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ORIGINAL ARTICLES AND COMMUNICATIONS.

We very much regret the omission of the name of the writer of the article in the April number—"The Present Status of the Radical Cure of Hernia." The paper is one read before the Ontario Medical Association, at its last meeting, by Dr. Geo. A. Bingham, Associate Professor of Surgery in Trinity Medical College, and Surgeon to St. Michael's Hospital and the Hospital for Sick Children, Toronto.

REMARKS ON MODERN THERAPEUTICS.

Read before Ontario Medical Association June, 1897, by J. T. Fotheringham, Professor of Materia Medica, etc., Ontario College of Pharmacy; Lecturer in Therapeutics and in Clinical Medicine, Trinity Medical College, Toronto.

MR. PRESIDENT AND GENTLEMEN,—The term *Therapeutics*, as everyone knows, is by derivation extremely wide in application, and this breadth of meaning is apt to be lost to some of us by the bent that our study of drugs gives to our thinking. The Greek Θεραπος ("*therapos*") was the body-servant, the carrier of wraps and armour, with whom, in primitive society, the master lay for warmth on cold nights, as we are told the servants of King David suggested when he "was old and well-stricken in years," for they advised, "Let there be sought for my lord the king a young virgin, and let her stand before the king, and let her cherish him, and let her lie in thy bosom that my lord the king may get heat." The root idea is that in the cognate word Θερμος ("*thermos*")—heat, seen in the word thermometer. This surely directs our thoughts far enough from the beaten track, and compels us to recognize in the well-equipped therapeutist something else than a mere dispenser of drugs, more or less well-informed as to the proper uses of the agents he employs. We are reminded once more of that prince among physicians, Hippocrates, who, 500 years before Christ, had such luminous insight into the true function of the therapeutist that he wrote, as part of his first aphorism, thus: "The physician must be prepared not only to do what is necessary himself, but to make the public, the friends, and everything outside the patient, co-operate (in the cure)."

The reign of unmitigated empiricism could have lasted but a little while before such broad and scientific principles, had it not been that the

priest-physician was looked on as a thaumaturgist, a miracle-worker, as he is to this day in all uncivilized communities, and as, indeed, the skilled physician is still, by many of his patients, not one of whom will look on his efforts as being attempts to follow natural law and secure the amended working of natural but perverted processes by the use of natural means. The first thing for each one of us to do is to place as wide a gulf as possible between the public attitude to the medicine bottle and our own; to divest our minds entirely of the idea that some occult wonder-working power lies in any special formula or secret nostrum, whether we write it ourselves in a Latin prescription, or whether the Gold Cure Institute, or the Dodd's Medicine Co., or any other trafficker in the credulity and ignorance of the people seeks to gain advantage by it. The clear thinker who writes his prescription in due form and with due regard to the infinite variations of his patients' needs will, so far as in him lies, have cause and effect in view in every drug he uses, in every order he gives. And yet I would be far from saying anything to shake our faith in medicine well directed, or to minimize the very great value even of a pure *placebo*. We may modify our own faith in drugs and substitute other means of cure, or trust more intelligently to the *vis medicatrix naturae*, but we must take the laity as we find them, and, as a rule, the more ignorant they are of matters medical and surgical the better, at any rate in so far as that knowledge applies to abnormal states. The patient looks to his physician mainly, though not himself recognizing it, for moral support, and this will be always best administered through the mouth of a wonder-working mystical bottle.

The early promise of rational, as opposed to empiric, therapeutics, seen in Greek and Arabian medicine, was completely blighted by the superstitions that festered round the early Christian church, so that anatomy, and, of course, with it, physiology and pathology, but more especially that satanic black art, chemistry, lay smothered under the ban of the church for centuries. In due time, however, coincident, as Providence meant it to be, with the raising of that embargo and the gradual renaissance of reason as against blind faith, came the discovery of the Dutch investigator, Leeuwenhoek, and the first instrument to deal a deadly thrust at empiricism, and so introduce cause and effect into therapeutics, was the microscope. As is usual with all great inventions, it is the result of slow accretions, till now, with Abbé condenser, iris diaphragm, and all the rest of it, the modern pathologist comes to point the way to a new kingdom for the therapeutist to possess. I need not say to a gathering such as this that no single great advance in therapeutics has been made without a precedent gain in pathology, in more exact knowledge of the diseased condition. If we except the discovery of vaccination, due to Jenner's extraordinary clinical acumen, or the empirical use of quinine for malaria long before the discovery of the plasmodium, I think we may safely say that we owe the sum of our present knowledge mainly to the microscope. Ever since 1890 how enormously the field has widened—toxines, alexines, lysins, antitoxines, phagocytosis, immunity, serum-therapy; they are crowding us in in solid phalanx, or, rather, driving us out to scatter in broad generalizations over areas of thought that the old em-

piric attention to detail would have prevented our ever entering. As an instance of what I mean, I may refer to the work done up to date on the single subject of inflammation, so well summarized in Clifford Allbutt's system by Prof. Adami of McGill. What simplicity such generalizations import into treatment when one fully comprehends that the process in carbuncle, alveolar abscess, empyema, meningitis, acute osteomyelitis, gonorrhœal synovitis, is essentially one, and that variations in treatment are only variations in detail, from anatomical or special reasons, but not variations in principle. So that I think we can say that pathology is to the medical man what dogmatic theology is to the cleric, but more positive and settled and universal. It is the *sine qua non* for a scientific practitioner, the only safeguard against the pernicious heresies of Homeopathy, Faith-cure, Christian Science, and all the other fallacies that spring from the *post hoc ergo propter hoc* style of reasoning—"after this, therefore, because of this"—that pitfall ever open for the feet even of the best of us.

This gain in knowledge all along the line has led, I think, to a general unwillingness to admit that one's whole duty is done when he has seen the patient regularly dosed from a bottle. I feel sure that the teachings of the past few years have made us more anxious than formerly to take full advantage of remedial measures other than drugs—such as, hydrotherapy, diet scientifically controlled, massage and Swedish movements, even electricity (though I hesitate to mention it as a remedial agent), the rest-cure, exercise, for instance in such cases as crippled heart, or pelvic disorder in women; in short, as Clifford Allbutt, in the work already referred to, poetically puts it, we are coming to "see how dominant is the sphere of preventive medicine, and that curative medicine is often but the ancillary mouse which liberates the body for its own work of recovery."

The second important influence at work in modifying our modern therapeusis is not physical as the microscope is, but chemical, and affects our methods by the change it has wrought in the forms that our drugs take. Modern chemistry and pharmacy have gone hand-in-hand to provide us with "proximate principles," as they are called, alkaloids and glucosides from the organic *materia medica* as well as purer and more elegant inorganic preparations, till the old idea of the "apothecary in tattered weeds, culling of simples," has pretty well vanished from the public as well as the professional mind.

While acknowledging at this point the undoubted advantages to the profession arising from the enterprise and genuine scientific ardor of many of the manufacturing concerns and drug-houses, large and small, on this continent and abroad, I would beg leave, emphatically, to warn my *confreres* against the enthusiasm with which these people vend their wares. I wish not to make too sweeping a statement, but we all know how much we can learn from some of the glib and aggressive "drummers," if we put our mind to it, and sit down to listen in due humility. None of us, for instance, can afford to neglect their assurances with regard to some elegantly-prepared farinaceous food, that it is equally well suited to a six weeks' old infant and to a six years' old child.

The use of tablet triturates, pills, and the modern elixirs, cordials,

syrups, etc., in place of the old-fashioned mixtures, so often nauseous, and loaded with inert matters, is a great advantage, but only if its limitations are properly understood. In only a few instances does the active principle represent the whole therapeutic value of the plant. Pilocarpine is the full therapeutic equivalent of jaborandi, pelletierine of pomegranate bark, sparteine of broomtops, emetine of ipecac (as an emetic), and physostigmine of calabar bean. But strychnine does not, without brucine, represent nux vomica; nor as a simple tonic, quinine, cinchona bark; nor cocaine, coca extract; nor digitaline the infusion of the digitalis leaf. And opium is not represented by morphine, nor even by an artificial combination, as nearly correct in proportion as possible of its various constituents. Much disappointment will be saved if we remember these facts, and while we must meet the public half way in their clamor for palatable medication, we must be conservative, for we are egged on by both public and manufacturers to an extreme just the opposite to that practised in the good old days of huge and nauseating doses. Here, as in everything else, let us try to cultivate suspicion of the extremist, and to observe the "golden mean," the middle place to which our training as medical men leads us as no other men are led, unless it be the trained diplomatist, who habitually satisfies himself with the best possible, though it be not the theoretically best.

And while on this subject I beg your kind assent when I strongly urge that the more closely we adhere to the tried and trusted pharmacopœial preparations, the more intelligent and creditable will be our therapeutic efforts. I have already acknowledged the indebtedness of the profession to the pharmacist, and having done so, wish to express marked deprecation of the growing habit of prescribing proprietary elixirs, syrups, pills, &c., &c., to the exclusion of the pharmacopœia We sometimes complain, and very often with good reason, of the way in which the retail druggist treats us. I am certain that one reason, among others, is that he is being slowly and surely driven to the wall by the concentration of business among half-a-dozen large firms, and we do our share in driving him to the wall when we specify a pill or a syrup in an extract from some special house, which costs him so much to buy that he makes no living profit in the sale of it, while he can himself make an equally good preparation at perhaps one quarter the cost. I very much doubt if Sanmetto, and Arsenauro, and Aseptolin, and Antikamnia, *et hoc genus omne*, are one whit better than their pharmacopœial congeners, and I very much fear that the man who habitually prescribes such compounds is in the habit of writing a "shot gun" prescription, and sights his gun with both eyes shut.

Another therapeutic tendency of our day, the third which I would mention, is largely the result of the minute and accurate subdivision of doses made possible by the use of active principles. It is the tendency towards smaller doses and greater frequency. The homœopathic school claim this as their specialty and tell us that we are a poor set of imitators, nor indeed in this only, but in nearly all of the changes made by scientific medicine in recent years. Here again the truth lies in the midst, error at either extreme. There are cases in which frequency and

small doses are much the best *e., g.*, in the use of aconite or veratrum viride in the sthenic stage of an acute fever, *e. g.*, pneumonia, in which by causing widespread peripheral dilatation of the capillaries, the blood-stream to the dilated and paralyzed capillaries of the congested lung is slowed and the area of coming consolidation probably diminished. When the effect aimed at is to be steady and continuous, and the drug is rapidly exereted or otherwise evanescent in action, as Nitro-glycerine or any nitrite, or hydrocyanic acid, the wise physician will order it often and in small doses. But to apply this principle to the Soporifics, or to Arsenic and Iron in the treatment of chlorosis, would be to act apart from reason. As well adopt the principle in the administration of food ; and herein lies the error of the Dosimetric system, one of the latest competitors for the favor of the profession, born of trade exigencies, pushed by a firm which seek to monopolize thereby the trade in a particular form of triturate, and only another "ism," quite as pernicious in kind, though not in degree, as the worst of them.

A fourth and most interesting departure of modern days is the idea of Serum-Therapy, and as this subject has been introduced and discussed in such timely and scholarly fashion by Drs. Davison and MacMahon, I shall content myself with simply mentioning it.

Closely allied to this method of treatment is that of the use of animal extracts. Of course the idea is a very old one, and only within the past few years has it been placed on a reasonable physiological footing. We are now quite prepared by our knowledge of physiology and chemistry to believe *a priori* that a carefully-made extract of a glandular structure may contain enough of the ferments and secretions peculiar to itself to be of service where they are wanting in diseased conditions. This theory has been *a posteriori* proven abundantly with regard to such animal extractives as pepsin, pancreatin and thyreoidin. Extract of red bone marrow is on trial, with evidence in its favor, and the extract of the supra-renal bodies has recently been used in Addison's disease, with distinct advantage claimed for it. (See Byrom Bramwell's lectures on two cases in *B. M. J.*, Jan., '97).

Some physiologists are now claiming that every organ of the body is glandular in the sense that they all pour into the blood something necessary for its normal condition as blood. Especially is this claimed by some for the kidneys, as partial extirpation in dogs, while accompanied by excessive flow of urine, the result probably of vascular change, causes death, not with purely uræmic symptoms, but rather, as these observers say, from absence of some normal ingredient in the blood derived from the kidney. Be this as it may, we may receive with absolute skepticism statements of the value of glycerine extracts of heart, cord, brain, muscle, etc., etc., sold under the names of cardine, ovarine, testine, cerebrine, and so on *ad nauseam*. They are absolutely useless, except as arousing the "expectant attention" of the patient, usually a neurasthenic, and therefore apt to be only functionally deranged. They act as purely by "suggestion" as does hypnotism in hysteria, and can equally well, in all likelihood, be prepared from fresh eggs as from the various organs of sheep and cattle. Of course I need scarcely point out that Pasteur's

original method of injecting the victim of rabies with an emulsion of the spinal cord of an animal dead from that infection is quite a different matter. The toxin of a diseased tissue, employed to secure immunity against the same disease in another animal, is a very different thing from the imaginary specific secretion peculiar to a non-glandular portion of the body.

One of the oddest and most bare-faced frauds of this kind that I ever read I came across not very long ago in a homeopathic text-book. The author claimed to have cured certain lung affections in the shortest possible order by giving grain doses of a one in one hundred trituration of dried fox's lung in sugar of milk. He attributed his success to the fact that he had carefully dried the fox's lung without heat, as any degree of heat would have destroyed the *pulmonic acid* (!) which exists so abundantly in the lungs of all animals which can run a long time without getting short of breath. One is at a loss which to admire the more in such a therapeutist—his ignorance of the first principles of the physiology of respiration and everything else pertaining to medicine, or his impudence in stealing an old idea, and, after re-vamping it a bit, passing it off as his own. He took it from the old Greek physicians, who used to feed their tuberculous and asthmatic patients on boiled fox-lung because that animal, as they put it, had "a strong respiration."

In conclusion, gentlemen, I think that by occasionally looking to our ideals, by trying to elicit cardinal principles from the dust heap of details, by setting our professional house once in a while in order, we do ourselves much service. This is why I have avoided drugs as my topic, and have tried to gather together a few thoughts on the broad general movements in our modern therapeusis. More particularly I wish to note once more the general recognition by the profession of the fact that overdrugging has occurred in the past, and is an error, and that without becoming in the process a therapeutic Nihilist, or Agnostic, or *doctrinaire*, the later physician sees perhaps more fully than did his predecessors that his duty lies mainly in setting things in train for his patient, that Nature may work as far as possible unhindered.

NOTES OF A RARE CASE OF INTERSTITIAL NEPHRITIS PRESENTED TO THE OTTAWA MEDICAL SOCIETY,

By ALFRED J. HORSEY, M.D., M.R.C.S. Eng., L R.C.P. Edin.
Ophthalmic Surgeon to St. Luke's Hospital.

MR. PRESIDENT AND GENTLEMEN,—With your permission, I would like to add a further communication to this Society relating to the case of the young man, aged 22 years, a specimen of whose urine was shown to this Society two meetings ago, and which contained the enormous quantity of about 80% of albumen, and whose sight was much impaired by retinitis of a disintegrating character, with numerous hemorrhages,

all of which was amply shown by the ophthalmoscope—and which was dependent upon albuminuria—making the prognosis very grave.

I am sorry to inform you that he is already dead, fulfilling the prognostication even earlier than was thought, though the case was regarded as extremely acute. Some of you may remember that it was stated at the time of the first communication that he came to see me in a casual sort of a way to know why his sight was "blurred," which he had noticed failing for only a week, yet it had declined to $\frac{1}{10}$ and $\frac{1}{20}$ from normal in the right and left eyes respectively.

He was at the time following his usual vocation, that of a valet or waiter, at indoor work, and was quite ignorant of any disease in his kidneys or in his eyes, as he had few symptoms of ill-health excepting a delicate stomach, occasional vomiting and shortness of breath on exertion, and none which he referred to his urinary organs. The second sound of his heart was accentuated. There was arterial tension and sclerosis of the arteries. He had a year ago derangement of the stomach, for which he sought medical advice, but his vision was not then affected.

This was thought to have passed away, and he continued on duty until he came to consult me on January 7th, 1898. No doubt his illness dates from, if not prior to, this time.

He, much to my regret, passed out of my observation into hospital.

His course there was an exceedingly rapid and retrograding one, terminating on January 25th, or in 18 days after consulting me, the chief and most distressing symptom being dyspœa; so extreme was it that for several days before his death he was unable to lie down, due most probably to the toxic influence of urea in his system.

The case is an uncommon one in several respects.

1st. The occurrence of interstitial nephritis which we, in the absence of a p.m. may reasonably regard it, as in the few similar cases recorded where p.m.'s have been made, interstitial and not glomerular nephritis had been found. No casts of any kind were seen in the urine. The urine retained its normal acidity, specific gravity, and quantity, but was highly albuminous throughout. It was remarkable to find renal disease in one so young, who had a good family history, was strictly temperate as regards spirits, but was a hearty eater, never that he remembers having had scarlet fever, rheumatism, or cardiac trouble.

2nd. Its insidious onset and rapid, fatal course. It demonstrates the usefulness of routine ophthalmoscopic examination in obscure medical and surgical cases; also the value of testing of the urine.

It is not enough to have the patient make no complaint about his sight, nor should it satisfy that he declares there is nothing wrong with it. There may be the gravest manifestations in the eye, even in the retina, without impairing vision, when it is situated in a peripheral part distant from the macula lutea.

In the *Ophthalmic Review* of November last is reported a case much resembling the foregoing one, in a girl of 12 years. And in the discussion that followed, Mr. Nettleship, Mr. Lawford and Mr. Spicer could each recall one somewhat similar case occurring in the course of their practices, showing that even in the great medical centres such cases are rare.

CASE II.

It may not be irrelevant to mention another general condition which was brought to light by the microscope, viz., Diabetes.

Mrs. W., widow, age 70, consulted me because of her glasses not suiting her as they once did.

Her vision was found to be $\frac{20}{200}$ in the right and $\frac{1}{200}$ in the left eye for distance.

The right was improved to $\frac{20}{30}$ by — 10 sph. The left could not be improved by glasses. There was a history of amblyopia in the left.

OPHTHALMOSCOPE.—The right fundus and disc could be seen, with retraction of the choroid away from the disc, forming a large staphyloma. The vitreous was not turbid, but fluid, in which there floated large dark, coarse opacities.

The left fundus could not be seen, owing to turbid vitreous, which also contained similar opacities as seen in the right.

As Sir William Gowers observes that opacities in the vitreous are frequently associated with diabetes, which are produced by the escape of blood in small quantities from the retinal hemorrhages, the urine, at my suggestion, was examined by her medical adviser, when it was found to be of high specific gravity, and contained sugar, making the second recent case in which the ophthalmoscope was the means of detecting a general disease.

GONORRHEISM.—Schuster (*Journ. de Med.*), physician at the sulphur baths of Aix-la-Chapelle, details some observations drawn from a large experience in the treatment of gonorrheal affections. It is generally supposed that gonorrheal arthritis, iritis, pericarditis, inflammation of tendon-sheaths, etc., are caused by the entrance of the toxins of the gonococcus into the circulation, but Schuster emphasizes the possibility of the migration of the gonococcus itself. Affections of the calcaneum, inferior maxilla tibia, and sterno-clavicular articulation are usually considered syphilitic, particularly if they yield to treatment with mercury and the iodides; but Schuster has effected cures by mercurial treatment in cases of this character that have never had syphilis, and which he believes to be purely gonorrheal. Inunction or the subcutaneous injection of corrosive sublimate in conjunction with hot baths (39° to 40° C.) is favorably spoken of. Schuster had already demonstrated by his own observations at the baths of Aix-la-Chapelle that the temperature in the rectum rises, during a bath at 39°-40° C. to a like height, and as the gonococcus is destroyed by such a temperature, he believes in the specific effect of the bath in the treatment of gonnorrheal affections. Care is advised in the use of the hot bath in cases of endocarditis. Immobilization and injection of iodoform glycerin are recommended in articular affections. Gleet, when present, must be treated preferably by medicated irrigations.

SURGERY.

IN CHARGE OF

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FULMINATING APPENDICITIS.

BY HOWARD CRUTCHER, M.D., CHICAGO.

By the term fulminating appendicitis, I mean that condition where a more or less gangrenous vermiform process ruptures and permits infectious elements to escape into an unprotected peritoneal cavity. This definition is not thus applied by many with whom I have communicated. Some classify all cases of perforation as fulminating; others use the term in connection with the rupture of protective adhesions, allowing the escape of infectious matter; and another class denominate the case as fulminating when the onset is violent and sudden, regardless of the pathological lesion in the appendix. This confusion of terms has made it impracticable to gather precise information concerning a condition which all clearly recognize as appalling.

The absurd injunction of a professed expert in diseases of children that "Surgeons should learn to differentiate between appendical conditions which experience has proven will yield to medical treatment, and resort to operation *only in fulminating* cases," led me to make some enquiries among practical men of authority concerning the condition so happily disposed of by a theoretic pen.

My investigation covered two practical points, which may be put in the form of interrogatories:

First: Do you know of any ordinary means by which perforation can be foretold?

Second: What have been your results in fulminating appendicitis?

Maurice Richardson, of Boston, says, very truly, that "one difficulty in writing on appendicitis * * * is in getting the definitions right, so that all will mean the same thing. Now, I define as a fulminating case of appendicitis one of general peritonitis, a case from which there is a rapid extravasation from a perforated and gangrenous appendix; an extravasation which in the course of a few hours infects the whole peritoneal cavity."

Dr. Richardson's definition, with slight modification, expresses precisely what I understand fulminating appendicitis to be. The "general peri-

tonitis" must be regarded as a complication of the other condition. All cases of circumscribed appendicular abscess can be eliminated at the outset; nor can the rupture of such an abscess into the general cavity be classified as fulminating appendicitis.

Richardson observes further: "I do not think that such cases recover except by the merest chance. It is what I call a 'fluke' when they do get well. * * * That is to say, a case in which the abdomen is distended, the action of the intestines paralyzed, and the patient vomiting. * * * I have yet to see any case of this kind get well. I have known patients with a distended abdomen get well. The distention in such cases is not the distention due to intestinal paresis, but the distention from retained fluids and gases. I do not believe that acute general peritonitis, starting from the extravasation of intestinal contents, gets well often enough to encourage us to operate in such cases. I am not sure that I am not willing to go so far as to say that the patient's chances of recovery are quite as good when they are let alone as when they are operated upon. Such cases are so hopeless, the system is so saturated with the ptomaines of germ growth, that the slightest manipulation is fatal. * * * I do not think there is any way of telling in the first hours of an appendicitis what course the disease will take, whether the process will be limited to the neighborhood of the appendix, or whether it will extend throughout the whole abdominal cavity. At the end of forty-eight hours I do think one can tell with reasonable certainty, though not always. * * * Probably a bad case will show to the experienced eye its grave nature in the very beginning. I always operate in cases of severe pain, cases in which there is a rigid abdomen, or in which there is evidence of localized pus. I also operate in the early hours of general infection."

Dr. Charles B. Nancrede says that he "knows of no ordinary means whereby perforation may be foretold;" that he has often been mistaken as to its presence and its absence in cases verified by operation.

Bernays, whose experience in appendicitis has been very extensive, has no doubt that most of his deaths in this disease resulted from fulminating cases as I define them. He says: "In this variety, unless the operation is done promptly, within a few hours after the perforation, and unless very extensive gauze drainage is made, death will invariably follow. * * * Operation should be done in *every case as soon as possible after the diagnosis is made.*"

Dr. A. M. Cartledge, of Louisville, basing his observation upon two hundred cases of appendicitis, seventy of which were subjected to operation, attaches more importance to the *severity* of the pain in the *initial* stage than to the other features of the case. I am able to confirm this observation of Dr. Cartledge touching the *fact* of perforation in these violently painful cases, yet but one of my cases was of the fulminating type, the others being cases of circumscribed abscess One case may be cited: A woman of twenty-three, without substantial warning, fell to the floor from a violent pain in the abdomen. Great shock was present. After two weeks of pain, fever, thirst and vomiting, I opened a foul abscess cavity, the patient making a rapid recovery.

Frederic S. Dennis is guided by the pulse more than by any other symptom. Where the attack comes on: "with great suddenness, associated with profound collapse at the beginning, with a rapid pulse," he operates "to avert perforation," whereas my experience is that these symptoms are almost invariably due to perforation itself.

Morris says: "There are certainly no means by which perforation of the appendix can be foretold. In fact, I *very often* find a perforated appendix walled in in cases in which the symptoms are all local, and not very severe at that."

Murphy, of Chicago, has not seen a case of fulminating appendicitis in two years. He adds: "Whether it has been due to my good fortune or whether it is due to the fact that I operate so very early I cannot tell. I know of no means of foretelling a perforation. A very large percentage of appendices are perforated within forty-eight hours after the onset of the symptoms." When we consider Murphy's great experience in appendicitis, the statment that he has seen no fulminating case in two years seems remarkable, unless taken in connection with the fact that "very early operation is his invariable rule.

Dr. John A. Wyeth knows of no symptoms that clearly foretell perforation. "They *pile up after* the explosion," says Dr. Wyeth, "but in gangrene the *pain* is not reliable. The symptoms of shock are nearly always observable. The anxious look, the disappearance of facial lines, the early vomiting, the thoracic respiration, the rising pulse and temperature are plain enough, but there is nothing to foretell all of these."

Roswell Park "does not know of any means by which appendiceal perforation can be foretold with certainty. In fulminating cases—to which you would limit the enquiry—I hate to let perforation become so imminent. Nevertheless, I regard the drawn, pinched face, the approaching collapse, the general appearance of septic intoxication, as evidence that it either has happened or soon will happen. This holds good often with regard to sudden relief or shifting pain."

Matas, of New Orleans, has seen but two cases of true fulminating appendicitis. "Both cases were seen in full collapse and were inoperable."

Concerning the matter of foretelling perforation by ordinary means, Dr. Matas says: "I do not know, if we exclude that *indefinite* clinical perception which long experience at the bedside gives to the clinician. We cannot depend either upon the acuteness of the symptoms or their mildness; sometimes we think the danger is not imminent; yet we are deceived; at other times, when we are most confident of the result the mischief is done. Logically, the only certainty lies in direct inspection of the appendix after-section. I believe the success in non-operative cases depends more on the fortune of circumstances and the large number of cases that terminate favorably without perforation than upon any clear and rational means of differentiating cases. If the surgeon will not accept as a general rule the dictum of Murphy, Deaver, and others, that is, to operate upon every case regardless of its *apparent* type, he must be prepared to take his chances as to perforation and be prepared to act instantly the moment the danger is recognized, when he will probably be too late, or he may possibly save his patient, as we sometimes do in typhoid."

It will be seen from the testimony of the distinguished surgeons named above that we cannot possibly foretell perforation by ordinary means. The course of the disease after perforation depends upon the measures devised by nature for limiting the infection. If the diseased process is located, as happily it so often is, where limiting adhesions are practicable, then we have an abscess to deal with; if the gangrenous tube be so located that natural prophylaxis be impossible, the case comes properly within the fulminating variety.

My personal experience with fulminating appendicitis is quite limited. A few cases have been saved, but the operation was performed within a few hours after the onset. Of the cases so graphically described by Richardson, not one has recovered. The cardinal feature of my experience is, that in no case of the kind under consideration has the probable diagnosis been correct. One case will fairly illustrate the others: A boy of nineteen complained for three or four days of general abdominal distress; it was so mild that a physician's advice was not thought to be necessary; the pulse was 84, temperature, 99°; and the patient was sleeping so quietly and restfully that he was indignant when I aroused him. The distention was slight, the muscular tension hardly decisive. There were no other symptoms of consequence, aside from moderate pain upon pressure over the cæcal area. It is doubtful if one careful physician in twenty would have called in serious question the facial expression. A few days before he felt "rather knocked out" for a few hours—symptoms of shock. Following that indefinable clinical instinct so admirably pictured by Matas, an exploratory laparotomy was advised, assuring my colleague that we should likely find a small abscess, basing this opinion upon the undoubted symptoms of shock. Instead of this, a typical fulminating appendix was found—a ragged slough perfectly loose in the cavity. General peritonitis had already begun, and no amount of treatment stayed its march for a moment.

In another case, a man of thirty-four, who had been treated for "chronic dyspepsia," was taken with sudden faintness while at his desk. He went home, took some whiskey, and felt so much better that no physician was called. This was on Thursday. On Friday there was some vomiting. The next day a physician was called, but no alarm was felt until Sunday morning, when I was summoned. The signs of local peritonitis were present, but general involvement of the peritoneum was thought to be improbable. Pus and fecal matter were found all over the abdomen, confined in some regions by cobweb adhesions. A free appendix, six inches long, gangrenous from one end to the other, was found to contain several perforations. Death promptly followed general peritonitis.

The few recoveries were due solely to exploratory laparotomies, undertaken for the purpose of forestalling a perforation, and in no case because fulmination had been suspected. A moderate delay would have transferred all these cases to the hopeless column.

I believe *shock* to be the most reliable guide in appendicitis; in fact, we have learned that pain, pulse, temperature, etc., are not accurate enough to be scientifically classified. In no case ought the significance of shock to be ignored. A nervous temperament may exaggerate the pain

and unduly accelerate the pulse, but shock tells a pretty accurate story and its meaning in appendicitis cannot be mistaken.

Unfortunately, in many cases the landmarks of shock are too obscure to afford much help in reaching a conclusion.

A violent onset, where the pain is wrenching and overpowering, is a pretty sure indication of perforation, present or impending; but we can tell nothing from this as to the condition of the natural defences. I have many times operated in such cases to find a perfectly safe wall of limitation. At other times I have removed a gangrenous, pus-laden appendix, undoubtedly on the verge of perforation, without the faintest trace of peritoneal infection about it, and hence no protecting adhesions around it. Of course, when such a condition is found it is quite natural to infer that we have forestalled a fulmination, and yet I am not ready to admit as much. The appendix does not, certainly, go to pieces at once, as a rule, and we must conclude that nature prevents numberless fulminations by throttling the first speck of infection that crosses the line, and hurrying the mass to some convenient corner where her saving processes can be more surely carried out. In a few instances I have found a gangrenous appendix safely wrapped in the folds of the omentum, which was attached only around the point of infection and not adherent to other viscera.

From the testimony thus far presented, it does not appear that the diagnosis of fulmination is a practical question. The symptoms of general peritonitis are clear enough, but who has any faith in operation under such circumstances? I have diagnosed fulminating appendicitis without operation, but the diagnosis was clear only because of the hopelessness of the case. A diagnosis that must be confirmed by post-mortem examination is not of much value to the patient.

Touching this point, Murphy says:

"I fully agree with you in your opinion about *not* operating in cases of fulminating appendicitis."

In short, when fulminating appendicitis is diagnosed, it is worse than useless to operate.

My belief is that early operation has done more to eliminate fulmination than many are ready to believe. This point was well covered by a gentleman to whom I apologized for my serious apprehension concerning his appendix before operation, when it was demonstrated that perforation was not at all imminent. He joyfully rejoined: "You found no gangrene, no pus, nothing likely to kill me—what are you grumbling about?" I have never grumbled since on finding conditions so favorable to life.

Appendicitis is a most deceptive malady. It is not a question that ought to be decided by the whims of individuals, nor can the burden of our ignorance be thrown upon much-enduring nature. That a case recovers is nothing; that one dies is nothing; but it is vital to know what kind of cases die and what kind recover. The pathologist has about completed his labors in this field. The question with me is, when *not* to operate, and the burden of proof is upon those who oppose immediate surgical relief.

In conclusion, the following statements seem to be warranted:

Pain.—If violent, sudden and persistent, it indicates probable seriousness of the attack, but indicates nothing as to the natural defences for limiting infection. On the contrary, absence of pain is undecisive between gangrene and resolution.

Pulse and Temperature.—While a rapid pulse and high temperature favor the destructive process, their absence is no assurance of recovery. Referring to this, Tyson remarks that *too much stress cannot be laid upon the fact that there may be gangrenous appendicitis in the presence of normal temperature.*

Shock.—The presence of shock, if undoubted, is a very grave symptom, generally indicating perforation. On the contrary, the most deadly attacks often occur without it.

Sensitiveness.—If persistent and highly developed, generally indicates destructive inflammation, but gives no clue concerning the limitations of infection.

The Expression.—Of no material value before the development of grave conditions.

Perforation.—This can no more be foretold than the perforation of typhoid or the rupture of an aneurism.

My own practice is to save the patient first, by operating upon non-septic tissues, if possible, and to argue the case afterward.

To the well-known gentlemen who have so generously and frankly responded to my requests for information, I beg to tender my sincere gratitude.

103 State Street.

THE DIAGNOSTIC AND THERAPEUTIC VALUE OF "LUMBAR PUNCTURE."

From January, 1895, to the end of June, 1897, I have performed 21 "punctions" in the lumbar region, anticipating assistance in diagnosis as well as therapeutic relief. In 15 of the cases the symptomatic phenomena of meningitis basilaris tuberculosa were unmistakably marked; five were typical cases of meningitis cerebro-spinalis epidemicæ, while one was of hydrocephalus acutus, resulting from meningitis cerebro-spinalis.

In the 15 cases of meningitis basilaris tuberculosa the puncture was performed at an early stage of the disease as well as when the cerebral tension was well advanced. In two cases puncture was only performed once; in eight cases it was performed twice on each subject; in three cases it was performed three times on each; and in two, four times on each subject.

The quantity of fluid abstracted at each individual operation varied in the early cases from 5—10 to 20 cubic centimetres=0.1760 of an ounce to 0.7040. In older cases it ranged from 20 to 50 cubic centimetres—in one case it was as much as 115cc.=4,048 ounces of fluid. The total quantity from each case varied in the same degrees.

The first two cases, tapped once, gave 15 and 30 cc. respectively; the eighth, with two tappings each, gave: one 20 cc., one 25 cc., one 50 cc.,

two 35 cc., two 65 cc., and one case gave 75 cc., respectively. In the two cases, with four tappings, the quantity abstracted was 150 and 215= 5.280 and 7.568 ounces.

In all the cases operated on not a single untoward symptom arose to mar the effects of the operation, but it need not be added that scrupulous care was exercised in disinfecting the surroundings and using aseptic instruments. Again, aspiration was carefully avoided and the fluid allowed to drip out gradually by gravitation. When the tension in the cerebral membranes was high the fluid rushed out with considerable force. In many of the cases the fluid obtained was of a clear, watery appearance, without any sediment, and no tubercle bacilli could be discovered by the ordinary methods of investigation.

In one case the fluid was tinged red, while the soft parts were deeply-colored red. The contents of a Pravatz syringe of this cerebro-spinal fluid were injected into the peritoneum of a guinea-pig, whose temperature rose to 38 c. = 100.4 degs. Fahr., but gradually fell in a few days to normal without any bad effect. In the course of four weeks the animal was killed, but no trace of any tuberculous affection could be discovered. This operation was performed in two different cases, with the same result.

The influence of the tapping on the disease was not constant in its effects. It may be safely averred generally that it did not markedly affect the pressure-phenomena of the disease. In several cases, after a sufficient quantity of fluid had been withdrawn, a temporary relaxation of the contractions occurred, followed by a short period of somnolence, which disappeared after 24 hours, without leaving any notable improvement in the patient. It may not be without interest to mention a few changes that took place in the temperature after tapping, but these were not constant. In one series of the cases, the temperature ranged between 39 and 40 c. = 102. 104 degs. F., which was suddenly induced by the operation. This did not always occur in the first tapping, but would appear on the second, third, or fourth, for the first time, which was usually transitory, and would disappear within 24 hours after its first appearance.

The therapeutic results of my own experiments convince me that no permanent benefit is obtained from tapping. There is only one case that could be demonstrated as a positive success, which proportion is far too small for the magnitude of the operation. A few temporary ameliorations in the symptoms were undeniable, but these were not lasting enough to justify such interference. As a diagnostic test the operation utterly failed in my hands, as nothing could be obtained from the fluids of animals after death to prove the presence of tuberculous bacilli, although the post-mortem of the patients in every case revealed the bacilli of meningitis tuberculosæ.

In five recent cases of meningitis cerebro-spinalis epidemicæ, I operated with only one success as a diagnostic aid. In this case the fluid withdrawn amounted to 10 cc., cloudy in appearance, containing pus cells and producing a capsuled cocci on cultivation. The post-mortem confirmed the diagnosis.

1. Tapping, as a diagnostic or therapeutic adjunct is quite worthless, according to my own experiments; but it must be borne in mind that other investigators have discovered proof positive in the cerebro-spinal fluid of the tuberculous bacillus, as well as cultivation in other animals, to justify the assertion that it is constantly present. My own opinion is that a negative result does not destroy a positive clinical diagnosis.

2. In acute cases of meningitis cerebro-spinalis the cerebral fluid does contain morbid products, which, if applied to animals, as Heubner has shown, may serve to verify clinical observation.

3. When the acute stage has been passed, and hydrocephalus is present, no diagnostic assistance can be obtained from the examination of the fluid.

4. As a therapeutic agent it is equally inefficacious in meningitis cerebro-spinalis and meningitis tuberculosæ. I must qualify this by saying that individual cases do improve when operated on early, often repeated, and large quantities abstracted. I recollect one in private practice of two months' standing that improved after each tapping, but ultimately died after three days' illness.

5. My operative experiments are not sufficiently large in meningitis, chronic hydrocephalus, or chronic hydrocephalus in connection with tumors, to justify a critical record of their worth.

6. Further experiments are necessary to determine the quantity of fluid to be abstracted, the interval of time that should elapse between the operations, and how far the therapeutic value, if any, can be demonstrated.—DR. MONT, *Med. Press.*

TREATMENT OF ACUTE PROLAPSUS ANI.

Acute prolapsus ani occurs frequently at childbirth, but as the patient has to keep her bed irrespective of the anal trouble the condition does not assume so much importance as when the sufferer is an active man of business, to whom the time and rest necessary for recovery are serious matters. A succession of these acute cases in many respects similar led me to adopt a treatment which has given encouraging results. The pathology of the condition appears to be a slipping or forcing down of the mucous membrane investing the sphincter and of the mucous membrane immediately above it. Spasm of the sphincters, impeded venous return, and edema result in the formation of an elastic and exceedingly tender, livid or purple swelling occupying either a portion or the whole of the circumference of the anal aperture.

The swelling can be returned above the sphincter without much difficulty by the finger, but in the course of a few minutes in many cases the prolapsus has recurred. The application of heat or of cold in the form of an ice compress relieves the discomfort, but does not effect a cure or materially alter the size of the swelling. Astringents, either in the form of an ointment or of suppositories, I have found to be useless. Regulation of the bowels and the recumbent position are necessary, but a week often passes before nature brings about recovery.

It is obvious that if the prolapsus could be kept up for a few hours a

speedy cure might be anticipated, and this led me to employ pads and a T bandage, but it was almost impossible to prevent the descent of a small swelling in this way owing to the awkward situation in the hollow of the buttocks. Under these circumstances, and in the absence of thrombosis, which would call for incision, I have successfully used as a pessary a full-sized Tait's cervical dilator. After replacing the prolapsus with the finger the vulcanite uterine dilator is lubricated and inserted for one inch up the rectum, and is retained in position by a collar of dentists' wax (Stent's composition) supported by cotton wool and a firmly-applied T bandage.

The pessary not only prevents a descent of the swelling while in position, but by its pressure it favors the absorption of the edema, and it empties the engorged veins; it should be inserted at night and retained until the following morning. This treatment I have found to bring about a complete cure; there has been no tendency to relapse, and the patient has been able to rise and resume his occupation without discomfort. Olive-shaped pewter pessaries have been used for this purpose, but they are dependent for their position and retention upon the action of the sphincters which cannot be relied upon in these cases. In the chronic condition of prolapsus ani arising from atony of the levator and sphincter ani muscles much benefit cannot be expected from treatment by pessary.

The following case was the first one treated by me in this way. June 22, 1897, a man complained that for two days he had been in pain from a swelling which he took to be a hemorrhoid. On examination a tense, bluish, semi-lunar swelling was found occupying the right margin of the anus, the mucous membrane being continuous with the skin at the outer circumference. The patient stated that he had pushed up the swelling repeatedly, but that it always returned in a few minutes. This I found to be the case. I then gave him a full-sized Tait's dilator $2\frac{3}{4}$ in. long, and $\frac{3}{4}$ in. in greatest diameter, and conical in shape, for which a collar was made as described above so as to grasp the pessary thus improvised at one inch from its point and prevent it from slipping entirely into the bowel. The patient was directed to return the prolapse when in bed, and immediately to insert the pessary well lubricated and supported by a T bandage; he was also strongly advised to remain in bed on the following day until seen by me. Next morning, however, I received a note to the effect that he felt quite recovered, and I heard afterwards that the pessary was worn until 4 a.m., when it slipped out, but the prolapse did not show any tendency to return, and has not done so up to the present time. —Frank Elvy, M.R.C.S. Eng., *London Lancet.*

Local Treatment of Gout.—

Potassium iodide, 4 drachms.
Soap liniment, 4 drachms.
Cajuput oil, 30 minims.
Caraway oil, 30 minims.
Rectified spirit, sufficient to make 7 ounces.

Apply on lint and cover with protective. —*Medical Record.*

MEDICINE.

IN CHARGE OF
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APPENDICITIS.

SYMPTOMS WHICH DETERMINE THE SAFETY OF POSTPONING OPERATIVE INTERFERENCE UNTIL THE ACUTE STAGE HAS PASSED.

When we remember that fully one-half of all the cases of appendicitis recover from the first attack; that spontaneous resolution takes place when peritonitis, exudation, and sometimes even suppuration, have been present; and that a large number of cases which recover withont an operation in the primary attack remain well and have no recurrence of the disease, the question of when to operate or not to operate is a very nice, difficult, and always an important one.

I agree with Wyeth, that if you have a competent surgeon, one skilled in abdominal work, and the patient can be operated on within twelve hours of the first symptoms of the attack, ninety-nine per cent. will be cured. But we frequently see the cases after these twelve hours have expired, and surgeons of experience in such work are not always within call. I confess I am not in favor of an operation in all cases as soon as a positive diagnosis is made. Too many of them get well and stay well, to warrant it, and others can be made to wait, and have the operation done during an interval between the attacks, when the inflammatory symptoms have almost if not quite disappeared, the danger of sepsis has been passed, and the risk of death from an operation is almost practically nil.

When the attack is sudden and severe, the pain intense, pulse rapid, temperature high, respiration short and thoracic, abdomen hard and distended, face pinched and anxious—especially if the group of symptoms have been ushered in with a chill—the only hope for life is an operation, and the sooner the better. Such a case is called a fulminating one (it comes on like an explosion), and we are not warranted in waiting an hour to try medicinal remedies. In such cases if, along with other symptoms, there is shock, perforation will almost certainly be found, and the chances for life are very slight even with an early operation. Fortunately such cases are very uncommon, but it is just such cases that have made some good surgeons say, "Operate in all cases, and at once, when the diagnosis is made." It is these fulminating cases that have produced a panic among the lay people, and have struck terror among

many practitioners of medicine. I have seen during the past year but one case of perforating appendicitis; the man was moribund when I was called in, and no operation was attempted.

When the symptoms are presented more slowly and less severely, when the pain is not so great, abdomen flat, pulse, temperature and respiration nearly normal, little or no swelling or hardness in the right iliac region, then there is no such reason for haste. We can safely wait for some hours and watch the progress of the case, and this watch should be most carefully made. Of all the cardinal symptoms the temperature is the least reliable, and, in many cases, should be the least considered. The nausea and vomiting, and the effect of the disease on the sympathetic system, is often so profound as to keep the temperature down to almost normal. In two of my cases the temperature was 99°, and yet I found in each the appendix dead, and so rotten that it was difficult to handle it without tearing it; but it is important to remember that while the absence of high temperature is no indication that serious mischief is not going on, the presence of a high temperature, say 102°, shows that serious changes are probably taking place. The most important symptom to note is the pulse; it is what we used to call the "abdominal pulse," small, thready and frequent. As the case improves the pulse gets less frequent and less small, and *vice versa*, when the inflammation grows worse the pulse gets more frequent. In appendicitis a pulse of 120° is a sign of great danger. When the pain grows worse, the pulse faster, and possibly the temperature higher, and rigidity of muscles over the inflamed spot greater, the case is growing worse.

III.—VALUE AND LIMITS OF SALINE PURGATION.

In an ordinary case, not a fulminating one, after a short time the pain abates, the fever lessens, the pulse gets slower, the abdomen less hard and tender, and all the urgent symptoms more or less subside—they do not disappear, but are less pronounced—and then there comes in a remedy which in my hands has been as certainly valuable for good as quinine in malaria or arsenic in neuralgia; that is, saline purgatives, given in frequent doses until the patient is freely and repeatedly purged. The copious and numerous watery operations "bleed" the bowel and peritoneum and lessen the congestion or inflammation. I have watched case after case during this period of lull in the symptoms, in grave doubt whether the exudate would be taken up and resolution of the inflammatory product occur, or whether it would continue on to suppuration or gangrene, or both, and have seen the former rapidly follow free saline purgation.

If the disease continues after the purging, the abdomen is left in a better condition for a future surgical operation. I am always glad, in any abdominal or pelvic surgery, to know that my patient has been well purged and that the bowels are empty. If, after free purging, the pain continues, the pulse is rapid, the belly tender, an operation should be done without further delay. Some surgeons are strongly opposed to the attempt to purge, and in some cases rightly so. In fulminating appendicitis, an attempt to purge would most likely fail and the purgative add

materially to the trouble; and to try to purge a case when pus or gangrene was present would be simply silly and mischievous; but to denounce saline purgation in every case is as wrong in principle and in fact as to demand operation in every case as soon as the diagnosis of the disease is made.

IV.—RELATIVE FREQUENCY OF THE DISEASE IN THE TWO SEXES.

From the reports of many surgeons we learn that appendicitis is much more common in males than in females; the proportion stated is one to four. This has not, however, been my experience. In the cases for the past year, which I present to-day, it will be seen that thirteen were females and thirteen were males, and this has been about the proportion of all my cases, amounting now to 155, the cases being nearly equally divided between the two sexes. At one time, say ten years ago, it was believed that the female was almost exempt from inflammation of the vermiform appendix. Lately, however, more and more cases have been seen in that sex. There is certainly no difference in the anatomy, physiology, or pathology of the organ in the two sexes to account for its greater frequency in the male; the additional little artery—sometimes, but not always, found in the female, and supposed to give better nutrition to the appendix in that sex—will scarcely explain the difference. By some it is ascribed to injury to the appendix by the psoas muscle in the male. Is the relation of this same muscle in the female so markedly different? I think not.

Frankly, I am at a loss to know how to explain my record. I know that I am no better, and, in many cases, not so good, a diagnostician as some other surgeons, and yet I cannot help sometimes thinking that the very aggressive gynecologists—and I beg to assure any of them present that I mean no offence—have taught us so much about ovaritis, salpingitis, tubal pregnancy, and so forth *ad infinitum*, that the hard-working, honest practitioner is led to believe that every unusual symptom of trouble about the pelvis must refer to some one or other of the female organs of generation, and I fear many a case of trouble about the cæcum and appendix has been treated for ovarian or tubular disease. Indeed, I confess to having made the mistake in more than one instance myself. In one of the cases in this report, in my ignorance, I treated the patient for some months for ovarian trouble, and when at last the symptoms were so pronounced that I could no longer mistake them and I operated, I found an adherent appendix filled with pus. I think it would be well, when called in to see an obscure case of pelvic trouble in the female, not to let the gynecologist make us believe that there is nothing else in a woman's pelvis but the uterus, tubes and ovaries. I recall a case, fifteen years ago, of a lady to whom I was called in consultation by Dr. Lewis Wheat, of my city. Two days before she had been delivered of a child and was supposed to be suffering from puerperal sepsis. She died, and, as the labor had been easy and natural, it was difficult to explain the result. Dr. Wheat made a post-mortem, and found that a large abscess of the appendix had burst during labor, and flooded the cavity of the abdomen with pus. Another patient, a lady, married, aged 33, had been in

bed for five months, suffering from frequent attacks of violent pain in the right iliac region, spreading over the whole of the abdomen. For these attacks she was given morphia by a physician then in attendance, but now dead. The attacks were so frequent and the morphia given so liberally that she became an opium *habitue*, and was miserable without the drug. She was naturally a weak, hysterical woman, and this state of mind and body, along with the opium, made it very difficult to get from her a true story of the case. I found that she was pregnant about four months (although she denied it most emphatically), and that her tubes and ovaries were free from disease. She was tender over the right iliac region, and I found there more muscular tension than upon the opposite side; there was no swelling. The point of tenderness was in the right flank on a line with the anterior superior spinous process, and not in the pelvis. An examination through the vagina of the contents of her pelvis gave her no pain. When the attacks were at their worst she had vomiting and tympanitis. When I opened the abdomen I found an inflamed and adherent appendix, with some exudate but no pus. She got well, gave up voluntarily the morphia before she left the hospital, and is now in the eighth month of pregnancy. This is the second time I have operated for appendicitis in pregnant women—the other case at the sixth month of pregnancy. Both cases recovered and neither miscarried. I do not think one should hesitate to operate during any period of pregnancy, or even during parturition, if the case required it.

V.—DIFFERENTIAL DIAGNOSIS BETWEEN APPENDICITIS AND DISEASE OF THE TUBES AND OVARIES.

The diagnosis is not easy when inflammation of the right tube and ovary and of the appendix occur at the same time. We have in both rapid pulse, rise of temperature, pain, vomiting and tympanitis. There are, however, some points of difference that will often enable us to distinguish between the two diseases. Appendicitis begins more acutely. If it is a chronic case, there is a history of one or more former sharp and sudden attacks. Lesions of tubes and ovaries are of older date and have a history of menstrual disorder. The pain of appendicitis is acute, frequently violent, beginning over the solar plexus, radiating over the whole belly, and finally settling in the right iliac region. In adnexal disease the pain is dull and heavy, and never sharp and lancinating until the peritoneum is involved. The patient is more alarmed in appendicitis than in disease of the adnexa. The location of tenderness is different; in appendicitis it is on a level with the anterior superior spine; in adnexa trouble it is in the pelvis. In the latter, vaginal examination reveals the site of tenderness; in the former, you can touch and move the organs in the pelvis without producing pain. Vomiting is more common in appendicitis. Rigidity of the muscles of the abdominal wall over the right iliac region is almost always present in appendicitis, and generally absent in inflammation of the tubes and ovaries. Indeed, the muscular rigidity and location of the tenderness, or pain, will usually decide the diagnosis; but in case of doubt I would give chloroform, and by its aid the enlarged and tortuous appendix can be felt, probably fastened in its place by adhesions; or, by

a bimanual examination, we may discover disease of the adnexa. In cases of pus-tube on right side I believe the appendix, whether diseased or not, should be removed when the pus-tube is taken away.

VI.—TECHNIQUE OF OPERATION.

In fulminating cases the abdomen should be opened by a long incision, the gangrenous appendix ligated and cut off, and the belly washed out with gallons of sterilized water. Six or eight strips of iodoform gauze should be carried through the incision to different parts of the cavity. The wound should not be sutured, but every facility afforded for easy drainage. If such a case is not seen until the bowels are distended with gas, and the patient prostrated or collapsed, it is useless to operate. I have never seen a case of fulminating appendicitis without premonitory symptoms. A careful inquiry into the past history will always show former attacks which, possibly, however, at the time were not recognized.

In cases where there is a deep-seated localized abscess it should be rendered accessible by a free abdominal incision. The abscess should be carefully walled off from adjacent tissues by pieces of gauze and then opened. The pus should be sponged out and the appendix carefully searched for and removed. The abscess wall should be dissected out and the bowels examined to see that they are intact. It is impossible to treat such cases extra-peritoneally, and when you have exposed the cavity to the danger of infection there is no more excuse for doing incomplete work than in other forms of abdominal surgery.

In cases where the abscess has approached the anterior abdominal wall and become adherent to the peritoneum I simply open and drain it, and make no effort to extract the appendix if not loose, or to remove the wall. To endanger the infection of the general cavity by too prolonged an attempt to find the appendix is not, I believe, good surgery. The temptation is sometimes right great to persist in efforts to get it, as the patient and his friends feel a sense of disappointment when told that the appendix was not found. The disappointment is almost as great as they would have when cut for stone in the bladder and told that the stone could not be found. But no amount of anxiety on their part will justify the surgeon's running the risk of bursting through the wall and exposing the cavity to infection. If the wall is broken from any cause then, after sponging out all of the pus, I would remove it as you would do in case of pus-tubes.

In cases of chronic or relapsing appendicitis I do not advise an operation until the patient has had two attacks. Sometimes the inflammation which attends the first attack renders the patient free from a second attack because of some obliterating pathological change in the appendix. I make one exception to this rule—if, several weeks after the first attack, I find tenderness or induration, or both, over the region of the cæcum, I advise the patient to have the operation done at once. The operation should always be done between the attacks. In every case all adhesions should be freed, and any portion of the omentum in contact with the appendix which is suspected of being contaminated should be removed. (DR. HUNTER MCGUIRE, in *Southern Medical Record*).

THE HEALTH OF OUR GIRLS.

Dr. Charlotte B. Brown, of San Francisco, in a recent paper on this subject, said: "The great number of invalids amongst women, and the multiplication of specialists in diseases of women, may call the attention of physicians to its cause, and their duty towards the prevention of this disease in the earlier stages. During the last two years the writer found that one-sixth of the new cases in her practice had been girls and single women under 32 years of age. One-fourth of this number were teachers, typewriters, telegraph operators and dressmakers, the rest mostly school girls under 19 years of age. The cases are similar in type and general history; tall and thin, or overgrown in flesh, but languid, easily tired, irritable, with backache, irregular menses, anemic and sallow, capricious appetites, dyspeptic, constipated. Examination of the cases shows, in general, a small uterus with endometritis, more or less profuse catarrh, frequently stricture of the internal os. and sometimes displacements. The need of local treatment in such cases is brief, but much time and thought should be expended to procure the proper adjustment of the whole machinery, and to prevent these girls from lapsing into special invalids for years. The author believed that the foundation for this ill-health was laid somewhere in the schools, for California, with its climate, was especially favorable to young people. An inspection of the ninth grade of the grammar schools of San Francisco, during the past three months, shows several hundred girls of the age of 15. Twelve to thirteen years of age is the usual time in California for the establishment of the menses. This age corresponds to the seventh grade of the schools, and teachers find that girls rarely ask to be excused on account of dysmenorrhea. In the ninth grade the attendance was over 90 per cent., showing that mothers do not regard it as necessary to keep their girls home during the period. Evidently, the cause of the girls' ill-health was to be sought elsewhere than in puberty. A list of questions was therefore prepared for the ninth grade of the grammar schools, and the first year of the high schools, and through the Board of Education of Oakland and San Francisco the following questions were submitted to the girls, it being understood that their replies were optional: 1. Do you eat breakfast? 2. What does your breakfast consist of, generally? 3. Do you have a warm lunch? 4. At what hour do you go to bed at night? 5. Do you often go to bed later? 6. What regular duties, if any, do you have at home, daily, in connection with housework, or anything else, and how much time do they take? These were answered by 287 girls in Oakland and 1,000 girls in San Francisco. In reply to the second question, 386, or more than 33 per cent., answered, "coffee and bread, or roll and hot cakes." Thirty said, "no breakfast," or "a glass of hot lemonade," or "coffee and cod-liver oil," or "hot gruel." The rest detailed the usual American breakfast. Four hundred and ninety-three, or nearly half the girls, eat lunch, and 10 p.m. was the average hour of retiring for 1,000 pupils, 206 retiring after that hour. Five hundred and nineteen girls, or about one-half, report some duties in housework, from fifteen minutes to three hours

daily. Three hundred and fifty-nine girls carry on special studies in music, French, etc. The author inquired whether it was surprising that a sensitive girl, after studying too late at night, eating a poor breakfast, a cold lunch, and having but a small amount of exercise, should begin to suffer with the symptoms already recounted? All the more will this state of things maintain if a girl goes once or twice to the theatre, or to a surprise party, and then tries to adjust lessons in study by taking time needed for exercise and meals. Two needs that occurred to the author in this connection were, first, the establishment in all towns and villages of outdoor gymnastic fields especially for women; second, a building near the large grammar and high schools for training in physical, manual and domestic science, as part of their regular school work. In conclusion, the author presented the following points for the consideration of physicians, and for general dissemination in the school boards, of which they are often members: 1. Rising early enough to fill one's lungs with pure air, after a suitable toilet, a cheerful, generous breakfast of material chosen on which to do four good hours' work before noon; that is, some home duty, a brisk walk to school, with three hours of study. 2. A warm lunch, even if but a cup of cocoa or hot milk, or lunch-basket meal. Conveniences for preparing such a dish should be provided in every school, office or factory where human beings eat the noon meal, unless a place near by offers such food for a few cents. In some cities this want is filled by the New England kitchen, which sends large receptacles of hot soup to the schools. The contents, too, of the lunch-basket are worthy of inspection. 3. The great need of exercise and, besides the morning duties, an hour at least, after school, should be given to out of-door sport. Errands, which were many times noted on my list of answers, are good; so is a bicycle ride, or outdoor gymnastics, or a good walk, which should be felt, not a duty, but a pleasure. 4. No study allowed after 9 p.m., and every girl of 15 years should be asleep at 9.30 p.m., later being permitted Friday or Saturday nights only; even then, not very often. 5. Urge upon parents that the social life of school girls should consist of afternoon entertainments, and almost never evening parties.

INSTRUCTION IN THE ART OF PRESCRIBING.

The art of prescribing is one which bids fair to pass from us under the pressure of brilliant feats of operative surgery, and the startlingly new biology, serum and organo-therapy. What with studying the X-rays, experimenting with organic extracts, and carrying out micromorphologic observations, the medical student's time is so thoroughly occupied that something must be sacrificed, and judging from a recent article on prescribing in a prominent German medical journal, it would seem that in Germany, as well as in America, there is a marked tendency to neglect the important art of prescribing.

Professors Romberg and Schlegtendal have lately called attention to the neglect of this branch of instruction in medical courses in Germany, and in a recent contribution to the subject, Professor Binz (*Berlin Klin.*

Woch, 1897, 48) has recorded a large number of accidents which were due to errors in prescription writing.

Some of these errors, it is true, were not errors of ignorance, but originated in careless writing or faulty abbreviations or other details. Professor Binz holds that the remedy lies with the clinical professors, who should see to it that the clinical student writes out explicitly each prescription ordered without resort to memorandum books or other prompting. In other words, Professor Binz holds that in the clinic the conditions should approximate as closely as possible those which would exist in actual practice, in prescription writing as well as diagnosis.

In the United States as well as in Germany there is much neglect of this important branch of the physician's education. In order to effect a slight economy in the work of hospital apothecaries, it is almost a universal custom to have a series of stock prescriptions ready, which are ordered either by numbers or letters. It is true that the hospital formulary will tell the embryo practitioner what he is ordering when he writes for eight ounces of No. 15, and the students when ordering these prescriptions know in a general way what the constituents are, but such ordering does not give any practice in prescription writing, and moreover tends to establish a habit on the part of the young physician of depending upon routine treatment, a habit which is most prejudicial to his best and wisest development as a physician.

It is to be hoped that the attention being paid to this in Germany will find an echo in our American medical schools and the hospitals attached to them. If the hospital authorities feel that they cannot afford the time required for the apothecary to put up individual prescriptions we think an effort should be made to follow the plan which has obtained of late in Atlanta, where the dispensing department of the medical college hospital has been placed in charge of the college of pharmacy, and details from the senior class are furnished to do the dispensing under the supervision, of course, of the apothecary of the hospital, who is a college instructor.

By a slight effort the schools of medicine and pharmacy might co-operate in this way to their very great mutual advantage. The pharmacy students would be given opportunities for a wide range of experience in prescription work under competent supervision, and the medical students would be furnished the opportunity to learn by practice the routine which they will necessarily have to follow when once they have left the hospital service.—Editorial in *American Druggist.*

ANTIPYRIN AND LACTATION.

After various researches made by M. G. Fieux, says a writer in the *Bulletin Médicale* of September 5, 1897, he reached the following conclusions:

1. Antipyrin certainly passes in a natural state into the milk.

2. Given in large doses, in two capsules each containing fifteen grains at intervals of two hours, it may be detected in the milk in from five to

eight hours after its ingestion, and from nineteen to twenty-three hours afterward it cannot be discovered, so elimination lasts eighteen hours at the maximum.

3. The antipyrin during this time passes into the milk only in an excessively weak proportion, very much less than fifty parts in a thousand; it is only in exceptional conditions—for instance, when sixty grains are administered in sixteen hours—that it perceptibly reaches this proportion.

4. It does not influence in any way the quality of the milk and, particularly, the lactose, the casein, or the fat.

5. It seems to have no action at all on the secretion, which always remains very abundant, provided the woman continues to nurse.

6. From the absence of general symptoms and from examinations of the weight, the infinitesimal quantity absorbed by the nursling does not seem to have any unfavorable action.—*New York Medical Journal*, Oct. 23, 1897.

ON THE VALUE OF ARSENIC AND BELLADONNA IN THE TREATMENT OF CHOREA.

In a recent issue of the London *Lancet*, Overend concludes an article on this topic in the following summary:

1. Belladonna appears to be most beneficial in recent cases, and its influence is sometimes very marked in severe forms.

2. In obviously rheumatic cases arsenic in large doses may be given a trial or may be combined with belladonna from the first. Belladonna may act by diminishing the excitability of the nerve centres or by imparting an improved tone to their vascular supply.

3. In the wards of a hospital it is perfectly justifiable to give to a child as much as thirty minims or more of tincture of belladonna every four hours for ten days or even longer. Certain precautions are necessary. The patient should be kept in bed and the urine carefully measured. Small doses of potassium acetate may be added if it becomes much diminished or if the eyelids show any puffiness. In one child nocturnal incontinence occurred, and the dose was lessened. The occurrence of the papular erythema, which leaves raised circular lumps for a time, does not necessitate any diminution of the dose. Dryness of the throat and swelling of the parotids, should they occur, are merely temporary. The influence of the belladonna makes itself felt after about four days. Should no visible improvement occur before the tenth day, it would be useless to continue with it. But in eight severe cases treated belladonna was of benefit, and is certainly worthy of further trial. As soon as the movements become trivial or occur only during exertion, it is better to omit the belladonna, to commence massage of the affected muscles, and administer cod-liver oil and syrup of phosphate of iron or other tonics. The arsenic may be continued for a week or longer.

(Belladonna as an adjuvant is often valuable; but such heroic dosage from the start one would hesitate to adopt.—ED.)

NERVOUS DISEASES AND ELECTRO-THERAPEUTICS.

IN CHARGE OF
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NOTES UPON THE EPILEPTIC AURA, WITH REPORT OF SOME RARE FORMS.

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From time to time it seems desirable that we should formulate the latest advances of our knowledge about the various phenomena of disease; in no field does this seem more desirable than in our study of epilepsy. That which should attract our attention first in a clinical sense is the aura or warning. The aura of epilepsy is so elusive and indefinite that it must be approached with great care in order that we may obtain an accurate knowledge of its nature. Although such statements are old, they will bear repetition as often as we have occasion to study this fleeting stage of an epileptic fit. Unless one bears such a thought constantly in mind he is almost certain to make mistakes at every turn of his investigation. As the aura portrays the onset of the furious nervous storm which follows, it is absolutely essential that we should give it careful attention first, in order that we may form a complete concept of epilepsy.

At the very beginning of our study of the aura we meet with many difficulties. Obviously, epilepsy cannot be studied to advantage when much mental impairment has taken place, and, again, because the symptoms of the aura are almost entirely subjective, the patient's statements must be weighed carefully before being accepted as final. Before any neurological significance of his aura can be entertained repeated examinations are necessary, until it is found that the nucleus of the patient's statements agree in substance throughout.

At various times writers upon epilepsy have laid special stress upon the aura; some consider it a symptom pointing to a favorable or unfavorable prognosis, according to the kind and character of the aura; others have maintained that the aura indicates the seat of the earliest nervous discharge in the cortex, and the area in which the discharge ultimately is most complete. Still others have laid great stress upon it as indicative of the peripheral origin of the seizure which was referred to special motor and sensory functions; limited space forbids our considering each of these views in the light of recent investigation.

In considering cases in which the special sense auræ are present, we would naturally infer that olfactory and optic disturbances would be most frequent because of the direct connection that these special sense organs have with the brain proper. In a careful review of 241 cases of epilepsy which have been admitted to the Craig Colony, the special sense aura of sight was found most frequently, and but one case of the sense aura of olfaction was observed. Why the disturbed sense of olfaction is so rare in epilepsy when this sense has fully as direct a connection with the brain as has that of sight, is a matter for further study and investigation.

The sensation of great fear, as of impending death, which is not infrequently experienced by the epileptic in his sensory and psychic aura, probably is not so much dependent upon the attenuation or loss of consciousness as it is upon the disturbance of cardiac and respiratory rhythm. In two or three cases in which this aura was habitually present, the patient stated that the fluttering feeling in the cardiac region (palpitation) and the inability to breathe were recorded long before the conscious state had become materially impaired. One can easily understand that such important functions as that of respiration and propulsion of blood when interfered with would materially affect the whole sensory apparatus of the organism.

Again, the epileptic cry is frequently said to be due to an expulsion of the residual air of the lungs, caused by convulsive compression of the thoracic muscles diminishing the capacity of the thorax, but this cry is frequently prolonged, and consists of many inspiratory as well as expiratory acts, and is probably due in a great measure to the clonic spasm of these muscles. Again, it seems quite probable that some cortical disturbances in the speech area are also present, as the patient not infrequently articulates words as well as utters the prolonged cry.

A fact of great interest in studying the aura of epilepsy is that certain widely different areas of the brain may be simultaneously exploded or disturbed and give rise to auræ of different kinds which are associated at the same time with each other—the so-called mixed auræ.

If one accepts the ideas of liberal writers upon cerebral localization it is not so difficult to account for the origin of two apparently widely different areas of disturbance in sensory realms. We believe that almost all authors now maintain that sensory centres do not admit of so clear a definition as motor areas, but occasionally widely different sensory and motor phenomena are manifest in the same case; to form a satisfactory or adequate theory for such a case is very difficult. We must be content with conjecture until the true physiology of the cerebral cortex lights the way.

The great frequency of the epigastric aura finds a satisfactory explanation in the general statement of Mercier,[1] who localizes the peripheral sensory sensations in the epigastrium because he believes that in primordial life the stomach or epigastrium was the earliest and most important seat of pleasure and pain.

[1] Tuke's Dictionary of Psychological Medicine, Vol. I, pages 253 and 254, Chapter upon Consciousness.

Cases have frequently been reported in which the unstable, discharging centre of the epileptic's cortex has been completely exhausted by repeated explosions, each discharge being more severe and exhaustive than the other, but cases of epilepsy in which the motor aura acting as a seizure has completely taken the place of an attack, are very rare. A case which is at present under the writer's observation has shown this peculiar epileptic phenomenon. Commonly for several hours before an attack, and occasionally for an entire day, the patient has a convulsive movement of both arms, finally causing him to raise them to maintain his balance. This muscular movement occurs every few seconds during the progress of the aura without his once falling. Although the patient may do his work in the meantime, he is very irritable and rarely recognizes the fact that he is passing through an epileptic aura and may soon have a true convulsive seizure. He shows by his manner and speech that his state of consciousness is considerably disordered. Occasionally after a severe attack, these flurries following the regular convulsive storm continue for hours before he returns entirely to his normal inter-paroxysmal state. Quite frequently the patient passes the entire day in this peculiar state of consciousness attended by inco-ordinate muscular movements which are not ultimately followed by a general convulsive seizure. An additional interesting feature of this aura is that it occurs in an idiopathic epileptic and no trauma has ever been alleged. The etiology and pathology underlying such an aura are still unknown. This patient has been under the writer's observation daily and almost hourly for the past year. Such a case of epilepsy presents an unusually interesting opportunity to study the manner in which consciousness is attenuated and finally lost. Undoubtedly this man at times holds the entire mystery of the pathogeny of an epileptic fit—its motor and elusive sensory phenomena. How unfortunate that we are not to be able to see that mysterious mechanism! This patient is still intelligent, and seems remarkably devoid of the emotional characteristics which are frequently seen in cases clinically allied.

While present authorities hold that the aura represents the area of the brain which takes the initiative in the seizure, we must remember that this can be only the fulminate which starts the discharge, whereas some other area might begin the explosion if the seizure were but a little delayed. This one fact shows that the greatest study and endeavor should be directed toward ascertaining the exact cause of the great instability of the whole cerebral cortex.

The writer desires to embody in this article some uncommon forms of epileptic aura which, in the light of our present knowledge of the functions of the nervous system, seem like mere vagaries of the epileptic's disturbed mental state.

Case 1.—PHRASE RECURRENCE.—Patient states that prior to her attacks she has a recurrence of phrasing, which differs from normal thought, as it is recurrent and grows more intense at each repetition. The phrase is "nicht wiedersehen." This aura has been present prior to most of her attacks for the past year. Occasionally the phrase changes to "auf dem reirdem." She states that there is no apparent connection

between the occurrence of these words and normal thought in everyday life, and that she does not know the meaning of these words. She has never had insistent ideas or word dominance of phrase rhythm. At no time have these recurrent phrases been present after the attack or in the interim. This is a rare psychical aura.

Case 2.—AURA LACHRYMALIS.—Patient states that about two hours before an attack he has a stupid and confused feeling and that about fifteen minutes before it occurs he feels very depressed and has an undefinable sense of fear. At times during the aura he weeps and cries loudly, while at other times he weeps quietly by himself. This peculiar aura makes its appearance prior to about one-half of his regular epileptic seizures and continues until the convulsion occurs, which usually begins with an opisthotonic contraction of the extensor muscles, lasting for twenty or thirty seconds.

Case 3.—PAIN IN HYPOCHONDRIUM.—Patient has a sense of pain in the left hypochondrium, which is located in the muscles of the side. This aura is present before about one-third of her attacks. Gowers states that this aura has never been observed.

Cases 4 and 5.—DREAMY STATE.—These patients experience a "dreamy state" about one-half hour before each attack. During this time they are stupid and incapable of performing simple acts. These auræ are present before all their attacks, but are never found in the interim, nor do they take the place of an attack. Depressed states of this character have often been commented upon by Hughlings-Jackson and Gowers, but always as a phenomenon which takes the place of a regular seizure, not as an aura.

Case 6.—MIGRAINE.—For ten or twelve hours before an attack patient is afflicted with migraine, which is localized over an area $2\frac{1}{2}$ inches in diameter at the left temple. The pain is persistent and severe up to the time of the seizure. Occasionally this takes the place of a seizure and always disappears as soon as the seizure ceases. Occasionally this aura and the seizure may be aborted or prevented by proper treatment with salicylates. The association of migraine and epilepsy has long since been fully treated by various writers, but an attack of migraine acting as a distinct aura has been but rarely noted.

Case 7.—SPASM OF THE MASSETERS.—Patient has a clonic spasm of the masseters. The teeth chatter for an hour or two before the attack begins, loudly enough to be heard many feet away. Patient's teeth have been entirely destroyed by such forceful movements.

Case 8.—OLFACTION.—The aura is of the special sense and distinctly one of olfaction. An odor of "wood smoke" is noticeable before about one-third of his attacks. But one other case of a similar character has ever come to the writer's notice.

Case 9.—ANALGESIA OF TONGUE.—Patient states that for ten or twelve minutes before at attack begins there is entire loss of sensation in the anterior half of the tongue. It becomes numb and she is unable to speak because of the loss of control of the tongue. There is a carefully and accurately defined sensory and motor aura associated in the same case.

Case 10.—PAIN IN RIGHT THIGH.—Patient states that the aura con-

sists of a lancinating pain in the middle of the right thigh. It persists for fifteen or twenty minutes before the attack. Generally the attacks occur in series.

Case 11.—PERIPHERAL ANALGESIA.—Patient says that the aura is very persistent and exists as a numb feeling over the entire periphery. It is sudden in its onset and gradually fades away, only to reappear every two or three minutes until the seizure occurs.

Case 12.—CHILLY FEELING IN LUMBAR REGION.—Patient has a "chilly feeling" in the lumbar region for hours before an attack. A sensory aura in this region is very rare.

AURA OF FEAR.—Three cases have an undefinable sensation of fear and a desire to escape from the room without actually making an effort to do so. This has also been commented upon by other writers as a petit mal attack, but in these cases it is a distinct aura and ceases as soon as the attack begins and is never present in the interim.

SPINAL DEFORMITY.—Wolff criticises severely Calot's method of forced reduction of angular deformity of the spine. It is questionable whether the deformity is actually reduced or whether the wedge-shaped excision of the projecting vertebræ only makes the reduction apparent. Sufficient time has not elapsed to determine the permanency of the cure. There is no doubt that these forcible measures predispose to abscess-formation, general miliary tuberculosis, injury to the internal organs, spinal cord, etc.; and already 12 fatal cases have been reported, in which the method was directly responsible for the result. In addition to this mortality, a number of serious accidents have followed, and in many cases the attempt at reduction was unsuccessful. That Calot is himself losing faith in his own method is shown by the tone of his most recent writings, in which he advises the employment of less force, and the discontinuance of the resection. Wolff objects to the method on the ground, first, that reduction cannot be accomplished with the extreme gentleness ("*douceur extrême*)" that is prescribed; secondly, that the accessory treatment—the narcosis, the enormous immobilizing dressing, and the dorsal decubitus necessary for so many months—is not only ill-advised, but also unnecessary for the accomplishment of the final result.—*Philadelphia Med. Journal.*

HÆMORRHAGE IN HÆMOPHILIA.—Bienwald employed a very original method in the case of a child aged two years, the subject of hæmophilia. Having failed to arrest the hæmorrhage from a small wound on the face by the application of perchloride of iron, he obtained some blood by aspiration from a healthy subject and deposited it on the wound. In a few minutes it coagulated, and the hæmorrhage at once ceased. His explanation is that it supplies the ferment necessary for thrombosis in the small vessels. Whether this is correct or not is impossible to say in the absence of definite knowledge of the pathology of hæmophilia. As affording his explanation some support we may mention the success obtained by Doctor Wright in his experiments with a solution of fibrin ferment and chloride of calcium as a styptic.—*The Lancet* (London).

NOSE AND THROAT.

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REPORT OF A CASE OF ACUTE PURULENT OTITIS MEDIA, COMPLICATED BY RETROPHARYNGEAL ABSCESS.

BY FRANK L. STILLMAN, M.D., COLUMBUS, OHIO.

This case is thought worthy of report on account of the rather unique series of complications, the happy subsidence of ominous symptoms, the perfect recovery, and because detailed histories of cases of acute purulent otitis media with this complication are rather uncommon in medical literature.

The subject of the sketch is an attorney, aged about forty, and unmarried. He is of a nervous, sanguine temperament, and never suffered from much illness. For some years he has had a moderate amount of chronic otitis media (catarrhal) which was aggravated, if not induced, by a deviated nasal sæptum. In February, 1896, he fell through an opening in a stable loft, and was unconscious from the resulting concussion for several hours.

The evening before his first visit he was assisting in the work of initiating candidates into a quasi-secret club. After spending the evening in this convivial manner he came home on his bicycle about twelve, midnight. The air was damp, a cold wind was blowing, and when he reached his apartments he felt thoroughly chilled. At 1 a.m. he began to have pain in the left ear, which was severe enough to keep him awake the balance of the night. Upon inspection the next morning (which was April 18, 1896), the left membrana tympani was found highly hyperæmic and bulged, and he complained of a deep pain in the ear. Paracentesis of left membrana tympani in posterior inferior quadrant under antiseptic precautions. There was an escape of considerable serum. This gave him marked relief from pain. He was instructed to remain indoors and use Leiter's cold coil. During the next two or three days the history was that of an ordinary acute purulent otitis media. About the third day the serous discharge was assuming a purulent character. The temperature varied from 99.4° to 101.8°, and pulse about 70. On the third day the ear was cleansed with a warm solution of bicarbonate of sodium, listerine and water. The ear was syringed with this solution every few hours, and then a light coating of boric acid was insufflated, and a strip of iodoform gauze placed lightly in the meatus.

I will state here that the nose and rhinopharynx were kept sprayed out with an antiseptic spray throughout his illness.

On the 24th the temperature was normal, the discharge was diminishing, and outside of some restlessness he was feeling first-rate.

On the 27th he attended to business part of the day, but felt exhausted afterwards. Used gentle politzerization at this consultation and also the usual local treatment.

May 1st.—Had rather a bad night from a dull pain in the ear.

7th.—It is noticed that discharge from ear is gradually increasing in amount, so that he finds it necessary to dress the ear and change the gauze about every three hours. After syringing the ear, a few drops of a five-per-cent. solution of nitrate of silver were dropped in the external meatus and retained a short time. The ear was then gently mopped out.

11th.—Discharge is freer. An attempt is inaugurated to carry out an entirely dry plan of treatment.

13th.—Been in room all day, suffering from hemicrania in left side of head. Has a feeling of malaise. Ear foul. Temperature 100.3°. Cleansed and purified ear thoroughly with hydrogen dioxide, 1 to 5. Politzerization and syringing with warm water. Instructions were given to have this done (with exception of politzerization) by the nurse sufficiently often to keep the external meatus clean.

Hemicrania continued for two or three days in this manner. There were absolutely no symptoms, such as tenderness, redness, or swelling back of the ear, to indicate any mastoid involvement.

Feeling that there might be some retention of pus from insufficient drainage, a free cut was made in the membrana tympani in its posterior half, from a point back of the long process of the incus to the lower periphery. Patient had an attack of dizziness after the operation, which, however, was only momentary. Politzerization was gently used to force the pus from the middle ear into the external canal. The pain in the head seemed temporarily benefited, but the next day it was as severe as ever, the preceding night having been quite a restless and sleepless one. Upon a friend's (?) advice he dropped some spirits of camphor in the ear. This, of course, caused pain and aggravation of the symptoms. The writer, upon being summoned to his rooms, found him suffering from hemicrania, the pain of which seemed to focus at left side of the vertex and radiate toward the left temple. The left ear seemed a little more prominent than the right. The patient found it difficult to rotate his head, locating the stiffness in the back of the neck. The cerebral symptoms were sufficiently alarming to cause me to seek the counsel of a general surgeon, and Dr. Charles Hamilton was asked to visit him, and during much of the further progress of the case saw the patient often. In addition to trional, which the patient had taken occasionally for restlessness at night, codeine was prescribed, a quarter of a grain every hour, for the relief of the pain at the vertex. A hot bag was tried for relief of pain instead of cold, but was discontinued after a few hours, and the use of cold resumed. Has no fever.

On May 23rd it was noticed that the pulse was below fifty beats a minute, at times going down as low as forty. There appeared to be a

periodicity about the exacerbations of pain in the head, and quinine was prescribed, two grains every two hours.

24th, 11 a.m.—Pulse 46. Last night took one dose of codeine and two ten-grain trional powders. Mind seems a little sluggish this morning; is somewhat drowsy and quite weak; not much pain. At 4 p.m. took a little wine, and at 6 p.m. seems brighter.

25th, 10 a.m.—Pulse 46. Feels weak, and mind a little dull. Wine, half an ounce every three hours. Local and general treatment the same. Last night took one dose of codeine and two of trional. Discharge rather abundant.

The symptoms seeming rather grave, and fearing the formation of cerebral abscess, Dr. Kinsman was asked in consultation. The doctor, after a careful investigation of the history and the patient's present condition, thought there was no cerebral abscess, but the symptoms could, perhaps, be accounted for by a localized meningitis. Administered calomel and podophyllin, one dose.

26th, 9 a.m.—Pulse 58. Vomited once after taking a dose of quinine before breakfast. Flow from external meatus rather profuse. At 5.30 p.m. notice that ear shows evidence of increase of inflammation. Covering of bony canal swollen, and membrana tympani is deep red and thickened. Says opening of jaw causes a feeling of pressure in ear. Discontinued quinine.

Thinking that his environment might be adding to his restlessness and discomfort, it was decided to remove him to a hospital, and this was done at once.

June 1st—Pulse 70. Temperature normal. A tonic preparation of iron and the liberal use of eggnog were prescribed. Local treatment continued as before. Some increase of swelling of neck in front of sterno-mastoid and at angle of jaw.

2nd Temperature 99° at 9 a.m. For about a week has complained of his throat being somewhat painful, especially during deglutition. There was a little swelling in the left side of the soft palate, but it was difficult to determine whether this or his swollen neck was producing the discomfort. This morning, however, attention was more especially directed to the throat, and it was seen that the left side of the palate was assuming a more brawny appearance. The redness and swelling were more marked at the junction of the faucial pillars. Temperature that evening was 101°.

3rd.—Left side of throat was more swollen. Lanced it in three places —at upper portion of tonsil, in the anterior pillar, and in palate a little above junction of pillars—but no pus was found.

Directions were given for use of hot bag on neck. At this time the rhinoscopic mirror demonstrated the fact that there was some swelling in the rhinopharynx as well. This was not marked, but seemed to be below the opening of the Eustachian tube, and above and back of the posterior pillar.

5th.—As the opening in the membrana tympani was growing smaller, was again freely incised.

6th.—Pulse 70, of good quality. Is taking about eight glasses of milk daily. Eyes are brighter and complexion is better.

7th.—Took a drive this afternoon.

8th.—There seems to be a little increase of swelling in front of the tragus. Temperature, 99.7°; pulse 72. Was restless and sleepless last night. Discharge from ear about the same. Dr. C. F. Clark saw the patient in consultation. During his visit the usual treatment was gone through with. The Politzer air bag was used to demonstrate the patency of the Eustachian tube and the opening in the drum membrane. The escaping air brought with it a gush of pus from the external meatus—probably a drachm in amount. The patient looked up in a startled manner and said it felt as if something broke in his head. The pus was thinner and lighter in color than usual. The pressure of the air had caused the liberation of some pent-up pus, but the exact location of the barrier to its free exit, until then existing, could only be surmised; nevertheless, the direct communication between the swelling in the throat and the ear could readily be demonstrated, for when a finger was placed in the rhinopharynx and pressure made on the left lateral wall, pus immediately exuded from the ear.

10th.—An attempt was made to evacuate the retropharyngeal abscess with an aspirating needle. It was run through the soft palate into the pharynx in two places. At that time pus was not encountered, but the next morning the up-tip of an atomizer was forcibly pressed into the lateral wall of the rhinopharynx, the wall of the abscess was ruptured and a profuse flow of pus took place.

12th.—Could get no pus from throat by pressure. Discharge from ear has much decreased in amount.

16th.—Left tonsil is enlarging. The neck in region of angle of jaw is still swollen.

17th.—Temperature this evening 100°. Left tonsil is considerably enlarged and is softening. Steam inhalations were ordered.

18th.—Abscess in tonsil opened spontaneously. The opening was at the upper portion of the gland. A probe could be passed two centimetres in a downward direction. Using a Eustachian catheter as a guide, the internal wall of the abscess cavity was freely laid open with a bistoury. After this the patient improved quite rapidly and soon left the hospital.

30th.—A hard swelling remains in neck at angle of jaw. It began to soften about the 4th or 5th of July and a poultice was ordered. By the 10th fluctuation could be felt, and on the 13th it was opened and gave exit to a couple of ounces of pus. After that the progress toward recovery was quite rapid.

The last time he was examined by the writer was on August 28th, upon the patient's return from a month's outing. There was no aural discharge and the drum membrane had healed perfectly.

In taking a retrospect of this case several queries naturally arise in one's mind. 1. Is it not probable that the ominous symptoms which were referred to the brain were caused by the formation or retention of pus between the middle ear and pharynx? 2. By what route did the pus gain access to the rhinopharynx? In the writer's opinion the route was probably along the sheath of the tensor tympani muscle.—*N. Y. Med. Journal.*

ANGINA PECTORIS FOLLOWING INFLAMMATION OF THE TONSILS.

Zilgien (*Revue médicale de l'Est*, October 15th, 1897; *Deutsche Medizinal-Zeitung*, March 17th, 1898) records four cases of angina pectoris of several weeks' duration following febrile inflammation of the tonsils. He thinks the trouble was a neuralgia of the cardiac plexus occasioned by toxic materials formed in the tonsils.

GENERAL AND LOCAL ANÆSTHESIA IN LARYNGOLOGY AND RHINOLOGY.

General anæsthesia in intranasal operations, says Dr. Joseph S. Gibb, of Philadelphia (*Journal of the American Medical Association*, March 5th, 1898), is but a sorry substitute for local anæsthesia, and should be employed only when the necessities of the case urgently demand it.

We are obliged, at times, he says, to meet the wishes and desires of patients, some of whom prefer general anæsthesia because the operation can be done without their consciousness. At the same time it seems to him folly to undertake such operations merely to please the patient unless we are reasonably sure we understand beforehand every necessity of the case.

The larger number of intranasal operations being best undertaken under local anæsthesia, we must decide which of the few local anæsthetics will serve our purposes best, and the manner of its use.

Cocaine has held undisputed sway as a local anæsthetic for about fifteen years and, in the main, leaves little to be desired. Those who have used it freely, however, have now and then observed effects which have given rise to anxiety, and a few fatal cases have been reported from its use.

It has always been a matter of doubt to him in these cases of cocaine poisoning as to the part played by the shock of the operation. A nervous woman, he says, cuts her finger and faints at the sight of blood; this same woman should certainly be expected to faint during an operation on her sæptum. He believes that some of the cases which have been regarded as cocaine poisoning are of this nature. A very few can not be explained in this manner and we are forced to admit that in some subjects an idiosyncrasy exists to the drug.

More recently, eucaine has been extolled as the equal of cocaine in anæsthetic power, and, it is asserted, possesses no such tendency as the latter drug to produce intoxication.

Our experience with this new anæsthetic is necessarily too limited to assert positively as to the latter statement. There is no doubt in the writer's mind as to the validity of the former.

In an article published in the *Philadelphia Polyclinic* for January, 23rd, 1897, the author gave an experience of six months' use of this drug in the clinics of the Episcopal and Polyclinic Hospitals. It was found to have equal anæsthetic power with cocaine, as to both intensity and duration of anæsthesia in the larger number of cases.

Its power to reduce engorged turbinates was also equal to that of cocaine. In the pharynx, while it possesses equal anæsthetic power to that of cocaine, it does not produce those unpleasant suffocative, choking sensations which the latter drug at times induces. It is, therefore, much pleasanter in its effects in this locality. In no case were any symptoms approaching intoxication observed,

These results have been confirmed by a riper experience. Eucaine is now used at the author's clinics in all operations in the nares, nasopharynx, and pharynx, except in those few instances in which cocaine seems to have a better effect.

Its use in the larynx has been abandonded because cocaine has equal anæsthetic power and slightly less irritating and hence less apt to produce annoying and troublesome spasms.

The pleasantest manner of obtaining anæsthesia in the nasal chambers, says the author, is as follows: First spray both chambers with a two per cent. solution of whichever anæsthetic is chosen, to obtain tolerance for the harsher methods to follow. After waiting for a minute, saturate a small pledget of cotton with a four to ten per cent. solution of the drug and allow it to lie at the site of operation for from five to eight minutes.

Nearly all the operations the laryngologist is called upon to perform in the pharynx can be accomplished under local anæsthesia. Eucaine is to be recommended in this locality. It causes less discomfort to the patient and it is also probably less likely to give rise to unpleasant general symptoms.

Hamamelis in Renal Hœmorrhage.—My father, an old man of sixty-three, was affected by these renal hæmorrhages, caused by calculi, and they had continued for ten weeks. In vain he had been treated most assiduously by three physicians; the bleeding could not be stilled, and in consequence he had become very weak. Taking a teaspoonful of extract of hamamelis five times a day checked the hæmorrhages, and besides this wonderful effect was *permanent*. Since two months he has completely recovered, and his urine is free from blood or albumen.—PAUL REICHERT.

Every medical man should be a member of a medical society. He will never know how great a man he is till some one praises him in a discussion, nor how small a man till some pompous fellow-member takes him to task; but all these frictions serve but to round and smooth a busy life, and no one can do without it who desires to be a physician in the highest acceptancy, and not a man who doctors.—*Atlantic Medical Weekly.*

Acute Coryza.—

R. Menthol, 30 grains.
Chloroform, 5 drachms.

Inhale four or five drops, rubbed on to palms of hands, several times a day.

—*Therapeutische Monatschefte.*

PAEDIATRICS.

IN CHARGE OF

ALLEN M. BAINES, M.D., C.M.

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PARTIAL SYNOPSIS OF PAPER BY DR. W. F. BOGGESS, LOUISVILLE, KY.

EXAMINATIONS.—The difficulties of examination are often exaggerated. All necessary information as to beginning of the trouble, when and how taken, may be elicited from the mother by careful questions. Mothers, owing to their love and solicitude, are good observers, the doctor supplying all necessary gaps. The doctor should ingratiate himself with the child and gain its confidence.

1. Do not be abrupt or in a hurry; notice a child casually at first, then strip it and inspect every part. The tint of the face, the color of the lips, the general physiognomy, all help you to properly locate the disease. Blueness of the upper lip in early life is a common sign of labored digestion. Years ago it was pointed out that certain lines or furrows in the face of an ailing child, by their position, indicated the seat of the derangement.

(a) Oculo-zygomatic line denotes diseases of the brain and nerves.
(b) Nasal denotes abdominal mischief, gastro-intestinal trouble.
(c) Labial shows diseases of lung and air-passages.

2. Shape of head and limbs, attitude, cry, absence of tears, condition of fontanelle, etc.

3. Pulse, respiration and temperature.

4. Dietary habits.

5. Carefully inspect the ejecta from stomach or bowels.

6. Genital organs.

7. Rectum, etc.

TREATMENT.—1. Administration of physic is of less importance than dietetic regulations.

2. Occupy large and well-ventilated room.

3. All noise and bustle to be prohibited.

4. Should be fed through nasal tube or per rectum when necessary.

5. To reduce temperature.

(a) Tepid sponge bath.

(b) Warm bath, 80° to 85°, in convulsions and great irritability of the nervous system and in Bright's disease, remain ten to twenty minutes.

(c) Hot bath, 95° to 100° in great prostration, cholera infantum, urgent vomiting, remain four to five minutes; a little mustard may be added.

(d) Cold douche followed by vigorous shampooing in weakness, atony, scrofulous cachexia, etc.

6. Stimulants take a high place among internal medications.

7. Tonics, quinine, iron, mineral and vegetable bitters, cod-liver oil, etc.

8. Opium should be given cautiously.

9. Belladonna can be given in large doses. Children one year of age can take one to twenty drops.

10. Quinine, digitalis and lobelia are well borne.

11. Alkalies form a valuable class of remedies, also astringents.

12. Purgatives may be given, but do not overpurge.—*Pædiatrics.*

THE PULSE IN DIPHTHERIA.—This has recently been made the subject of special study by Dr. Henry Dwight Chapin, of New York. The cases were observed in the Willard Parker Hospital. He said that he had not infrequently noted a marked slowing of the pulse in grave septic cases, and that this might occur either before or after a rapid action of the heart. When the reduction in pulse-rate is extreme, death invariably occurs. Thus, in one case, the pulse dropped on the fourth day from 128 to 66 without much impairment of its strength. On the following day, however, the pulse became feeble, and 120 to 138 per minute; then stupor and vomiting supervened, and death occurred three days later. In another case, that of a boy of 5 years, the pulse was rapid for a few days, and then suddenly dropped to 28. At this time the sounds of the heart were fairly distinct. In spite of free stimulation, the child died in two days. It should be noted that a slow pulse without other symptoms is not necessarily a fatal indication. If, along with a rapid and feeble pulse, there is vomiting, it is of exceedingly grave significance, for the vomiting is as uncontrollable as the tendency to heart-failure.

Dr. A. Jacobi gave it as his opinion that the slow pulse, like the rapid pulse, is an indication of cardiac incompetency, and that the *timely* use of stimulants would, in many instances, avert the approaching heart-failure. Dr. J. E. Winters, on the other hand, believed that the profession was absolutely ignorant regarding the true nature of cardiac failure, as observed in diphtheria, and that as little could be done in the way of preventing it as in treating it when actually present. He said that the very slow pulse, all authorities agreed, was of very rare occurrence, and he had not personally observed it until the antitoxin-treatment came into vogue. As he had observed this slowing of the pulse in a number of cases that had received large doses of antitoxin, he was inclined to believe that there was some connection between the two. For example, in the case referred to by Dr. Chapin, in which the pulse dropped to 28, 6,000 units of antitoxin had been given. Dr. H. W. Berg opposed this contention, claiming that he had noted this peculiar slowing of the pulse in diphtheria many years before the introduction of the antitoxin-treatment, and that he had noted it very infrequently during the time that these large doses of antitoxin were being administered.—*Phil. Med. Journal.*

THE TREATMENT OF PROLAPSE OF THE ANUS IN CHILDREN.—F. Schmey (*Centralbl. f. Kinderheilk., 1897, ii, 41*) says that prolapse of the anus in

childhood is quite a severe and dangerous affection, for the reason that large hemorrhages frequently occur from the prolapsed mucous membrane, which is usually in a condition of venous stasis. This tends to debilitate the child.

In one of Schmey's cases the rectum prolapsed not only during each stool, but even when the child urinated, and latterly seemingly without any cause whatever. In addition there was much bleeding of the prolapsed mucous membrane, visibly reducing the patient's strength. Prolapse of the rectum is usually found in quite young, badly-nourished children. The author claims to have found marked symptoms of rachitis in all children treated by him for prolapse of the anus, and has directed his treatment accordingly. Up to the present time the usual treatment consisted in surgical measures, in the application of a bandage, the excision of spindle-shaped strips of the folds of skin which converge in radiating lines to the anal orifice, or a cauterization of the skin surrounding the anus with the hot iron. Others advocated the subcutaneous injections of strychnine in the neighborhood of the anus, chemical cauterization or the ligature, and excision with narrowing of the anus. The greater number of these measures are not safe; for example, numerous cases of death, due to pyemia, have occurred following cauterization of prolapse of the rectum.

Relying on the observation that all children with prolapse of the anus presented distinct signs of rachitis, Schmey put them on anti-rachitic treatment, and in this way claimed to have attained exceptionally brilliant results.

His formula is the usual one for the exhibition of phosphorus:

℞ Phosphori, 0.01
Ol. jecoris aselli, 100.0
Ft Sol.—Sig. One to three coffee-spoonfuls daily.

Generally the prolapse was perfectly cured after the use of one bottle of this medicine, and did not appear again. He offers the following resume: Prolapse of the anus in children, according to my observations, is a symptom and a sequel of rachitis, and its cure is easily and permanently accomplished by the administration of oil of phosphorus.

[This statement certainly does not apply in this country. Rickets and *prolapsus ani* are not commonly seen together here, and the latter condition here cannot be always cured by phosphorus internally.—J. T. F.]

PARALYSIS FOLLOWING MUMPS.—Revillod observed the appearance of paralysis in a boy seven years of age, after an attack of mumps, in which he could exclude infantile and post-diphtheritic paralysis. The paralysis attacked at first both lower, then upper extremities, and later involved the left facial area, the muscles of deglutition, the lingual and respiratory muscles. The sphincters and sensation remained normal. A perfect recovery took place in six weeks under proper therapeutic measures.—*Rev. méd. de la Suisse Rom.*

[A nice illustration of what we have learned in aetiology from bacteriology, that the toxin of any specific disease may produce peripheral neuritis, some like diphtheria frequently, others, as here, rarely.—J.T.F.]

SCHLEICH'S INFILTRATION ANESTHESIA.—(*Weak solution for use in children.*)

℞ Cocain hydrochlor..... 0.01
Morph. hydrochlor..... 0.005
Aquæ destill.....100.0
Sodii chlor..... 0.2

M. Ft. Sol.—*Pædiatrics.*

SYPHILITIC IMPETIGO.—

Hydrarg. oxid. rubr.,
Zinci oxid.....āā 1.5
Resorcin..... 0.6
Vaselin..... 30.0

M. Ft. ungt. Sig.—For external use.—*Phillips.*

SIGNIFICANCE OF THE FONTANELLE.—Involution of the fontanelle occurs normally from the fifteenth to the eighteenth month. From birth to the ninth month the fontanelle decreases gradually in area, and from this time till complete closure the decrease is more rapid. Retardation of normal involution indicates rachitis or hydrocephalus.

The fontanelle presents pulsatory and respiratory phenomena. The pulsation increases if the tension is slightly increased; diminishes or is lost if the tension be greatly increased.

A murmur over the fontanelle occurs in a certain number of children, most commonly in those who are anæmic or rachitic. It is not pathognomonic.

A slightly prominent and pulsating fontanelle indicates a cerebral hyperæmia, such as occurs in fevers.

A protuberant and tense fontanelle indicates an exudation or inflammation in the cranial cavity.

Retracted fontanelle indicates a condition of collapse, brought about by acute intestinal disease with profuse watery discharges, infantile atrophy from any cause, hæmorrhage, effects of prolonged acute infectious disease, or marantic sinus thrombosis.

In acute infectious diseases with meningeal symptoms, examination of the fontanelle shows no protuberance or tension, whereas in true meningitis these conditions are marked.

In the so-called hydrocephaloid, a terminal condition of cholera infantum marked by the occurrence of striking meningeal symptoms, the fontanelle is retracted.—ABT, in *Medicine.*

NIGHT TERRORS.—Braun, after critically discussing the existing theories on *favor nocturnus* in children, declares it to be a disease by itself, which is closely allied to the conception of neurasthenia, *i.e.*, "an irritable weakness." Following this, a description of the characteristics of the attack and their demonstration is given. The sudden jumping up of the infant out of its sleep—symptomatic, especially in colic—has no relation to night terrors. The etiology, as well as the treatment, is that of neurasthenia, and the latter should be pointed in the direction of nutrition and education.—*Der Kinderarzt—Pediatrics, September, 1897.*

MEDICAL SOCIETY REPORTS.

TORONTO CLINICAL SOCIETY.

Meeting was held on April 13th.

Dr. Albert A. Macdonald, President of the Society, was the chairman.

The minutes of the March meeting were read and adopted.

The following Fellows were present:—Dr. Nichol, of Baden; George Eliot, William Thistle, William Aikins, Chas. Trow, Graham Chambers, Eliot Brown, Geoffrey Boyd, Herbert Hamilton, Frederick Fenton, William Oldright, J. Algernon Temple, Herbert Bruce, William Pepler, F. LeM. Grasett, Albert A. Macdonald, George Bingham.

Dr. Bruce read a paper on The Surgical Treatment of Osseous Ankylosis of the Temporo-Maxillary Articulation.

Four years ago the patient fell downstairs, striking her chin forcibly on the lower step. Dr. Stevenson, who saw her immediately afterward, says there was no dislocation of the jaw, but that the alveolar process of the upper and the lower jaws in part were broken, causing part of the teeth of both jaws to be loosened. Some of the teeth penetrated the lower lip, the scars of which remain. She could remove the jaw freely after the injury, and continued to do so for about a year. Then movement gradually diminished until, one and a half years after the injury, the jaw became fixed. Then a wedge-shaped screw gag was used on eight or nine occasions, under chloroform. This was followed by temporary movement. Soon, however, all movement was lost and the jaw became absolutely fixed. On examination, August 9th, 1897, the jaw was quite fixed, neither lateral nor up and down movements being possible, and was said to have been in this condition for two and a half years. The jaw was displaced laterally to the right side about $\frac{1}{16}$ of an inch, indicated by noting the relation of the middle line of the two jaws, as shown by the incisor teeth. From this I concluded that the disease involved the right joint, and advised excision of the condyle. On Sept. 9th the transverse incision was made $\frac{3}{4}$ of an inch long $\frac{1}{4}$ of an inch below the zygoma, beginning just in front of the bar. The parotid fascia was divided along the zygoma. The parotid gland displaced downwards, the other joint exposed, the neck of the condyle was chiselled through and an attempt made to separate the jaws. This was found impossible. The coronoid process seemed to be held firmly to the skull. As the patient was taking the chloroform badly, it was thought wise to postpone division of the coronoid until a future time. Subsequent to this operation there was slight paresis of the orbicularis palpebrarum. Nov. 12th the jaws could be separated to a slight extent, probably $\frac{1}{16}$ of an inch. Nov. 13th an incision was made through the cicatrix of the former wound and extended forward about $\frac{1}{8}$ of an inch. The neck of the condyle was exposed and a copper spatula placed beneath it, to protect the internal maxillary artery. Entered the saw in the groove made at the first operation and went through the periosteum on the external surface, which had

not been completely divided. Now it was found impossible to open the jaw, so the saw-cut was extended partly through the base of the coronoid process, and division completed by means of the chisel. The jaws could not be separated until the chisel broke completely through the coronoid process; then the jaw was easily opened to the extent of an inch. The temporal muscle was parted from the coronoid process, and the later removed with a small section of the ascending ramus. Then the condyle was chiselled from the glenoid cavity, to which it was united by bone. The ascending ramus was trimmed with bone forceps. Then the index finger could be placed between the ascending ramus and the skull. On account of some oozing from the divided bones, the cavity was packed with iodoform gauze. The wound was closed with horse-hair, except at the posterior part, where the gauze was brought out. Gauze was removed the next day and wound healed by first intention. There was considerable swelling of the cheek for some weeks, which seemed to be due to obstruction of Stenson's duct. There was also some paresis of the orbicularis palpebrarum, but this has now entirely disappeared. The teeth can now be separated in front to the extent of $\frac{3}{8}$ of an inch. I think the inability to open the mouth wider is due to shortening of the masseter and temporal muscles of the other side, for the jaws can be separated an inch under chloroform. The patient is able to eat meat and other solids, and seems to masticate well. The operation was in the main after that of Bottini, done originally in 1872. This is, I think, the best operation for those cases of bony ankylosis of the temporo-maxillary joint without involvement of the soft parts. When the jaws are fixed by cicatricial contraction in the soft parts, due to noma, lupoid ulceration or burn, the section of bone must be in front of the cicatrix, and for these cases Esmarch's operation, that is, the removal of a wedge near the body of the jaw, should be done.

It is not always easy to discover which side ankylosis exists. The history may help, then the jaw should be examined, and there may be lateral displacement, as there was in this case, due to loss of cartilage. In the process which destroys the jaw, Cabot mentions another method of determining this: If the fingers are pressed in on the teeth on each side and at the same time the patient makes vigorous attempts at mastication, a spring of the bone on the free side will be noticed in quite distinct contrast to the fixity on the ankylosed side. In looking over the literature of the subject, 67 operations in cases of bony ankylosis of the temporo-maxillary articulation have been reported. Of these 47 were cured by Bottini's method, and this would seem to indicate that surgical opinion favored the operation being done close to the zygoma.

Dr. Bruce then presented the patient for examination.

Dr. Grasett said this was the first case of the sort he had ever seen. He thought the result was very satisfactory.

Dr. Peters said that he had seen the case at both operations, at which time there was very little movement. His recollection was that the coronoid was not ankylosed by bone to the skull. The first week after the second operation the patient would voluntarily open the mouth so that there was a distance of an inch between the jaws. Probably a larger por-

tion of the bone might have been removed, but if a great deal more had been removed, the chin would have been drawn too much to the one side of the mid-line of the face. Rather than to have this he thought it preferable to sacrifice one-quarter of an inch in the distance the jaws could be separated. He considered the result a very good one.

Dr. William Oldright drew attention to the comparative smallness of the teeth in the lower jaw. He had seen one case similar to the one presented, in which an attempt was made at breaking down the ankylosis by means of gags.

Dr. Pepler thought more of the bone might have been removed.

Dr. Boyd briefly discussed the case.

Dr. Bruce closed the discussion.

Dr. J. A. Temple presented (1) two ovaries in a state of cystic degeneration, which he had removed from a woman who had a fibroid of the uterus. (2) A non-adhesive pus tube which he had removed from a farmer's wife. There had been no symptoms. (3) A cystic ovary from a woman who had suffered from retroflection of the uterus and prolapse of the ovary. (4) A fibroid tumor of the uterus which was causing great pain.

Dr. Grasett referred to the second case which he had seen. Dr. Fenton discussed the last, which had been under his care.

Dr. Pepler discussed the diagnosis of pus tubes.

Dr. Oldright reminded the Society of a pair of pus tubes he had removed intact and presented at the Society last year.

Dr. Macdonald reported a case of amputation of the cervix uteri for carcinoma. The patient was a delicate woman aged 45, who had a number of children and had miscarried several times. When he saw her first, two weeks ago, the question was whether he should remove the whole uterus in which the mortality by the vaginal route is about 15 or 20 per cent., the mortality of amputating the cervix only being two per cent., and the result about as good as the more serious procedure. He decided to amputate the cervix. He thought it would add two or three years to the patient's life.

Dr. W. H. B. Aikins discussed the case.

The nominations for the ensuing year resulted as follows :—

President, Dr. F. LeM. Grasett; Vice-President, Dr. Geo. Bingham and Dr. W. H. B. Aikins; Corresponding Secretary, Dr. Herbert Bruce; Recording Secretary, J. N. E. Brown; Treasurer, Dr. W. H. Pepler; Counsel: W. B. Thistle, G. Boyd, H. Hamilton, G. Chambers and F. Fenton.

The Society then adjourned for supper.

Chronic Cystitis.—

R. Fluid extract golden-seal, 2 drachms.
Tincture gentian comp., 4 drachms.
Tincture staphisagria, 1 drachm.
Tincture cannabis indica, 1 drachm.
Syrup bitter orange peel, 4 ounces.

A teaspoonful three times daily.

—*Medical Fortnightly.*

The Canada Lancet

A Monthly Journal of Medical and Surgical Science, Criticism and News.

Editorial.

HONORARY ASSOCIATES.

The Chapter of the Order of the Hospital of St. John of Jerusalem in England, with the sanction and approval of her Majesty the Queen, have appointed as Honorary Associates or members of the fourth-class of the order the following:—Hon. F. W. Borden, Minister of Militia; Dr. T. G. Roddick, M.P., President of the British Medical Association, and Major John McLean, President of the Canadian Press Association. The chapter has passed a special vote of thanks, and ordered it to be engrossed on vellum, to Dr. C. R. Dickson, local Secretary of the St. John Ambulance Association in Toronto. These distinctions are conferred for services in connection with the St. John Ambulance Association, the President of which is H.R.H. the Prince of Wales.

ONTARIO MEDICAL ASSOCIATION.

There are abundant indications that the annual meeting on June 1st and 2nd will be one of the most interesting in the history of the Association. Its record is that of progress and usefulness of the highest order.

Not many years have elapsed since its inception, and so rapidly has its membership increased that to-day on its rolls are to be found the names of about one thousand of the practitioners of Ontario.

We would urge upon members the benefits that regular attendance confers, trusting that a word in season may have the desired effect, and hoping that the coming gathering may eclipse all its forerunners.

Interchange of scientific opinions and social conference cannot fail to make lasting impressions on the mind of the individual and to increase the solidarity of the profession. We have heard an occasional non-society-attending practitioner aver that he could reap more information from an hour's quiet reading at his own fireside than could be gleaned in a whole evening's discussion of medical topics. This is not the conclusion of those who have made a test of the opposite course, and can be set down only to lack of the necessary experience. The medical recluse is exceedingly apt to run mentally in ruts of his own forming; he may be a well read man; but, notwithstanding this, his patrons would reap not a little benefit were he to appreciate the practical results that follow intellectual converse and the incidental narration of personal observation. It is quite true that many find it difficult to escape from their arduous duties for even a couple of days; it will be well worth the sacrifice, and nothing is accomplished without personal effort.

Specially pertinent to these matters is the trite saying, "All work and no play makes Jack a dull boy." This applies with as much force to the city doctor as to him who pursues his daily and nightly rounds amongst the difficulties and self-sacrifices of a country practice, each hour a reminder that were he living and striving for self alone, the battle would be all but unendurable.

We have seen the programme which is being prepared. The papers to be read promise to be of the right sort, and arrangements are made for a larger number of set discussions than heretofore have been on the list, which, no doubt, will lend increased interest.

The Committee of Arrangements are hard at work providing for the comfort of the members and preparing for the extending of hospitality in such a fashion as will constrain each to say "It is good to be here."

The usual railway rebates on the return journey will, no doubt, be secured, so that the trip will be inexpensive.

Once more we counsel our readers to take advantage of the opportunity and swell the numbers. The Association is our own—let us foster it as we should and unexampled success is assured.

The following is the list of papers already promised for the coming meeting of the Ontario Medical Association which meets in Toronto, June 1st and 2nd:—

Syphilitic Cirrhosis of the Liver—Prof. J. G. Adami, Montreal; Dr. Jas. Bell, Montreal.

The subject to be discussed in Medicine is, The Relation of Excretion to Disease, led by Prof. H. A. Macallum, London, followed by Prof. H. B. Anderson and others.

The discussion in Surgery will be The Treatment of Fractures of the Skull, led by Dr. G. A. Peters, Toronto. Two or three other gentlemen have been asked to follow in the discussion.

The discussion in Gynecology will be Carcinoma of the Uterus, to be led by———, followed by H. S. Griffin, of Hamilton, and J. W. McCullough, Alliston.

The discussion in Diseases of Children will be on the subject of Enterocolitis, led by W. B. Thistle, Toronto, and followed up by R. J. Dwyer, A. Primrose, Albert A. Macdonald.

The Injurious Effects of Our Overwrought School System on the Health of Public and High School Pupils, R. Ferguson, London; Immunity, J. J. Mackenzie, Toronto; The Effect of the Climate of Our Canadian Northwest on Tubercular Patients, P. H. Bryce; Endometritis with Erosion of the Os, J. F. W. Ross, Toronto; The Early Removal of Tubercular or Necrotic Areas, H. H. Oldright, Toronto; The Traumatism of Labor, C. B. Oliver, Merlin; When Should we Operate, illustrated by cases and specimens, Wm. Oldright, Toronto; My Experience with Diphtheria During the Fall of 1897, Wm. Doan, Harietsville; Hyper-Resonance of the Chest a Premonitory Symptom of Tuberculosis of the Lung, W. C. Heggie, Toronto; The Medical and Surgical Treatment of the Insane, A. T. Hobbs, London; Cretinism in Ontario, A. McPhedran, Toronto; Some Details in Antiseptic Surgery, N. A. Powell, Toronto; Location of Brain Lesions—report of a case, H. D. Livingston, Rockwood; Experience with New Remedies, G. S. Ryerson, Toronto; Vicarious Urination, A. T. Rice, Woodstock; ——A. McKinnon, Guelph; A Brief Sketch of the Nervous System, of Its Liability to Injury, and of Some of Its Diseases, I. Byron Newman, Detroit; The Various Operative Methods of Dealing With Eyes Lost Through Injury or Disease, G. H. Burnham, Toronto.

TRINITY MEDICAL ALUMNI ASSOCIATION.

Alumni Associations are proverbially known to be difficult to hold together, and especially is this the case in medical institutions, the graduates of which are dispersed far and wide, not only throughout any given country, but the world over. The annual meeting of the Trinity Medical Alumni Association for 1898 has been a source of encouragement to those interested, and there is every reason to believe that our graduates are awakening to the fact that such an organization can fulfil what is claimed for it, and form a pleasant and useful link between the present and the past.

It has always seemed most appropriate that the meetings of the Association should be held in the Convocation Hall of Trinity University, where many recollections of former days had their origin, and where the final triumph of the college course was recognized. Experience has, however, proved that for busy men a more central place of meeting was desirable, and this year the sessions were held in the Educational Department, which was kindly placed at the disposal of the society by the Honorable the Minister of Education, and we take this opportunity of gratefully acknowledging his kindness.

Some years ago it was proposed that a gold medal be offered by the Association, for the best thesis on some modern medical subject. This year, for the first time, the call was responded to, and it must be gratifying to the

College and Faculty to know that their graduates are doing such work as is evidenced by the theses presented. In all cases they showed most careful and conscientious work in laboratory investigation, and extensive research into literature. Judgment was passed upon these papers by Professors Adami, Ruttan, and Wyatt Johnston, of Montreal, to whose kindness the Association is deeply indebted.

The annual meeting was held on April 6th, Dr. Elias Clouse, President, in the chair.

The morning session was called to order at 10.45. Minutes and reports were read and adopted.

Dr. Leonard Vaux presented an abstract of his paper on "Indol, Indican, and Indigo Blue, and Their Clinical Significance," which had been awarded the Association medal. The remarks were of a most interesting and scientific character, and it is to be hoped that this research will help to clear up some knotty points relating to lardaceous degeneration. Time did not admit of discussion.

A paper by Dr. Grasett, on "Some Surgical Diseases of the Rectum," followed. This was fully discussed by Drs. Powell, Mitchell, Vaux, and others.

The meeting then adjourned for luncheon.

The afternoon session was called to order at 2.45 o'clock.

The first paper was by Dr. Henry Howitt, of Guelph, on "Some Points in Abdominal Surgery Relating to Intestinal Obstruction." Discussed by Drs. Bingham and Temple.

The visitors of the Association, Dr. Leroy Milton Yale, of New York; and Dr. Charles G. Stockton, of Buffalo, were then introduced by the President.

Dr. Yale's paper treated of "The Care and Modification of Milk for Infants' Use."

The speaker dealt minutely with the question of milk supply, and of milk contamination and its prevention. The practical interest of the paper appealed to every one, and was greatly enjoyed, but unfortunately there was no time for discussion.

Dr. Stockton's paper on "The Nature of those Joint Affections usually called Chronic Rheumatism," was warmly received, but in this case also discussion had to be abandoned, as the members were desirous of attending the Annual Convocation for the conferring of Medical Degrees at Trinity University. The Session then adjourned. Through the courtesy of the University authorities our guests occupied places among the Faculty during the Convocation ceremonies. It was pleasing to hear later of the interest they took in these old-fashioned ceremonies in which the graduates of Trinity take pride.

The evening session was held in the Rossin House. Sixty-seven members and visitors were present, Dr. Clouse in the chair,

An excellent banquet was provided, and the orchestra discoursed music during the evening. The toast-list opened with that to Her Majesty, and "God Save the Queen" was heartily sung.

Dr. Clouse then delivered his presidential address. He reviewed the work of the past year and foretold future success, and extended a cordial welcome to visitors and alumni alike.

The toast to "Canada" was responded to by Mr. E. E. Sheppard in a loyal and humorous manner.

The Association Medal was then awarded to Dr. Vaux by the President. Dr. Vaux responded.

The health of "Our Guests" was heartily drunk. Dr. Yale, Dr. Stockton and Dr. Charles O'Reilly responded.

"Old Trinity" was responded to by Dr. W. B. Geikie, as head of the Faculty; Dr. George Bingham replied for the graduates, and Mr. McGibbon for the undergraduates.

The toast to "The Ladies" was replied to by Dr. Shoemaker, and Dr. McEachern, of the Toronto General Hospital.

Dr. Clouse proposed the health of the President-elect, Dr. Howitt. Dr. Howitt replied.

The evening closed with "Auld Lang Syne." Between the toasts Mr. Newsome rendered several splendid songs, and Mr. Rood created much amusement with anecdote and dialect pieces.

The choice of visitors this year was a most happy one. The papers presented by Dr. Yale and Dr. Stockton were of a most interesting character and were thoroughly enjoyed by all; but apart from this, the personality and magnetism of the men themselves have left with us an impression not easily to be forgotten.

It is impossible to close without offering some tribute to the retiring President; Dr. Clouse, was one of the first, if not the chief of the promotors of this Association. From the time of its inception he has been a most energetic secretary, and the success of the movement thus far has been largely due to his untiring interest and zeal. His nomination for President a year ago received unanimous support, and the progress of the past year, and the gratifying result of this year's meeting, have fully justified his election. May the success of 1898 be an index of future progress.

The officers for the coming year are as follows:

President, Dr. Henry Howitt, Guelph.
Vice-President for Toronto, Dr. H. B Anderson.
Vice-President for Western Ontario, Dr. J. Shaw, Clinton.
Vice-President for Eastern Ontario, Dr. W. Shaw, Keene.
Treasurer, Dr. Geo. Elliott, Toronto.
General Secretary, Dr. H. C. Parsons, 97 Bloor St. West, Toronto.
Assistant Secretary, Dr. D. J. G. Wishart, Toronto.
Auditor, Dr. Norman Anderson Toronto.
Graduates' Representative, Dr. Rowan, Toronto.

H. C. P.

EDITORIAL NOTES AND CLIPPINGS.

EXAMINATIONS.

Following are some of the nuggets of wisdom from the June examination papers of the Pennsylvania Board of Medical Examiners. One man said that the "uriniferous tubules secreted the seminal fluid." Another

said that the "function of the optic nerve is to contract the pupil and move the eyeball." Another said that in "cerebral hemorrhage the patient may vomit the cerebro-spinal fluid." Another said that in case of a rigid os he "would decapitate or perform craniotomy, or would put on forceps and deliver at once." Another described a new method of doing a version; "he would put his finger in the child's mouth and bring the chin under the os pubis and hold his hand over the mouth to prevent the liquor amnia from choking it." And yet all these men had diplomas! —*Atlantic Med. and Surg. Jour.*

TUBERCULAR PERITONITIS.

Holmes, in an article on this subject (*Annals of Gynecology*) gave these conclusions:

1. Tubercular peritonitis is a relatively common disease.
2. It is never a primary disease, though it is usually impossible to find the initial focus.
3. Recovery follows laparotomy as a general rule, unless there is an initial focus to keep up the disease.
4. This disease appears in three different forms—the exudative form, the dry form, and the ulcerated form, and they are recognizable in the order named.
5. Microscopical examination of the peritoneum is sufficient for a positive diagnosis. The demonstration of microscopical tubercles, or the recognition of the bacilli, are only confirmatory.
6. Puncture of the abdominal wall for diagnosis, or for the removal of ascites and injection of air, fluid or iodoform, is dangerous and should not be practised.
7. Laparotomy, with iodoform-gauze tamponade drainage, is the safest and most reliable treatment.
8. Laparotomy should be done as soon as there is a show of emaciation or when a relative diagnosis has been made.
9. A positive diagnosis can never be made before laparotomy.

Phosphorus Poisoning.—

Oil of turpentine, 10 grammes.
Mucilage gum Arabic, 250 grammes.
Syrup of orange peel, 80 grammes.

Take in three portions, and shake before using.

—VETTER, in *Therapie der Gengenwart.*

Ivy Poisoning.—Keep the affected parts well wetted with freshly made lime-water. Take a teaspoonful four times daily of:

R. Fluid extract couch-grass, 4 drachms.
Sweet spirit of nitre, 1 ounce.
Syrup of lemon, 1 ounce.

Book Reviews.

THE NERVOUS SYSTEM AND ITS DISEASES.

By Dr. Chas. K. Mills, Philadelphia.—
(Lippincott & Co.)

We have reviewed with much pleasure Dr. Mills' latest work and would confidently recommend its perusal to those interested in the nervous system, as it is thoroughly reliable and fully up-to-date in all particulars.

As stated by the author in the preface, the nomenclature and terminology advocated by Prof. Burt G. Wilder, of Cornell University, have, in the main, been used more largely than in any previous practical work on neurology, as he believes that the reforms advocated by this distinguished anatomist, especially the introduction of mononyms, are deserving of general adoption. In spite of opposition, sometimes of a bitter character, the author evidently feels that this nomenclature will, sooner or later, make its way. Mononyms are indeed coming into large use in some instances, it would seem almost unconsciously, and without any reference to Wilder or his advocacy of their use. Probably the majority of neurological and anatomical writers speak of pons instead of pons varolii, of pia and dura instead of pia mater and dura mater, while thalamus, callosum and even oblongata are obtaining a large following in this country and to some extent abroad. The unfamiliarity of students and physicians with many of the mononyms is of course an objection to their use, but their introduction into Gould's Dictionary of Medicine, which has obtained so wide a circulation, has largely obviated this objection. The author has given a brief section on terminology, a study of which will make the nomenclature familiar. This section includes three carefully prepared tables, two modified from similar tables by Wilder, and one entirely original (page 50). A careful reading of the book will show the ease with which the nomenclature and terminology adapt themselves to descriptive and other purposes. In the description of the position and relations of parts, the author has used, to a greater extent than in any other practical text-book, the terms which apply equally to man and the lower animals, and are based upon the six aspects of the normal position of the vertebral animal, namely: the cephalic, caudal, dorsal, ventral, dextral and sinistral; terms derived from these words such as cephalic, cephalad, caudal, caudad, etc., are freely but not exclusively used. The use of dorsal and ventral instead of anterior and posterior is frequent.

The commonly accepted views regarding the "neuron" or nerve cell, considered as an anatomical unit, have received acceptance and full consideration and illustration. The new cellular terminology is discussed (pages 12 and 13). A considerable number of the diagrams are of the neuronal type, as in the more recent works on histology, anatomy and neurology, like those of Ramon y Cajal, Van Gehuchten, Edinger, Rauber, and Starr. Even the most recent and somewhat reactionary views on the nerve cells, those of Apathy have found some notice in a foot note near the end of the book. As here stated, according to Apathy, "the nerve cell is the producer of neurofibrils, while the ganglion cell produces the force which is to be conducted. Some of the neu ogliar cells, of the leech at least, produce neurofibrils, some neurogliar fibrils, and some both kinds of fibrils. A neurofibril, which arises in a nerve cell, passes out of one of its processes, and may then traverse several ganglion cells, and finally end in or around a muscle or sense cell" (page 973).

In various parts of the work are recorded observations or investigations which have added to the list of discoveries in neurology.

Under cerebral localization are recorded some observations which have been determinative or confirmative of the positions of certain functional areas of representation. Among these may be noted the localization of the centre for word-hearing, by the report of a case of lesions of the superior temporal convolutions of both hemicerebrums (page 346); of the localization of the naming centre by the record of a case of tumor of the meditemporal convolution (page 347); of the separation of an utterance centre

by the record of an area of softening just caudad of the left subfrontal convolution, the case being one of orolingual monoparesis with distinct paralysis of the lower face, no interference with propositionizing being present (page 638).

The work contains a large amount of original clinicopathological material, illustrating almost every phase of encephalic localization. Tumors of almost every portion of the cerebrum, of the cerebellum, of the basal ganglia, and of the pons and oblongata are recorded either in detail or by brief but sufficient reference. An important contribution to the subject of secondary degeneration and the functions of particular encephalic tracts is to be found in the record of a case of old thalamic and capsular lesion, in which, besides degeneration of the pyrimidal tracts, marked degeneration of the central tegmental tract was present; this probably being one of the first, if not the first recorded case of this degeneration. The tract even up to the present, has been chiefly demonstrated by developmental investigations (page 562).

Summaries of important cases, or brief but apposite references to cases, are to be found scattered all through the book, and indicate the enormous material which has been at the author's disposal.

The sections on small gross lesions of the pons and preoblongata (pages 926-934) and on postoblongatal and oblongata-spinal lesions (pages 997-1005) are a new feature. Recognizing the fact that numerous special syndromes must be caused by lesions situated in these parts, in which so many structures are compacted into a small space, he suggests a series of readily-applied topographical schemes to facilitate the focal diagnosis of lesions of these regions. Some of the most interesting cases, either original or brought together from different sources, are to be found in these sections. The difficulties and mistakes of diagnosis in the cases cited are sufficient proof of the practical value of the discussion of lesions of these regions of the brain.

The bibliography of the book is complete, and one that does justice to the numerous sources of information from which the author has drawn. While this is true, scarcely any foot-note or other references are to be found on the pages in the text of the work. The author has, instead, a carefully prepared bibliographic index at the end of the book, covering 19 pages. In this index the authors' names are arranged alphabetically, the pages on which the names of the authors referred to appear are given in parentheses in bold face type, with also the name, date number, etc., of the journal or work to which reference is made. Whenever a name appears on any page, by turning to the author's name in the bibliographic index the reference can be obtained at once. By this method the continuity of the text is preserved, and the book is not marred mechanically, as is often the case in other methods of reference.

Carefully prepared tables, anatomical, physiological, clinical and diagnostic are scattered through the book, as, for instance, the table of synonyms of convolutions and lobules (page 50); the comparative table showing the constitution of the different sensory tracts and their homologues, modified from VanGehuchten (page 105); table of the untoward effects of some of the more potent drugs (page 233); the table showing the most important symptoms in one hundred and sixty-nine cases of intracranial purulent depo-its or accumulations (page 545) and the tables giving the differential diagnosis of such diseases as encephalic tumor hemorrhage, softening, and some of the cerebral paralyses of children.

The section on symp·omatology and methods of investigation has been carefully worked out from the author's experience in practice, and from his knowledge of the wants of students and practitioners, as well as those of specialists and semi specialists. He has not confined himself merely to a description of the methods of studying sensory, reflex, motor, vasomotor and other disturbances, but has given his personal views and methods regarding the studying and recording of cases, as illustrated by the paragraphs on general methods of study, mental examination, time relations of mental phenomena, stigmata, special methods of studying sensibility, reflexes, station and sway, and surface temperatures.

The section on postmorten examinations and the preparation of specimens has been brought well up to date by giving such methods of making autopsies as that of Dejerine, which is not well known, at least not in America, and by giving some of the newer methods of hardening and preserving.

The complicated and highly important histology of the cerebral cortex has been brought up to date by a careful presentation of the results and views of men like Ra-

mon y Cajal, VanGehuchten and Andriezen in the chapter on encephalic physiology and histology.

An effort has been made to definitely outline the functions and lesions not only of the cerebral cortex, but of all parts of the encephalon, including the cerebellum, the basal ganglia and some of their subdivisions, the separate structures of the pons and oblongatas, and even special association tracts and regions.

Great attention has been paid to the diagnosis and differentiation of different forms of meningitis and encephalitis. hemorrhage, acute softening etc.

In the sections on electrotherapeutics and on general therapeutics the author has again drawn on his own experience in hospital and private practice, as well as on his studies of older and more recent literature. He discussed in a conservative way the therapy of animal extracts and substances, such as the serum antitoxine, thyroid preparations and nuclein, and pays particular attention to efficient dosage and the untoward effects of drugs. Many of the newer and more approved remedies are given brief attention with formulas and special methods of administration. While it is true that thoroughly educated physicians are supposed to be always prepared to prescribe useful preparations in a proper way, he evidently believes that special formulas can sometimes advantageously be suggested, although in this respect his views may not meet with the approval of all.

Under special diseases, as well as in the sections on general therapeutics in the introductory portion of the book, much attention has been paid to treatment. The directions as to treatment are definite and sometimes arranged under special heads. Under the cerebral palsies of children, for instance, the treatment of the initial period and of the residual conditions and symptoms are considered separately; under aphasia the medical and surgical treatment of the lesions producing the aphasia are discussed, and in addition some space is devoted to the methods of treatment by training; in encephalic hemorrhage, softening, tumor, abscess and other focal and diffuse diseases of the brain, the special measures both for the acute conditions, the symptoms following the attacks, and the residual affections are given; and the therapeutic indications in the acute and chronic affections of the cochlear, vestibular optic, ocular and other cranial nerves are detailed. The treatment of migraine is particularly full occupying several pages, and including the consideration of the hygienic measures, the treatment of the attacks and of the intervals between the attacks.

In no other work has the relation of the clinical history of the diseases of the cranial nerves and their correlated structures been so explicitly referred to different anatomical constituents of the apparatus of these nerves. In almost every case the lesions of these structures from the peripheral end organs to the cortical termini have been superficially studied, as will be seen by consulting the chapters and sections on diseases of the gustatory, cochlear, vestibular, visual, oculomotor and respiratory apparatus.

The original illustrations contain a large number of photographs of special cases of disease, diagrammatic, schemes of different portions of the nervous system and drawings and photographs of gross and microscopical studies in the pathological anatomy of nervous diseases. Almost all forms of cranial nerve disease are fully illustrated. The schemes of the cranial nerves and their correlated encephalic structures should be of special value. In this connection might be enumerated particularly diagrams showing the pheripheral gustatory apparatus (page 693); the diagram of the vestibular and cochlear nerves (page 710); the scheme of the nuclei of the nerves of ocular movement, and of their central and peripheral tracts (page 808); and the scheme of the trigeminal apparatus (page 853).

In a number of instances the illustrations when not original have been modified from illustrations taken from various sources, in order to carry out the intention of the author in teaching points regarding the subject under discussion. These remarks apply, for instance, to the illustrations of the nerve cells of special sense, Schafer modified from Retzius (page 21); to the scheme of the sensory pathway modified from Van Gehuchten, so as to show the termination of the sensory neurons in the thalamus (page 103); to the schematic diagram of the olfactory apparatus modified from Edinger and Koelliker (page 671); to the diagram showing relations of the internal capsule and other structures of the interior of the cerebrum to the convolutions of its convex surface after Stacey Wilson (page 405); to the scheme of the veins and sinuses after Macewen (page 305); and to various other illustrations modified from Quain, Wilder, Ed-

inger, Lenhossek and others. When the author uses well-known illustrations such as Gowers' diagram of the relations of the spinal nerves to the bodies and spinus processes of the vertebræ, the Ferrier-Quain encephalospinal and gangliated nerves, Bourgery's neuraxis, Ecker's views of the fissures and convolutions of the brain, the Schafer-Quain transactions of the spinal cord, and various views of the eye ground and of the visual fields in health and disease, these illustrations are those best adapted for the purpose in hand. He has not hesitated to use them, although in some instances they are not only not new, but have been somewhat frequently employed by others. This is in accordance with his evident purpose to make the work representative of the best neurology of the day, even in some instances at the expense of novelty in illustrations. While new illustrations are sometimes of the utmost value, and always to be desired when they are as good or better than those already in use, the effort is sometimes made to have novelty and copiousness in this respect, although the illustrations may not improve the character and authority of the teaching.

Attention has been paid to mechanical features which serve to make a text-book or treatise more useful to students and for physicians in search of information of a definite and exact character. The chapter and cross-page headings, and paragraphic caption have been carefully chosen. A well-defined subject is considered in almost every paragraph in the book.

THE PRACTITIONERS' HAND-BOOK OF TREATMENT, OR THE PRINCIPLES OF THERAPEUTICS. By the late J. Milner Fothergill, M.D., M.R.C.P., etc. Fourth edition by Wm. Murrell, M D., F.R.C.P., etc. London, Macmillan & Co., Limited, 1897. Canadian agents, A. P. Watts & Co., 10 College St., Toronto.

We can think of no book to compare with this in interest and power. Especially to the practitioner who seldom has the chance of a chat with a professional brother such a work cannot fail to give genuine satisfaction In the editor's hands it has lost none of the originality and pungency of its brilliant author, and for shrewdness and common-sense, as "a work on medical tactics for the bedside, rather than the examination table," nothing will soon excel it. Some of the chapters are headed: Assimilation; Excretion; Body Heat and Fever; Inflammation; Anæmia. Plethora, and Congestion; and at the close are some valuable remarks on Foods, the Management of Convalescence, and in conclusion a chapter on The Medical Man at the Bedside — J. T. F.

RELIGION AND LUST.—The Psychical Correlation of Religious Emotion and Sexual Desire. By Jas. Weir, Jr., M.D. 2nd edition '97, *Courier-Journal* Job Printing Co., Louisville, Ky.

This volume is not a monograph, as it is called in the preface, but a collection of studies in psychology, published in whole or in part separately on previous occasions. In literary style they are not deficient, though there are some words of Greek origin mangled in transmission to English, probably not by the author originally, but accepted by him. *Hetarism* for *Hetaerism*, or *Hetairism*, is a constantly recurring example of this. As to scientific merit, the sense of revulsion set up by this title at first glance soon disappears; but one cannot fail to be struck as he reads by the evident bias of the writer against accepted theories which involve the idea of natural depravity. He is sufficiently intrepid to attempt to establish the theorem that the worship of the generative principle, so widely disseminated among primitive peoples from India to the North Pole, and all around the globe accompanied as it invariably is by great obscenity and excess, is due primarily to religious feeling, and is not an attempt to justify to their consciences the indulgence of that physical appetite which in the human animal, as in all others, is the most imperious. His list of races, too, to whom the idea of a God, ghost, soul, or double, had not occurred, through lack of evolution, is faulty in the extreme. Such lists have been taken up *seriatim* time and again, as in Flint's "Theism," and shown to be incorrect, the original investigators being misinformed. Even the Australian black man, who has always been classed with the Fuegians, at the foot of the list of human beings, will reveal to the white whom he can trust some spiritual depths, or shallows, which are kept concealed from the stranger. The work is not one of great interest to the profession at large.—J. T. F.

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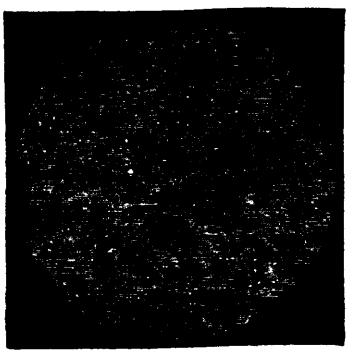

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