada, at least, are in many respects (length of courses, number of lectures, etc.) regulated by the professional boards, it is difficult for them to rise above the conceptions of the profession at large as to what education should be. Physicians, as a rule, are too busy with practice to give thoughtful attention to such things; often, however, they seek a controlling influence.

Now while in medical schools men of the highest ability, both natural and acquired, may sometimes be found, our system does not provide *any means of determining*, by any necessary process at least, whether a candidate for the position of professor has any of the natural or acquired gifts of the *teacher*. In Germany a man never becomes a professor at one bound; and in France the professors are chosen, not alone for knowledge and ability, but for *demonstrated* capacity to teach.

It cannot be denied that many a man has been chosen for the important position of a former of the minds of young men, as physicians, largely because, in the opinion of his professional *con-*

frères, he was a "nice fellow," which meant, possibly, that he regulated his conduct by such standards as were in harmony with their personal views and habits; while we have known men of acknowledged fitness opposed because they had fixed principles of conduct and governed their lives by something higher than the morality, etc., of a local clique.

There is something radically wrong, too, about these examinations on which we set such store. In the first place, the *retaining capacity* for those ideas which to the student are largely forms of words, is at too high a premium. We do not test men enough as to power to apply their knowledge—their capacity to meet varying conditions; in fact, we do not train men in that—and there is not the time for it so long as so much is required—so large an area of study covered. The session must be lengthened or the breadth of acquirements expected diminished. There is also too much professorial and too little tutorial work done. It is absurd to expect youths of the attainments and mental grasp of those that come to medical schools to assimilate even the best teaching without the frequent mental clarification of a thorough quizzing, combined with other methods. Students should be encouraged to read text-books more and to depend less on lecture notes. The highest function of a professor is not to instruct, but to stimulate, to guide, to determine the texture of the student's thought. But when, as I am told is the case, the teachers of a single department reject at their examinations 25, 30, and even 40 per cent. of the very students *taught by themselves*, there must be something radically wrong somewhere. I, for one, shall never believe that 40 per cent. of my fellows are stupid; but I do believe there is an enormous amount of *organized stupidity* in our whole educational system.

I must apologise, Sirs, for the length of this letter, though I have expressed but a tithe of what I have long felt keenly. Let teachers correct themselves before they talk so freely of the stupidity of their students.

I am,

Yours sincerely,

OBSERVER.

Reviews and Notices of Books.

A Text-Book of Pathological Anatomy and Pathogenesis.—By ERNST ZIEGLER. Translated and edited for English students by DONALD MACALISTER, M.A., M.D. Three parts complete in one volume. With 289 illustrations. New York: Wm. Wood & Co.

The publishers have done a good service in giving to the profession in a completed form Professor Ziegler's entire work on Pathology. We know of no work in any language which so fully and completely represents the pathological knowledge of the day. Dr. Macalister's translation has from many quarters been highly praised. The English work is, however, much more than a translation; there are many and important additions to the original German work by Dr. Macalister.

A Compend of Surgery for Students and Physicians.—By ORVILLE HOWITZ, B.S., M.D., Demonstrator of Anatomy, Jefferson Medical College, Philadelphia, &c. Third edition; revised, enlarged and improved, With 91 illustrations. Philadelphia: P. Blakiston, Son & Co.

One of the earlier editions of this compend was fully and favorably noticed in this JOURNAL. The present issue is much more complete than either of the preceding, although there is still ample room for improvement. Thus, for instance, the important subject of dislocation of the humerus is very much mixed and made almost unintelligible. We believe that subcracoid dislocations are more common than subplenoid, and we think we are supported in our belief by some very able surgeons, Bryant amongst them. Then figure 27 is very misleading, as old dislocations necessitating the use of the pulley are not mentioned in the context. The article on diseases of the spine needs re-writing. We would humbly suggest that a description of angular curvature might with propriety precede that of psoas and lumbar abscess. The present arrangement is apt to be confusing.

We are not partial to compends, as we believe they make lazy students and encourage cramming. However, if we must have a compend of surgery we prefer the one under review.

Maternity, Infancy, Childhood, Hygiene of Pregnancy, Nursing and Weaning of Infants; the Care of Children in Health and Disease. Adapted especially to the use of mothers and training schools for nurses, as an aid to the teaching of the nursing of women and children.—By J. M. KEATING, M.D. Philadelphia: J. B. Lippincott Company.

The profession have long been in want of a small, clearly-written book on the above subjects to recommend to their patients. The above, better than any other we have seen, seems to supply that want. It contains chapters on pregnancy, care of the newborn, bottle-feeding, weaning, hygiene teething, diet after dentition, and care of the bowels. In the third part on childhood, it has chapters on nasal catarrh, disease of eye and ear, of throat and air passages, on diarrhoea, the several infectious diseases, on second dentition, and on puberty. In all, the advice is supposed to supplement only, not to supplant, that of the family physician.

Treatment of Disease in Children, including the outlines of Diagnosis and the chief Pathological differences between Children and Adults.—By ANGEL MONEY, M.D., M.R.C.P., Assistant Physician to the Hospital for Sick Children, Great Ormond Street, and to the Victoria Park Chest Hospital. London: H. K. Lewis.

This is one of the best of Lewis's practical series, and can be thoroughly recommended to both the advanced student and the practitioner. We gladly welcome it as coming from the Great Ormond Street Hospital for Sick Children, for since the classical work of West, with the exception of occasional papers by Gee and Barlow, none of the physicians in attendance have given us the result of what must be their large experience in children's diseases. The present volume is tersely written, suggestive and eminently practical in its teaching, and although stating fully the opinions of others, gives no uncertain sound as to the course the author's experience has led him to adopt. Much importance is given throughout to hygiene and nursing, and exact instructions for each disease are given in detail. Then follow the indications

for the medicinal treatment; the several drugs which may be suitable are referred to, and the indications for and against their use stated clearly. Many approved formulæ are given. In diagnosis, the important points are well stated; and we have read with much interest the author's statements of the pathological differences between the course and tendency of disease in adult and child life (*e.g.*, articular rheumatism.)

Notwithstanding the author's protest in the beginning against the use of nauseous drugs for children, on reading over some of his formulæ, we confess to having a sympathy for the child who replied to the doctor's persuasion to take some medicine with "take that 'oor own 'elf;" and exactly why the chapters on diseases of the new-born and diseases of the skin should be interposed between those on diseases of the respiratory and circulatory systems and of the stomach we do not apprehend. However, the index is a good one, and the headings of the several paragraphs make reference very easy.

Earth as a Topical Application in Surgery.—By A.

M. HEWSON, M.D. Second edition. With four photo-relief illustrations. Philadelphia: The Medical Register Co.

Had this book been published a century ago it would doubtless have attracted considerable attention among surgeons. In this age of bacteriology and antiseptics, however, its teaching falls flat and will be barren of results outside the author's limited sphere. We can understand that the application of earth to sloughing ulcers and gangrenous tissues would be excellent practice, but there can be no excuse for its employment to fresh wounds and amputations when antiseptic dressings can now-a-days be so readily obtained in all parts of the globe. Earth as a disinfectant is well known, but earth as an antiseptic we fail to understand. However, the cases reported are well worthy of perusal and the photographs are excellent.

Books and Pamphlets Received.

ON FEVERS: Their History, Etiology, Diagnosis, Prognosis and Treatment. By Alex. Collie, M.D. With colored plates. London, H. K. Lewis.

EVACUANT MEDICATION (Cathartics and Emetics). By Henry M. Field, M.D., Professor of Therapeutics, Dartmouth Medical College. Philadelphia, P. Blakiston, Son & Co.

THE PHYSICIAN'S DOSE AND SYMPTOM BOOK. By Joseph H. Uzthe, M.D. Philadelphia, P. Blakiston, Son & Co.

ANATOMY, Descriptive and Topographical, in 625 illustrations. By Carl Heitzmann, M.D. English edition by Louis Heitzmann, M.D. New York, J. H. Vail & Co.

TRANSACTIONS OF THE TEXAS STATE MEDICAL ASSOCIATION. Eighteenth Annual Session, 1886. Austin: Printed for the Association.

Society Proceedings.

MEDICO-CHIRURGICAL SOCIETY OF MONTREAL.

Stated Meeting, Feb. 25th, 1887.

J. C. CAMERON, M.D., PRESIDENT, IN THE CHAIR.

Heredity.—DR. W. G. JOHNSTON read a short paper on "Heredity of Acquired Peculiarities," which appeared in full in the April number of this JOURNAL.

Discussion.—DR. SHEPHERD stated that those anatomical peculiarities which are characteristic of inferior animals are often transmitted for many generations; for instance, he had traced for two generations a well-marked supra-condyloid process. Deformities in the fingers and toes were often transmitted from one generation to another. He cited an instance where he had performed tenotomy for a peculiar formation of the toes in two generations. He knew of a family, each member of which was characterized for three generations by a preternaturally long first toe possessing prehensile power.

DR. MILLS said that Darwin did not seem to have been strongly given to speculation, and did not strive after a *final* explanation of his hypothesis. His Pangenesis, as an explanation of the facts of organic evolution, was by many biologists regarded as weak and unworthy of him. Brooks had attempted to show that the male generative element was concerned in *originating* variations, the female in *preserving* the existing form. If this were true, important conclusions followed. Medical men might

throw some light on this and kindred matters. Dr. Hughlings Jackson had applied evolution to the discussion of diseases of the nervous system in his usual masterly manner. Inasmuch as morphological explanations never can be final, it was remarkable that physiological solutions had not been invoked prior to this time. Dr. Mills believed the solution must eventually come through physiology; in fact, quite recently Dr. Romanes had introduced "physiological selection" as supplementary to "natural selection," etc. Certainly at the present time the most thoughtful biologists feel the need of something additional to the Darwinian factors to give a complete explanation of organic evolution which might now be considered, as Huxley called it, a "demonstration." Dr. Mills thought the time had now come for medical societies to discuss such broad generalizations of science in their bearing on their own science and profession. The question of the heredity or non-heredity of acquired peculiarities was especially within the scope of physicians, and one they could do much towards settling. He hoped to be able to lay before the Society some views of his own on the subject of organic evolution in some of its aspects at a future time.

DR. TRENHOLME, referring to Brooks' theory, stated that he had noticed several cases where the permanence was on the male side. He had in one case traced polydactylism through three generations on the male side, and in another case the male members of a family were for several generations characterized by peculiar teeth.

DR. HINGSTON referred to the fact that the practice of flat-headed Indians of flattening the frontal bone of their infants for many generations had not produced any permanent change in the shape of their heads. Infants were born still with perfectly round heads.

"*Some of the Present Aspects of Surgery.*"—DR. HINGSTON then read the following paper on this subject:

The aspects of a science or of an art are as the aspects of a country; not being always objective are not always the same—for the subject, seeing, has views of his own, habits of vision as it were, and these, unconsciously to himself, perhaps, change

and color the prospective. I am as one, and only one of those observers, and the field of observation—chiefly *ultra mare*—is the scene of former and more lengthened residence. During my recent visit to Europe, after an interval of nineteen years, I perceived, or fancied I perceived among individuals in the higher walks of the profession, whether met with in society or at their own homes, a greater seriousness—a greater earnestness than on former occasions. Or was it that those intervening years had changed the mode of vision in the observer? The friction of mind against mind is seemingly incessant. The struggle for position is unremitting—rendered the more necessary by the increased and steadily increasing cost of living, and almost *pari passu*, the steadily increasing number of votaries to the healing art. The large incomes enjoyed—not always enjoyed, but always slaved for—by a limited few, have caused recruits innumerable, each one hoping to achieve distinction, as in the time of Napoleon the humblest soldier was animated with a hope of one day exchanging his musket for the *baton* of the marshal. Although great courtesy characterizes the relationship of members of the profession with one another, there are few who are not keenly alive to the necessity of continued effort for supremacy, as well as for its recognition; and self-assertion, though clothed with becoming modesty, is not always absent from the highest and most conservative ranks of the profession. But plain, honest thought—most markedly in Great Britain—finds plain, honest expression at all the meetings of societies I attended. Vague statements are unheeded; and if imagination is suspected as a possible source of stated fact, a clapping of hands is an indication of *that fact* having been duly noted. The most imaginative could not devise a readier method of expression than the clapping, graduated on a crescendo scale, which marks distrust or disapproval; and tediousness or irrelevancy receives a quietus in the same way.

The vast strides in the study of minute and morbid anatomy, and in special and general pathology, have opened up newer and, it is said, more profitable fields of professional labor. The growth and multiplication of specialties are prodigious. The three divisions of physician, surgeon and accoucheur; the subdivision of eye and ear surgery, and afterwards the further separation of

the two latter, are no longer adequate to express the numerous subsections of professional work. On former visits I usually spent an hour or two a day with Sichel, Desmarres, or Graefe over the eye; with Wilde or Toynebee in studying the ear; while a Stokes, a Graves, a Trousseau or a Schönlein was, in our then benighted condition, deemed fit to teach the practice of medicine in general; and a Syme, a Velpeau or a Langenbeck was supposed to be quite abreast of general surgery. Now, all is changed, and perched on every barleycorn of vantage ground the specialist works in a narrower, a more restricted sphere, seeing clearer, no doubt, what he *does* see, but with less acquaintance, it is said, with the ailments of other organs with which his own may be intimately connected. Yet the labors of the specialist—each in his own department—have greatly advanced the general stock of knowledge. The all-around man is becoming a *rara avis*; yet when a Jonathan Hutchinson appears, going to and from the meetings of the British Medical Association, he is greeted by physician and surgeon alike as one who, in his day, has touched many things pertaining to both medicine and surgery, yet of whom it may be said, *nec tetiget quod non ornavit*. It is men such as he who show us how the various branches of our art are mutually dependent, and how they correct, reform and reclaim each other. The newer and more inviting fields of special work are, in Great Britain, drawing into their ranks, at a rapid rate, men who will be competitors in those ranks. There must soon be a limit to subdivision. The story told a few years ago of a lady in London who had given her lungs to one physician, her liver to a second, her heart to a third, her womb to a fourth, and so on, would now be strange in the atmosphere of refined life, were she so incautious and so ill-informed as to confide the whole of any organ to a single individual.

Now and then, as you are aware, efforts are made in the direction of synthetizing diseases. Thus Erasmus Wilson, in his old age—and it was a richer legacy than that represented by his Cleopatra's needle,—reduced, for therapeutic purposes, diseases of the skin to *four* clearly and easily understood heads. The whole was contained in a few duodecimo pages. Eczema was grouped naturally under one of them, and I much doubt if any

of the octavo volumes on that disease alone have contained more matter for the practising physician than the few lines in question. No one is still doing more to harmonize medicine and surgery than Sir James Paget, who draws from pathological anatomy and from clinical pathology, whether for the use of the experimentalist, the chemist, or the microscopist.

Great advances have been made in the diagnosis of diseases of the different cavities of the body ; but in the exploration of mucous inlets, as the nose, larynx, trachea, urethra, bladder or vagina, I failed to notice any advantages not within the *portée* of practitioners twenty years ago.

The *principles* of treatment are not now much better understood, although *diagnosis* may have outstripped its former self by many a stride. With the greatly increased facilities for the investigation of disease ; with the improvements in the methods of diagnosis, and with the application of direct methods of treatment, initiation is sometimes shrouded in well-intentioned mystery. For instance, in a specular examination of one of the mucous inlets, there was an arrangement of mirrors which reflected the electric light *four* times before it reached the mucous membrane. The green baized drapery completed the illusion ; and the fee was larger, possibly, than if the examination had been gone through with direct light or with light once reflected.

The separation of medicine, as a whole, from surgery, as a whole, seemed destined to be complete and irreparable. But it is not so. Handmaids of each other they must ever remain ; again, a tendency is noticeable of an *approchement*, and this time by the invasion by the surgeon of the domain of medicine.

The lines which separate specialties are, as I have said, narrow, short, yet well defined. They are steadily becoming narrower, shorter, and still more defined as between specialties, and especially surgical specialties. That the public is a gainer is much doubted. But while the lines which confine specialism within steadily narrowing limits are becoming more defined, the lines which separate medicine, as a whole, from surgery, as a whole,—even in those departments in which, till recently, the physician tolerated not the aid or intervention of the surgeon,—

the latter has dared to enter, and with advantage, the domain of the physician. Not many years ago, for instance, in all affections of the chest or abdomen requiring manual interference, the surgeon was sent for, and the operation was performed at the request and under the guidance and direction of the physician whose diagnosis was followed, and who had called in the surgeon to do that which required a cooler nerve or a more dexterous hand than that possessed by himself. How is it now? The surgeon's knowledge of *internal* derangements within the skull, chest or abdomen requires to be so precise that skill in operating must wait upon, and be preceded by great accuracy in diagnosis. The surgeon who trephines the skull, cuts through its membranes and removes a tumor from the brain; or who sends a bistoury through its substance to an abscess, does that which requires no extraordinary manual skill or dexterity—a butcher or a butcher's boy could do it as well. But the exact, the precise localizing of disease within the brain, by the correct interpretation of disturbance of function *at a distance*, is one of the greatest triumphs of modern surgery, and is a step towards its recognition as a science as well as an art. The domain of the surgeon is therefore steadily extending, and fractures, dislocations and excisions of tumors no longer limit the field of his labors.

It would be inconsistent with the time at my disposal to traverse the field of practical surgery, to point out what might be considered encroachments upon the territory of the physician. I shall only allude to those instances where, till recently, medicine, and medicine alone, was relied upon for relief.

In chest affections requiring surgical interference, diagnosis must be clear and precise. In empyema, for instance, not alone must the quantity and situation, but even the quality of the fluid be made out before proceeding to operation. In bronchiectasis of the lung, where the difficulty of diagnosis is admittedly great, it must be precise before resorting to any operative procedure. Here, again, the surgeon, although he may receive aid in determining the exact site and nature of the disease, must rely upon his own diagnosis chiefly, if not entirely.

In local peritonitis, what could be more daring, more surpris-

ing, yet more satisfactory than Mr. Lawson Tait's thrusting a bistoury into the groin of a woman laboring under all the symptoms of puerperal fever, where he suspected pus by the symptoms alone, but where, as he told me, there were no outward signs of its presence; no swelling, and no local tenderness. From a condition almost of collapse, recovery took place. The operation was not, 'tis true, a difficult one. Anyone could have performed it; but the diagnosis was prophetic.

The case of Dr. Leslie Phillips, operated upon by John W. Taylor, F.R.C.S., is of like character; and now that attention has been directed to the subject, and that surgery has taught a means of escape, deaths from supposed puerperal fever will, it is hoped, be less frequent than formerly. Here, as you will see, surgery comes to the relief of the obstetric physician in cases which are peculiarly within the province of the latter.

In diseases of the abdominal organs, how much has lately been done by surgery. Hepatitis, with all its train of sufferings, was claimed by medicine as its own; but surgery of the liver has suddenly leaped into importance lately. A painful, inflamed and enlarged liver is now relieved by Harley and others, and the patient cured by the insertion into it, at its upper and convex part, of a long trocar, and by the drawing directly therefrom as large a quantity of blood as was considered prudent to be taken from the arm in the days of venesection. Operation for draining hepatic abscesses or removing hepatic cysts; cholecystotomy for crushing or taking calculi from the gall-bladder; laparotomy for purulent or persistent peritonitis; abdominal sections for internal hemorrhage, etc., are all of recent date, and open a field, not of brilliant operative procedures, but of more brilliant diagnosis, and what is of greater moment, of far more beneficial results.

The considerable degree of immunity from danger which has attended abdominal sections has led to the spaying of females—married and unmarried—for sometimes real—sometimes, it is believed, unreal sufferings. This operation has been performed for objective disturbances and for disturbances purely subjective. Prolapsus of the ovary, a common affection; atrophy of the ovary, not easily diagnosed; œdematous ovary; a pultaceous

condition of the ovary ; cirrhotic ovary ; hydrosalpinx ; in pyosalpinx *pur et simple*, often guessed at by raised temperature alone ; in pyosalpinx resulting from gonorrhœa ; in that condition of neurosis whose shapes are endless and whose outward hysterical manifestations are innumerable ; in localized peritonitis, where the intestines, omentum, etc., are glued together, etc. ; in inflammatory conditions after confinement, especially in the acute and subacute stage ; in deformity, where the birth of a living child might be *reasonably* expected to prove fatal to the mother ; in uterine myomata, where the size of the growth is inconvenient ; in bleeding myomata ; in (who would believe it?) all cases of uterine myomata in patients under 40 years of age ; in retroflexed and anteflexed uterus ; in epilepsy ; in hystero-epilepsy ; in every case of insanity in the female !!

Here, as you will perceive, I have said nothing of those considerable tumors of the ovary or tubes—cystic, fibrocystic or malignant—which all agree may demand removal. Is it to be wondered at that this operation should be resorted to with a frequency which is alarming ? Oöphorectomy is to-day epidemic in many places on the other and on this side of the Atlantic. Occasionally an authority, such as Thomas More Madden, in Europe writes that the operation of oöparotomy is performed “too frequently” and in unsuitable cases ; and Emmet, on this side, stems the tide somewhat by saying that for a year he had seen but one case of disease of the tubes where the operation might be justifiable, that the patient refused to be operated upon, and got well in a few months. Yet every one knows Emmet’s unsurpassed field of clinical observation. In one hospital in Liverpool, says Dr. Carter, no less than 111 women had been deprived of one or both ovaries during the year 1885, said to be about one-third of all the patients admitted. This frequency continued in 1886, and led to a commission of enquiry. Canada has many oöphorectomists and salpingotomists. The *Canada Lancet* has denounced the epidemic, and at our own Medico-Chirurgical Society ovaries are sometimes fished up from the depths of the pocket—sometimes the vest pocket,—and sometimes it has happened that so able a pathologist as Prof. Osler

has, after close inspection, declared he found nothing abnormal in them. The fashion, doubtless, will soon change; diagnosis of affections of the appendages will, in the meantime, have been much advanced; and the question of operation will have been settled in accordance with those general principles which should guide all prudent and honorable men in its performance or rejection. This question has a moral and a social as well as a medical aspect; but I do not arrogate to myself any preparedness not possessed by others. I may say, however, I have more than once prevented the operation, and I have been afterwards thanked for it, and another then unborn generation has been advantaged by it. I admit there are cases where a diseased condition of the ovaries or tubes demands surgical interference; but those are not cases where every objective sign is absent, and where the symptoms detailed by a hysterical woman are the only guide.

Discussion.—DR. TRENHOLME did not believe that gynæcology, as a branch of surgery, would ever lose its importance; its utility was undoubted. With regard to spaying, the speaker expressed his belief that it would be better if every insane person could be prevented from propagating his species, and the same could be said of criminals. He gave an account of a case where one noted criminal marrying another had given rise to a race of no fewer than 176 noted criminals, male and female. With regard to the utility of abdominal sections, he could only say that in his experience more than 90 per cent. were cured of undoubted and often intense suffering. He did not think that patients suffering from pyosalpinx or hydrosalpinx when over 40 years of age required operative measures, but believed in operating on in all cases where patient was 28 to 30 years old.

DR. GARDNER agreed with Dr. Hingston that there should be objective signs to justify operation, except in a few cases—*e.g.*, cirrhotic ovaries. Dr. Bantock gives many cases of diminution of ovaries which produced intense suffering, but which were cured by operation. With regard to the removal of ovaries for myomata, it is known that many myomata may exist for life without producing the smallest danger or even discomfort. On

the other hand, these tumors may produce dangerous hemorrhages or intense pain, and ovariectomy, as a rule, gives relief. With regard to the neuroses, we have still much to learn about the effect of the ovaries on the nervous system. Pelvic pain is often undoubtedly of central origin, yet in many cases it is due to the ovaries. In selecting proper cases for operation in neuroses, we require experience. This, however, will come in time.

DR. SHEPHERD remarked that nervous affections were now treated by operations on the eyes instead of ovariectomies. Cutting the eye muscles is a recent mode of treatment for epilepsy and insanity. Many cures are claimed for this method of treatment.

DR. HINGSTON, in reply, stated that he did not wish to depreciate gynæcology, but he did wish to denounce this wholesale operation for subjective symptoms. Such recognized authorities as Spencer Wells, Keith and Emmet speak in much stronger terms than he. The *London Lancet* has for some time refused to publish the papers of these wholesale ovariectomists. He believed that if men like Lawson Tait and Savage, who operate for subjective symptoms, are to be imitated by men with less judgment, it would lead to unlimited operating. Every hysterical girl with pelvic pain would be a fit subject for ovariectomy. With regard to ovarian fibroma, he could cite very many cases in his own practice of women who have had uterine fibromata all their lives without causing them any discomfort. Otis claims to have cured neurosis by circumcision, and contends that many forms of epilepsy can be thus cured. Ovariectomy is the modern fashion in surgery, just as the now almost discarded Syme's external urethrotomy was the fashion a few years ago.

TORONTO MEDICAL SOCIETY.

Stated Meeting, May 12, 1887.

THE PRESIDENT, DR. NEVITT, IN THE CHAIR.

DR. POWELL read a paper entitled *Pleurotomy for Empyema, Methods of Drainage, and Report of Cases*. The course of a purulent pleurisy untreated or subjected only to medical treatment was outlined, and the fact that nature could not be trust-

ed to effect a cure was dwelt upon. Surgical aid must be invoked or the prognosis would be practically hopeless. Even this aid, before the general adoption of antiseptic methods, failed to reduce the general mortality 50 per cent. Now and then the reader had an impression that it did not exceed 20 per cent. His own cases, six in number, were given. Four of these were under care from the beginning of the disease, and all recovered with good lung expansion and no chest deformity. The other two were chronic cases and recovered only imperfectly as regards the chest-wall and the lung of the affected side. Syphon drainage was adopted in most of the cases. A large Nelaton catheter having been introduced it was fixed by passing it through a hole punched in a piece of Esmarch bandage, worn like a belt around the chest, as first suggested by Dr. Eby of Rochester. The outer end of the catheter was attached to a glass tube passing through a rubber stopper into a bottle of carbolic solution. The bottle was worn in the hip pocket by patients able to go about. To wash out the chest all that was necessary was to alternately raise and lower the bottle. One of the cases reported had in addition to a large collection of pus in the pleural cavity an interlobar sac not communicating with it. They were drained separately. Attention was called to the fact not yet generally recognized that the line which bounds superiorly the flatness in cases of effusion in the plural cavity is a curved line, rising highest toward the axilla, and not a water-level line. This point was first observed in 1843 by Damaiseau, and independently by Dr. Calvin Ellis, of Boston, in 1876. The Ellis curve had been made out by the reader in every case of pleuritic effusion examined during the last ten years. Diagrams illustrating its location in a number of cases were shown. The importance of an early recognition of notable purulency in an effusion in the chest, its evacuation and continuous drainage, according to recent antiseptic methods, and the obliteration of the cavity by adhesion of its walls, aided if required by irrigation or costal resections, was next taken up, and finally discussion was invited upon aspiration in empyema, syphon drainage, irrigations, free incisions, and antiseptic methods in operating and in after treatment.

CANADA

Medical and Surgical Journal.

MONTREAL, JUNE, 1887.

ROYAL VICTORIA HOSPITAL.

The corporation having granted unconditionally the site, we know of no obstacle remaining to prevent the early consummation of this magnificent scheme. At the last annual meeting of the Governors of the Montreal General Hospital held a few days ago, the Secretary in his report hinted that something in the shape of an amalgamation between the two institutions would be desirable. The idea is a good one, although we see many difficulties in the way if Sir Donald and Sir George adhere to their original plan of naming their own trustees. But they may prefer to remain independent, as the interest that will accrue from their endowment fund will be ample for the support of one hundred and fifty beds. We hope soon to be in a position to give our readers more definite information regarding this princely undertaking.

RECTAL ETHERIZATION.

We think we are justified in stating that this method of producing anæsthesia has been fairly tried and found wanting. It appears never to have been in much favor among English and Continental surgeons, and even the Americans of late have seldom referred to it. It looked at one time as though there might be a great future for it in the surgery of the head and neck but the expectations of the most sanguine have not been realized. It may be that the apparatus has been at fault or the cases have not been selected with sufficient care, looking to the condition of the intestine the want of success of this process is altogether to be very much regretted, as at the time of its intro-

duction the surgeon was promised immunity ever after from the annoyance caused by the ordinary inhaler in such operations as excision of the maxillæ, removal of the tongue, hare-lip, staphylo-orrhaphy, tracheotomy, etc.

The chief objection made to rectal etherization is the fact that the anæsthetic is little, if at all; under the control of the administrator. In spite of every precaution a large accumulation of the vapor will take place in the intestine producing cyanosis and a long-continued anæsthesia, so profound at times as to cause alarm. Doubtless many of the deaths that have occurred can be attributed to this species of super-saturation. Among the minor objections to this method of administering ether is its irritating effect on the mucous membrane of the bowel, causing a troublesome serous diarrhœa which has been known to last for several days. In one case hemorrhage from the bowel of an alarming nature took place.

Thus although the evidence so far is undoubtedly adverse to the administration of ether per anum, we sincerely trust the idea will not be abandoned, but that other plans and other anæsthetics will be tried, as there is much in the method to commend it to surgeons.

ADAPTATION TO ENVIRONMENT.

The name of Dr. Dallinger is sufficient guarantee of the quality of any microscopical investigation he may carry out. In a recent address before the Royal Microscopical Society he detailed the results of certain experiments indicating how great is the adaptability of organisms to changes of temperature, when such changes are but sufficiently gradual.

For nearly seven years continuous experiments and observations were made, with the result that several organisms had gradually become adapted to live and thrive under a high temperature. Commencing at the normal temperature of 60°F., the first four months were occupied in raising the temperature 10° without altering the life-history. When the temperature of 73° was reached, an adverse influence appeared to be exerted on the vitality and productiveness of the organisms. The heat

being kept constant for two months, they regained their full vigor and vitality, and by very gradual stages of increase 78° was reached in five months more. Again a long pause was necessary, and during the period of adaptation a marked development of vacuoles was noticed, which again disappeared when it was possible to raise the temperature farther. The farther history of the experiments presented practically the same features—long pauses, vacuolation, slow advance—until at last the high temperature of 158°F. was reached, when the research was accidentally terminated. It is because it is so difficult to observe the effects of changes through a sufficient number of generations of larger animals that results obtained on the simpler forms are so valuable. Darwin distinctly insisted on the slowness of the process of adaptation. The organisms examined by Dr. Dallinger are incessantly multiplying by dividing, the longest interval being four minutes: half a million generations must therefore have been observed, giving the “countless generations” required. At the end of the series the organisms were found to be fully adapted to a change in the essential condition of life, sufficient to produce death originally.

It seems to us it would be difficult to over-estimate the value of such a series of experiments made by so competent an observer; not alone on account of the actual results reached, but from their bearing on the great modern theories of Biology. Nor is it difficult to see their intimate relation with studies in Pathology. It becomes daily more apparent that a new era in medicine has dawned, though possibly those on the mountain tops only may adequately realize it.

SYPHILIS AS A CAUSE OF PROGRESSIVE PARALYSIS OF THE INSANE.

In one hundred cases of progressive paralysis, Ziehen of Jena (*Neurologisches Centralblatt*, May 1st, 1887) could trace a distinct history of syphilis in from 33 to 43 per cent. of cases, while in other cases of insanity the proportion of cases where a history of syphilis could be obtained did not exceed 13 per cent. It is well known that frequently progressive paralysis is due to

several causes in active operation at the same time (heredity, alcoholism, traumatism, venereal excesses, etc.). Ziehen could only in five cases out of his one hundred exclude every likely cause besides syphilis.

In eight of the above cases, mercurial treatment (friction cure) was employed, with the alleged result that the ordinary remissions were much prolonged in six. Some of the cases were treated with iodide of potassium, and here only about the half were apparently influenced for good. In cases treated by non-specific agents, only 20 per cent. showed distinct remissions.

CANADIAN MEDICAL ASSOCIATION.

The nineteenth annual meeting of the Canadian Medical Association will be held in Hamilton on August 31st and Sept. 1st. This date will enable members to attend also the meeting of the International Congress which will be held in Washington on the 5th of September.

GERMAN CONGRESS.

The German Congress for Internal Medicine recently held in Wiesbaden was a very successful gathering both in the number of members who were present and the importance of the papers read. A paper on the Pathology and Therapeutics of Whooping Cough, by Vogel of Munich, attracted great attention.

Fleischer of Erlangen gave the results of a series of experiments on the pathology of kidneys. He considers that anæmia of the brain plays a prominent part in the induction of the convulsions of uræmia.

Cohn of Strassburg, who read a paper on Acids in Cancer of the Stomach, is inclined to look upon the alleged absence of acids in this disease as due to mechanical causes and not to disturbance of the acid secreting functions of the stomach.

Franz, in a paper on "Work or Rest for patients affected with organic Disease of the Heart," contends that slight work slows and strengthens the heart. In the discussion which followed, Leyden of Berlin considered that there is an important

therapeutic principle involved in Oertel's treatment of limiting greatly the amount of fluids in beginning organic disease of the heart. We know from Kussmaul's and Tenner's experiments that the most efficient means we possess of lowering tension is a strict adherence to a dry diet. The work required of the heart is therefore much less.

NOTES AND COMMENTS.

The truth about the gas treatment of Phthisis is gradually being threshed out, and it begins to look as if the yield, per acre, was scarcely worth the trouble of harvesting. Dr. Bruen, in whose wards the method has been most extensively tried, tells me that in about 100 cases, two or three only have been benefited. A majority of the patients who at first did so well have relapsed while under treatment, and are as bad as ever. At the University Hospital, Dr. Griffith has been making careful observations in all the cases under treatment, studying particularly the influence on expectoration, weight, fever and the bacilli. The results are practically negative. In two cases only has there been improvement. The subject will be thoroughly discussed at the Association of American Physicians in Washington next week. As I predicted there has been an extraordinary sale of gas bags and a Philadelphia firm sent out 100 sets of the apparatus in one day. The history of the *bubble* should be a warning to Hospital authorities not to permit crack-brained reporters to gather professional items from which to manufacture sensational articles. Dr. McLaughlin, the chief resident Physician at the Philadelphia Hospital, acted most injudiciously in giving to the press the information on which the false statements have been based. I have just received from London a copy of the *Central News* telegram, which was sent from New York in March. Here is the precious document, which for mendacity equals anything which has appeared in the "latest telegraphic news" for, say, twenty-four hours:

"Dr. McLaughlin, head physician of the Philadelphia Hospital, reports the marvellous and unprecedented cure of 30 persons in the last stage of consumption, solely by means of injec-

tions of carbonic acid gas. The gas is prepared according to the system described in a recent paper by a professor in the Lyons University. The medical authorities in the hospital express the belief that an absolute cure for consumption has been found."

An interesting and curious book is *Les Démoniaques dans l'Art* by Charot and Richer, in which an attempt is made to prove, by a study of old miniatures, bas-reliefs, bronzes, frescos and engravings, that demoniacal possession was nothing more than a manifestation of *la grande névrose hystérique*. The authors have made a collection of all the representations of the scenes of exorcism from the fifth and sixth centuries onward, particularly of those which illustrate the figures, attitudes and contortions of the possessed. In the earlier ones there is nothing very distinctive; the demon is the important personage and is represented in visible form leaving the man's body either by the mouth or through the top of the head. Several illustrations of the 11th and 12th centuries gives a tolerably accurate representation of the attitude of the body in hystero-epilepsy. St. Charles Borromée—a well remembered Saint in Montreal—figures as a very active exorcist. Among later engravings which are reproduced, the most interesting are those of St. Vitus' Dance, epidemics of which prevailed so extensively in the Rhine provinces in the 14th, 15th and 16th centuries. Oddly enough, an annual pilgrimage of dancers is still made at Easter to the old shrine of St. Willibrod, in Luxembourg. The pictorial evidence, so far as it goes, strongly supports the view that certain phases of demoniacal possession of the early and middle ages were manifestations of hysteria. On the other hand, I dare say there are physicians, without the gifts of exorcism of Weir Mitchell and Charcot, whose bitter experience inclines them to believe that some of the cases of modern hysteria are instances of demoniacal possession.

The late Dr. Moxon, of Guy's Hospital, was not only a deep thinker but a master with pen and tongue of vigorous English.

Under the odd title *Pilocereus senilis* has appeared a small volume of his essays which will prove pleasant and profitable reading "between the pains." The title was the *nom de plume* under which many of the articles appeared in the Guy's Hospital Gazette. The discussion which arose as to its origin has been settled by Mr. Clement Lucas, who states that one day at Kew, Dr. Moxon was greatly struck with the wise and antiquated appearance of the hoary-headed Cactus, *Pilocereus senilis*, and subsequently adopted its name as a cloak for his philosophical reflections.

Whether Dermatology belongs properly to the physician or to the surgeon is not yet settled. If we may judge from the monographs and text-books, the physicians appear to be doing a large part of the work. Dr. McCall Anderson, of Glasgow, a clinical physician, has just issued a large treatise on Diseases of the Skin, one of the most complete and practical works on the subject which has appeared. Though not strictly a specialist, Dr. Anderson is a well known authority in the branch in which he has enjoyed an exceptional experience.

Death has been busy in our ranks.

In Wilson Fox the profession of London loses a bright ornament and University College one of its ablest teachers. He had achieved success, professional and—so important in London—social, and the highest prizes were within his grasp. The road to the *very top* in the metropolis is so steep and thorny that in the rough ascent bodily stamina counts for much; and to break down within sight of the summit, seems particularly hard. Dr. Fox had never been very robust, and a pneumonia, with endocardial complication, in 1876 was a severe trial, and in his final illness the fatal result seems to have been due to the cardiac weakness rather than the acute pneumonia. He will be remembered chiefly by his work on tubercle and as the stout opponent of Niemeyer's views, and it was with no little satisfaction that he saw a return, after Koch's investigation to the belief in the specific nature of tuberculous processes. For

years he had been preparing a treatise on disease of the lungs, and it is sincerely to be hoped that the materials have been left in a form available for publication. Those who enjoyed the privilege of following him in the wards will remember him as a clear and impressive teacher. When I look back, through the mist, to 1872-73 and try to recall specific days and hours, there are few which return with greater distinctness than those in which I see Wilson Fox standing at the head of a bed at University College Hospital, unravelling for the class the complicated symptoms of some chest case. He had a refinement and charm of manner particularly attractive. Something of the gentle spirit of the great Friend, whose name he bore, and into whose Society he was born, pervaded his nature and there was a kindliness in his manner which won the hearts alike of students and of patients.

The late Dr. John Fulton of Toronto was the first really successful medical journalist which Canada has produced. From 1826, when Xavier Tessier issued his ambitious *Quebec Medical Journal*, to 1870, when John Fulton took in hand that rickety suckling, the *Dominion Medical Journal*, the profession had sought in vain for a man who combined business talents with editorial capacity. As editor of the *British-American Medical Journal*, Hall had been conspicuously successful, but increasing expenditure and diminishing receipts twice caused him to give up the struggle. The *Montreal Medical Gazette*, the *Upper Canada Medical Journal*, the *Medical Chronicle*, *La Lancette Canadienne*, the *Provincial Medical Journal*, and *L'Abeille Médicale*, died of inanition. *Primæ viæ* defective; no digestion; tabes mesenterica; good head, no nourishment; in other words, plenty of editorial matter, but no cash in the till. The business interests *had never been given first place*. Dr. Fulton made the *Canada Lancet* a success by able management and by fostering the pecuniary as well as the literary interests. He saw there was a fine field in Canada for a pushing journal, and he entered in and took possession. His life has a lesson for us all—the lesson that success cometh neither from the east nor from the west, nor yet from the south, but is found in a close attention to the every-day details of life, no matter how trivial.

WILLIAM OSLER.

Medical Items.

—T. Johnson Alloway, M.D., has been appointed Assistant Surgeon of the Montreal General Hospital, vice Dr. Girdwood, appointed Consulting Surgeon.

—Dr. James Stewart has been appointed Assistant Physician of the Montreal General Hospital, vice Dr. J. C. Cameron, appointed Consulting Physician.

ROYAL SOCIETY OF CANADA.—The following are the officers of the Royal Society for the current year:—President, Dr. Lawson, Professor of Botany, Dalhousie College, N.S. Vice-President, Sandford Fleming. Secretary, Dr. J. G. Bourinot. Treasurer, Dr. J. A. Grant.

—Dr. D. C. Lane reports a case in which a patient shot the doctor who castrated him. Yet the operation was done for incurable disease of the testes, and with the full consent of the patient and his friends. Dangerous operation to the operator.

—As a rule, the doctors who, as a class, have the largest balance of net financial gain at the end of each year are country doctors. Nearly all city doctors who become rich do so by fortunate investments in real estate or some business enterprise outside of their profession.

—The Lewiston journals say that a man blew up a doctor's office with dynamite because the latter was out of town when the man's child was sick. It was claimed that had the doctor been at home the child would not have died. The man got a sentence of twenty years free service of the State of Maine.

—The *Alienist* suggests that to prevent quarrels in the profession, the students should be kept long enough in medical college to learn professional etiquette. Then when men are properly educated quarrels will be distasteful, for the reason that they waste time desired for medical study and advancement.