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Original Communications.

PRESIDENT'S ADDRESS.

BY J. T. FOTHERINGHAM, M.D., TORONTO.

Fellows of the Clinical Society and Gentlemen—I am reminded by my present situation of the dictum that the main element in a man's success is a reasonably adequate apprehension of his own limitations, and reflection upon this topic confirms me in the opinion that I ought not to be here in the president's chair. However, the kindness and good will shown towards me by your action in electing me to this office last spring merits at least the courtesy of an acknowledgment of the high honor you have paid me, and an undertaking from me to do my best to justify your confidence and repay your kindness, by earnest efforts to make this year's meetings of the Society, at least as useful to the Fellows as they have been in past years, under the guiding hands of many who were my teachers in the Art and Science to which we have devoted ourselves.

Before these men I feel, without my being able to prevent it, the diffidence that in scholastic and professional circles should always temper the attitude of juniors to seniors. As I said on the occasion of my election, I feel that the Accolade of Medical Knighthood has been unexpectedly laid upon my shoulders, or as a lieutenant might feel if suddenly, without the eliminating action of the casualty list, made commanding officer of his unit.

If I may be allowed to outline briefly the probable course of events for the winter, I should begin by most heartily congratulating the Society upon the federation of the Medical Faculties of the two universities. This consummation of the long cherished wishes of so many of us, I think you will all agree, removes what has been in a sense an embargo upon our activities, even within the Society, as well as outside of it. It may be that our course of action upon certain occasions has been modified heretofore by this line of cleavage, and I may venture to make the forecast that without indecent haste or

inconsiderate handling of the old associations and, if you like, prejudices of any member of the Society, we may soon be able now to centralize our activities, perhaps change our place of meeting, abandon what has sometimes been in past years a sort of armed truce, place ourselves more *en rapport* with the Medical Library, with the new home of the conjoint Medical Faculties, and all the stimulating and multifarious activities of a great educational centre. The harmony of the past can be now made even more complete, and our work of mutual instruction and entertainment will be, I am sure, more profitable and pleasurable than ever before.

I venture, with this introductory digression, to remind the Fellows of the restriction imposed upon our work and discussions here, by the name of the Society and its constitution, particularly Art. 2, which reads: "The object of this Society shall be reading clinical papers and discussions thereon, exhibition of patients when possible, and all matters pertaining to clinical work."

I should like, also, to remind ourselves that many branches of medical knowledge have become purely clinical which fifteen or twenty years ago could not have been admitted to a medical discussion at all. For instance, one can no longer discuss chorea or malaria without the admission of certain laboratory methods of diagnosis and etiology as providing explanation of symptoms or rationale for treatment. So that our discussions may fairly, I think, be allowed to range pretty widely.

I hope to make the presentation of Cases a more frequent feature of the programme. This should not be difficult, with so large a number of hospital patients available.

The balance, too, between Medicine and Surgery on the programmes may be, perhaps, held a little more true than has sometimes been the case in the past.

And finally, I need not remind you that your president and committee feel that their best efforts in providing good programmes will be useless without the hearty co-operation which we confidently expect from yourselves.

The selection of a subject upon which to address you has cost me much thought. On occasions like this, one of three courses is usual and proper. First, to seek to bring forward some new and useful contribution to the sum total of medical knowledge, based upon original investigation, observation and statistics. This I felt to be quite beyond my power. Second, to indulge in bare-faced compilation, and this method of scissors and paste, I felt to be too uncomplimentary to this Society. The third alternative, if one may use the term, seemed to be to select some purely general topic, and handle it on very wide lines, with such literary skill and success as one may, to make it as little tedious as possible to the hearers.

Acting upon this idea I should like to say a few words upon functional nervous diseases. I need not define the term to this audience, but would remind you that the list of these diseases was a few years ago much longer than it is now. Chorea, for instance, and general paralysis of the insane, have a fairly well-determined pathology of their own, so with locomotor ataxy for many years past, some of the tics, Raynaud's disease, and even exophthalmic goitre. If one were to substitute for functional disease the term, "nervous disease without known anatomical basis," one would be more accurate, and the grouping made by Church and Peterson will, perhaps, stand quotation here:

1. Trophoneuroses, of which exophthalmic goitre, Raynaud's disease, acromegaly, scleroderma and angioneurotic œdema are common examples.

2. Infection neuroses (usually with marked motor disturbances), such as tetany, tetanus, chorea and rabies.

3. Motor neuroses, such as Huntingdon's chorea and Thomsen's disease.

4. Fatigue neuroses, such as writer's cramp.

5. Psychoneuroses, such as hysteria, neurasthenia, epilepsy, migraine, and some of the tics, not the true tic of the fifth nerve, but such as are accompanied by echolalia, coprolalia, etc.

6. Traumatic neuroses, either of hysterical or neurasthenic type.

Of all this imposing list, the typical functional forms are neurasthenia and hysteria, and it may be of use to collate their symptoms for the purpose of distinction. It is interesting to note the disappearance of the old term hypochondriasis, the cases formerly grouped under this head being now distributed between neurasthenia with marked melancholic tendency and true incipient melancholia or other form of insanity.

A few important points of difference may be stated as follows: Hysteria is essentially paroxysmal, not that in this country the true hysterical "fit" is very common, but that seizures of some kind occur frequently, and in the interval the patient is for her normal, not introspective, fond of amusement, flighty and unsteady from the psychical point of view, grave and gay by turns with little or no cause, with no stability of will or marked force of character, but none of the mental exhaustion, chronic inability to concentrate thought, irritable temper, and usually introspective mildly or acutely melancholic turn of mind of the neurasthenic. The old phrase, "irritable weakness," has not, I think, been improved upon in seeking to define the condition of the neurasthenic. It is a familiar physiological fact that nervous debility and exhaustion mean increased irritability of nerve tissue, *i.e.*, a readiness to respond too readily and violently to less than normal stimuli, and so we find Osler saying that

the first change is one in which "strain becomes excessive and is manifested as worry. The individual loses the distinction between essentials and non-essentials, trifles cause annoyance, and the whole organism reacts with unnecessary readiness to slight stimuli."

This change comes on usually as a result of over use of function, whether of the brain, stomach, or sexual apparatus, in an individual previously of a type of mind quite the opposite of the above described. He has, perhaps, been a man of great natural force and large mental endowment, but extravagant in his use of his nervous capital, wasting it in large affairs and refusing to listen to Nature's warnings till her Nemesis overtakes him, and the Furies busy themselves as did Prometheus' vulture of old, not always on his liver as they did in the myth, but on some of the viscera or organs, to which the victim attributes all his woes, with the vexing persistency and profusion so familiar to all physicians.

Vice, from the physician's point of view, has been recently very neatly defined as "a voluntary neglect or abuse of normal functions," a definition which upon analysis will be found, I fancy, to cover the ethical as well as the medical needs of the term. The same writer has said also that "Vices, then, are acts and habits which depreciate the organism as a working machine." Particularly is this seen to be the case when we consider the two different kinds of value attaching to the normal discharge of function. These have been defined as the nutritive and dynamical; nutritive value as when one feeds the blood by proper eating, or by walking abroad, exercises his muscles; the other, when by the same proper eating one "gladdens the heart," as in Scripture, or when by the same walking, or better riding, abroad, a noble prospect, like the Thames from Richmond Terrace, stirs the imagination. The former, the nutritive, has as its vehicle the *blood system*, and the latter, or dynamical value, has as its chief vehicle the *nervous system*, particularly the higher elements in the brain, but reflexly the lower automatic or vegetative mechanism as well. One thinks here of the distinction now-a-days being made by psychologists, between the objective mind, and the subjective, the latter controlling the functions and sensations of the body, usually subconsciously, and being amenable to control, for good or evil, by power of suggestion.

To resume the differential diagnosis of hysteria and neurasthenia, in addition to these physical and mental differences, one notices that, as regards *sex*, the neurasthenic is as often male as female, while hysterical patients are nearly all female.

As regards *age*, neurasthenia may occur at any age, but young male adults are somewhat predisposed, while hysterical manifestations are seen, if they occur at all, always before the

age of thirty, probably from the hereditary element in their causation, combined with the psychical instability and state of flux accompanying puberty and adolescence with their early essays at the solution of life's problems and experiences.

As regards *cause*, hysteria is due to diathesis with an emotional upset or shock as the determining cause of its active manifestations, while neurasthenia, though constitutional tendency cannot be ignored, is of chronic production due to prolonged abuse of function, such as dyspepsia or overwork. This does not preclude our admitting the existence of traumatic and therefore usually sudden or acute neurasthenia. I have now in the General Hospital a strong, healthy farmer of thirty-five who has never been a week in bed in his life, and with family history unexceptionable, who is markedly neurasthenic and whose symptoms all began one week after a team of young horses had ran away with him, doing little or no damage to person or property, but rolling him out of the sleigh without even bruising him.

As regards *onset* and *course*, hysteria is essentially a paroxysmal though non-periodic disorder, variation from day to day, or even from hour to hour, being typical, while neurasthenia usually starts gradually and runs an even, persistent, so to speak uneventful, course of moderate duration. As to termination, the hysterical individual can no more change her natural disposition than the leopard his spots, though, of course, training and discipline and improved general health can and do control active manifestations. The neurasthenic, on the other hand, after several weeks or months of ill health, usually recovers by rest his lost nervous capital and becomes as capable a man of work as ever, though not free from the danger of recurrence if similar causes are allowed to persist.

As regards *general symptoms*, one notes in hysteria the tendency to convulsive motor disturbance already referred to, the increased reflexes, the borborygmi, globus, and other spasms of involuntary muscles, the hemianesthesias, hyperesthesias, or paresthesias, usually segmentally distributed or found in mammary or ovarian areas, the contraction of visual fields, and the almost endless list of counterfeit subjective symptoms so easily recognized as a rule by the observer of experience, who can exclude organic cause for the symptoms he sees. In neurasthenia, on the other hand, a totally different picture is seen. Vasomotor, rather than muscular disturbances, predominate, such as vertigo, syncope or flushing, the *casque neurasthenique*, the occipital and spinal aches, the combination of debility and exhaustion, restlessness, sleeplessness; incapacity for sustained activity of either mind or body; an endless variety of paresthesiae, both of viscera and of skin, of vasomotor or sympathetic origin; a persistent upset of the emotional equilibrium, always

in the direction of fear or sadness, and sometimes a claustrophobia or agoraphobia so marked as to put the sufferer really over the border into the class of the insane; the wide open paralytic pupil, the furtive, apprehensive manner and facial expression. But I must not weary you with further elaboration of the distressing picture, only point out finally that, as Savile has it, "Hysterical disorders are not so much those of exhaustion as of active perversion of the functions, such as localized paralyses, anesthesiae, etc." Anesthesia, especially segmental, or hemianesthesia, while very common in hysteria, is extremely rare in neurasthenia, though hyperesthesia is common enough in both, and, while in hysteria, emotional disturbance and mental exaltation predominate, in neurasthenia intellectual weakness is usually first to attract attention, and persists as a prominent feature of the case.

One of the most serious aspects of neurasthenia, and one of which I believe that the profession at large is not sufficiently aware, is its tendency towards insanity. I am sure that in emphasizing this point I shall be supported by all who have had much experience with this disease.

I shall close my fragmentary account of the protean symptoms of these two diseases by reminding you of their not infrequent co-existence in the same patient, a condition that often taxes one's diagnostic and more especially one's therapeutic skill and ingenuity severely.

Upon the question of the treatment of these functional nervous disorders, I shall not venture to do more than generalize. Detailed discussion is out of the question here and now. It is the tritest commonplace to say that in this field, chiefly, the quack and charlatan find their most profitable stamping ground. I need not try to explain in detail why this is so. The fact is patent and has been for centuries. One very important item in the explanation of it is that what these sufferers most need is moral support, the substitution of a strong will and a fixed faith in the means of cure, for their own vacillation and discouragement. If this is not provided for them by a scientific and rational man, they will seek it from a christian scientist, an osteopath, a Shaman, a spiritualist, a Gypsy fortune teller, or any other of the charlatans who have existed from time immemorial, in all stages of civilization and in all communities.

It would be too much to expect that, human nature being as it is, and the primordial gullibility of *homo sapiens* being so invincible, the irregular will ever be banished from the earth. The sharps will continue to live upon the flats, in medicine as in all other walks of life. But our duty is to protect the public, in virtue of a better training and higher ideals, and we can best do this by inquiring in the first place how well we actually

furnish that which the public needs in the way of moral support. The old saying was, "*Ubi tres medici, ibi duo athei*"—"Three doctors, two atheists"—and in the days when dissection was a profaning of the image of God and chemistry only the black art, the clergy and the people too may, perhaps, be excused for having believed the physician, who was almost the sole student of natural phenomena, to be unorthodox and hostile to religion and even to good morals. This feeling persists in a modified form very widely, and the fault is partly ours, or how could the genial Mr. Dooley, of Chicago, believe that, as he puts it, "If only the christian scientist had a little more science, and the doctors a little more christianity, a sick man would be well enough with either of them, if only he had a good nurse." I believe that it is more than a mere coincidence that just when the healing art is becoming more of a science than even forty years ago had ever been dreamt of, these forms of irregular practice, by occultism of one sort or another, and the mixture of religion and medicine seen in spiritualism and christian science, should have become so prevalent. They flourish chiefly in urban communities and are quite exotic in the rural, and their prevalence is greater in Germany, the home of scientific medicine, than elsewhere, if there is any truth in the statistics published in that country this summer, when a strong attempt was made by legislative enactment to put them down. It is more than a mere coincidence that in rural communities where these isms do not flourish the general practitioner still holds sway, while in the cities he has largely been supplanted by the specialist, so that the family that has half a dozen doctors entering their home in the course of as many months has no familiar trusted mentor and friend to whom to go in times when they are hesitating between the priest and the doctor. Of course there are other reasons for the prevalence of quackery, and among them the belching press which unloads tons of undigested and indigestible Philistine stuff upon the public, filling them with the idea that they are highly educated and really capable of an intelligent opinion on all ethical and medical questions. What could good old Sir Thomas Brown have said to-day, when two hundred and seventy years ago he thus bewailed that new German invention, the printing press:—"It is not a melancholy wish of my own, but the desire of better heads that there were a general synod, not to unite the incompatible difference of religion, but for the benefit of learning, to reduce it as it lay at first, in a few and solid authors; and to condemn to the fire those swarms and millions of rhapsodies begotten only to distract and abuse the weaker judgment of scholars, and to maintain the trade and mystery of typographers."

In short, I believe, that to some extent at least, we are ourselves responsible for the evil, in that we are letting ourselves become so engrossed in the pursuit of the cause and results of the disease as to forget the patient, looking at him as a test-tube or a control animal, regarding the sick-room as a laboratory, and considering the physics rather than the metaphysics of disease. The public are shrewdly, even if subconsciously, awake to the changed attitude of the profession, and, without being themselves able to say why, are showing a tendency to seek what they wish, and in a very real sense need, from other sources. Hence it is, in part, that we see, as Tennyson with his usual gentle pessimism puts it, "Craft with a bunch of all-heal in his hands, followed up by his vassal legion of fools." How can we remedy it? First, and chiefly, by giving attention to psychological medicine. It is time that the energy and acumen and scientific conscientiousness of the profession were being directed in due proportion into this channel. Not that the older channels or the newer researches are to be neglected, but that we should study ourselves and teach our students the necessity and usefulness of legitimate suggestive therapeutics, and so cut the ground from under the feet of the charlatan. It is rather to our discredit that we should have let others occupy this field before us, most of them for their own selfish purposes, with ignorant and misleading treatises of which we may say as Sir Thomas Brown did:—"Pieces only fit to be placed in Pantagruel's library, or bound up with *Tartaretus de modo Cacandi.*"

Of course, not every man can become a Weir Mitchell or a Tuke, but every one of us, from the third year student up, can realize without becoming a therapeutic nihilist or agnostic, that far more important than medicines are the management and moral support, the judicious arrangement of business and family affairs, the conservation of the daily output of mental and nervous energy by both physical and psychical channels, and the preservation of due balance between that output and the daily or rather nightly restoration of that expended energy. On all these points no one can possibly help the public so well as we can, if we but recognize their need in this regard.

The standard is not too high, and I am sure that our profession, by simply sticking to it, and displaying those qualities of head and heart and conscience which by mere contact with the sick made Hippocrates a practical Christian in the fourth century B.C., can finally educate the laity above the level of vulgar quackery, and bear their part in bringing about the poet's vision of

> "Aeonian evolution, swift or slow,
> Through all the spheres an ever opening height,
> An ever lessening Earth."

A REPORT ON THE SYSTEMATIC USE OF ANTITOXIN AS A PROPHYLACTIC MEASURE IN DIPHTHERIA AT THE HOSPITAL FOR SICK CHILDREN, 1902-03.*

By J. S. A. GRAHAM, M.B., Toronto.

During my term as intern at the Hospital for Sick Children, I had the opportunity of observing the effects of the prophylactic use of diphtheria antitoxin, and it is with great pleasure that this report is presented, for it is one, I think, from which convincing proof of the great value of the systematic use of this antitoxin may be obtained; but, before going further, I would thank Dr. Arthur Wright for the great assistance he has given in keeping up the records of his wards, and for his close observance of all cases under his care.

The hospital, I may say, has never been free, for any length of time, from diphtheria since its establishment on College Street. It would break out in isolated cases in spite of the great care taken in the selection of cases—by using a daily report from the City Medical Health Officer in which are given the names of those developing diphtheria in the city limits, the number of the house in which they lived, and the school attended; also by having all visitors sign a book, stating that they have not been in any residence in which there was infectious disease, for at least twenty-four hours, and absolutely prohibiting their entrance if there was infectious disease at their home, as shown by the report of the Medical Health Officer. Yet in spite of these precautions, cases continued to develop.

The suggestion that antitoxin should be given every twenty-one days to every patient in the hospital was made by Dr. Goldie. Through the kindness of the Superintendent, Miss Brent, who has shown untiring energy in the suppression of infectious diseases in the hospital, correspondence was held with various hospitals for children in the United States, as to the use of diphtheria antitoxin for immunity purposes. Some stated that they had given it up, others again could not say enough in its praise—of the latter I might particularize the Boston Children's Hospital, remarking in their reply that they had never been able to rid themselves of diphtheria until after the systematic use of the antitoxin.

The systematic use of the serum was commenced at the Hospital for Sick Children on July 10th, 1902, 500 units being

*An address delivered before the Post-Graduate Society of Toronto, November 25th, 1903.

given every twenty-one days to every child over three years of age, and 250 units at the same period to those of three years and under, and on the recommendation of Dr. Rudolf records of all cases were minutely kept. This was started at the time the serum was first given, and in these records were placed the name of the patient, the age, the disease, amount of antitoxin, and any remarks which might be made as to eruptions, elevations of temperature, etc. This, however, was discontinued, and all remarks were made on the history chart, of which there is one for every child in the hospital. These charts, as well as the temperature charts, were subsequently gone through, the medical cases separated from the surgical, the surgical again subdivided into suppurative and non-suppurative. Baby ward cases were classed by themselves. By this means we are able to find out accurately what reactions, as evidenced by eruptions, etc., occurred, and what were the variations of temperature, and what relation they might bear to these eruptions and other disturbances.

Use was also made of a record of all cases sent to the infectious ward, for which I am greatly indebted to Dr. Rudolf. In it are notes on all cases of diphtheria from January 1st, 1902, until the present time. Before that time we had no records, but on inquiry from the hospital authorities, I find that the number of cases which occurred the six months previous to the time when systematic use was made of the serum, could be taken as the number occurring in an average six months for that period of the year, the remaining six months being somewhat freer from diphtheria.

As regards the records that have been compiled, they are complete in the cases of 384 patients or 1,056 injections, but incomplete as regards some 200 more patients or about 600 more injections. All percentages are struck from the 384 patients, the records of which I am absolutely certain, but as regards the incomplete histories, I imagine they are so, simply on account of the fact that there was nothing noteworthy to record. The object of this paper is to try briefly to prove that the systematic use of antitoxin produces immunity to diphtheria, and that the bacilli, though present, were inert; but more especially to show what disturbances were produced by its constant administration. From the records of Dr. Rudolf of the cases of diphtheria occurring from January, 1902, to July, 1902, and taking that as an average six months, I find that there occurred forty-two cases of diphtheria—which, in all but five, gave true clinical symptoms, marked rise in temperature and increase in the pulse rate, with formation of membrane, etc., and not cases as has been suggested, simply of tonsillitis in which a swab was taken and in which diphtheria bacilli were inci-

dentally found. For the six months following the use of antitoxin there occurred not a single case, and for the remaining six months there occurred eight cases. Let us consider these eight cases.

Four of the eight patients were infants under one year of age, all of whom had been sent into the hospital suffering from malnutrition and intestinal disturbance. None of these patients gave clinical signs, and swabs were merely taken as a routine measure when there was noted some elevation of temperature and redness of the fauces. All of these patients died, not at all from diphtheria, but from intestinal disturbance. This was commented on by one of the visiting surgeons who opposes its use in infants, and who states that in some New York hospitals its constant use was abandoned in infants, on account of the fact that catarrhal diarrhea was found more often when it was used. We may consider this objection later. Of the remaining cases, one was a boy aged fourteen years, who entered the hospital, January 14th, with an acute secondary anemia, and on January 15th, was placed in a suspect ward, a membranous patch being noted on one tonsil. A swab was taken, and the result positive. The disease in this child was very malignant, yet no other child in the ward in which he had spent the night developed diphtheria.

A second was a case of hip-joint disease, which developed diphtheria twenty days after the injection of the last prophylactic dose. This case, I may say, died seven days later from general miliary tuberculosis. One might note here the length of time from the last immunizing dose.

There was another case of cervical Pott's disease, in which the patient, a boy of three years, developed diphtheria after the third injection. This and the following one are the only two to which no objection can be taken as to the origin of the infection and the relation to the immunizing dose. This case was mild, with no distinct membrane, and requiring but 3,000 units of antitoxin. The duration of this case was short, being only twelve days in the infectious ward.

The other case referred to was also one of Pott's disease. The throat was first complained of eight days after the fifth injection. A swab was taken and examination showed Klebs-Loeffler bacilli. He was given 27,000 units in thirty-one days, his temperature coming down to normal after twenty-eight days. I might remark that this case developed scarlet fever, and that the temperature remained elevated from this cause. The antitoxin was continued on account of a false membrane on the tongue, afterwards discovered to be due to calomel. This case and the one preceding are the only two for which apology must be made.

The following and last case, which was transferred to the infectious ward, is not included in the eight cases just described, for reasons which will be seen later. The case was that of a boy two years of age, who entered the hospital suffering from convulsions. There was marked phimosis and diarrhea, which, being corrected put an end to the convulsive seizures. I may state that at his entrance there was a nasty discharge from his nose, which was purposely left unexamined. The child was allowed to remain in the ward with the other children, but as a safeguard, large doses of antidiphtheritic serum were given to him. He, however, developed scarlet fever and was transferred to the infectious ward; but before the transfer was made a swab of the nasal discharge was taken and examined. This showed a pure culture of Klebs-Loeffler bacilli. I may state that this youngster died of a very malignant form of scarlet fever, but again call your attention to the fact that no child who was in the same ward with this case of nasal diphtheria during his fifteen days' sojourn there developed diphtheria.

The next two cases are of especial interest, but also not included in the aforementioned eight, as one was not transferred to the infectious ward, no diphtheria being diagnosed until the day before death, and the other, a case of a nurse who had received no immunizing dose. The first, a boy one and one-quarter years of age, with talipes equino-varus, received the first immunizing dose of 250 units on October 10th, the second on November 3rd. On November 18th, temperature 104.6, a patch of pneumonic consolidation was made out. On November 30th symptoms of meningeal irritation were noted, spasticity of the limbs, retraction of the head and irregularity in the reaction of the pupils. On December 4th the left ear commenced to discharge, and on December 5th, the second ear, the meningeal symptoms abating. At this time there was a marked ileo-colitis; also a fresh area of consolidation was found in the other lung; a friction rub was also obtained. The temperature remained about 101° until December 13th, when the child developed symptoms of laryngeal obstruction. A tent-bed was employed and large doses of antitoxin given, but the patient died in the early morning of December 15th, with symptoms of laryngeal obstruction.

At post-mortem there was found no sign of any meningeal trouble. Pneumonic consolidation was found in the right upper lobe, and, on examining the larynx, superficial ulceration of the false vocal cords was seen, a smear from which showed Klebs-Loeffler bacilli; a culture made, the same. Cultures were taken from the gall bladder, lungs and pericardium, all of which showed staphylococci. This child, it will be seen, had

no antitoxin from November 3rd until December 14th. This was neglected on account of his precarious condition.

This case is interesting on account of the fact that the nurse who cleaned up the post-mortem room before it was fumigated, developed diphtheria four days later, but none of the children in the ward from which he was taken—the baby ward—were infected. This helps to show, I think, that the germs were inert in so far as the immunized children were concerned, but not so in the case of those who were not rendered immune. This is small ground to go on if one had not additional proof, for which I am indebted to Dr. Goldie. The year before the systematic use of antitoxin was employed swabs were taken of all children, nurses, domestics, etc., in the hospital, and of 121 swabs, Klebs-Loeffler bacilli were found in 11.56 per cent. The following year I took swabs of the children alone, and so that there might not be any variation in the classification of germs, Dr. Goldie again examined the smears, and it is his report I use. Klebs-Loeffler bacilli were found in 12.9 per cent. of these cultures, 8.6 per cent. of which came from one ward.

Again, let us take the case of Dr. Wright, who developed nasal diphtheria in May, 1903, and who went about the hospital for a week or so with nose discharging, before a diagnosis was made on nasal examination, and yet no child developed diphtheria.

This, I think, will prove beyond a doubt that the bacilli were present, but inert on account of immunization.

I will not attempt to make any further remarks on this part of the paper, but rather let the cases reported speak for themselves, except to say that from January 15th, 1903, until the third week of November, 1903, no case of diphtheria developed. I shall now speak of the eruptions and other manifestations of disturbance.

Rashes.

The eruptions of antitoxin may be classed with those produced by toxins, such as drugs, ingestion of poisonous foods, anto-intoxications, etc., under the head of erythema, and, like them, due to a toxemia. This may be described as a local and a general reaction, the local being often accompanied by a general reactive disturbance of vasomotor tone. This in the majority of instances is not the case, so that in the statistics which follow these local reactions will not be included.

Local.—The local reaction, consisting of a circumscribed edema or wheal on an erythematous base, the centre of the wheal being the site of injection, is seen from three to four hours after serum has been introduced, and lasts from eight to twelve

hours, when it is noted to gradually fade. This local reaction, of course, varies in different individuals from a very small urticarial elevation to one of three or four inches in diameter the erythematous base varying in proportion. Well-marked local wheals have been found in 23 per cent. of all injections.

Etiology.—At first I thought it was due simply to mechanical causes, the wheal being produced by the fluid injected filling the lymphatic spaces and causing the blood to be forced from the vessels in the immediate neighborhood and explained the redness and congestion which occurred about the wheal, in areas not directly exposed to mechanical injury, in the same way that injury to the cornea causes reaction in the conjunctiva by reflex vascular innervation; or to the excitability of the peripheral vasomotor nerve centres in the vessel-wall, being reflexly affected by nerve injury at the point of injection. At present I doubt very much whether simply the distending of the lymphatic spaces and the local injury can be counted to any great degree as a factor in producing the edema and surrounding erythema, as considerable time elapses before the true wheal is produced, and from the fact that in one type of general reactive disturbance we find urticaria widely distributed on different parts of the body. This one might attempt to explain as due to reflex causes produced by local injury; but they are too widespread and not symmetrical. The toxic theory is the most likely one and would explain both the local and general reactive disturbances. A substance foreign to the blood is taken into the circulation and it either acts *per se* or by some chemical change, possibly on the peripheral vasomotor nerve centres in the vessel-wall causing dilatation of vessels, slowing of the blood-stream and marginal derangements of the whites with exudation of blood plasma on account of increased permeability of the vessel-wall; but more probably, as Phillippson states in the *British Journal of Dermatology*, January, 1900, opposing the current opinion that urticaria is due to reflex nervous action on the blood vessels, agreeing with Heidenhain as to the secretory action of the vascular endothelium, and that the edema is caused by direct action on the endothelium of the vessels, due to excretion of toxin, and concludes that urticaria is a mild inflammation of low intensity exerting local action.

Now the question of susceptibility suggests itself, in which case these urticarial elevations produced at the site of injection are local manifestions of general constitutional effects, the manifestation at the one particular point being due to local injury and decreased vitality.

Let us consider now the general type of rash, and we find that this theory is further borne out by the fact that of the ninety-six injections which were made on July 10th, 1902, 16,

or 15.6 per cent., developed rashes of a general type, while of all primary injections, those of July 10th being excluded, there only developed rashes in 6.5 per cent. I might remark that the serum first used was Mulford's preparation, and that during the remainder of the year we used that of Parke, Davis & Co.

General Reactive Disturbances, as Evidenced by Rash

As before stated, 23 per cent. of all injections developed a single urticarial elevation at the point of insertion; but, excluding these, there was found to be a general reactive disturbance, as evidenced by rash, in 3.88 per cent. of all injections, or 10.6 per cent. of all patients developed a rash at one time or other—excluding the injection of July 10th, 6.5 per cent.

These figures need some explanation. It may be seen that of the three hundred and eighty-four patients some would receive it as often as seventeen times, others again but once or twice, the number of rashes for all injections being much lower than the percentage of rashes for all patients. The only explanation of this is that immunity to antitoxin must play some part. Of all cases 68 per cent. developed a rash after the initial dose, leaving 32 per cent. to develop rashes after succeeding injections. In this 32 per cent. are included some petechial rashes which have really no relation to antitoxin, and also some of doubtful origin. Then, again, when it is considered that over thirty cases received antitoxin more than ten times, making 300 odd injections out of a total of 1.056, that some immunity to antitoxin has been effected and also brings out the fact that the antitoxin used must have been uniform. This will be considered again under General Constitutional Disturbance.

There requires to be described four distinct types of erythema:

1. The urticarial.
2. An erythema with minute papular elevations.
3. A general roseolar erythema.
4. The purpuric.

Of these the urticarial was by far the most common, occurring in all but eleven cases, which were distributed as follows: two were of the second variety, the circumscribed erythema with minute papular elevation, four of the general roseolar type, and five purpuras, of which two alone should be described, the other three being petechial in character and due to other causes.

The lesion in the urticarial type is the same as that described occurring locally at seat of injury, and is of a migratory character, presenting itself in from twelve hours, or even less time, to three or four days. Its onset is from two to thirteen days after the injection has been made; but curiously enough, in a

great majority of cases, it is first noted on the fourth day. The sites of predilection are the face and hands, or the exposed parts, but no part of the body is exempt. In one case the penis was much swollen, a giant urticarial elevation being present at the junction of mucous membrane and skin.

The urticaria is often accompanied by itching, but as a rule no other symptoms are present. Nausea occurred in a few of the cases, and in a few some elevation of temperature, although the latter was the exception, the up-patients being able to walk about with no feeling of distress, unless it were mental. In three of the cases noted there was associated swelling of the hands and feet. In two others the swelling was seen about the small joints of the fingers and at the knees respectively. The disturbance in these five cases lasted from three to five days. The rash in the two latter cases presented itself first, the swelling appearing in the one case the day after the eruption, in the other it was three days. In only two of these five cases was there any elevation of temperature, and in no one of them was there any kidney involvement. The constitutional symptoms, however, will be considered later. The two cases of swelling about the joints and one of the other three occurred after the injection of July 10th 1902.

The second variety differs from the first in that instead of wheals we find papules, which do not develop into vesicles, never become scaly, and are of transitory duration. In the two cases recorded there was a complete disappearance of the rash in twelve hours, and in neither was there any feeling of discomfort or rise in temperature. This variety may simply be regarded, I think, as a modified manifestation of the urticarial.

In two of the four cases developing a general erythema without papules or urticarial elevations, the constitutional disturbance was greater than any of the others, the hemorrhagic not excepted, for in both of these cases there was edema of the tissues about joints with constitutional disturbance. In one case the reaction was manifest nine days after the injection, which was that of July 10th.

On July 19th hands were swollen; an erythematous rash covered the body.

On July 20th the knees were swollen. The erythema was especially well marked on this day on the anterior surface of the knees. There was no pain, simply a feeling of stiffness in the joints.

On July 22nd the legs and feet were swollen; the eruption had disappeared from the rest of the body, and on July 23rd all swelling had disappeared. The temperature in this case was slightly elevated, being highest—101.5°—at the time the knees were swollen, or at the height of the reaction.

The other case in which the disturbance was marked, the reaction was noticed five days after the injection, the body being covered by a rose rash, associated with swelling of the hands and feet. In this case the disturbance in temperature was not great, the maximum 99.6°, which occurred the same evening the eruption was seen; vomiting was marked, but of short duration, lasting only one afternoon, and all symptoms had disappeared in thirty-six hours' time.

In the remaining two cases of the four there was nothing noted other than a scarlatinal-like eruption, which covered the whole body. These two cases were isolated, but readmitted to the wards twenty-four hours after isolation, all traces of rash having disappeared. In one of these cases the erythema appeared five days after the injection; in the remaining case it was only twelve hours. No variation in temperature noted.

Of the five purpuric rashes two alone, as before mentioned, should be described. Of the other three two were in infants under eight months of age, one suffering from congenital syphilis with associated intestinal disturbance, the other a case of marasmus; the third was a case of empyema in a girl one and a half years of age. All three of these patients died.

The character of the rash in all was petechial, and was noted in the case of congenital syphilis four days before death. Antitoxin had been given the day before. In the case of marasmus the day of death, twenty-nine days after the administration of antitoxin, and in the case of empyema, two days before death, the antitoxin had been given a week previous.

Two true purpuras remain—one a case of morbus coxæ in a quiescent state, the patient going about with a hip splint. The effusion was noted on the third day on the outer surface of the thigh, and covered about two-thirds of that surface. The injection had been made in the buttock of the same side, but the local reaction had completely disappeared at the time of effusion. In the evening of the same day a purpuric rash appeared on the arm of the same side. There was no elevation of temperature at the time the rash was first seen, but for the following three days the temperature was slightly elevated, possibly due to absorption of fibrin ferment.

The pigmentation disappeared slowly, going through the various color changes when the patient was discharged on August 2nd, twenty-three days after the injection had been made. It will be seen that this also occurred after the injection of July 10th.

The second, a case of middle-ear trouble, where the purpuric area occurred at site of injection, there was a local urticaria associated with effusion of blood. This type has been named purpura urticans. There were no constitutional symptoms, except some slight headache.

This case ought, perhaps, to have been described with the local reactions, but as the local manifestation with general constitutional disturbance will be next described, it may not be out of place.

General Constitutional Disturbances With Local Manifestations.

In taking up the general constitutional disturbances, we will consider only the few cases in which the local erythema, instead of disappearing in a few hours' time, as was the general rule, took on the character of true inflammation, if I may use the term. Two cases were of empyema. In this one the wound had closed, and the temperature had been fairly normal with slight evening elevations. The hip in which the injection was made was swollen and tense, temperature being 99.8°. Carbolic baths were employed with good result. Improvement was noted the following day, and in three days all disturbance was at an end. In the second case of empyema, after the second injection the thigh became swollen and red, the redness and induration being most marked at the point of insertion. The temperature rose to 103°, remained elevated for two days and fell as swelling disappeared. I may remark that before the antitoxin had been used the temperature was running about 100 with morning remissions.

Two Cases of Pott's Disease.

One case was acute with discharging sinus. Twenty-one days after the administration of serum the patient complained of pain at the site of injection and four days later four ounces of pus were removed on incision. This record must surely be imperfect, as it is impossible that such inflammatory reaction should occur at so late a date without previous symptoms.

The second was a like case, with discharging sinus above the groin. There had been evening elevations of temperature, but no exacerbation before antitoxin was used. It was after the fifth day that brawny induration occurred at the point of injection. The temperature was elevated to 101.6°, it dropped the following day, but again rose to 102°. After three days all signs of disturbance had disappeared.

Two Cases of Morbus Coxæ.

In the first case after seventh injection the leg had become progressively swollen and tender. On the fourth day temperature rose to 104.6° and was of a septic character in the meantime. Resolution occurred; no other cause was likely as sinuses were discharging freely.

The second was most peculiar. After the fifth administration, marked local brawny induration developed with elevation of temperature and suppuration occurred. The visiting physician requested that no further injection of antitoxin be given, but after seven months, when a change was made in the house staff, antitoxin was inadvertently used. The patient developed marked general constitutional disturbances, lips and eyelids became swollen with giant urticarial elevations, and there was marked prostration. This case, instead of becoming immune to antitoxin, increased in susceptibility to the serum. All of these cases, it may be noted, were surgical and suppurative in character. Whether the infection comes from within or from without, is doubtful. It is probable that it came from within. Bacteria are being constantly taken up by the blood stream, and as we know that the bactericidal property of the blood is lowered after chronic suppurative processes, bacteria would find a good nidus for development at the point of injury. For were this not so, why should we not find local inflammatory reaction in patients, in the medical wards, of just as poor vitality?

Before taking up the general disturbances, and in connection with the case last mentioned, we might again consider the question of immunity to antitoxin. That such immunity is produced is proven conclusively to my mind from the following facts:

Whereas,—Of the 1,056 injections recorded, 384 were primary, and of all eruptions which occurred 68 per cent. developed after these 384 primary injections. Only 32 per cent. of all eruptions occurred in the 672 injections which remain. A fact may be noted which is remarkable in itself, that only in three cases patients developed more than one rash, and that in each of these cases the eruption occurred after succeeding injections.

General Constitutional Disturbances.

I might say in this connection that it is the exception that any such disturbance occurs, and that of the 1,056 injections which I have noted, with the exception of the few cases reported in which there was disturbance at the time of eruption, there were very few who manifested any symptoms whatever. We will, however, consider the variations of temperature which did undoubtedly occur, and as we know how easily the temperature of children is affected, this, I think, may be taken as a fair criterion of the amount of general constitutional derangement produced.

It is extremely difficult to separate elevations of temperature which occurred in the interval between administrations and to say what is due to antitoxin and what to other causes, but

elevations of temperature which were not immediate and which did not occur in conjunction with any eruption or other manifestation of disorder need not be included. On going over a great number of temperature charts I found that there was as great variation of temperature not attributed to any cause before the use of the serum as after.

A visiting physician is very apt to attribute any rise in temperature to antitoxin. It is the one constant factor present to which suspicion may be attached, and acts as a good scapegoat, but from the very few times it is made use of by them, we may judge how infrequent such a rise in temperature is. As a matter of fact, I find from the records the rule is that there is no change in temperature. In the few cases in which there was found any such change, the temperature is oftener sub-normal for one or two days than elevated. In those cases in which there was any elevation of temperature it was remarkable that in nearly every case it occurred on the surgical side, and in those listed as suppurative. I attempted to strike percentages, but found it such a complicated matter that I, of necessity, abandoned the attempt.

Before leaving the general constitutional disturbances produced, we may cite the single case in which there was found any kidney change. The patient was a girl of six years of age, suffering from morbus coxæ. After the sixth injection on November 3rd she developed general urticarial symptoms. On November 27th the injection was again given, and the patient allowed up with hip splint. On December 13th the temperature was elevated, and urine showed blood, some pus and epithelial, and blood casts. On December 30th antitoxin was again given, but did not increase the kidney symptoms, for on December 31st we have a note that all traces of blood and albumen had disappeared. None was noted after this, although the patient remained in the hospital for some months, and serum was regularly given.

Before concluding I might simply state the objections made to its constant use by some of the visiting staff—objections based on last year's observation.

One objection was that it in some way renders children more liable to intestinal disturbance, and that their general health is impaired by its constant use, as shown by eruptions.

The opinion of the man who makes this statement is founded on one of the cases of petechial eruption, the case of empyema, one and a half years of age, which developed the rash a week after the administration of the serum, and who died some few days later. This case developed a catarrhal diarrhea, but is it not more likely that the petechial eruption was due to absorption of toxin from the intestine? I might add in this connection

that diarrhea in these cases of malnutrition has not been more frequent since the use of antitoxin than before.

The only other member of the visiting staff who has made objection is a surgeon, who complains that suppuration is set up in some unknown way in clean wounds. I may say that the two cases of which he complains were the only two, after that particular operation, in the hospital so affected, and can really not be considered.

In conclusion, I may say that there have been no bad effects noted by me from its constant use, other than the few cases in which local inflammatory reaction occurred, and that it is only in these cases it must be considered whether the immunity to diphtheria is gained at too great a cost.

ANESTHETICS AND SURGERY.

Notes from Hospitals of Buffalo, New York and Baltimore.

By JOHN HUNTER, M.B.

One could easily fill pages with details of major operations, in which much blood was shed by masterful surgeons. Fortunately this class of work seldom falls to the lot of the rank and file, and more fortunately still for the patient when the general practitioner is brought face to face with such an emergency, his intelligence with the skill and resourcefulness acquired in a wide experience, enables him to render efficient service. There is an obligation that comes to every physician more or less frequently, and often very unexpectedly, that is, the administration of an anesthetic, and there are probably few things undertaken by the average practitioner with so much censurable indifference to its importance as the use of an anesthetic. In minor operations practically all the danger centres in the anesthetic, whereas in the more complicated and hazardous ones the danger from the anesthetic increases *pari passu*, with the character of the operation. This culpable ignorance or negligence, so manifest in regard to the use of anesthetics, is chiefly due to three causes. Primarily, to insufficient or defective teaching in our medical colleges. Is it not quite possible for a young man to graduate with the idea that the administration of an anesthetic is of practically no more consequence than the sprinkling of perfume on his handkerchief when going out to see his girl? It is true that hearts often become perturbed by the waving of these handkerchiefs, but the most disastrous effects always come to those who use them. If the anesthetic would only kill the ignorant or careless anesthetist, instead of the confiding patient, there would be little cause for complaint.

The result would be very similar to what Pat told the man who asked him, "What complaint did the coroner's jury find?" "None, sir, everyone was well satisfied." Secondarily, the surgeon's attitude toward the anesthetist. How often when discussing an operation with his patient the surgeon, unwittingly of course, says, "I will get somebody to give the anesthetic, leaving the patient, only too often, to imagine that this part of the work is of very trivial importance. Every intelligent surgeon knows that in regard to the safety of the patient the anesthetist stands on a perfect equality with himself. If the surgeon chooses an incompetent man, he is either criminally careless about the safety of his patient or grossly ignorant about the use of anesthetics. Lastly, the miserable pittance assigned the anesthetist—and by-the-way very often difficult to collect—a fee of $2 to $5, whilst the surgeon's is anywhere from $100 up, is altogether too contemptible to even come within range of discussion.

The cure for the present evil conditions surrounding the art of administering anesthetics: (1st) Proper facilities for teaching this branch, and ample provision made for all graduates to acquire a practical knowledge of the art of administering anesthetics. (2nd) Every surgeon should inform his patient that the services of a competent anesthetist are of equal importance with his own. The anesthetist should have ample opportunity for making a thorough examination—including family and individual history—nose, throat, chest, digestive and renal functions. (3rd) Every physician should so strive to master the subject of anesthesia, and perfect his technique of this art, that when an emergency arises in the operating room he can inspire the confidence, and immediately assume the role of a Wellington or a Bonaparte—order the surgeon to protect the field of operation, and so dispose the assistants and nurses that all may render the most efficient and prompt service in aiding him in restoring the vital functions. The recuperative forces of decades must be concentrated into moments when asphyxia or syncope occur. (4th) The anesthetist should always arrange with the patient about his own fee. He should never leave himself open to receive such a reply as this, "My doctor didn't attach any importance to your work. He said he would get somebody to give the chloroform. I don't consider I owe you anything. My doctor can settle with you if he likes." The anesthetist is the ally, never the servant of the surgeon, and self-respect should inspire him to assume a perfect equality, thus entitling him to a fee commensurate with the patient's ability to pay. The unselfish anesthetist, like his unselfish confrere, the surgeon, when necessity appeals, will contribute his services in full measure, "heaped up and running over," for "sweet charity's sake."

The writer, anxious to render whatever help he can to raise the whole problem of anesthesia from the slough of indifference and incapacity in which it is meandering, devoted all the time he could spare to the anesthetic rooms, and to discussing this subject with the anesthetists and surgeons of Buffalo, New York and Johns Hopkins' hospitals.

Anesthetics Used.

In Buffalo, and in practically all the other hospitals visited, ethyl chloride, nitrous oxide, ether and chloroform were used. Ethyl chloride is put up in small tubes, with a tap arrangement to allow it to escape in the form of a spray. A rubber mask, accurately fitting the front of the face, is attached to a light metal tube, about four inches long and three in diameter. A wire screen near the bottom of the tube is wrapped with gauze. The ethyl chloride is sprayed gently on this gauze. The first patient, a strong young man, after inhaling a few whiffs of the chloride was seized with lock-jaw. The spasm was so intense that chloroform had to be quickly administered, before the lower jaw could be forced open. The other patients took it quietly enough. Nitrous oxide and ether were both administered with Bennett's inhaler. As soon as the patient became partly unconscious, ether or chloroform was resorted to, and used throughout the operation—ether generally.

In discussing the question with the anesthetists the following (out of many other) features, some of which have been stated above, came up:

I. Careful, and if necessary, repeated examinations of the patient as already outlined.

II. A properly heated, well-ventilated room, very few attendants, and absolute quietness on account of the increased acuteness of hearing, until the patient is fully anesthetized, and the possibility has passed of the whispering or talking being misconstrued to the extreme annoyance or danger of the patient. Have an assistant willing and strong enough to throw any whisperer or talker out of the window. Better kill a fool any time than an intelligent patient. Anyone so ignorant or reckless as to whisper, laugh or talk during the administration of an anesthetic is a dangerous nuisance, and should be "fired" at all hazard.

III. No rough or extreme measures of restraint. Beware of any constriction of throat or chest.

IV. Recumbent position—head on level with the body—face turned to one side to allow secretions to escape.

V. Finger kept on angle of lower jaw to make it protrude so as to carry epiglottis and base of tongue upward and forward.

The base of the tongue may fall back into the laryngo-pharynx and immediately produce stertorous breathing, or asphyxia.

VI. Watch movements of chest. Trusting to the mere act of breathing may prove a dangerous delusion. The lungs must be sufficiently inflated to expel all surplus of carbonic acid and anesthetic. Accelerated, lessened, stertorous, or labored respiration indicates danger if at all persistent.

VII. The same in regard to accelerated, diminished or irregular pulse beats.

VIII. Congestion, cyanosis, and extreme pallor indicate impending asphyxia or syncope, or both.

IX. Iris reflexes—tremulousness, rapid contraction or dilatation of the iris muscle—may indicate too profound narcotism.

Asphyxia, Syncope.

The moment the cessation of either respiratory or cardiac action is noticed, remove mask and ask surgeon to immediately protect field of operation, and assistants to lower the head and elevate lower portion of body. Draw tongue forward and titillate it, immediately begin artificial respiration, carry elbows down and partially across the chest so as to make compression. Have pressure from below upwards made on abdomen at the same time. Bring arms round in a circle to meet above the head, repeat regularly fifteen or twenty times a minute until respiration is restored or all possibility of resuscitation has vanished. The windows widely opened and bodily heat maintained with hot bottles and blankets.

Cardiac and Respiratory Stimulants.

Strychnia, nitro-glycerine, *digitalin*, *adrenalin*—although status of this drug is not assuredly established yet—whisky and normal saline solution, bovril, coffee by enema. First five may be used hypodermically.

An intelligent nervy, resourceful anesthetist, like the skilful mariner, may rescue his patient from impending destruction, whereas ignorance and bungling do not help to save, but only hasten death.

In discussing the choice of anesthetics with the surgeons, Roswell Park, and Palmetter of Buffalo, Blake of Roosevelt, McCosh of the Presbyterian, and Cullen of Johns Hopkins, all favored ether on the ground that they thought it was probably safer in the hands of the ordinary picked-up-by-chance anesthetist. All agreed that chloroform in the hands of a competent anesthetist, and given without deviation from the rules laid down by Lister, Probyn-Williams, and by all scientific writers on anesthetics, viz., drop by drop was as safe an anesthetic as any other.

Surgery—Nose and Throat.

Two years ago adenoids were on the fire-line. Gottstein's curette, Quinlan's forceps, and the less aseptic finger nails were working overtime in order to destroy the succulent crop of adenoids. This time there seemed to be a complete famine in adenoids. I only saw one scrunty specimen removed, and this was done to illustrate surgical methods. This year the middle turbinal, especially its posterior bulge, is the arch-fiend amongst the numerous progeny of respiratory obstructors. Snare, trephine, and saw-edged scissors were tugging, boring and crunching this fragile little bone that has been so suddenly forced into a most unenviable notoriety.

Deflections of the triangular cartilage were straightened at the Post-Graduate School by making a button-hole incision at the convexity, passing a probe pointed bistoury through this, cutting forward toward the bridge of the nose, and backward to the ethmoid or vomer. Suitable forceps were then passed in and the segment of cartilage seized, rotated from side to side to loosen its attachment before and behind. The occluded nostril was then packed tight with compressed cotton wedges. These expand on becoming moist, and correct the deflection.

General Surgery.

The ordinary antiseptics are used, and each surgeon has his own fad in technique. Roswell Park cauterized the stump of the appendix with carbolic acid, and then embedded it in the lumen of the bowel, closed the wound with through and through sutures of silkworm gut, and dusted on an antiseptic powder. He laid down a general rule for locating the appendix. There are two longitudinal layers of fibres on the cecum. These lie on opposite sides, and if followed to their junction, thereabouts the appendix will most usually be found.

A rather unique operation was performed at Roosevelt on an aged patient for malignant disease of the penis. The dissection involved the roots and the body of the penis for about two inches along the urethra, where it was amputated. The stump of the urethra was brought down through an opening made in the perineum and stitched to the skin about an inch behind the scrotum. The patient experienced no trouble, other than that of conforming to the position authorized as proper by one-half our race. If Babylonian or Persian potentate had known of this device he should have left his eunuchs to enjoy all the sensuous bliss of virility without any of its potency in action.

In Johns Hopkins, Cullen suspended a small uterus in a very old patient on account of pelvic and reflex symptoms being very troublesome.

Progress of Medical Science.

OPHTHALMOLOGY AND OTOLOGY.

IN CHARGE OF J. T. DUNCAN.

Coffee as a Cause of Blindness.

In the *Annals of Ophthalmology*, (abstracted in the *Medical Review of Reviews*) is a case of Toxic Amblyopia from the use of Coffee.

The patient, an apparently healthy, well-nourished boy, of eight years, was brought to the doctor's office by his mother, who stated that she had noticed failing vision the past five months, and that the boy had been sent home from school on account of his eyes. He had been fitted with glasses, but his vision had steadily become worse. Upon examination by Dr. Wing the conjuctiva was found normal, cornea lens and vitreous clear—pupil a little larger than normal and sluggish.—the optic disc was much congested, could hardly distinguish its outlines. Retinal vessels large, arteries smaller than veins, and visions barely $\frac{20}{200}$ in each eye for distance, near vision correspondingly reduced, field contracted.

There was no history of cigarette smoking, and no cause could be discovered until his mother said he had two cups of strong, black coffee at each meal without cream or sugar, and frequently when he visits his grandmother cake and coffee between meals. Six or eight cups of strong coffee daily for a boy of eight years old! Stopping the coffee at once and strychnine gr. $\frac{1}{30}$, t i. d. gave normal vision in eight days, and in a month more the field returned nearly to perfect condition. No return of trouble.

This case is a good illustration of the harm in giving young children what few grown persons would care to take for a steady diet. Children are much better off without either tea or coffee, and possibly some patients may need their habits corrected in this respect if we make more diligent inquiry in obscure cases of amblyopia.

Aseptsis and Prophylaxis in Ophthalmology.

Archives D'Ophthalmologic in the *Journal of Eye, Ear and Nose*, says: "Carbolic acid, although a boon to the general surgeon, proved too irritating to the delicate tissues of the eye.

Some of the drugs that have superceded carbolic acid are: Boric acid, 4-100; mercuric salts, such as biniodide of mercury, 1-20000, and bichloride of mercury, from 1-5000 to 1-2000 at the most.

"Thanks to the discoveries of Pasteur, we now know that the real cause of serious accidents and even deaths following operations on the eye, is the direct result of pathogenic microorganisms. The controversies which have arisen concerning the terms antisepsis, and asepsis have been unfortunate, and we think that the term asepsis should be preferred as being more genetic. Inasmuch as the free borders of the lids, on account of their structure, form a suitable nidus for microbes, they require special antisepic treatment. The lids and the surrounding tissues are first scrubbed with soap and water by means of a piece of cotton wool. This is followed by sterile water, and soap. The free boarders of the lids are then rubbed with a sterile piece of cotton containing a small amount of ether. Next they are vigorously brushed with a sterile piece of cotton soaked in biniodide of mercury and oil, 4-1000. The oil is allowed to act for some hours. Cataract cases are prepared in this way, on the evening before the operation, then the closed eye is covered with a sterile piece of gauze, or borated gauze, over which in turn is laid a piece of sterile cotton, all being held in place with a bandage. This dressing is allowed to remain in place until the moment of the operation. Before proceeding to the operation, the lids are widely separated by means of a speculum, and every nook of the conjunctival sac is carefully bathed with a solution of bichloride. Care should be taken not to operate on any eye, when there is reason to suspect disease of the accessory sinuses. All collyria should be aseptic, and be as little irritating as possible."

What Can Be Done to Relieve Deafness Due to Chronic Middle Ear Catarrh.

C. P. Linhart, *American Medicine*, after presenting the usual routine of treatment, concludes as follows:—"In some cases I have found, after six months or a year's constant treatment, that there comes a lull in the improvement. I then advise the patient to quit for three or six months and then return and usually find that after the rest the ears are susceptible of further improvement. By sticking to these patients and encouraging them, it is surprising how much benefit can be got out of some such routine work as described above. Ehen is the hearing cannot be improved, materially, if the progress of the disease can be stopped, a great deal of good will have been accomplished."

Trachoma in the Public Schools.

W. A. Carhart (*Medical Review of Reviews*) says that the prevalence of contagious granular lids, or trachoma, in the New York City public schools was brought to the attention of Commissioner Ernst J. Lederle, of the Board of Health, about a year ago by a preliminary inspection of two schools, in one of which the percentage of communicable eye disease was 19.2, in the other was 15.5. An investigation into other schools disclosed 6,690 cases of contagious conjunctivitis among 57,450 children, of whom 2,326 had pronounced trachoma. These statistics led to the adoption of systematic and rigid inspection of the eyes of all the children in the public schools of New York by physicians appointed by the Board of Health. These Medical Inspectors, as they were called, had previously given their main attention to the diagnosis and exclusion of the common infectious diseases, such as scarlet fever and measles, but were now directed to exclude from attendance at school all cases of contagious eye disease, especially trachoma, and to require such cases to obtain treatment of their eyes before re-admission to their classes. The rush of cases which these regulations caused to present themselves to the various eye clinics and dispensaries was so great that all existing institutions found their facilities much overtaxed. Under these circumstances, the Board of Health determined to establish its own dispensaries and secured a building in which it established two clinics, one in the morning and one in the afternoon, daily for the treatment of trachoma. Two wards of twelve beds each were used for those cases requiring operation for their cure, and a staff of oculists and trained nurses were appointed by Commissioner Lederle for this work. Within a few weeks the capacity of the new Trachoma Pavilion was tested to the uttermost, 24 operations a day being the rule, and the clinics handling from nine hundred to a thousand cases daily.

From December 16th, 1902, to July 1st, 1903, the number of operations was 3,017, and cases treated without operation, 9,820, a total of 12,837 children treated. Since the close of the schools, the attendance has naturally decreased but when they re-open in September the work will be resumed in full force.

The present successful efforts in the crusade against trachoma are but the beginning of a continuous fight if there is any expectation of definitely conquering this widespread disease.

More buildings are to be opened as dispensaries—for there is the constant importation, despite strict inspection at quarantine, of fresh cases of trachoma among newly arrived immigrants. It is said that 85 cases of trachoma were found among the steerage passengers of *La Gascogne* and *Zeeland* on a recent inspection following the arrival of those steamships at New

York. At present the only penalty for such importation of diseased foreigners is deportation at the expense of the line, but the proposed new emigration act imposes a large fine upon the company so offending.

There are few diseases which are more highly contagious when untreated, and fortunately it is equally true also that few diseases lose their contagious nature as rapidly as trachoma when properly treated. It is a very important fact, and one not as universally recognized as it should be, that the observance of some easily carried out hygienic precautions, combined with correct local treatment of the disease, will prevent all danger of contagion to others, and if adopted by every sufferer from trachoma would eradicate the disease in a comparatively short time.

Treatment of Trachoma.

In regard to treatment, A. A. Ripperger (*American Medicine*) advises, for the milder cases, instillations of protargol, 2%, the solution being given to the patient for application at home, three times a day.

In reference to the fully developed cases of granular lids (trachoma) medical treatment is of little use. For these cases, the use of Knapps' roller forceps (under general anesthesia) accomplishes all that can be expected. The after treatment of their operative treatment is also by protargol, 2%. In these operative cases, with the protargol used afterwards, the children could be sent back to school usually in two or three weeks.

After the disease is diagnosed, the most stringent precautions must be taken to avoid its communication to others. All rags and cotton that have come in contact with the eyes, should be burned at once. All towels, bed-clothing, etc, should be thoroughly boiled. Children should be excluded from school until the disease is no longer in the infectious stage. A thorough examination of the eyes of all immigrants should be made.

(The health officers, whether at New York or Quebec, should not allow trachomatous persons to enter the country.)

Note on Egyptian Ophthalmia and Trachoma in Egypt.

Beaudry (*Revue gen. d' ophthalmol*) as abstracted in *Eye, Ear and Throat Journal*, concludes as follows:

1. Egyptian Ophthalmia, as a morbid entity, does not exist. The name is improperly given to trachoma complicated by catarrhal or purulent conjunctivitis. 2. Histologically and clinically, trachoma in Egypt is absolutely identical with European trachoma, and is not the result of catarrhal, purulent

or pseudo-membranous conjunctivitis. 3. Climatic and hygienic conditions in Egypt explain the frequency and diffusion of trachoma and conjunctivitis, in that country. 4. Catarrhal and purulent conjunctivitis, endemic in Egypt, become epidemic in the summer and attack Europeans, but especially the native children, who infect each other. 5. Thanks to hygiene, the number of trachoma cases has materially lessened, and it can no longer be said that nearly all Egyptians are affected. 6. To effectually fight the cause element, contagion, it is necessary to isolate cases of trachoma of the secreting variety. Hospitals, or at least separate wards, exclusively for these patients, are necessary, together with such measures as will better the hygienic and social condition of the poorer class.

Abscess of the Cerebellum from a Suppurating Labyrinth.

The *Archivio Italiana di Otal Ricol é Laryngol* gives the following case (summarized in the *Journal of Eye, Ear and Throat*):

A patient, 17 years old, had a double mastoid operation performed. When seen there was a double otorrhoea with pain in the left ear and temperature of 40°. The left mastoid was opened and curetted, and the temperature fell to 38.8° for two days; then for about two weeks it remained about 38°, when it suddenly shot up to 40.2° with chills. Examination showed right mastoid inflamed and painful. The mastoid was opened and curetted. A large cholesteatoma was found. The sinus was exposed and punctured, but there was no trombosis. The temperature dropped to 38.5°. Pain persisted, however, and a few days later the patient began to vomit. This condition grew worse, and it was decided to examine the left temporo-sphenoidal lobe in the hope of finding pus. Repeated puncture revealed nothing. The cerebellum was then opened along a line drawn from the posterior occipital protuberance to the base of the mastoid. Puncture revealed a large abscess filled with fetid pus mixed with blood. The abscess extended forward to the petrous portion of the temporal bone The patient died half an hour after the operation. The autopsy showed no extra-dural abscess. There were some adhesions between the pia mater and cerebellum. On opening the cerebellum two pockets were seen—one in front, larger, about the size of a large nut, containing fetid pus; the other behind, filled with pus and blood. The two abscesses did not not communicate with each other. The left internal ear was infiltrated with pus, transformed into a soft and blackish mass. The infection appeared to have entered the cerebellum through the cochlea and internal auditory canal.

LARYNGOLOGY AND RHINOLOGY

IN CHARGE OF J. PRICE-BROWN.

Etiology of Ozena.

Freudenthal (*Laryngoscope*, September, 1903). The writer, in a short paper, gives his theory of the origin of the local affection and of analogous conditions in the accessory cavities, etc. He closes with the following conclusions:

1. Ozena is an atrophy of all the internal walls of the nose due to atmospheric influence, especially to too great dryness of the air.
2. The results of this dryness affect all the internal walls of the nose, neighboring parts, and almost certainly also more distant organs.
3. The bones of the turbinals appear to be affected at the commencement of the disease.
4. to convert this atrophy into ozena a bacillary invasion *en masse* is necessary.
5. This bacillus can increase and multiply only on a suitable soil—*i. e.*, only where atrophic conditions exist.
6. The bacillary invasion must take place early in order to establish ozena.
7. This invasion probably always takes place by direct transmission from the vulva.
8. Sinusites are frequently combined with ozena.
9. Thus, ozena is an autochthonous affection which supervenes on atrophy.

(While some of the writer's conclusions are self-evident, and have long been accepted, others to say the least are puzzling. How can the first and the fourth both be true? The audacity of the seventh, also, is simply marvellous.—*Abstractor.*

The Import of the Salivary and Nasal Secretions in Hay Fever.

Braden Kyle (*Laryngoscope*, September, 1903), in an important paper read before the Laryngological, Rhinological and Otological Society, gives the results of several years of careful scientific investigation of the chemistry of the salivary and nasal secretions in health and disease. He draws special attention to the fact that the body is a chemical laboratory, having on hand a certain amount of material; and having added to it daily other ingredients through the respiratory and alimentary tracts. Hence, any perverted condition from the normal chemistry may bring about changes giving rise to chemical products, which may be productive of disease in one case and not in another. On this basis the writer explains the various

diatheses; instancing the precipitation of uric acid in varied forms in certain individuals; while others, under the same dietary and hygienic conditions, are absolutely free from such chemical compounds.

Carrying the same thought to his examination of hay fever cases, he has arrived at the conclusion that in many instances the local irritation of the nasal mucosa is brought about by some chemical change in the constituents of the discharge from the mucous-secreting glands.

The explanation given of the fact that hay fever occurs at certain periods of the year, is that lowered cell-resistance and altered chemistry may be produced by the changes in climate and temperature, incidental to the season of the year, the individual by this means being rendered susceptible to its development. That the chemistry of the secretions has to do with the causal factor of hay fever, Kyle has illustrated in a number of cases by rapidly changing the reaction of the secretion either from acid to alkaline, or from alkaline to acid, or by rendering it neutral; and by this means partially or wholly relieving the attack at the time. Hence, he claims that, while not wholly the cause of this distressing malady, the condition of the nasal and salivary secretions have a very important bearing upon its development.

Report of three Cases of Retropharyngeal Abscess.

L. C. Cline (*Laryngoscope*, September, 1903), in a paper read at the annual meeting of the American Lar., Rhin. and Otol. Soc., briefly describes these cases. Two occurred in children, aged respectively two and a half and five and a half years. They were both marked by the characteristic symptoms of swollen neck, head thrown backwards, slightly increased temperature, difficult respiration, inability to swallow and cyanosis. There was also large swelling in the post pharyngo-laryngeal region. Relief was given by vertical incision of the pharyngeal wall, near the medial line, resulting in large evacuations of pus. Both children recovered, but the elder one was attacked by laryngeal edema four days after operation. Tracheotomy became imperative, the tube being worn for five days; subsequent improvement was gradual but sure.

The third case occurred in a man aged 57 years. A long and deep incision was made from below upwards over the median line of the pharynx. The discharge was pus and broken down connective tissue. This afforded relief, but the patient did not improve, dying suddenly two weeks later of general systemic infection. The case was tuberculous as revealed by microscopical examination.

As stated by Cline, the lateral pharyngeal spaces are the

seats of clusters of lymph nodes which are intimately connected with the lymph vessels of nose, soft palate and pharynx; and as these abscesses in children usually follow some nasal or naso-pharyngeal inflammation, we are justified in assuming that they are of bacterial origin. Koplin has isolated four distinct species of streptococcus, which he says are the micro-organisms present in the pus of these abscesses.

Treatment of Chronic Hypertrophic Pharyngitis by Scarification.

Escat (*Archives Internationales de Laryngologie*, July-August, 1903.) While the author advocates the application of solutions of iodine and sprays, together with constitutional treatment, in dealing with ordinary cases; he believes, where there is much interstitial thickening, that free scarification gives the best results. His scarifier consists of eight blades with lancet-shaped points, which can be lengthened or shortened as required.

Before operation an antiseptic gargle is used for five minutes, after which cocaine solution is applied, followed by scarification of the soft palate and uvula longitudinally and transversely. Hemorrhage soon ceases, and the treatment is completed by an application of Ranault's solution of iodine or zinc chloride one in thirty. If dysphagia occurs, sedative gargles are used.

Operative Treatment of Malignant Disease of the Larynx.

Sir Felix Semon (*Journal of Laryn., Rhin. and Otol.*, Sept., 1903) gave an address upon this subject before the Laryngological Section of the British Medical Association, at its recent annual meeting. After giving a résumé of the operative treatment of the past, he dwelt forcibly upon thyrotomy, as the ideal method of treatment in dealing with intrinsic cancer of the larynx. He takes this ground, notwithstanding the adverse position assumed by Paul Bruns as late as 1887, when the latter asserts that:—"Attempts to extirpate the disease by means of thyrotomy have shown themselves to be altogether insufficient and useless." This opinion was based upon the history of nineteen cases treated by thyrotomy. Two of the patients died shortly after the operation. In sixteen recurrence and death sooner or later took place: while in the remaining one death occurred twenty-two months after the primary operation, from cancer of the suprarenal glands, although the larynx remained until the end unaffected.

On the other hand, Semon has met with remarkable success in treatment by thyrotomy. His plan is to divide the cartilage into its two lateral halves; and then to dissect out freely all the soft parts around the new growth; making sure that the entire

mass is removed, even if it involves one or both vocal cords. After removal of the malignant growth, the larger upper part of the wound is closed—the lower part being left open for two or three days, until all danger of septic complication is passed.

A summary of his results covers eighteen cases of undoubted malignant disease of the larynx; all were operated upon between June 2, 1901, and July 29, 1902, and not reported until one year later, July 29, 1903. Of these eighteen, "fifteen or 85 per cent. are now alive and well; while the vocal results, with the exception of a few cases in which it was necessary to remove both vocal cords, are surprisingly good." These results the author very justly considers to be "perfectly ideal."

But in order to obtain such results he lays down the following conditions:

1. The operation must be restricted to early stages of intrinsic malignant disease.

2. For this purpose an early diagnosis is indispensable.

3. The operation when performed must be thorough. . . . . A violation of this rule in one single part of the periphery of the new growth may frustrate the entire purpose of the operation.

4. Should it be found after opening the larynx that the disease is more advanced than it appeared from laryngoscopic examination, it is the duty of the operator not to limit his interference to the operation originally contemplated; but to perform partial laryngectomy or any other operation necessary, when the extent and depth of the new growth have been definitely ascertained.

Professor Gluck of Berlin followed Semon in an exhaustive report upon the results of his own method of treating malignant disease of the larynx. He had been impressed with the necessity of finding a satisfactory method of treating cases, in which thyrotomy had from the first been unsuitable, or in which this method was no longer available. In the majority of these cases he had found total excision of the larynx to be the essential feature of treatment; and his efforts in this direction had been followed by the most brilliant results. Out of twenty-seven cases in which he performed this formidable operation, twenty-six recovered. To avoid what is termed "swallowing pneumonia"—one of the main elements of immediate danger in laryngectomy—he in every case completely detached the trachea from the larynx, and sutured it to the skin of the neck, thus securing external respiration, and at the same time preventing the possibility of fluids passing from the throat into the lower air passages.

Professor Gluck also illustrated his operations for removal of portions of the pharynx and constricted segments of the trachea; and incidentally described a method of enabling a

patient to breathe, when neither tracheal canula nor flexible tube could be introduced. In this case he resected a portion of a rib in the back of the chest, cutting and stitching the pleura to the opening thus made. The portion of lung that prolapsed was then removed; and through this improvised trachea, the patient was enabled to breathe and oxygenate his blood.

Subglottic Sarcoma Removed Endo-laryngeally with Galvano-Cautery Snare

J. W. Gleitsmann (*Med. Record*, July, 1902) reported the case. It occurred in a man aged 52 years. Four months before the writer saw him, the patient had an attack of hoarseness. It came on suddenly and continued, accompanied by laryngeal cough. During the period mentioned he had lost twenty-five pounds in weight. On examination a growth was found below the vocal cords, filling the greater part of the tracheal space, and seemingly attached to the anterior surface just below the larynx.

After applying cocaine and adrenalin, the tumor was removed by means of the author's iridoplatinum wire with Schenk's handle and canula. No ill effect followed the operation, and the patient's voice soon began to improve. One month later the stump was removed and the base cauterized. Five months later there had been no return. The pathologist's report corroborated the writer's diagnosis.

(*Note.*—One year subsequent to the reading of the paper, Dr. Gleitsmann reported to the Laryngological Association at Washington that there had been a slight re-formation of the growth, which he yet hoped to be able to remove.—*Abstractor.*)

Eight Cases of Pressure Pouch of the Esophagus Removed by Operation.

H. T. Butler (*British Medical Journal*, July 11th, 1903) gives the following as the symptoms of this distressing condition:

1. Return of fragments of undigested food, hours, or even days after it has been taken. 2. Gurgling of gas from the throat, more especially when pressure is made low down upon the left side of the neck. 3. The arrest of a bougie nine inches from the teeth. In some cases, especially when the pouch has attained a large size, wasting may be a marked symptom. Cough may also be noted as occasioned by pressure.

The operation favored is the one recommended by Prof. Bergmann. In order to ascertain that there is no esophageal stricture below the site of the pouch, a bougie should be passed into the stomach at the time of operation. During healing of this wound, a soft tube should be kept *in situ*, from

mouth to stomach, for the purpose of feeding. The external wound should not be closed but drained by a soft rubber tube. The opening into the œsophagus should, however, be stitched up.

The author believes "pressure pouches" to be due to congenital predisposition, and acquired upon that predisposition.

PEDIATRICS.

IN CHARGE OF ALLEN BAINES AND W. J. GREIG.

Pathology and Treatment of Chorea. By D. B. LEES (British Medical Association, Section of Pediatrics).

Pathology.—The writer believes that in the majority of cases chorea is rheumatic in origin. His belief is based on the clinical association of the two diseases, and also on the fact that the same bacillus has been found in each.

There appears to be a disorder of the whole brain, possibly of the nervous system in general, yet the disorder is not a distinctive one, and usually ends in recovery. The pathologic changes, if organic, are slight, and it seems probable that they are largely toxemic. But there is something more than toxemia, slight though this something may be. A recent investigation of two fatal cases of chorea by Dr. Reichardt resulted in finding small hemorrhages irregularly scattered, with collections of leucocytes, chiefly mononuclear and dilatation of vessels with perivascular small, celled infiltration in many parts of the brain, also areas of fatty degeneration of nerve fibres. The root fibres and the anterior and lateral horns and the posterior columns of the spinal cord were affected. Cultures from the cerebro-spinal fluid were sterile, but staphylococcus aureus was found in the heart blood. In the second case streptococci were found in the cardiac valves, and a few colonies of staphylococcus albus were obtained from the brain.

Are we to say that chorea is cerebral rheumatism? Yes, if we add the clause, in the great majority of cases. It is possible that other microbes with their toxins may affect the cortical cells as well as the rheumatic diplococcus. It is quite possible also, that sudden fright may so affect the nutrition of the cortical cells in a similar way to the rheumatic diplococcus. The writer claims that every case of chorea, however mild, should be looked on as of rheumatic origin. The difficulty is to prove the presence of rheumatism.

Treatment.—Based on the above belief of the pathology, sodium salicylate and an alkali should be given freely. For a

child 6 to 10 years old, 10 grs. of the former with 20 grs. of the latter should be given. After two or three days this dose should be increased to 15 and 30 grs. respectively, and a few days later to 20 and 40 grs. These doses should be given every two hours during the day, and every three hours at night. Careful watch must be kept for symptoms of salicylate poisoning, especially for a peculiar deep inspiration simulating the air hunger of diabetes.

The pulse failure occurring during the administration of the salicylates is due to the associated cardiac dilatation. Rest in bed and a milk diet are important items in the treatment.

Henry Ashley, of Manchester: Chorea is common in anemic, overgrown girls, in whom there is no evidence of rheumatism, and in these cases the salicylates are not desirable. He was frightened at the large doses recommended by Dr. Lees. He thought from 40 to 60 grs. in twenty-four hours would be enough. Arsenic is of doubtful value, and in large doses injurious. Rest in bed and careful dieting were the most important.

F. J. Poynton, of London, gave in tabulated form the relation, so far as known, of micro-organisms to chorea.

1. Micro-organisms of the streptococcal group have been isolated from rheumatic fever.

2. They have also been isolated from the cerebro-spinal fluid, and from the brain itself in chorea.

3. They have been demonstrated in the pia mater and in the brain.

4. Involuntary movements of a peculiar type have been recorded by Payne and myself, as resulting from intravenous inoculation of rabbits with such micro-organisms.

5. Identical bacteria are found in other rheumatic lesions in man, and are capable of producing the lesions of rheumatism in animals.

6. Chemic leptomeningitis has been noted in chorea by Dana.

7. The lesions found after death in acute chorea, are such as one could explain in the view of an infection.

Relation of Tuberculosis in Children to Bovine Tuberculosis. By NATHAN RAW, London (*British Medical Journal*, August 29th, 1903).

He expresses his opinion that man is attacked by two kinds of tubercle: one conveyed by infection from one person to another, the other by receiving into the body bovine bacilli in meat or milk. He believes that bovine tuberculosis is very virulent for children. He believes it is accountable for tabes mesenterica and other abdominal tuberculosis; also for scrofula, or lymph gland tuberculosis; also very probably for tubercular meningitis, and possibly for acute miliary tuberculosis.

Douglas Reid referred to the rarity of tubercle in India, which he thought was due to the natives always boiling their milk before using it, and also to the exclusion of beef from the diet of a large portion of the population.

George Carpenter mentioned two cases of abdominal tuberculosis in his practice, which had not been fed on cow's milk, but were breast-fed infants. In one of them there was a simple chemic peritonitis, and when the false membrane was stripped off and examined microscopically, many tubercle were found.

W. J. G.

Editorials.

THE ILLNESS OF THE GERMAN EMPEROR.

The medical world was surprised and to some extent shocked to learn recently that a growth had been detected in the larynx of the German Emperor. It was promptly removed and we are told that it was found to be a *benign* polypus with absolutely nothing to justify a suspicion of malignancy.

The opinion thus positively expressed is very satisfactory, but does not remove a certain uneasiness in the minds of thoughtful physicians. We cannot forget that the late Emperor William had also a growth in the larynx which at first showed no signs of malignancy, but in a comparatively short time cancer was found to be present.

In connection with the Emperor Frederick's laryngeal affection it is interesting to note that for some time after Schmidt's declaration that the growth was malignant, Sir Morell Mackenzie maintained that it was benign. Virchow after numerous microscopical examinations, expressed a decided opinion that Mackenzie was right. These facts of course prove nothing as to the condition of the Emperor William's larynx, but they tend to make his subjects and well-wishers outside of Germany more or less uncomfortable.

JUBILEE OF THE MEDICAL FACULTY OF QUEEN'S UNIVERSITY.

The jubilee year of the medical faculty of Queen's was celebrated by a great gathering in old Convocation Hall, October 14th. Sir Sandford Fleming, Chancellor of the University, presided. Nearly all the medical professors, members of the senate, many trustees, delegates from other universities and guests occupied seats on the platform with the Chancellor and Principal. In the gallery the medical students had a merry time.

After prayer by the Chaplain, Rev. Dr. McTavish, and a few remarks by the Chancellor upon the great event being commemorated, Dr. Herald, secretary of the medical faculty, gave a brief history of the college since its foundation in 1874.

DR. HERRIMAN'S ADDRESS

Dr. W. L. Herriman, of Lindsay, Ont., was the chief speaker. So far as known he is the only surviving member of the first graduating class in medicine in 1855. The Doctor was enthusiastically received when he arose to speak. His address partook chiefly of the nature of a reminiscence. The pleasure he felt in revisiting his Alma Mater was not unmixed with sadness, for of all his old and respected teachers not one was left to greet him, the last, Dr. Fife Fowler, having passed to rest a little over two months ago.

Dr. Herriman referred to the cause which led eight students attending Trinity College, Toronto, to drift to Kingston in the third year of their studies, 1854. They refused to leave their respective mother churches for the Anglican communion in order to obtain a degree. Queen's took them in and graduated them later without any religious test. Continuing, the speaker contrasted the present efficient and improved facilities with the conditions fifty years ago. There had been a tremenduous development since then, and if he had not been a continuous student he would be away in the background.

In the evening the delegates and invited guests were received by the Chancellor, Sir Sandford Fleming, and presented to the Principal and Mrs. Gordon in the library in the old Arts building. At nine o'clock they were welcomed on behalf of the University by Hon. Justice Maclennan, Chairman of the Board of Trustees. Short replies to the address of welcome were given by delegates. Afterwards Mrs. Gordon held a reception at her beautiful college residence.

The three oldest students of arts, theology and medical faculties of Queen's were in attendance at the ceremonies, viz., Rev. Dr. Wardrobe, of Guelph, Dr. Herriman, Lindsay, and Hon. Dr. Sullivan, Kingston. Dr. Wardrobe entered the first Arts class on the opening of Queen's in 1842. Dr. Herriman and Dr. Sullivan were on the roll of the first classes of the medical college in 1854.

KING EDWARD'S SANITARIUM FOR CONSUMPTIVES.

One of King Edward's most marked characteristics is the great interest he takes in the poor and afflicted. This is especially shown by his work in connection with the "King's Hospital Fund" and his "Sanitarium for Consumptives" which is now being erected, the foundation stone having been laid by his Majesty, October 3rd. It will be remembered by our readers that Sir Ernest Cassel some time ago placed at the disposal of the King a sum of money for any benevolent purpose he chose.

His Majesty decided on the erection of a hospital for consumptives which will be open to patients of all classes above the ranks of the very poor, who are already fairly well provided for. It will be situated among the pine woods on a hill near Haselmere, in one of the loveliest parts of Surrey. We are told that it will be the Davos Platz of England, and the open air treatment will be the chief feature in the cure of the patients. The King when laying the corner stone remarked that the Sanitarium would be of far reaching importance and value in teaching the crowded of the British people the need, too generally neglected, of fresh air and ventilation in their homes.

ENGINEER BROWN.

Belleville, July 20.—Yesterday afternoon Engineer Brown of this city prevented an outrage by two tramps three miles east of Kingston. He was coming west with his train, and, while looking out of his cab window saw a young lady a short distance from the track struggling in the hands of a couple of rough-looking men. He at once stopped the train, and with his fireman, started to the rescue. The tramps made for the woods and disappeared. The young lady was almost exhausted. She said she was walking with a gentleman friend when the two tramps accosted them. They overpowered her escort and attempted to drag her to the woods. They were only frustrated by the timely arrival of the train men. Her escort had been so badly ill-treated as to be unable to give any assistance.—*Press Dispatch.*

Engineer Brown has set his fellow citizens a good example. Just as long as we suffer tramps to infest our country, city, or town, just so long will such things be.

There were two horrid murders committed in Ontario not far from the time that Engineer Brown stopped his train. This is our business and we had better take an interest in it and see it through, as the engineer did.

Mr. Benjamin C. Marsh, of Philadelphia, investigated the matter for himself in that city last spring. The Wayfarer's Lodge in Philadelphia had 110 empty beds. It is avoided because a work test is applied to those who are able to work. Mr. Marsh heard a "five-cent flopper" (i.e., a man allowed to sleep on the floor of a cheap lodging house for five cents) remark, "It's a disgrace to work in Philadelphia when you can get along so easily without doing a stroke." Mr. Marsh himself begged for an hour, as a test, and was rewarded by $1.15 cash.

Laziness and beggary are encouraged by the "religious" and other lodging houses where the unwashed, having received tickets from the "charitable" (which they may exchange also for drinks at certain saloons), do dwell in thousands.

In Baltimore recenty the blind, maimed, and otherwise effective beggars were gathered in by the police and were suddenly transformed, on close examination into sound, whole and seeing persons.

If any will not work, neither should he eat, and if we had fewer tramps we would have fewer murders and assaults.

NOTES.

Manitoba Medical College Opens.

This College began its twenty-first consecutive session September 21 with the largest attendance in its history. There are over forty in the freshman class. The following changes in the staff have been made: Dr. J. O. Todd has been elected to the chair of anatomy in succession to the late Dr. Neilson. Dr. James McKenty and Dr James Pullar have been appointed assistant demonstrators in anatomy. Dr. W. L. Watt will conduct the practical and physiological chemistry, and Mr. J. S. Pierce will teach the organic and inorganic chemistry.

Smallpox in New Brunswick.

Fourteen cases of smallpox are reported in Madawasha County, N.B.

Typhoid Fever in Manitoba.

This disease has been very prevalent this autumn in Manitoba and Winnipeg. In Winnipeg one of the Industrial Exhibition buildings has been converted into a hospital for 35 patients.

It is expected that a four story addition to the St. Boniface Hospital, Winnipeg, will shortly be built at a cost of $100.000.

Five-year Medical Course in Quebec.

The Quebec Board of Physicians and Surgeons at a recent meeting decided to lengthen the medical course from four to five years, also to request the Legislature to repeal that section of the by-laws of the Quebec council which permitted men having British licenses to register and practice in the Province of Quebec without having to undergo any further examination.

Toronto Dispensary.

Last year about 13,000 patients were treated at the Toronto Dispensary. The equipment and accommodation of the old building are insufficient and an appeal has been made for funds for the erection of a new building next spring.

A New Hospital for Epileptics.

Work has begun on the new hospital for epileptics at Woodstock, Ont. It is expected that the buildings will be ready for occupation August 1, 1904.

Personals.

Dr. H. McLean (Tor. '03) is at Cairo, Ont.

Dr. W. R. Mahood (Tor. '03) is practising in Sioux City, Iowa.

Dr. J. H. Hamilton (Tor. '03) has commenced practice in Nelson, B.C.

Dr. Norman Allen, of Toronto, paid a visit to New York, November 14th.

Dr. Graham Chambers, of Toronto, visited New York, November 17th.

Dr. E. Clouse, of Toronto, returned from Northern Ontario, November 14th.

Dr. J. Rutherford, of Chatham, spent a few days in Toronto early in November.

Dr. E. K. Cullen (Tor. '03) is a house surgeon at Johns Hopkins Hospital, Baltimore.

Dr. C. M. Foster, of Toronto, has removed from Yonge Street to 34 Roxborough Street West.

Dr. T. Shaw Webster, of Toronto, has moved into his new residence, corner of Spadina Avenue and Wilcox Street.

Sir Michael Foster having resigned the professorship of physiology at Cambridge, the choice of a successor has fallen upon John Newport Langley, F.R.S., Sc.D.

Dr. Herbert C. Featherston, 112 Bedford Road, Toronto, has returned from Edinburgh, where he has been taking a post-graduate course, receiving the L.R.C.P. & S.

Dr. W. T. Williams (Trin. '03) having taken the double qualification of Glasgow and Edinburgh has gone to London, where he is doing post-graduate work in the hospitals.

Four beds in the Roosevelt Hospital, New York, have been endowed in honor of Dr. Abraham Jacobi, formerly Professor of Pediatrics at the College of Physicians and Surgeons.

Professor Llewellyn F. Barker, at the head of the department of anatomy at the University of Chicago, has gone abroad for a year to study the methods of research and the equipment of the medical institutions of Europe. The trip has for its object the perfection of the plans for the extension of Rush Medical College. In the absence of Professor Barker the department of anatomy will be in charge of Assistant Professor Bensley.

Dr. Chas. R. Dickson attended the thirteenth annual meeting of the American Electro-Therapeutic Association at Atlantic City, New Jersey, and then spent a week in New York before returning to Toronto.

QUEEN'S MEDICAL FACULTY, KINGSTON.—Dr. J. C. Connell has been made Dean, and Dr. W. T. Connell, Secretary, in the place of Dr. Herald, resigned. Dr. A. R. B. Williamson has been appointed Lecturer in Medical Jurisprudence and Toxicology.

Marriages.

At Hillcrest, Dr. D. R. Dunlop to Miss Janet Cook.

At Toronto, Dr. W. E. Struthers to Miss Jennie Brown.

At Galt, July 21st, Dr. W. Scott Dakin to Miss Jessie McKay.

At Victor, Colorado, Dr. Norman C. Williams to Miss Claribel Lorens.

At Niagara Falls South, July 15th, Dr. Frank McTavish to Miss Grace Brown.

At Brockville, October 7th, Dr. E. B. Moles, of Arnprior, to Miss Alice Gilmour.

At Thamesford, September 2nd, Dr. J. Paterson Keith to Miss Cora E. MacDonnell.

At St. Thomas on September 16th, Dr. Donald A. Cameron, of Dutton, to Miss McLean.

On September 30th, at Toronto, Dr. Jas. M. McCallum to Miss Cornelia S. McMaster.

Obituary.

DR. ROBERT ABERDEIN.

Dr. Robert Aberdein (Tor. '67) died at Syracuse, N.Y., October 18th.

DR. GILBERT. C. FIELD.

Dr. Gilbert C. Field, of Woodstock, died October 14th.

DR. DAVID S. OLIPHANT.

Dr. David S. Oliphant, of Toronto, died November 13th, aged 88.

HON. DR. LANDERKIN.

Hon. Dr. Landerkin, of Hanover, died October 4th, aged 64. He was well known, both as a physician and a politician. He was a member of the House of Commons for many years, and was appointed a member of the Senate in February, 1901. He was an exceedingly popular and lovable man.

DR. W. G. MONTGOMERY.

Dr. W. G. Montgomery, of Minden, died September 8th of phthisis, aged 29.

MR. GEORGE LAWSON.

Mr. George Lawson, Consulting Surgeon, Royal Ophthalmic Hospital, Moorfields and Middlesex Hospital, London, and Surgeon-Oculist to Her late Majesty Queen Victoria, died October 12th, aged 73.

MR. WILLIAM JOHN WALSHAM.

Mr. William John Walsham, Surgeon to St. Bartholomew's Hospital, and formerly lecturer on surgery in the Medical College of St. Bartholomew's Hospital, died October 5th, aged 56.

Book Reviews.

Nose and Throat Work for the General Practitioner. By GEORGE L. RICHARDS, M. D., Fellow American Laryngological, Rhinological and Otological Society; Fellow American Otological Society; Associate Editor Annals of Otology, Laryngology and Rhinology; Otologist and Laryngologist Fall River Union Hospital, Fall River. Mass. Price, $2.00. Published by International Journal of Surgery Co., N.Y. Canadian agents: Chandler & Massey, Limited, Toronto.

This book derives especial importance from the fact that the diseases described therein constitute so large a share of the physician's daily routine of practice. It has been the author's aim to teach the practitioner how to diagnose these cases and how to treat them successfully and according to modern methods. With this object in view every effort has been made to describe the treatment in such detail as to leave no point obscure, and to simplify the technics as much as possible so as to avoid the necessity of an elaborate and expensive armamentarium. No space is occupied with theory, and the information given is based for the most part upon the author's own extensive clinical experience in diseases of the nose and throat. For the sake of completeness a number of conditions are discussed which properly belong to the specialist, but with these few exceptions the diseases described are such as can be treated by the general practitioner. A noteworthy feature of this work is the large number and excellence of the illustrations.

A Text-Book of Diseases of Women. By BARTON COOKE HIRST, M. D., Professor of Obstetrics in the University of Pennsylvania; Gynecologist, to the Howard, the Orthopedic and the Philadelphia Hospitals. Handsome octavo volume of 675 pages, sumptuously illustrated with some 650 mostly original illustrations, many in colors. Philadelphia, New York, London; W. B. Saunders & Company, 1903. Cloth, $5.00 net; Sheep or Half Morocco, $6.00 net. Canadian agents, J. A. Carveth & Company, Toronto, Ont.

This latest work of Dr. Hirst's is on the same line as his "Text-Book of Obstetrics." As would be expected from a practical teacher, diagnosis and treatment have been given particular attention. The palliative treatment, as well as the radically operative, is fully described, enabling the general practitioner to treat many of his own patients without referring them to a specialist. A feature which specially impressed us is the thorough manner in which the author has treated modern technic of gynecic surgery. An entire section is devoted to a full description of all modern gynecologic operations, illustrated and elucidated by numerous photographs taken especially for this work. The author's training in the sub-

ject of diseases of women has been like that of the specialists in the Teutonic countries of Europe, where gynecology has reached the highest level of perfection, namely: specialization in the diagnosis and treatment of diseases of women has followed a thorough training in the recognition and treatment of the complications and sequels of childbirth. This special training is evident throughout the entire work in the careful and thorough manner in which the subject is treated, The many illustrations are the most magnificent we have ever seen. With but few exceptions all are entirely original, having been reproduced from photographs and water colors of actual clinical cases accumulated during the past fifteen years. We most heartily congratulate Dr. Hirst and his publishers upon the production of such a magnificent work.

The American Pocket Medical Dictionary. Edited by W. A. NEWMAN DORLAND, M. D., Assistant Obstetrician to the Hospital of the University of Pennsylvania. Containing the pronunciation and definition of the principal words used in medicine and kindred sciences, with 566 pages and 64 extensive tables: Philadelphia, New York, London: W. B. Saunders & Company, 1903. Flexible leather, with gold edges, $1.00 net; with thumb index, $1.25 net. Canadian agents, J. A. Carveth & Co., Toronto, Ont.

In this little work, now in its fourth edition, we have a pocket dictionary equalled by none on the market. It is a wonder to us how the editor has gotten so much information in such a small space. In this edition several thousand of the newest terms that have appeared in recent medical literature have been added, and the entire work subjected to a careful revision. Since the work has come to us for review, we have had many occasions to refer to it for definitions of new words, and in no instance have we been disappointed. We believe that the work in its new form will meet more fully than ever a real demand on the part of physicians and students.

A System of Physiologic Therapeutics.—A practical exposition of the methods other than drug giving, useful in the prevention of disease and in the treatment of the sick. Edited by SOLOMON SOLIS COHEN, A. M., M. D., Professor of Medicine and Therapeutics in the Philadelphia Polyclinic. Vol. VI.—Dietotherapy and Food in Health, by Nathan S. Davis, jr., A. M., M. D., Professor of the Principles and Practice of Medicine in Northwestern University Medical School, Philadelphia: P. Blakiston's Son & Co., 1012 Walnut St. 1903.

The author's aim has been to make a practical work on dietetics and the diet best suited in individual diseases has been described fully under the heading of each ailment. He has reviewed the chemical and physiologic data concerning the nutritive and other qualities of various kinds of food. Attention has been given to the causation of disease, especially as diet

and digestive and nutritional processes are related to it symptoms have been described whenever it seemed best in order to make clear the indications for dietetic and general hygienic treatment.

Mechanical Vibratory Stimulation—Its theory and application in the treatment of disease. By MAURICE F. PILGRIM, M. D., First Vice-President of the American Electro-Therapeutic Association, Professor of Psychiatry in the New York School of Physical Therapeutics. The Lawrence Press, 110 Fifth Ave., New York City.

The object of this book is fairly well shown by its title. Dr. Pilgrim does not claim mechanical vibration to be a cure-all, but by its proper application he thinks the physician will achieve more success than by any other single means.

American Text-Book of Surgery. For Practitioners and Students. Edited by WILLIAM W. KEEN, M. D., LL. D., F. R. C. S. (Hon.), Professor of the Principles of Surgery and of Clinical Surgery, Jefferson Medical College, Philadelphia; and J. WILLIAM WHITE, M. D., John Rhea Barton, Professor of Surgery, University of Pennsylvania, Philadelphia. Fourth Edition, Thoroughly Revised and Greatly Enlarged. Handsome octavo of 1363 pages, with 551 text illustrations and 39 full-page plates, many in colors. Philadelphia, New York, London: W. B. Saunders & Company, 1903. Cloth, $7.00 net; Sheep or Half Morocco, $8.00 net. Canadian agents, J. A. Carveth & Co., Toronto, Ont.

Of the three former editions of this work nearly 40,000 copies have been disposed of. Its sale, indeed, has been the wonder of the medical publishing world. In this present edition every chapter has been extensively modified, and many of them have been partially, and some entirely, rewritten. Notably among such chapters are those on Surgical Bacteriology, Tumors, the Osseous System, Orthopedic Surgery, the Surgery of the Nerves, the Joints, the Abdomen, etc. The most recent researches of Monks on the Intestines, Crile and Cushing on Shock and Blood Pressure, Matas on Neural Infiltration and Aneurysm, Edebohls on Renal Decortication, etc., have been included. The use of paraffine in nasal deformities, the methods of spinal and local anesthesia, and the newer anesthetics have also been described. And this is but an illustration of the completeness and thoroughness of the entire work.

Besides the extensive revision and amplification of the old matter, there have been added six new chapters of the utmost importance, written by men whose positions and experience especially fit them to speak with authority. These chapters are Military Surgery, Naval Surgery, Tropical Surgery, Examination of the Blood, Immunity, and Surgery of the Pancreas. Though there was a brief chapter on the Pancreas in the third edition, in this present edition it has been expanded so greatly that it really is wholly new, the modern surgery of

the Pancreas having been created since the last edition. A number of the old illustrations have been replaced by better ones, and, in addition, there have been added a number entirely new. In fact, we know of no single volume work that is even its equal in the expounding of the advanced and practical principles of modern surgery.

Nervous and Mental Diseases. By ARCHIBALD CHURCH, M. D., Professor of Nervous and Mental Diseases and head of Neurological Department, Northwestern University Medical School; and FREDERICK PETERSON, M. D., President New York State Commissioner in Lunacy; Chief of Clinic, Department of Nervous Diseases, College of Physicians and Surgeons, New York. Fourth Edition, Thoroughly Revised and Enlarged. Handsome octavo volume of 922 pages, with 338 illustrations. Philadelphia, New York, London: W. B. Saunders & Company, 1903. Cloth, $5.00 net; Sheep or Half Morocco, $6.00 net. Canadian agents, J. A. Carveth & Co., Toronto, Ont.

This is the fourth edition of this excellent work in as many years. The revision, indeed, has been thorough, all the latest knowledge on the subjects having been incorporated, including the recent work regarding the healing of nerves. The subject of Intermittent Limping, now definitely known to depend upon a lesion of the posterior root ganglia, and Herpes Zoster have been given a section each. Another addition is the discussion of that form of epilepsy marked by myoclonus, furnishing the so-called Combination Disease. Further importance has been given to symptomatology and symptomatic disturbances, and the diagnostic value of astereagnosis and of Kernig's Sign has been elaborated.

We also find that there have been added a large number of new and excellent illustrations. A useful addition to the portion of the book devoted to Insanity is a new section consisting of a critical review of the German Schools which have recently made such important advances in psychiatry.

In many ways this work will be found of unusual assistance, not only to the specialist, but also to the student and general practitioner.

A Text Book Upon the Pathogenic Bacteria. For students of medicine and physicians. By JOSEPH MCFARLAND, M. D., Professor of Pathology and Bacteriology in the Medico-Chirurgical College, Philadelphia; Pathologist to the Philadelphia Hospital and to the Medico-Chirurgical Hospital, Philadelphia. Handsome octavo volume of 629 pages, fully illustrated, a number in colors. Philadelphia, New York, London: W. B. Saunders & Company, 1903. Cloth, $3.50 net. Canadian agents, J. A. Carveth & Co., Toronto, Ont.

This work gives a concise description of the technical procedures requisite in the study of bacteriology, a brief account of the life histories of the important pathogenic bacteria, and

sufficient description of the pathologic lesions accompanying micro-organismal invasions to give an idea of the origin of symptoms and the causes of death. Although but a short time has elapsed since the appearance of the previous edition, such rapid strides have been made in the subject of bacteriology, especially in its relation to pathology, that the author deemed it necessary to rewrite the work entirely. All the old matter has been eliminated, much new matter is in evidence, and, in fact, the subjects treated have been brought precisely down to date. What impressed us most were the chapters upon Infection and Immunity. All the new facts recently added to our knowledge of these subjects can here be found. The value of the work as a book of reference has been materially increased by the introduction of a large number of references to bacteriologic literature. These have been thoughtfully chosen, and, in nearly all cases, give the sources of the original descriptions of the micro-organisms treated, and the important methods described. Another valuable addition is a bibliographic index containing the names of over 600 authors. Altogether the work in its new edition is very commendable, and practitioners and students will find it of unusual value.

A Text-Book of Clinical Anatomy. For Students and Practitioners. By DANIEL N. EISENDRATH, A.B., M.D., Clinical Professor of Anatomy in the Medical Department of the University of Illinois (College of Physicians and Surgeons); Attending Surgeon to the Cook County Hospital, Chicago, etc. Handsome octavo of 515 pages, beautifully illustrated with 153 illustrations, a number in colors. Philadelphia, New York, London: W. B. Saunders & Company. 1903. Cloth, $5.00 net; Sheep or Half Morocco, $6.00 net. Canadian Agents: J. A. Carveth & Co., Toronto.

The subject of anatomy, and especially clinical anatomy, is so closely allied to practical medicine and surgery that it is impossible for a physician or surgeon to practice his profession successfully unless he has an intimate knowledge of the human structure. In his preface the author states that the primary object of his work is to serve as a bridge for both the practitioner and student from descriptive anatomy, as it is usually taught in the first two years of a medical course, to its daily application at the bedside, in the clinic, or in the operating room. The entire subject is discussed with a thoroughness and precision that spring from experience. The method of illustrating the subject is novel, special attention having been given to surface anatomy. The illustrations themselves are the result of a great deal of painstaking study, outlines having been marked upon a normal artist model, and then photographed. They are reproduced in the highest style of art, and show far better than any we have seen the relation of anatomical structures from a clinical standpoint, presenting to the practitioner a picture as met at the bedside, with the skin covering the tissue.

A Text-Book of Obstetrics. By BARTON COOKE HIRST, M.D., Professor of Obstetrics in the University of Pennsylvania. Handsome octavo, 900 pages, with 746 illustrations, 39 of them in colors. Philadelphia, New York, London: W. B. Saunders & Company, 1903. Cloth, $5.00 net; Sheep or Half Morocco, $6.00 net.

In revising his work for this edition, the author has spared no pains to make the book reflect the latest knowledge on the subject. He has even described and illustrated the method of using the "Neumann-Ehrenfest Kliseometer." More attention has been given than in the previous editions to the diseases of the genital organs associated with or following childbirth, and this we think, is an excellent improvement. Many of the old illustrations have been replaced by better ones, and there have been added besides a number entirely new. The work treats the subject from a clinical standpoint, the author ever keeping in mind that the aim of all medical literature is to cure.

A Text-Book of Obstetrics. By J. CLARENCE WEBSTER, M.D. (Edin.), Professor of Obstetrics and Gynecology, Rush Medical College, Chicago. Philadelphia, New York, London: W. B. Saunders & Company, 1903. $5.00 net. Toronto: J. Carveth & Co.

Although so many books on Obstetrics have recently appeared from the medical press, or are in preparation, the importance of the subject and the fact that observations and investigations are always being made in it, as well as the fact that there is no entirely satisfactory book for students in Obstetrics, may perhaps be found to justify them all.

Dr. Webster's book is a good one, excellently printed and illustrated and devoting much attention to Anatomy, Physiology and Histology. We think more space might have been given to Normal Labour and to the discussion of what may be called ordinary difficulties, but the book is on the whole a valuable one, and a decided addition to the physician's library.

Anatomy Applied to Medicine and Surgery. By D. E. MUNDELL, B.A., M.D., Professor of Applied Anatomy, Faculty of Medicine, Queen's University; ex-Examiner Practice of Medicine, Ontario Medical Council; Surgeon to Kingston General Hospital, British Whig, Kingston.

Although entering a field already extensively covered, Dr Mundell's warrant for another work on the subject is the lucid way in which he takes the matter in hand, and the very practical manner in which anatomical knowledge is applied. It is necessary for the modern practitioner of medicine and surgery to be something more than an expert dissector, who can tag a name on each structure his scalpel reveals. He must be ready at all times to put his knowledge into practical use, and it is to the practical side of the question that the author devotes the most of his attention. Each subject is introduced by a rapid

review of the anatomy of the part under discussion, followed by the application of these facts to medicine and surgery.

The book is a credit to both author and University in which he teaches, and is a most useful addition to either a student's or a physician's library.

Squint: Its Causes, Pathology and Treatment. By CLAUD NORTH, F. R. C. S. London: John Bale, Sons & Danielson, Limited, 1903.

There are many features about this little book of some two hundred pages, which stamp it as belonging to the better class of works.

The author's style is pleasing, concise and definite. He has also investigated for himself, and therefore one does not find all the definitions which are handed on from generation unto generation of text books repeated here. Indeed, many of the author's statements will be quite new to many. The great importance of the "fusion faculty" and the part it plays in the causation of converging squint is quite original. Also very interesting observations are made upon the harmful delay in treating squint—allowing the child to grow out of the squint.

Again, in the treatment of convergent squint the author has devised an instrument for training the "fusion faculty." This instrument he has named the Amblyoscope.

Atropine in the *fixing-eye* only, and the value of advancing the external rectus in anatomy of the internal rectus are dealt with, and the book closes with a short account of the ordinary operations on the external muscles of the eye.

Altogether, the book is most pleasing and reflects great credit upon the author for his care and originality, and upon the publishers for the very artistic and substantial way in which the book is gotten up.

Progressive Medicine.—A quarterly digest of Advances, Discoveries and Improvements in the medical and surgical sciences. Edited by HOBART AMORY HARE, M.D., Professor of Therapeutics and Materia Medica in the Jefferson Medical College of Philadelphia, etc., assisted by H. R. M. LANDIS, M.D. Volume III., September 1903. Diseases of the Thorax and its Viscera, including the Heart, Lungs, and Blood-vessels, Dermatology and Syphilis, Diseases of the Nervous System and Obstetrics. Philadelphia and New York: Lee Brothers & Co. 1903.

This number of the most valuable series issued quarterly is quite as useful and interesting as any which have preceded it, and as has been so frequently stated, the advanced physician should secure each number immediately on its publication. In this volume Dr. Wm. Ewart deals with Diseases of the Thorax and its Viscera; Dr. Wm. S. Gottheil has an able version on Dermatology and Syphilis. Diseases of the Nervous System are carefully considered by Dr. William G. Spiller, and Obstetrics by Dr. Richard C. Norris.

A Practical Treatise on Materia Medica and Therapeutics. By ROBERT BARTHOLOW, M.A., M.D., LL.D., Professor Emeritus of Materia Medica, General Therapeutics and Hygiene in the Jefferson Medical College of Philadelphia; formerly Professor of Materia Medica and Therapeutics, and of the Practice of Medicine in the Medical College of Ohio; Fellow of the College of Physicians, etc., etc. Eleventh edition. Revised and enlarged. New York and London: D. Appleton. 1903. 866 pages.

When a book has reached its eleventh edition, the stamp of public approval is so clear that little need be said of its merits. For a generation Dr. Barthlow's work has been a standard text-book, and the author's latest revision keeps it strictly in line with the medical advancement of the last few years. In the tenth edition there were two important changes—the long list of references to literature were struck out, and a chapter on prescription writing was added. Both these features are retained in the new edition, which strives more than ever to make pharmacology scientific, although of necessity still clinging to a large amount of empirical knowledge. Fully alive to the needs of the general practitioner, the veteran author has embodied all remedies of any worth, together with a complete statement of their uses, whether rational or empiric. Throughout the whole book there is a refreshing conservatism, characteristic of a careful writer, which makes one feel that the facts given are trustworthy. Not the least merit of the book is the handy index—a *sine qua non* to a busy man.

On the whole this is one of the few single volume works on therapeutics that can be recommended to a place on every doctor's shelves. We hope that Dr. Barthlow may see several more editions of his valuable book.

The American Illustrated Medical Dictionary. For Practitioners and Students. A complete Dictionary of the Terms used in Medicine, Surgery, Dentistry, Pharmacy, Chemistry, and the kindred branches, including much collateral information of an encyclopedic character, together with new and elaborate tables of Arteries, Muscles, Nerves, Veins, etc.; of Bacilli, Bacteria, Micrococci, Streptococci; Eponymic Tables of Diseases, Operations, Signs and Symptoms, Stains, Tests, Methods of Treatment, etc., etc. By W. A. NEWMAN DORLAND, A.M., M.D., editor of the "American Pocket Medical Dictionary." Handsome large octavo, nearly 800 pages, bound in full flexible leather. Philadelphia, New York, London: W. B. Saunders & Company. 1903. Price, $4.50 net; with thumb index, $5.00 net. Canadian Agents: J. A. Carveth & Co., Toronto.

The rapid exhaustion of two large editions cannot but be a gratifying proof to the editor and publishers that this excellent work meets the varied needs of physicians and students better than any other dictionary on the market.

In this the third edition several hundreds of new terms that have been added to the vocabulary of medical sciences have been incorporated and clearly defined. The entire work, moreover, has evidently been subjected to a careful revision, and

many of the tables, notably those of Acids, Bacteria, Stains, Tests, Methods of Treatment, etc., have been amplified, and their practical value greatly increased. It is only by such constant and careful revision that a medical dictionary can hope to reflect the progress of medical science, and the usefulness of this work by this present revision has been very largely extended.

A Manual of the Practice of Medicine. By A. A. STEVENS, A.M., M.D., Professor of Pathology in the Woman's Medical College of Pennsylvania; Lecturer on Physical Diagnosis in the University of Pennsylvania; Physician to the Episcopal Hospital and to St. Agnes' Hospital; Fellow of the College of Physicians of Philadelphia, etc. Sixth Edition. Thoroughly Revised, Enlarged, and Reset. Handsome Post-octavo of 556 pages, illustrated. Philadelphia, New York, London: W. B. Saunders & Company. 1903. Flexible Leather, $2.25 net. Canadian Agents: J. A. Carveth & Co., Limited, 413 Parliament Street, Toronto.

The popularity of this manual on the Practice of Medicine can be attested for by its numerous editions. The work covers completely the ground gone over by the student, especial stress being laid on diagnosis, differential diagnosis, and treatment. Each disease is treated in a concise, clear, and scientific manner, and the reader can not fail to grasp the author's meaning. Many articles, notably those on Diseases of the Digestive System, Diseases of the Myocardium, Malaria, Diseases of the Blood, Gout, Diseases of the Spinal Cord and Larynx, have been entirely rewritten, thus bringing the work absolutely abreast the times. It is one of the best small manuals for students that we have seen.

A Thesaurus of Medical Words and Phrases. By WILFRED M. BARTON, M.D., Assistant to Professor of Materia Medica and Therapeutics, and Lecturer on Pharmacy, Georgetown University, Washington, D. C., and WALTER A. WELLS, M.D., Demonstrator of Laryngology and Rhinology, Georgetown University, Washington, D. C. Handsome octavo of 534 pages. Philadelphia, New York, London: W. B. Saunders & Company. 1903. Flexible Leather, $2.50 net; with thumb index, $3.00 net. Canadian Agents: J. A. Carveth & Co., Limited, Toronto.

This work is the only Medical Thesaurus ever published. It performs for medical literature the same services which Roget's work has done for literature in general; that is, instead of, as an ordinary dictionary does, supplying the meaning to given words, it reverses the process, and when the meaning or idea is in the mind, it endeavors to supply the fitting term or phrase to express that idea. To obviate constant reference to a lexicon to discover the meaning of terms, brief definitions have been given before each word. In the matter of synonyms of technical words the authors have performed for medical science a service never before attempted. Writers and speakers desiring to avoid unpleasant repetition of words will find this

feature of the work of invaluable service. Indeed, this Thesaurus of medical terms and phrases will be found of inestimable value to all persons who are called upon to state or explain any subject in the technical language of medicine.

Physician's Pocket Account Book. By Dr. J. J. TAYLOR. Published by the Medical Council, 4105 Walnut Street, Philadelphia.

This handy little book combines day-book and ledger in the one volume, and is so arranged that only one entry is necessary. It compels even the most careless doctor to make his entry so that it could be produced as legal evidence if necessary. The size is the very best for the pocket, and the book as a whole is one greatly to be recommended for the busy man.

Manual of the Diseases of the Eye, for Students and General Practitioners. By CHARLES H. MAY, M. D., Chief of Clinic and Instructor in Ophthalmology, College of Physicians and Surgeons, Medical Department, Columbia University, New York, 1901-1903; Ophthalmic Surgeon to the French Hospital, New York; Consulting Ophthalmologist to the Red Cross Hospital, New York; Adjunct Ophthalmic Surgeon to Mt. Sinai Hospital, New York, &c. Third edition, revised, with 275 original illustrations, including 16 plates, with 36 colored figures. New York: Wm. Wood & Co., 1903.

The first edition of this book appeared in 1900. An examination of its contents revealed its value, and a most favorable review appeared in this journal at the time. That the book was well received by the medical profession is shown by the fact that a second edition was called for in 1901. This issue was exhausted in three weeks, and two reprints were published.

Now a third edition is demanded. For this edition every page has been examined, alterations made where necessary, some new plates added, and the book brought thoroughly up-to-date. The appearance of this third edition will still further enhance its popularity. It is one of the very best of the smaller works on this subject. J. T. D.

A Text-Book of Pathology. By ALFRED STENGEL, M.D., Professor of Clinical Medicine in the University of Pennsylvania. Octavo volume of 933 pages, with 394 text-illustrations, many in colors, and 7 full-page colored plates. Philadelphia, New York, London: W. B. Saunders & Co., 1903, Cloth, $5.00 net; sheep or half morocco, $6.00 net. Canadian Agents, J. A. Carveth & Co., Toronto.

This work is characterized by the thoroughly practical way in which pathology and clinical medicine go hand in hand. The new edition contains all the latest advances of pathology, and has a useful appendix on technic, besides many new illustrations. The book is one of the best one-volume works that has been published, and is especially suited to students.