

*Prize Competition, See Pages 112 and xxxiv.*

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## Original Articles

### PULMONARY EMBOLISM.

BY R. EDEN WALKER, M.D., NEW WESTMINSTER, B.C.

Pulmonary embolism, or more properly speaking, occlusion of the pulmonary artery or one of its main branches, is a condition which fortunately does not often present itself to our notice. When it does occur its onset is so sudden and, in the majority of cases, its termination so disastrous, that its very name creates a feeling of dread; sudden death, which is the rule in these cases, occurring in the course of any illness, more particularly in obstetrical practice, is appalling. It carries with it a feeling of horror, and no physician, however great his reputation may be, can escape the criticisms which invariably follow, even although the accident is entirely beyond his control; it is only by a thorough familiarity with the cause, and by being able to explain how impossible it is to foresee or avert the fatal termination, that he can in some degree hope to modify these adverse criticisms.

The cases of which I shall briefly give the history all occurred in obstetrical practice, so that in this paper I shall confine my remarks chiefly to this condition as a consequence or complication of labor, although practically the pathological condition is the same whether arising after labor or in the course of disease, accident, or surgical interference.

Case I.—Mrs. A., aged 35, a delicate and anemic woman, pregnant for the fourth time, was delivered after a comparatively

short labor, on April 18th, 1900; the delivery was followed by severe post-partem hemorrhage, due to relaxed condition of uterus; this, however, was checked after a few minutes. The patient, anemic before her confinement, was more so now than ever, but gradually recovered without any other symptoms than those due to anemia, and was able to sit up for a short time at the end of the second week. On May 12th, twenty-four days after delivery, while in bed, she was suddenly seized with violent dyspnea, precordial distress, oppression and fear of impending death. She was lying on her back, the window of the room was thrown wide open, and she complained that she could not get air enough, and she was breathing rapidly and laboriously. She also complained of pain over heart and left breast; on examination a soft, blowing murmur could be heard over the pulmonary artery; air freely entered both lungs. Temperature was normal; pulse, 140, feeble. Absolute rest was enjoined, and stimulants and iron administered internally. The dyspnea gradually subsided, except when any attempt at movement was made. The patient's general condition steadily improved, although anemia was still very marked, but hope was entertained of her ultimate recovery, when on May 30th, eighteen days after the first attack, she was suddenly seized with violent dyspnea, and expired within half an hour. The temperature throughout this case was normal, and no symptoms of septic infection or of thrombosis of the veins of the extremities existed at any time.

Case 2.—Mrs. B., aged 44, sixth pregnancy; a strong, robust woman. Head presented in the occipito-posterior position, and was delivered with forceps, after a tedious and difficult labor, on November 11th, 1902. Septic trouble developed on the third day after delivery, temperature rising to 103.2; with appropriate treatment this subsided, and the temperature was normal, and patient convalescent on about the twenty-fifth day after delivery; on December 19th, thirty-six days after delivery, she was suddenly seized with intense pain in left breast, with great difficulty of respiration. I saw her within an hour, when she was lying with head elevated, as she could breathe best in this position; marked dyspnea, severe pain in precordial region; pulse, 130; respiration, 47; temperature, 101.4. On examination, no heart murmur could be heard, and air freely entered both lungs. The patient had a persistent, dry cough, which greatly aggravated the attacks of dyspnea. The dyspnea continued at intervals for about ten days, being always aggravated by movement or coughing. For several days, the pulse remained about 120, and respiration

between 30 and 40 per minute. On December 25th, six days after onset of attack, temperature had fallen to 98.2, pulse to 116, respiration 35, and on January 4th, fifteen days after onset, temperature, 98.2; pulse, 85; respiration, 25. The patient made an uninterrupted recovery, and is now in good health. The treatment adopted was free stimulation, whiskey and strychnine and rest. On December 21st, two days after onset of attack of dyspnea, patient developed thrombosis of left femoral veins, with all the usual symptoms accompanying it. This subsided as time progressed.

Case 3.—This case occurred in the practice of another physician, who is now deceased, but as I was called in when the attack of embolism occurred, I have included it with the others. Mrs. M., aged 24, primipara; labor normal, slight laceration of perineum; two or three days after delivery had slight chill, and developed tenderness in right side, probably cellulitis; this passed off, and she was apparently convalescent and up on twelfth day. While attending to some trivial household duties on the sixteenth day after confinement, she suddenly complained of great pain over heart, and difficulty of breathing. She was placed in bed, but rapidly became unconscious, and died in about fifteen minutes.

These three cases, while presenting a clinical picture similar in their general outline, are symptomatic of a pathological condition, widely different in its etiology. When considering the cause of these attacks, we are confronted with the question, is the occlusion due to embolism of the pulmonary artery derived from a thrombosis in some of the systemic veins, or may it be due to primary thrombosis, originating in the pulmonary artery itself? My own opinion, based on what I have observed, and from the literature upon the subject, is that while embolism is the common cause, there are a certain number of cases which cannot be accounted for in any other way than that of primary local thrombosis of the pulmonary artery. Case No. 1 must, I think, be considered as a case of primary thrombosis in the pulmonary artery itself. In this case anemia was present in a marked degree, and all writers are agreed that chlorosis is a strong predisposing cause of thrombosis; the absence throughout of any rise in temperature, or other symptom of sepsis, the absence of any symptom that would indicate thrombosis of the pelvic veins or veins of the lower extremities or elsewhere, from which embolism could be derived, are strong negative reasons why this should be considered a case of primary thrombosis of the pulmonary artery. Welch, in an exhaustive treatise on this

subject of thrombosis and embolism says: "Although thrombosis is not a common complication of chlorosis, it is sufficiently frequent to indicate a special tendency to its occurrence in this disease." Playfair strongly advocates the theory that primary thrombosis of the pulmonary artery may occur, and in support of this view, he points out that the anatomical peculiarity of the pulmonary artery is a predisposing cause; also in puerperal cases that the blood in the later months of pregnancy is peculiarly rich in fibrin, and thus predisposed to the formation of coagula. Welch, in the treatise already referred to, says: "I also believe that primary thrombosis of the pulmonary artery is more frequent than is usually represented in the text-books," and Dr. Newton Pitt says that "thrombosis of the pulmonary artery is far from being rare, possibly occurring more frequently than any other vein or artery in the body." Many times only a small branch is occluded without any apparent symptom; it is only when a large-sized vessel is plugged that symptoms occur. Sir Jos. Fayrer is also a strong advocate of the thrombotic theory. He cites sixteen cases of death due to thrombosis in all of which post-mortems were held, and lays particular stress on the depraved condition of blood in malarial and splenic cachexia as a predisposing cause. Emboli in puerperal cases are generally derived from thrombosis in the veins of the lower extremities, or from the veins of the pelvis immediately surrounding the uterus; that thrombi in these veins following labor is practically always of septic origin is I think an established fact, so that in dealing with such a case of pulmonary embolism, which is not immediately fatal, we have to bear in mind that the resulting infarct is infective, and will be followed by a train of symptoms in addition to those of embolism, more or less severe in proportion to the size of the infarct and the virulence of the infection.

Case No. 2 is an example of such a condition. Septic thrombosis no doubt existed in the pelvic veins, and from it the embolism was derived. The apparent simultaneous appearance of thrombosis in the veins of the left leg, with the pulmonary embolism was, I think, due to an extension of the septic thrombi from the iliac to the femoral veins. Playfair, in his "System of Midwifery," cites a somewhat similar case, and advances the theory that the thrombosis in the pulmonary artery and the femoral vein both occurred simultaneously and independently, as a result of a peculiar condition of blood favoring coagulation. I cannot help thinking, however, that sepsis plays the principal part in cases with such a history.

Case No. 3 was also, I believe, a case of embolism, the emboli being derived from the pelvic veins, and no doubt due to septic infection. The time at which obstruction to the pulmonary artery is liable to occur is of some interest. Playfair says that when the accident occurs before the nineteenth day, it is generally thrombosis, when after that time emboli. Dr. Fordyce, in the "Encyclopedia Medica," says that embolism seldom occurs before the end of the second week. I have been able to collect the history of fifteen cases occurring after confinement; of these seven are reported to be due to thrombosis, and occurred one, seven, nine, ten, eleven, twelve and fourteen days after delivery. Eight are reported as due to embolism and occurred three-quarters of an hour, four, four, six, seven, fourteen, twenty-four and seventy days after delivery. Of my own cases, the case of thrombosis occurred twenty-four days after delivery, and those of embolism sixteen and thirty-six days after. A question of some interest arising out of the cases I have narrated is the formation of an infarct, a necessary sequence of obstruction of the pulmonary artery or its branches. In both my cases which survived the first attack, no physical signs could be detected in the lungs. Case No. 1 gave absolutely no evidence either by physical examination or subjective symptoms. In case No. 2, considerable pain was complained of in the left side posteriorly, cough already referred to was a troublesome symptom, but there was no expectoration, and only a small amount of frothy mucus. A physical examination gave negative results. The temperature, which ran between 100 and 102 for a week or more, might have been caused by the accompanying phlebitis in the vein of the left leg. The collateral circulation in the lungs through the numerous pulmonary capillaries, and with the bronchial mediastinal arteries, is so abundant, that in occlusion of the medium-sized or smaller vessels, the vitality of the parts is sustained if otherwise healthy. Infarction is most likely to occur in cases complicated by mitral insufficiency or fatty heart, where chronic congestion of the lungs exists. Welch says that the majority of cases of thrombosis and embolism of the pulmonary artery present no evidence of infarct. Newton Pitt places infarct following occlusion of pulmonary artery as occurring in less than one-third of the cases, but Prof. Anfrecht, in "Noethnegal System of Medicine," says that, in his opinion, infarction follows most cases of embolism of medium-sized arteries.

*Treatment.*—I should like to add just a few words as to treatment. In those cases where the main artery, or a large branch,

has been occluded, the physician seldom has an opportunity of attempting any form of treatment, death generally occurring before he can be summoned, and indeed, if he does arrive before the fatal termination, he can do little to avert it. In many cases, especially puerperal ones, much can be done in the way of prophylaxis. In cases where thrombosis of the veins of the extremities exists, it would seem almost superfluous to emphasize the necessity of rest and the avoidance of massage or friction to the affected limb; should thrombosis of the pelvic veins be suspected in the course of an obstetrical or gynecological case, prolonged rest in bed should be enforced. Should chlorosis complicate the case, as it generally does, the free administration of iron is indicated. Cases which must always give the medical man considerable anxiety are those in which an extreme degree of chlorosis exists, and which are complicated by the puerperal condition or by recent operation. I think in such cases following the puerperal period, that rest in bed, much beyond the time ordinarily prescribed, should be insisted upon. When an attack has occurred, and the patient survives the immediate onset, absolute rest in bed in the recumbent, or semi-recumbent, position is essentially necessary; often the slightest movement, such as raising the hand to the mouth, aggravates the dyspnea: free stimulation with whiskey and strychnine, the latter preferably by hypodermic injection, and liquid diet, are the principal indications; should much restlessness and pain exist, morphine (gr. 1-4) is a safe and reliable remedy.

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### ABDOMINAL CONTUSIONS.

BY A. E. BOLTON, M.D., VICTORIA, B.C.

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By this term I mean injuries to the abdominal wall and contents by some force applied to the surface of the body without resulting in a penetrating wound of the abdomen. These injuries are not infrequent in industrial centres. A couple of decades ago the more severe of such cases were diagnosed as grave internal injuries, and left to nature, with a very large percentage of deaths. At the present stage of surgical science, while we cannot always accurately diagnose the exact lesion, we should be able to recognize symptoms that indicate intra-abdominal exploration,

and it is important that this should be done as early as possible in the history of each case.

My object in bringing up this subject for discussion is that we, as general practitioners, may have our memories refreshed upon general points of diagnosis, and perhaps learn new lessons from each other's experience. I will first draw your attention to some general considerations stated by recent authorities and then rehearse brief notes of some cases occurring under my own observation, and that of fellow practitioners in this city during the past year.

*Mechanical Considerations.*—An expected blow upon the abdomen will be received upon rigidly contracted muscles, and the viscera protected, while one unexpected will find the muscles relaxed, and the force will be expended upon the internal organs. The stomach or bowel will be more readily ruptured if distended with food or gas.

*Symptoms.*—(1) External ecchymosis: The amount of visible bruise of the skin does not necessarily bear any relation to the severity of the internal lesion. This will be demonstrated in some of the cases to be described, where little or no external signs accompanied the most grave internal injuries. (2) Shock: Older writers give this as the chief symptom of injuries to the abdominal viscera. The literature and personal experience from which the material for this paper is drawn show that shock is the most unreliable of symptoms, as some of the most serious injuries are followed by no appreciable shock. (3) Temperature tells us very little, especially in the early hours when diagnosis is most difficult and yet most important. There is a fall of temperature corresponding to the amount and duration of shock, and a rise with reaction. A secondary fall below normal indicates serious trouble. (4) Pulse may not be altered in rate or force when shock is absent, although the injury may be severe. Acceleration after reaction is a bad indication. (5) Respiration is quiet and shallow in presence of shock. Rapid thoracic breathing is an important early sign in abdominal injury. (6) Vomiting immediately after accident is unimportant, later it has graver significance. (7) Thirst in reaction indicates internal hemorrhage. (8) Dulness in the lateral regions indicates hemorrhage or rupture of the bowel or pre-existent cyst. (9) Hematuria indicates generally injury to the kidney; catheterization should not be omitted, and the failure to find urine in the bladder indicates rupture of that viscus. (10) Tympany progressive and continuing a day or more after injury is a symptom of increasing

gravity. (11) Pain, without rigidity, may be from contusion of skin and muscle, but when associated with rigidity, and especially when deep and radiating, indicates serious trouble. (12) Tenderness, with pain, is important, and may assist in localizing the injury. (13) Rigidity is the most constant and most reliable of the early symptoms. There is an increasing board-like rigidity that is characteristic of severe intra-abdominal injury. (14) Abdominal facies once seen can be better recognized by recollection than by description. It may be absent in severe injury, but when present is pathognomonic of serious lesion.

Case 1.—Mill hand, age 40, struck by a piece of timber flung from a circular saw. The only external sign of injury was a small bruise a little below and to the left of the navel. Abdominal muscles were rigid, pulse full and strong and rate 80. Was given a stimulant, and was asked to report in three hours. Next seen twelve hours later: temperature, 100; pulse, 72; pain and rigidity increasing. Had him removed at once to Jubilee Hospital. Three hours later, temperature, 99.2; pulse, 68. Consultation with three confreres, with as many different opinions, at last resulted in decision in favor of immediate operation. Conditions found were: blood and intestinal contents free within the abdomen, the ileum was completely severed in two places within six inches of each other, directly over the promontory of the sacrum. The adjacent descending colon was also ruptured.

Case 2.—Miss B, aged 45, native of Iceland, injured by falling over a loose plank in the sidewalk. Early symptoms were pain, but no shock. She walked two blocks to her home. Seen by my colleague, Dr. Ernest Hall eighteen hours later, who sent her at once to the hospital. Symptoms were: pulse, 110; temperature, 101.5; moderate pain and tenderness over all parts of the abdomen with fluctuation. Immediate operation revealed the abdomen filled with the contents of a ruptured hydatid cyst, which occupied the left lobe of the liver.

Case 3.—Male, aged 20, seen with Dr. Duncan. Injured by several sacks of flour falling upon him, throwing his abdomen against the edge of a barrel. The only external injury was a slight ecchymosis at the navel. Very little shock, and very little pain at first. When I saw him four hours after the injury, there was marked rigidity, with pain and tenderness to the right of the umbilicus, intense thirst but no vomiting, breathing was shallow and rapid, thoracic in type, complained of intense pain in the suprascapular region, caused, in my opinion, by the extreme effort of the accessory muscles of respiration in that region.

Operation by Dr. Davie, at St. Joseph's Hospital, a few hours later, showed the abdomen filled with blood from a tear in the mesentery of the ileum. The omentum was also torn from the transverse colon with other minor injuries.

Cases 4 and 5, occurring in the practice of Dr. Frank Hall, were both young girls, one injured by the kick of a horse, and the other by a bicycle accident. One proved to be a case of rupture of the liver and also of the stomach, the other of the liver alone. The former presenting very little shock, while the latter was in profound shock when first seen.

Case 6 (reported by Dr. G. D. Hall).—Laborer, aged 52; at work excavating one hour after eating a hearty breakfast, tunnelling under a bank some fourteen feet high. A large block of clay, weighing between 1,500 and 2,000 pounds, loosened and struck him, throwing him on his right side, which position he was found in, being partially covered with the clay. He suffered severely from the shock. Radial pulse not perceptible; conscious; no vomiting. He was at once removed to the hospital and placed on the table, being immediately transfused. Examination disclosed a double fracture of the pelvis. Upon passing a catheter, no urine was found, but a little blood adhered to the end of the instrument upon withdrawal. Upon opening the abdomen, I found a rupture about three-quarters of an inch in length in the posterior part of the bladder, and the ileum completely severed in two places within a length of three inches, the rent passing a short distance into the mesentery; the rectum was also torn.

In conclusion, allow me to suggest that in every case of injury of the abdomen, the practitioner should remember that the gravest results often follow apparently the most trivial causes, and that all abdominal injuries be considered serious until subsequent results show that such apprehension is without warrant.

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### DEDUCTIONS FROM THE STUDY OF PELVIC DISEASES IN THE FEMALE INSANE.

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BY ERNEST A. HALL, M.D., VANCOUVER, B.C.

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It is not my purpose to give a *resumé* of the work which has been done with regard to the investigation into the causes of mental diseases, especially with reference to abnormal conditions

of the pelvic organs; nor to endeavor to attempt any solution of the problem of the co-relation of the physical with the psychic, but to give you a few deductions, which have been the product of several years of careful study of pelvic diseases as causative of abnormal mentality.

At the last meeting of this society, the able superintendent of our Provincial Hospital for the Insane gave us a masterly address upon the relation of general practitioners to the diagnosis and treatment of the insane, given from the standpoint of the specialist. My view-point is that of a general practitioner, and I shall deal with this matter as it has appeared to me in private practice.

It is but necessary to call your attention to the alarming increase of insanity upon this continent, to the ever-increasing burden that is thus entailed upon the State, and the shadow which this condition casts upon many of our best families, to arouse your interest in any measure, or measures, whose object is the amelioration, or curtailment, of this condition.

We have in this causation and treatment of insanity a problem second in importance only to that of the control of cancer and tuberculosis.

As an indication of the turning of the attention of the profession to this matter, many of the modern text-books upon gynecology contain a chapter upon this subject; and as an indication of the necessity of a careful examination of all cases presenting abnormality, I make the surprising statement that, of the 111 examinations which I have made of females with well-marked mental diseases, I found decided pathological conditions in 101 (90 per cent.). Several other investigators have found a similar percentage. I refer to Dr. Tyler, of Denver, who reports that less than 10 per cent. have normal pelvic organs. Dr. Hobbs, late of London Asylum, found 89 per cent. diseased. Reports from other asylums, where careful examinations were made, give about the same percentages.

Without enlarging upon this part of the subject, or going further into statistics and reports, all of which go to show that pelvic disease in the insane should receive appropriate treatment, as in the sane, and that mental unsoundness cannot be an excuse for the neglect of treatment of any physical lesion—matters upon which we all agree—I shall now proceed to make statements which we cannot be expected to accept unanimously. For the convenience of discussion, I shall state my deductions numeri-

cally—accepting Dr. Clouston's statement that insanity is the product of heredity and strain.

1. Given a condition of pelvic or abdominal disease in an insane woman of not less than forty-five years of age, whose physical condition necessitates section, providing the necessary manipulation does not necessarily render her sterile, *it is* the duty of the surgeon, with the consent of husband or friends, to render her incapable of reproduction.

2. Given a history of recovery from one or more attacks of insanity, in a married woman of less than forty-five years of age, *we are justified*, with the consent of the husband, or friends, in rendering her sterile by the smallest necessary manipulation.

3. Given a first attack of insanity in a woman of good heredity, if, after an examination by the best skill obtainable, without finding any physical lesion, *it is* justifiable, considering the surprises many of us have met with upon opening the abdomen, and also in consideration of the pathological conditions within the abdomen and pelvis that cannot be determined by any method of external examination, also considering the fact that we are dealing with a condition that may doom the patient to a death to all that we hold dear in life, and with a method of examination which has a risk scarcely more than that of the anesthetic, *we are justified*, I repeat, in opening the abdomen for the purpose of diagnosis.

4. Considering the somatic basis of insanity, or that mental disease is but the psychic sum of physical abnormality, and since it has been shown that the recovery rate is greater in recent cases, before the habits of vicious cortical metabolism have become established, we should endeavor to concentrate our efforts upon the treatment of recent cases, and endeavor to discover and remove the underlying physical lesion. In order to facilitate this treatment, I suggest that in connection with each of our city hospitals, a special ward be erected, or if necessary, and possibly better, at the present time, an additional hospital be established, specially adapted for the reception and care of recent cases of insanity, with Dr. Manchester as consulting physician; that they remain there for from one to three months under the care of their family physician, associated preferably with a nervous specialist, and a surgeon (which latter term now includes gynecologist), that if after receiving treatment, they do not recover, they then be passed into the provincial hospital. It would be folly to detain such cases as idiocy, senile dementia, or general paresis.

This suggestion is not with the idea of casting any reflection upon the management of our provincial hospital. It is as good as the present system can make it, and the superintendent one of the ablest in the Dominion. But I do say that no two men can do justice to a colony of invalids, such as our province has to support; and, further, that the associations of an asylum are not those in which you would care to see your wife, mother, or daughter placed except as a last resort; nor are such associations calculated to restore the weakened bodies or recuperate exhausted neurons. Not until we had exhausted all other means at our disposal should we desire such an environment.

Another point we must not lose sight of is the odium (the result of ages of ignorance, I admit) which attaches to detention in a provincial hospital, which, while it may be ridiculed in such a discussion as this, is sufficient to blast the prospects of any man or woman who holds a position of trust, or prominence. Also with such detention hospitals, a radical change could be made in our methods of commitment, which have so frequently been criticized, all of which would, of course, require an amendment to the Lunacy Act.

I may say that nervous wards are being added to many of the Eastern hospitals, in which certain controllable types of insanity are being treated.

As an indication of the inadequacy of the present equipment to meet the requirements of the case, I shall refer to the report of the Provincial Hospital for the Insane for the year 1902, in which Dr. Manchester makes the following statement:

#### “TREATMENT.

“The methods of treatment pursued during the past year have not differed from those employed in the year before, as outlined in last report, and while they have been as successful as usual, and results compare favorably with those obtained in other years, yet I would not be doing my duty if I allowed you to think that our methods are as advanced as they should be. We lack many facilities, even primary ones, for carrying on the most modern and scientific treatment of the insane, and narrowly escape ranking as a mere house of detention.

“If you were to remove from this institution all the patients' bedrooms, dining-rooms, lavatories and closets, together with the kitchen and heating plant, officers and attendants' quarters and the newly-erected shops, what would be left? Almost nothing.

The apartments enumerated are what you would find in connection with any home; wherein, then, does the hospital consist? True, we possess an up-to-date operating room as the sole mark of a hospital, but even this is so badly set as to its immediate surroundings as to greatly curtail its usefulness. But where are the patients' examining rooms, the laboratories with their instruments for the examination of blood, urine and sputum, the hydro-therapeutic and the electro-therapeutic appliances which are proving so useful in many places; where are the walks for an airing and the gymnasium for exercise during the long winter months, and the campus for outdoor recreation in summer? The truth is they are all lacking, and largely for the reason that they were not considered necessary here in the past."

Again, with reference to self-supporting patients, of which there are not a few in the province, having had six under my own care within the past year, Dr. Manchester says:

#### "PAYING PATIENTS.

"There have never been any special arrangements made in this Hospital to cater to the needs of a self-maintaining class of patients, and the result has been that all such have simply had to take their places amongst the 'free patients,' sharing the same rooms with them and eating at the same tables the same simple bill of fare. This is certainly contrary to the commonest sense of justice, and while it may not be the intention of the Government to encourage the committal of this class of patient to the institution, they should do either one of two things, namely, refuse to accept the money which these patients are able and willing to pay, or give them some better consideration in return for it. There happens to be no private institution for the care of insane in this Province, and, until there is, a portion of these buildings could be laid apart for them and suitably furnished and tended."

#### THE GRAND JURY'S FINDING.

With reference to the establishment of such an institution, I made a suggestion to the Board of Directors of the Vancouver City Hospital, that such accommodation be afforded in the new city hospital, and that the idea should be embodied in the new plans. I am not aware that anything was done in the matter.

As to the constituency for this proposed hospital, I have at present three cases under my care that should be in such an institution. I have refused to take charge of others. These

patients are all being supported liberally by their friends. I can see no reason why the hospital cannot be self-supporting until such time as provision be made for the reception of poor patients. With an organization upon a liberal basis, without partiality, the co-operation of the profession might be reasonably expected.

It is apparent to the grand jury that the institution is overcrowded in some sections. Taking the whole accommodation and comparing it with the number of patients in the institution we find only ten male beds vacant, and accommodation for only one more female.

As to the immediate future, a lady of intelligence and means has made the offer to begin this work in her residence. She has had not a little experience in nursing, and will manage the hospital, employing trained nurses and undertaking all financial obligations. For the present only paying cases could be taken.

In closing, I suggest also the following resolution:

*Resolved*, That inasmuch as the increase of the number of insane dependent upon our province demands additional accommodation to be provided, and since our Provincial Hospital for the Insane is insufficiently equipped for the modern treatment of disease, that the British Columbia Medical Society recommend to the Provincial Legislature the establishing of a "Hospital for Nervous Diseases," for the reception and treatment of recent cases of insanity, and that the Lunacy Act be so amended as to give the presiding magistrate the power to commit suitable cases thereto.

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## EXTRA UTERINE PREGNANCY

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BY F. W. HALL, M.D., VICTORIA, B.C.

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*Mr. President and Gentlemen*,—It is just two days ago since I was requested to read a paper on ectopic gestation, and I must therefore ask your indulgence for the brevity of this paper, and the small amount of knowledge imparted by it. You see it was not down on the list of papers to be read at this meeting, and will just come in as a sort of appendix, not a vermiform appendix, but on the same principle; that you would be just as well off without it.

When an impregnated ovum becomes fixed, and begins to de-

velop outside of the uterine cavity ectopic gestation, or extra uterine pregnancy is established, the varieties being tubal, ovarian and abdominal.

*Etiology.*—The point at which the spermatozoa meet and impregnate the ovum is not known. The ease with which the spermatozoa pass from the vagina through a virgin os uteri into the uterus, and the occasional cases in which they travel through an almost imperforate hymen, make it reasonable to suppose that they may pass as readily up the uterus into the fallopian tube, and even into the abdominal cavity. Pathological or abnormal conditions of the tube, however, form the most important factor in the causation of ectopic gestation. Chief among these conditions are congenital deviations, from the normal type, such as exaggerated convolutions, diverticula, sagging and attachments by adhesions, resulting in the distortion of the tube, pressure from adjoining organs; thickening of tubal walls, either congenital or acquired. desquamative salpingitis, growths either in the canal or the walls, etc.

*Pathology.*—With the establishment of pregnancy in the tube the uterus begins to enlarge, and up to the fifth month is usually about one-third smaller than intra-uterine pregnancy of the same age. Rupture of a tubal pregnancy, with death of the ovum, checks uterine growth, and involution follows. If the ovum does not die the uterus may continue to enlarge, but to a lesser degree.

*The Decidua.*—The formation of the decidua is one of the most notable changes in the uterus in ectopic gestation. It resembles the decidua vera of normal pregnancy, and is thrown off in one complete cast about the time of primary tubal rupture, and this event is generally accompanied by metrorrhagia. The membrane is cast off, even if the ovum remain alive.

The decidua is one-eighth to one-quarter inch in thickness and rough on its uterine and smooth upon its inner surface, and shows no trace of decidua reflexa, nor of decidua serotina.

*Diagnosis.*—The principal features upon which a diagnosis rests are: Arrested menstruation, generally but two or three days over time. A sudden attack of pain, of a cramp-like character in the lower abdomen, located more especially to the affected side, associated at times with an intense pain in the rectum of a lancinating character. The blood passed is usually dark, grumous in appearance, and its flow is generally more or less constant. The paroxysms of pain continue for from one-half to two hours, and are at intervals of from one to four days, or more. Bi-manual examination is painful, especially when you palpate the tumor on

either side of the uterus. The uterus is changed in size and consistency, and is dislocated according to position and size of the blood-tumor. If the patient has not nursed a baby for more than a year, or has not previously been pregnant, the presence of cholestom is an important symptom, especially when taken together with other symptoms.

Rupture is diagnosed by the suddenness of the attack, and the excruciating pain followed by more or less syncope, and if it is possible to obtain a history from a relative, the data already given may aid in corroborating the suspected diagnosis.

The differential diagnosis is at times most difficult, and in some cases impossible without an exploratory incision.

1. The condition most likely to mislead you would be the rupture of a large ovarian hematoma, especially if there is a continuous oozing from the torn surface.

2. Subacute gonorrhoeal pyosalpinx: The symptoms resemble those of tubal rupture in every particular, so that one may be easily lead into making a wrong diagnosis; but you will generally find the suppurative change affecting both tubes simultaneously, while tubal pregnancy is very seldom present in both tubes. A small vaginal incision into Douglas's sac would soon clear the diagnosis, but as either condition requires surgical treatment to bring about the well-being of the patient I do not see as it matters much.

*Treatment.*—We should look upon intra-uterine pregnancy as one would regard a beginning malignant neoplasm, which should be removed as soon as a diagnosis has been made.

I have dismissed the treatments of: (1) Aspiration of liquor amnii; (2) infection of morphea into the tubal sac; (3) treatment by means of electricity as being not proven, although there is evidence of these means being successful. I recognize but two methods, the conservative and the surgical treatment. The conservative consists briefly in keeping your patient absolutely at rest, with a nurse constantly in attendance, an ice-coil applied to the abdomen, morphia to keep her comfortable and a liquid diet.

*The Surgical.*—The abdominal incision should be rapidly made, and be of sufficient length to permit one to work as rapidly as possible. The blood oftentimes wells up out of the abdomen as from a fountain. No attention should be paid to this. The pelvis must be reached at once, and the affected tube or tubes be brought up at once and tied. Then proceed to have warm saline solution poured into the abdomen by an assistant, while the

operator removes all clots of blood from the pelvis and lower abdomen. The abdominal cavity is then left filled with saline solution and the abdomen closed in layers.

I have had thirteen cases of tubal extra-uterine pregnancy, one of which died before operation, and a post-mortem revealed pregnancy in tubes of about six weeks' duration; the rupture had taken place close up to left cornu of uterus.

Two I diagnosed before rupture, and ten some hours after rupture. Eleven recovered, and one died eighteen hours after operation of shock from loss of blood and operation. In all cases after rupture I have an assistant at the time I am preparing my patient to transfuse from thirty to forty ounces of saline solution into the cephalic or median basilic veins. I always leave the abdominal cavity filled with hot saline solution, and have saline into the bowels every two hours for the first twenty-four or forty-eight hours and 1-30 gr. strychnine, by hypodermic injection, every four hours, for first three or four days, and open the bowel on the third day.

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## PERINEAL PROSTATECTOMY.

BY ROBERT TELFORD, M.D., VANCOUVER, B.C.

Surgeon Burrard Sanitarium Vancouver, B.C.

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It is not my intention in the present paper to describe the various operations in vogue for removing enlarged prostates, nor to enter at any length into the symptoms or general treatment. I merely wish to describe and invite discussion upon the perineal operation, which has become so popular in Eastern surgical centres during the past few years, and to report a case I operated upon by that method.

In this, as in all operations for the removal of the prostate, the patient must be thoroughly prepared. By thoroughly, I do not refer to the ordinary routine preparation of resting, dieting, bathing, purging and antiseptics, which extends over two or three days, and is common to all major operations. This is all required, but much more. Cases with enlarged prostates are usually advanced in years, and their malady chronic in character. The bladder is frequently infected, and occasionally a severe cyst-

itis is present. Very often the infection has found its way through the ureters to the kidneys, which also partake of the infective process. The patient's health is usually far below par, and, as a rule, they are unfit to endure any serious surgical operation. In prostatectomy, the preparation should extend over two or three weeks if necessary, until the general health is raised to the maximum, the cystitis much reduced, and the urine clear and aseptic, preliminary perineal drainage being resorted to if necessary.

On entering the hospital, they should be put upon a tonic and a nutritious diet which is unirritating to the kidneys and bladder. Abundance of water should be given—two quarts a day at least—five grains of urotropin four times a day; the bladder washed with warm boracic solution twice daily, and the catheter used at regular intervals; the skin thoroughly cleansed and massaged daily; four or five electric light baths should be given to promote thorough elimination of toxins through the sudoriferous glands and to produce a healthy condition of the skin.

The patient having been thoroughly prepared and anesthetized, the operation is proceeded with as follows: The patient is placed in the lithotomy position, a sound is introduced up to the prostate, and held firmly by an assistant. The index finger of left hand is introduced into rectum. With sound in urethra and finger in rectum as guides, it is comparatively easy to extend incision through the superficial structures to capsule of enlarged gland. There are four methods of making external incisions advocated:

1. The median perineal incision, which consists of a straight perpendicular section in the median line.
2. Zuckerkandl's semilunar incision, which extends between tuberosities of ischia with convexity forward.
3. Kocher's triangular incision, which consists of two slightly curved lines drawn from tuberosities of the ischium to a point in median line opposite membranous urethra.
4. Senn's Y-incision, which consists of an inverted capital Y, and is made by drawing two straight lines from lower end of median incision to points midway between rectum and tuberosity of the ischium.

I believe Senn's inverted Y-incision exposes the prostate to the best advantage, and will be particularly appreciated in obese subjects.

The skin, subcutaneous fascia, muscles, and membranes are incised with the scalpel. The deeper dissection, which consists

of separating rectum from, and laying bare, the prostate, should be done with fingers or blunt instrument. All bleeding points must be carefully secured and tied, special attention being paid to hemorrhoidal plexus. Pads of gauze, wrung out of hot water, will be found of service in stopping the general oozing. A clear field is imperative to perform this operation properly, besides these patients will not endure the loss of much blood. The gland must be completely exposed before attempting its enucleation. The lower flap should be held down by a large vaginal speculum, and the sides of incision held back by long, narrow retractors. One of the lateral lobes of prostate is now seized by a bullet forceps, and pulled forcibly downwards, while a horizontal incision is made through capsule of other lobe. The lobe is then shelled out of its capsule by aid of the finger, except at its junction with the middle lobe. The other lobe is separated in a similar manner. The two lateral lobes are now grasped by the forceps, and pulled downwards, while the central lobe is clipped off, together with a portion of prostatic urethra. In case adhesions prevent enucleation, you will have to resort to moullement. The finger should now be inserted into the bladder, and a thorough examination made for calculi. If any are discovered, they should be removed, enlarging the incision backwards if necessary. A small rubber tube is now inserted into the bladder for drainage, and brought out at one end of incision, where it is stitched to skin. A rubber catheter is passed through penis into bladder, and held in place by a stitch. This serves to mould urethra, and aids in washing out the bladder. The bladder and urethra should be stitched up closely around drainage tube.

Iodoform gauze is packed well against neck of bladder around the tube, and allowed to drain externally. The gauze packing serves to drain incision, and prevents urine escaping except through drainage tube. The fascia, muscles and skin are now sewn up with silk-worm gut, and plenty of dressings applied.

With the catheter in urethra and drainage tube entering by perineum, we have an excellent chance to irrigate the bladder. This should be done several times a day until healing is complete. Gauze should be removed in from twenty-four to forty-eight hours after operation, and drainage tube in about six days. After the eighth day, the catheter should be removed about every second day, cleansed and reinserted. This should be continued for three weeks. Five grains of urotropin should be given three times a day, until parts are in a healthy condition. The patient should be made to sit up in from two to three days after opera-

tion, and be out of bed in a week or ten days. The incision will generally heal by first intention, and be completely closed in from three to five weeks.

Bottini's method and the suprapubic operation have many strenuous advocates, and up until the last few years the latter was considered the safest and easiest method, but the perineal route has now had a fairly extended trial, and seems likely to survive the test of time. From an anatomical standpoint it is to be preferred. The perineal method gives dependent drainage, which is the ideal treatment for prostatic complication, and the bladder can be thoroughly irrigated with the minimum of disturbance to patient.

#### REPORT OF CASE.

Patient, aged 70, had urinary trouble for past fifteen years. The chief symptoms were frequency of micturition; more marked during the night although quite frequent during the day. Urine was passed with little force, and was accompanied with some pain at neck of bladder. Urine contained abundance of pus and mucus, but no blood. For five months previous to operation, was compelled to rise every half hour to relieve his bladder. This disturbance of sleep caused a marked failure in health. Examination of prostate per rectum showed it to be moderately and uniformly enlarged. Passing of catheter caused severe pain, and the patient would rather submit to an operation than resort to catheter life.

He was put under treatment for twelve days before attempting an operation. During that time he was encouraged to drink large quantities of water, received four electric light baths, and had skin massaged after each. Five grains of urotropin were given four times a day, bowels regulated, and bladder washed three times a day with boracic solution. At the end of this time we considered him in a good condition for an operation.

After patient was anesthetized, a sound was passed and stone discovered. A sound had been passed twice previously, once by myself and once by another practitioner, but without finding the stone. The operation was performed as above described. Zuckerkandl's incision being employed. After removing prostate, an incision was made through neck of bladder posteriorly, and stone removed.

Patient made good recovery. There was no rise of temperature. Incision was completely healed in five weeks. Slight tenderness existed in perineum for a few weeks after leaving hos-

pital, but this has completely disappeared. He now rises about once during the night to relieve himself, but this is more due to habit than necessity. He says a sudden step down or jolt will sometimes give him a desire to urinate, but otherwise his urinary apparatus is in perfect condition.

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## Selected Article

### THE DIAGNOSIS AND TREATMENT OF DISEASES OF THE THROAT IN CHILDREN.

BY DR. N. FILATOV.

Late Professor in the Imperial University of Moscow, Russia.

(Translation from Russian by G. B. Hassin, M.D., Chicago.)

Acute inflammations of the mucous membrane of the fauces, the so-called sore throats, occur in childhood very often; but, *since children younger than five years usually do not complain of painful deglutition*, it is very easy to overlook a sore throat, provided the physician does not stick to the rule *to examine the throat in every diseased child*, especially in febrile conditions. The strict fulfilment of this rule is the chief condition of a correct diagnosis of throat diseases in children. In many cases, especially in nurslings, inspection alone is insufficient; one must also feel the throat with the finger, by which it is easy to discover a retro-pharyngeal abscess.

Sore throat always manifests itself by reddening and swelling of the mucous membrane of the tonsils, and soft palate; sometimes these symptoms settle the matter, while in other cases whitish or yellowish islets, or patches, and diffuse coating appear on the real surface.

*Diseases of the Throat Characterized by Reddening of the Mucous Membrane of the Tonsils and Soft Palate*—Here must be included first of all *simple or catarrhal sore throat*—angina catarrhalis. This disease appears either primarily, under the influence of exposure to cold, in entirely healthy children, or secondarily during exacerbations of a chronic catarrh of the throat, especially in scrofulous children with hypertrophied tonsils, or in acute infectious diseases, namely, in influenza, scarlet fever and measles.

*Genuine catarrhal sore throat*, *angina catarrhalis rheumatica*, occurs quite seldom, more seldom than, for instance, different spotted sore throats. This disease is characterized by a considerable fever (in older children by painful deglutition) and redness, with swelling of the mucous membrane of the tonsils and soft palate. In two or three days everything is over. If similar attacks take place repeatedly in a child during autumn and winter, and if the tonsils are enlarged or there are some other signs of chronic catarrh of the throat, as dilatation of the vessels and swelling of the glands of the posterior walls of the pharynx whose mucous membrane is usually dry, then we have to deal with exacerbation of the chronic catarrh, the fever being in such cases insignificant and sometimes even entirely absent.

Catarrhal sore throat as an accompanying symptom of an infectious disease, differs from a primary sore throat by the characteristic signs of the latter: in *la grippe* snuffles is always present and often also cough; in scarlet fever a characteristic eruption on the skin appears at the end of the first 20 hours; in measles, however, the diagnosis may be helped out by the mucous membrane of the fauces remaining still normal on the first day of the fever, and on the second or third day there appears not a diffuse redness, but a spotted one. Spots of the size of a pea appear in limited number on the soft and partly on the hard palate, on the normal, *i.e.*, not reddened mucous membrane; the diffuse hyperemia occurring later on, for instance, after twenty-four hours, when separate spots disappear. They are easier to be seen on the other parts of the mouth, especially on the mucous membrane of the lips and cheeks.

In scarlet fever, from the very first, the redness of the fauces is also not of a diffuse character, but consists of very small points. The spots are much smaller than the patches in measles, are situated closely together, and sometimes one may notice that they are produced by petechia. If the scarlatinal eruption of the soft palate be not accompanied by punctate hemorrhages it very soon becomes converted into diffuse redness which to some extent is characteristic, because in the beginning it occupies the centre of the soft palate and is limited by very abrupt edges (map-like redness), while in simple catarrhal sore throat the tonsils become affected more often, and the redness never differs decidedly from the normal mucous membrane. After one or two days the specific character of the scarlatinal catarrhal sore throat disappears, the redness becoming diffuse and spreading over the tonsils and posterior wall of the pharynx.

*Diseases of the Throat Manifested by Formation on the Tonsils of Whitish-Yellow Islets.—Follicular Sore Throat—angina follicularis.*—Inflammation of the follicles results in the appearance on the reddened surface of the tonsils of a considerable number of yellowish, round, slightly elevated islets or plugs the size of a pin's head. This angina differs from all other spotted sore throats by the equable size and regular shape of the islets, so that the tonsils look like a "starry sky" (Stromeyer). The eruption of the islets never extends over the margins of the tonsils. This disease starts from the very first with high fever, sometimes with vomiting, and may therefore raise suspicion of scarlet fever, the more that the scarlatinal sore throat sometimes develops in the form of a follicular one. The doubt cannot last here longer than twenty-four hours, i.e., until the appearance of the scarlatinal rash.

*Lacunar sore throat—angina lacunaris*—differs from the preceding form by the shape and color of the islets. On the reddened tonsils there are noticeable irregular, sometimes chunky, figures, of an entirely white color. Here we do not deal with elevations of the mucous membrane, i.e., not with swollen follicles, but simply with accumulation of catarrhal secretion (mucus, epithelium, fungi) in the hollows, which are so abundant in the tonsils, especially when they are hypertrophied. If the plugs of the lacunæ are of a purely white color, then is the diagnosis easy, because in other punctate sore throats the islets are of a yellowish or grayish tint; if, however, the lacunæ are filled out with mucopurulent secretions and look like islets, then the disease may be thought of as a spotted diphtheria. The latter has two peculiar signs, which could aid the diagnosis immediately, or at least not later than twenty-four hours. The first peculiarity of diphtheria is that the exudation (wherever diphtheria may be—in the throat, intestines, etc.—it is immaterial) occupies first the eminent parts of the mucous membrane (in dysentery, for instance, the tops of the villi), and therefore the diphtheritic process will affect first not the cavity of the tonsillar hollow, as it occurs in lacunar sore throat, but the edges of the latter. To be able to find out minutely the localization of the islets, it is necessary, of course, that the patient could show his throat, but this is often not possible with children. In such a case one must postpone the final decision until the next day and take advantage of the other peculiarity of diphtheria, namely, its liability to spread over the surface. If on the next day the islets have become larger and some of them con-

fluent, having formed patches, then it is probable that we have to deal not with a lacunar, but with a diphtheritic, sore throat.

Lacunar sore throat begins and runs with high fever (nearly 40 deg. C.—104 deg. F.) and has a cyclic course, ending with crisis on the third, seldom on the fourth, day. If, however, diphtheria starts with high fever, it always has during the first days a progressive course, assumes a membranous form and never terminates so quickly without the serum treatment. The abortive form of diphtheria which remains until the end as a punctate sore throat may end with recovery in three to four days, but in such a case it remains as a purely local morbid process; running not only without fever, but also without redness of the affected mucous membrane.

Lacunar sore throat is to be considered as an acute infectious disease; this is proven by its cyclic course and appearance as family epidemics; the latter fact makes the diagnosis easier, because the epidemics of diphtheria cannot occur as *slight* sore throats with a typical course.

*Apthous sore throat* is characterized by formation on the mucous membrane of the soft palate and tonsils of small (the size of the pea) round, superficial, yellowish, *ulcerations* with decidedly hyperemic edges. It is not easy to confound this morbid form with diphtheria or other punctate sore throats, because ulcers are never confined to the tonsils only, but are always accompanied by aphthæ in *other parts of the oral mucous membrane*, especially on the tongue, lips and gums.

Apthous angina, like the apthous stomatitis, is often accompanied with considerable fever.

*Punctate diphtheria* differs from other punctate sore throats, as already pointed out, by two peculiarities: the liability to extend over the surface, and primary appearance on the eminences of the mucous membrane. Diphtheria, even when membranous, often runs with almost normal temperature, but its punctate variety may be almost excluded, if there is considerable fever; if we have to deal with family epidemics, then the diagnosis may be easy, thanks to the fact of typical forms of diphtheria occurring simultaneously with abortive spotted forms.

The appearance of paralysis in the patient after two or three weeks indicate that there was diphtheria, notwithstanding the fact that Gubler long ago described several cases of paralysis very characteristic of diphtheria yet developing after simple sore throats; but his observations were made in pre-bacterio-

logical times. More demonstrative are cases of Bourges, a diphtheritic paralysis after streptococcus angina, and those of Futterer; at any rate, the occurrence of paralysis after non-diphtheritic sore throat is so infrequent that it may be disregarded.

*Diseases of the Throat Accompanied by the Formation of Coats or Membranes.*—In a normal, non-hypertrophied tonsil there may always be seen in its centre quite a large hollow (lacuna) of an oval shape with its longest diameter from above downward. This hollow is sometimes filled in catarrhal or in parenchymatous sore throat with a mucous plug up to the top (as in lacunar angina the small hollows are filled), and then a white spot of the size, for instance, of a small pencil, appears in the centre of the swollen and reddened tonsil. This spot is adherent so firmly that it cannot be removed with a brush and stimulates therefore, as well as by its size, diphtheritic sore throat.

This variety of lacunar sore throat is often accompanied by a considerable swelling of the whole gland—angina parenchymatosa—and often terminates in the formation of an abscess.

The beginning of the disease is manifested by violent fever, usually associated with chills, and in older children by very hindered deglutition.

The white spot, developing on the place of a lacuna, has some peculiarities by which it can be differentiated from a diphtheritic coating: (1) It *always occupies the middle of the tonsil*; (2) it always has an *oval form* with the longest diameter from above downwards; (3) its edges are sharply *limited*, the surface, however, reaching the mucous membrane, is seldom elevated; (4) its *color* is, at the start, *intensely white*; (5) the size of the spots remains stationary during several days. On the other hand, the diphtheritic coating is of grayish or yellowish tint, irregular in its contour and grows larger every day, extending not only over the tonsils, but usually also to the soft palate (uvula) and posterior wall of the pharynx.

*Herpetic sore throat*, or herpes of the throat—herpes tonsillarum sive angina herpetica—is characterized by the appearance on the tonsil of a group of thickly crowded vesicles, which very soon rupture and leave in their place an erosion, surrounded by a bright-red ground. The erosion soon becomes covered with a fibrinous membrane which stimulates diphtheria. The eruption of the small vesicles and the formation of the yellowish coating is preceded by a febrile condition of two or three days' duration, sometimes very severe.

The disease terminates in recovery in three or four days.

If the physician did not see the vesicular period he may easily fall into a mistake by accepting the grayish-yellow surface of the erosion for the diphtheritic coat, which it resembles in its color and outlines. According to Cadet de Gassicourt, herpes of the pharynx is the most frequent source of error not always avoidable by a single examination; but one can hardly agree that angina herpetica appears as a *frequent* cause of doubt, as this form of malady occurs very seldom.

The differential points from diphtheria consist first of all in the etiological factors (angina herpetica arises from an unknown cause or from an undoubted exposure to cold, diphtheria from infection); then in the durable and high *prodromal* fever, in the origin of the coating from a group of vesicles (if the exudation be removed from the surface of the ulceration by means of cotton, it is often easy to see the scalloped margins of the erosion, alluding to its vesicular origin), in herpes of the lips often accompanying the pharyngeal herpes and in the rapid recovery.

*Membranous or pseudo-diphtheritic (diphtheroid) sore throat—pseudo-diphtheritis, s. angina diphtheroidea, s. angina fibrinosa simplex.*—We employ this name in a purely clinical sense and understand by it every kind of inflammation of the mucous membrane occurring with the formation of white or whitish-yellow coats similar to diphtheritic, but independent of the diphtheritic poison, *i.e.*, sore throats in which Löffler's bacillus cannot be found either by microscopical examination of the membranes, or by making cultures on blood serum. That diphtheritic coatings may be produced not only by Löffler's bacillus, but also by other microbes, is undoubted now, but which microbes possess this peculiarity we do not know positively; it is certain only that different microbes as, for instance, streptococci, Brisou's small coccus, staphylococci, Frankel's pneumo-bacillus, etc., can produce such membranes. On the basis of personal observations made during late years on the clinical material of the hospitals for contagious diseases (Moscow) we came to the conclusion that the staphylococcus and streptococcus are the most frequent elements in the pseudo-membranous sore throats and that, for instance, almost all cases of scarlatinal diphtheria may be called streptococcus from the bacteriological point of view. It is also undoubtedly true that streptococcus pseudo-diphtheritic sore throat is sometimes observed without scarlet fever, *viz.*, as a genuine independent dis-

ease. In such cases, to be sure, one cannot deny the possibility of scarlet fever without eruption; but such a proposition may be sometimes denied positively by the fact that the patient immediately after streptococcus pseudo-diphtheritic sore throat becomes infected with scarlet fever. I observed such a case in the infectious departments in December, 1892. Klebs\* observed a whole family epidemic of false diphtheria which was caused by a large micrococcus of the group of monades, so that "*the contagiousness is not to be held as a proof that a given sore throat is not of pseudo-diphtheritic nature.*"

Dr. Boullouche † describes, besides the streptococcus sore throat, three other forms of pseudo-diphtheritic angina due to staphylococcus, pneumococcus and coccus. In his opinion all these infections, including the streptococcus variety, are not contagious, being usually of a short and favorable course. Raukhfuss found in the majority of cases of diphtheritic sore throats Löffler's bacillus in the stage of involution and accepts such cases as abortive forms of diphtheria, *i.e.*, as diphtheria which developed in a person almost immune to the poison of this disease. According to his observations such patients do not contract this disease when placed among those suffering with diphtheria and do not convey their disease when placed among healthy. ‡

Since false diphtheria does not differ very much in its pathologico-anatomical features from the genuine and the etiology, being the most important differential point between these sore throats, remains often obscure, then it is comprehensible that the diagnosis of false diphtheria exhibits in the very first stage of the disease great difficulties, while the timely decision of the question regarding the nature of the disease is very important for the prognosis as well as for the treatment. The main thing is that pseudo-diphtheritic sore throats are held as slight diseases (our observations completely confirm in this regard those of Roux and Yersin, § who never observed here a fatal termination) and it is not necessary to isolate such patients—a point of great urgency in a case of genuine diphtheria.

A prompt and exact diagnosis may be made only through

\*Klebs: Real-Encyclopædia of Prof. Eulenburg, Article "Diphtheria," p. 164.

†Dr. Boullouche: Les angines à fausses membranes. Paris, 1894, pp. 142-153.

‡Report on the twenty-five years' activity of the Children's Hospital of the Prince of Oldenburg, S. Petersburg, 1894, p. 334 (Russian).

§See Vrach., 1890, p. 708 (Russian).

the bacteriologic examination (see below), and in case the latter is not applicable then one must content himself by the more or less probable proposition and by clearing up the question through its further course

Numerous investigations by many authors show that diphtheroid sore throats are far from being rare; from Dr. Polievk-tov's table\* one can see that out of 1,169 cases, examined in different clinics, pseudo-diphtheritic sore throat (*i.e.*, not caused by Löffler's bacillus) occurred 151 times, *viz.*, in 15 per cent. In our clinic (Moscow) out of 100 cases, 26 times; Martin met them still more often, namely, of 112 cases, 43 times, *i.e.* in 38.4 per cent. It is self-evident that the per cent. of false diphtheritic will be still greater if all cases of sore throat with white spots, which clinically do not look like diphtheria altogether, be referred to this disease

In many cases pseudo-diphtheria resembles the genuine Löffler one to such a degree that even the most experienced physician is unable to make a final conclusion without bacterioscopic examination. The practical rule in such cases is therefore the following: if the physician be in such an environment that he cannot resort to a bacteriological examination, he should in all doubtful cases make a subcutaneous injection of antitoxin and isolate the patient.

On the ground of clinical and etiological data one may with greater or less reliability *exclude pseudo-diphtheritic sore throat* and accept diphtheria, if in a given family there has occurred previously cases of this malady, if the latter runs without or with insignificant fever (but not *vice versa*, because high fever does not exclude diphtheria); if the membranes spread over the edges of the tonsils, for instance, on the soft palate, uvula, nose, larynx. Among the pseudo-diphtheritic sore throats only the scarlatinal variety is very liable to extend far over the borders of the tonsils; all other forms do not affect the soft palate, nor the posterior pharyngeal wall, with, of course, rare exceptions.

Albuminuria is not unfrequently met with in pseudo-diphtheria, but the subsequent paralyses only in diphtheria (Bourges' case, see above.)

*Pseudo-diphtheria may be suspicious*, then, when in a given family there has occurred several cases of a seemingly slight diphtheria, if the membranes be of white color and not firmly attached to the mucous membrane, if the disease began as a

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\*Transactions of the Society of Pediatrics in Moscow for the year 1893—946, 113.

severe catarrhal sore throat; *i.e.*, with a high fever associated with intense redness of the fauces and very painful deglutition. It is important to point out that in pseudo-diphtheria the membranous exudation almost never extends to the borders of the tonsils, so that the presence of coats on the soft palate, uvula and the posterior pillars points toward a genuine diphtheria (it must be again borne in mind that the scarlatinal false diphtheria is an exception). Finally, the establishment of the diagnosis may be very much helped out by the result of serum treatment. In a recent case (two or three days from the beginning of the disease) of genuine diphtheria, a decided improvement is usually obtained from twelve to twenty-four hours after the injection; in the case, however, of false diphtheria the serum does not influence the further course of the morbid process.

*Diphtheria of the fauces.*—On the basis of pathologico-anatomical data only such a sore throat should be regarded as diphtheria in which a real diphtheritic exudation is developed; when so-called coagulatory necrosis of the mucous membrane is formed; in the period of recovery the necrotic parts should slough off by reactive suppuration and on the spot of diphtheria must remain an ulcer, and a scar after healing of the latter. But from the clinical standpoint something else is known as diphtheria, something that does not lead to necrosis of the mucous membrane, nor to the formation of ulcers or scars, although such processes here may have place. In the diagnosis of diphtheria of the throat the clinicians are guided not by the anatomical changes of the mucous membrane, but by etiological causes, namely: *diphtheria of the throat is an inflammation of its mucous membrane produced by the poison of diphtheria*—Löffler's bacillus. It is immaterial whether the throat be affected by a croupous exudation, or the inflammation be only a catarrhal one; as soon as we find that in a given case the cause of sore throat is Löffler's bacillus we should regard such morbid process diphtheritic sore throat, and for denoting its particular character we should add the corresponding epithet. Thus we distinguish the catarrhal form of diphtheria, croupous diphtheria and gangrenous or septic diphtheria. These forms are all varieties of the same pathological process—diphtheria which belongs to contagious and epidemic diseases.

Since not only Löffler's bacillus is liable to produce croupous or diphtheria inflammation of the mucous membranes—*i.e.*, membranous exudations, but also other microbes, it is compre-

hensible that the presence of membranous coating alone on some part of the mucous membrane does not prove that we have to deal in any given case with diphtheria; for instance, in a severe bloody diarrhea there occurs diphtheria of the large intestines; but this does not mean that the patient contracted the diphtheritic virus, because such a disease usually is produced by the virus of another affection—namely, dysentery. In the last case also there are met different degrees of inflammation, as in diphtheria of the throat, and therefore there are determined catarrhal, croupous and diphtheritic varieties—in fact the analogy is complete. The same occurs in the throat during scarlet fever, which virus always produces inflammation of the mucous membrane of the fauces; but the degree of this inflammation varies in diverse cases from a simple catarrhal sore throat to a real diphtheritic necrosis.

Thus, according to the stage of development of local and general symptoms we have the spotted form of diphtheria, membranous diphtheria, and the septic variety.

The spotted form of diphtheria, or catarrhal diphtheria, is characterized by the appearance on the mucous membrane of the tonsils of yellowish and grayish islets of the size of a pin's head or larger; fever is low or is absent; the submaxillary glands do not become swollen; the whole disease may end with recovery in three or four days.

Pathologico-anatomically, the spotted form can be called neither diphtheria nor croup, because there is no fibrinous exudation, and we have to deal here merely with a slight catarrh of the mucous membrane, where yellowish-gray spots are formed by the islet-like deposit of a mucous exudation in the upper layers of the epithelium (Heubner).

If this form does not go farther, but stops in the period of the formation of spots, then it is easy, of course, for it to be mistaken for a lacunar or some other catarrhal sore throat. The differences have been pointed out above. Since all catarrhal sore throats usually begin with considerable fever, diphtheria alone being an exception, then a normal, or nearly normal, temperature in spotted angina is suspicious of its diphtheritic character; and it at the same time there are, or have been, cases of distinctly developed diphtheria, then the diagnosis is more than probable.

Such forms, indeed, occur very seldom. The diagnosis may be aided by the fact that every day the separate islets grow larger, spreading over the surface, coalescing and form-

ing coats and membranes at first only on the tonsils, and later on the soft palate. We can then say positively, if the margins of the uvula or of the soft palate are involved, that it is not a simple catarrhal sore throat, but diphtheria or scarlet fever; the inspection of the skin decides immediately what.

*Croupous* or membranous form of diphtheria develops either from a spotted one, or appears as such at once, starting in such case like catarrhal sore throat with considerable fever. Inspection of the pharynx on the first day of the disease only shows signs of a severe catarrhal inflammation: bright-red tonsils and soft palate and edematous swelling of these parts with enlargement of the uvula. On the second day the exudation appears on the tonsils, and on the third or fourth day a coating is also seen on the soft palate, the fever at the same time persisting. In the initial stage the membranes are attached firmly and cannot be separated without bleeding, but after several days they slough off.

Such sore throats are always accompanied by swelling of the submaxillary glands and of those of the neck, which, however, never suppurate (differing from scarlatinal sore throat).

*Absence of fever and swelling of the glands does not exclude diphtheria.*

The duration of the croupous variety is from five or six days to two or three weeks, seldom longer.

Slight as diphtheria may appear in a given patient, one never may be sure of a happy termination because of the possibility of an extension of the morbid process into the larynx (croup). Apyretic conditions do not secure from such a disagreeable event, but seem to favor it. The more time that has elapsed since the beginning of the disease, the less likelihood of the larynx becoming involved, thus making the prognosis more favorable. Diphtheria is very liable to extend over the surface during the first five days, so that one may hope that no croup will develop, if the first week has passed away happily.

The younger the child is the less the distance from the tonsils to the larynx, and the quicker one must expect the occurrence of false croup; in children younger than two years diphtheria is especially dangerous, because its extension into the larynx at this age is almost the rule.

Diphtheria may be dangerous of itself, as well as by its action on the general condition of the organism and on the heart activity. Diphtheria is more severe the thicker are the

false membranes, the more surface they occupy and the stronger the odor from the mouth (which in slight cases is entirely absent). The spreading of the diphtheritic process to the posterior pharyngeal wall, and especially on the nasal mucous membrane, is rightly held as an unfavorable omen; of the same value is the considerable swelling of the glands of the neck and edema of the surrounding subcutaneous tissue. The most limited data for the prognosis are derived from the temperature; according to Botkin, high fever in diphtheria permits of a better prognosis than a low temperature.

*Septic, malignant or toxic forms of diphtheria* differ from the preceding by the character of the local appearances, as well as by the general condition of the organism. The considerably enlarged tonsils are coated with a dirty-gray exudation of a very fetid odor; from the nose a sero-purulent, sometimes bloody, liquid discharges; the neck grows swollen, not so much because of infiltration as from the edema of the cellular tissues; then comes collapse, the extremities grow cold, the pulse feeble.

These cases are almost always fatal; if symptoms of adynamia appear from the very first, then the patient seldom survives the first week; some die during the first two or three days.

Diphtheria in its membranous or septic variety is very similar to a *severe scarlatinal sore throat*, which is also characterized by the formation of diphtheritic coats in the fauces. There is, however, not only a clinical, but also an etiological difference. The difference between diphtheria and malignant scarlatinal sore throat may be summed up in the following manner: scarlatinal diphtheria is the result of poisoning of the organism by the scarlatinal virus (according to some authors by the secondary infection due to streptococcus), and, therefore, together with the sore throat, there appears also a scarlatinal eruption; genuine diphtheria, however, arises from infection by the diphtheritic virus which has nothing to do with the skin and thus does not produce any rash. Therefore, if the membranes in the throat be developed simultaneously with a certain rash on the skin, we have to deal with a scarlatinal sore throat or scarlatinal diphtheria; if, however, there is no rash—then, with a common diphtheritic sore throat, or a diphtheria. But this rule, being true of the overwhelming majority of cases, admits also of some exceptions, namely in two directions. First, there occur cases of scarlatinal diphtheria without eruption (this happens usually in grown persons), and, secondly, the patient may contract both viruses: those of

scarlet fever and of diphtheria, and then it may occur that in a scarlatinal patient there will develop simultaneously a genuine bacillar diphtheritic sore throat. In case diphtheria complicates scarlet fever, an exact diagnosis from the inspection alone of the sore throat is impossible. In such an instance bacterioscopic examination is needed.

Scarlatinal diphtheria appears in the patient during the first days of the disease, usually on the third to the fifth day; therefore, if the diphtheritic sore throat shows earlier than the rash or, *vice versa*, after the end of the first week, then we may think that we have to deal with a genuine diphtheria, which becomes the more probable the later it occurs. Scarlatinal sore throat spreads often into the choanæ, but almost never affects the larynx; therefore, if in the scarlatinal patient diphtheria appears late and extends into the larynx, a genuine diphtheria becomes very probable; the diagnosis is undoubted if the characteristic diphtheritic paralyses occur in the period of recovery.

Cases of scarlet fever complicated with genuine diphtheria occur in private practice very seldom, so that all cases of diphtheritic angina in scarlet fever may be held as malignant scarlatinal sore throat (or as scarlatinal diphtheria). Proceeding in such a way, the physician has very little chance of making a mistake; but in badly constructed hospitals, where all contagious patients are placed together in the same ward, cases of double infection are common.

In doubtful cases of all kinds of spotted or membranous sore throats one must have a bacterioscopic examination of particles of membrane, taken from the patient's throat, because at the present time it is well proven that in all cases of genuine diphtheria the Klebs-Löffler bacillus can be found in the membranes. He who is familiar with the question of the diagnosis of diphtheria by the microscopic examination of the membranes or mucus, will agree with Roux and Yersin, that "nothing is easier and quicker than the microscopic examination of the false membranes, and nothing is more plain than obtaining colonies on serum." They advise this technique: Particles of the membrane should be dried by filter paper and smeared on the side so that the latter should be covered with a sheath of the false membrane, but not of mucus; then the slide is passed through the flame and is stained by Löffler's methylene blue or by gentian-violet according to Gram.\* The stained specimen is washed

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\*Our observations in the clinical infectious departments convinced us that Löffler's bacillus is not difficult to be found even without the removal of particles

with water and examined wet by immersion system. The diphtheritic bacilli are slightly bent, have club-like swelling at the ends, are granular and not proportionally stained. One must say that the swelling at the ends and the unequal staining are not visible in all specimens. In membranes of a true diphtheria such bacilli are met with constantly, even together with other microbes. For the diagnosis of diphtheria there is of value not so much the external appearance of separate bacilli as their method of grouping; for it is characteristic of diphtheria that the bacilli are situated on the specimen not in groups but as if forming "felt." The microscopical examination, exactly, takes only a few minutes and gives, in the majority of cases, entirely definite results. If the disease is near recovery the diphtheria bacilli diminish in number, while the secondary microbes increase—which circumstance is of importance in the prognosis. In slight cases the diphtheritic bacilli are very few in number from the very first, but there are a great many other microbes.

In instances where the number of bacilli is very small, then for the purpose of making the diagnosis, Roux and Yersin advise to employ cultures on blood serum, to which is added one-third of calf bouillon containing one per cent. sugar and pepton and 0.5 per cent. sodium chloride. This serum constitutes such a favorable medium for diphtheria bacilli that after fifteen hours entirely distinct colonies are obtained, while the majority of the secondary microbes only begin at the time to grow. It is sufficient to scrape with a platine loop the surface of the coagulated serum in two or three tubes which are then placed in the incubator at a temperature of 95 deg.—98 deg. F. (35 deg.—37 deg. C.). Usually after ten to fifteen hours diphtheria colonies are distinctly to be seen: roundish, white-grayish elevated spots with the centre less transparent than the periphery. But, as similar colonies may be produced by the coccus, one must, for controlling, prepare microscopic specimens and stain them. *Cultures may also be obtained from the dry membranes.*

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of membrane by the forceps; it is sufficient to scrape the surface of the membrane in the throat by a platine-loop and to put the observed mucus on the cover glass, to dry it and after that stain with Löffler's methylene blue. For the preparation of such a stain we take a saturated alcoholic solution of methylene blue. filter and mix it together with aqueous solution of hydrate of potassium (1 : 1000), while for every 100 parts of the latter we take 30 parts of solution of the stain. The dried cover glass is put, together with the mucus, into the stain for ten minutes, then it is washed off with water, dried with filter paper, put on the slide with a drop of copaiba balsam, and the specimen is ready.

It is then necessary to wet them in sterile water (dry diphtheria bacilli may be conserved very long, standing a temperature of 96 deg.—97 deg. C. 179 deg.—181 deg. F.) during one hour.\*

Diphtheria bacilli seldom occur as pure in plain specimens or in cultures, being usually mixed with some other microbes, which should not be neglected, because from them we can judge of the malignancy of any given case. Observations show that purely bacillar and bacillo-coccus sore throats run a more favorable course than those where, together with the specific bacilli, a great number of streptococci are met with. It seems that almost all cases of so-called toxic or septic diphtheria could be placed among these bacilli-streptococcus sore throats.

There is an opinion that not very much stress should be laid upon the bacterioscopic examination, because the so-called *pseudo-diphtheria bacilli* are frequently met with in different kinds of sore throats, as well as in the mucus of the mouth of entirely healthy persons. This bacillus is analogous to a genuine diphtheria bacillus by its cultures and mode of development on blood serum, differing merely by not being poisonous (*i.e.*, inoculation of guinea-pigs by pure cultures of this bacillus proves negative). On this account Roux and Yersin remark that in non-diphtheritic sore throats as well as in healthy persons the bacilli always are very few; on serum there are obtained one—four colonies, or out of several tubes only in one. Therefore they affirm that the diagnosis of diphtheria by means of cultures cannot be betrayed by the presence of pseudo-diphtheritic bacillus, because, in the case of diphtheria, many characteristic colonies may be obtained.

Lately Fränkel pointed out Neisser's method of double staining, to be the right way of determining the true or false diphtheritic bacillus.† The technique of this method is not difficult; the dried, smeared-on-the-cover-glass particle of the examined culture is put for from one to three seconds in an acetic acid solution of methylene blue, then washed off with water and stained for three to five seconds with a watery solution of Bismarck brown. The genuine diphtheritic bacilli become yellowish-gray, containing at the ends violet-blue granules. These granules are entirely wanting in the pseudo-diphtheria bacilli. Fränkel asserts that any micro-organism cannot be held as a

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\*Vratch, 1890, p. 708.

†Berliner Klinische Wochenschr. 1897, No. 50.

genuine diphtheritic one, if the polar bodies be not manifested by Neisser's method of double staining. The composition of the stains for Neisser's method is the following :

1. Methylene blue, 10 (gr. xvi.); alcohol, 96%—20.0 (℥ v.); glacial acetic acid, 50.0 (℥ i℥ v.); Aq. destill. ad. 1000.0 (lb.iii).
2. Watery solution of Bismarck brown 2:1000.

—*The Clinical Review.*

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## Therapeutics.

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### The Treatment of Excitement and Insomnia.

A consideration of the value of certain hypnotics and of physical methods of producing sleep and restfulness, especially in the insane.

1. Chloral, recommended in all forms of excitement, especially in delirium tremens. In neurasthenia the drug should be given in small doses and with great caution. The dose does not require to be increased, 30—45 grains recommended. Not to be given subcutaneously.

2. Chloralmid is less toxic, and acts less quickly. Dose, 15—45 grains.

3. Butyl chloral not often used, but has advantages, especially in cardiac weakness.

4. Chloral-urethane. Liebreich says it has no advantages over chloral.

5. Choral-antipyrine, 15 grains may be given if there is pain. The drug has no smell or odor, and can be given subcutaneously.

6. Choralose, dose  $7\frac{1}{2}$  grains. Richet says its action in part resembles chloral, in part that of strychnine.

7. Chloretone, 5—20 grains. This drug is anesthetic to exposed nerve fibres; according to Impens it is more dangerous than chloral.

8. Urethane, ethyl carbamate, 10—60 grains. Is not regarded as valuable.

9. Hedonal, 8—15 grains. Krafft-Ebing has found this useful subcutaneously in a 1 in 10 sol. in alcoholism; especially recommended in anemic low conditions.

10. Hydrate of amylene, 30 to 80 min., best given in capsules. Sleep is calm, and there are no after-effects.

11. Dormiol, amylene chloral, 5—50 min., best given with syrup or ext. liq. glycyrrhizæ or in capsules. Sleep produced is calm and comes on about half an hour after administration.

12. Sulphonals. These include sulphonal, trional, tetronal,

and are a valuable series. A dose may be given of 15—30 grains for two days, then completely stopped for some time. Trional is said to be less liable than sulphonal to produce toxic symptoms. Some have thought these drugs to be especially useful in the cure of morphinism. Brissaud, in the treatment of insomnia of neurasthenics, uses the drugs as follows: If the patient is awake all night he advises the use of sulphonal, if partial sleep is obtained trional, and in those who wake early in the morning tetronal.

13. Paraldehyde. This drug is very safe, as much as 100 drachms. The sleep produced is natural and refreshing. It should be given in Tr. aurantia or Mist. amygdalæ.

14. Opium. The preparations of opium act especially quickly and in small doses with neurasthenics, and, on the contrary, in the insane very large doses are tolerated. In states of insane misery opium is better than morphia. Codeine has been especially advocated in the insomnia of melancholia and hypochondriasis. Phosphate of codeine,  $\frac{1}{4}$ —2 grains, is said by Dheur to be the best hypnotic in melancholia. Laborde advocates narcéine,  $\frac{1}{8}$ —1 grain. Heroine, 1-16 grain, is useful in the cure of morphinism. Dionin,  $\frac{1}{4}$ — $\frac{1}{2}$  grain, is also highly spoken of by some.

15. Hyoscine. This drug has an almost specific action on the motor side of excitement. It is not recommended in simple maniacal excitement. It is advocated in delirium of epilepsy and in certain cases of general paralysis. Dose, 1-200—1-100 grain.

16. Potassium bromide. The use of this drug is well known. McLeod has described its uses in certain cases of mania to produce continuous sleep.

The physical methods in use are :

1. Rest in bed, especially indicated in simple mania without delirium or hallucinations and in mental states due to intoxication.

2. Prolonged baths from 6—12 hours. The temperature should be 90—95 deg. F., recommended in many forms of excitement, especially in mania.

3. Cold baths and cold douches, not of much use in mental diseases, but may be useful in delirium tremens, a temperature of 65 deg. F. being recommended, the patient being immersed until the sedative action becomes manifest. After leaving the bath an alcoholic drink is given, and the skin of the patient rubbed by rough towels. Cold douches or a wet pack may be used for a similar purpose.—M. Trenel, in *The Medical Chronicle*.

**Ice for Nausea.**

A physician advances the theory that the distressing sensation of nausea has its seat in the brain, and not in the stomach, and that relief may be obtained by cooling the base of the brain. He claims to have tested this often and thoroughly in the case of sick headache, bilious colic, cholera morbus, and other ills in which the nausea is a distressing symptom, without a single failure; also, that he once relieved the nausea resulting from cancer of the stomach by the application of ice to the back of the neck and occipital bone. The ice is to be broken and the bits placed between the folds of a towel. Relief may be obtained by holding the head over a sink, or tub, and pouring a small stream of water on the neck.—*Dietetic and Hygienic Gazette.*

**Remedy for Colds.**

A favorite remedy for colds in the head with R. E. Mason (*Medical World*) is as follows:

℞. Quinine bisulph.	
Dover's powder, camph.....	aa ʒ ss.
Po. ext. belladonna	
Po. aloin .....	aa gr. iij.
Po. capsicum .....	gr. vj.

M. et ft. caps. No. 12. Sig.: One every three hours after taking a glass of milk. Light diet and one five-grain dose of calomel at beginning of treatment.—*Ex.*

**Diuretic Powder.**

The following formula for a diuretic is credited to Bamberger by *Gaillard's Medical Journal*:

℞. Calomel.....	gr. iij.
Powd. ext. opium .....	gr. ʒ.
Sugar.....	gr. v.

M. F. pulv. To be taken three times a day for three days.—*Clinical Review.*

**Applications for Chilblains.**

The following formulæ appear in Merck's Archives:

Balsam peru.....	dr. 2.
Ichthyol .....	dr. 2.
Lanum .....	dr. 4.

Apply freely to inflamed part.

Tannic acid.....	dr. 1.
Carbolic acid.....	dr. $\frac{1}{2}$ .
Tinct. iodine.....	dr. 2.
Simple cerate.....	dr. 4.

Apply freely, on lint

Carbolic acid.....	gr. 15.
Lead ointment.....	dr. 5.
Lanum.....	dr. 5.
Expr. oil almond.....	min. 150.
Oil lavender.....	gtt. 2.

Apply three times a day on ulcerated chilblains.—*Medical Standard.*

### Bruises.

“Black eyes” or other temporary discolorations of the skin may be disguised by the application of pink grease paint, or colodion colored by means of a little carmine. As a lotion, the following have been recommended :

(1) Ammonium chlorid.....	1 oz.
Alcohol.....	1 fl. oz.
Water.....	10 fl. oz.

Diluted acetic acid may be substituted for half of the water, and the alcohol may be replaced by tincture of arnica, with advantage.

(1) Potassium nitrate.....	15 grn.
Ammonium chloride.....	30 grn.
Aromatic vinegar.....	4 dr.
Water, to make.....	8 oz.

—*Dietetic and Hy. Gazette.*

### Herpes Zoster.

The local treatment of herpes zoster, according to the *Encyc. Med. and Surgery*, consists in protecting the parts from injury and infection and to relieve the pain. For the latter symptom the following is recommended :

R. Morph. sulph.....	gr. v.
Pulv. camphoræ.....	gr. xx.
Pulv. zinci oxidi.....	$\frac{1}{2}$ i.

M. Sig.: Dust on the affected area, cover with cotton, and bandage.

Or the following may be substituted :

R. Morph. sulph.....	gr. x.
Collodii (flexible).....	$\frac{1}{2}$ i.

M. Sig.: To be painted over the affected areas.

The galvanic current, applied along the course of the nerve, may be advantageous in giving marked relief from the pain.

Internally the following may be prescribed if the pain becomes so severe as to require an anodyne :

R. Morph. sulph. ....	gr. 1/8.
Phenacetini .....	gr. ii.
Quininæ sulph. ....	gr. i.

M. Ft. cap. No. i. Sig. : One such capsule every four hours.

The phosphide of zinc, given in doses of one-third (.02) of a grain and repeated every three hours, is strongly recommended. For the neuralgia persisting after the eruptions has disappeared, quinin, iron, strychnin and arsenic are of value.—*J. A. M. A.*

#### Some Headache Formulæ.

Randolph (*Med. Council*) recommends the following : In acute alcoholic headache give saline cathartics first to clean the bowels of all offending material, then prescribe :

R. Potassium bromid .....	ʒ ss.
Chloral hydrate .....	ʒ ij.
Hyoscyamus tincture .....	ʒ ij.
Ammon. valerianate tinct. ....	ʒ iij.

M. Sig. : Teaspoonful in a tablespoonful of water every hour until the headache is relieved.

The following is also useful :

R. Arom. ammonia spirit .....	
Comp. ether spirit .....	aa ʒ ij.
Camphor tinct. ....	ʒ jss.
Hyoscyamus tincture .....	ʒ ijss.
Sodium bromid .....	ʒ iij.
Comp. lavender spt. ....	ʒ ij.

M. Sig. : Teaspoonful in two tablespoonfuls of water every hour until relieved.

For dyspeptic headache the following is admirable :

R. Sodium bicarbonate .....	gr. lxxij.
Dil. nitro-hydrochloric acid .....	gt. lxxij.
Nux vomica tincture .....	gtt. xlviij.
Comp. genitan tinct. ....	
Glycerin .....	aa ʒ jss

M. Sig. : Teaspoonful in a gill of water one hour after each meal.

In cases of very bad digestion I use:

R. Pepsin essence. . . . . ʒjv.  
 Nux vomica tinct. . . . .  
 Dil. nitro-hydrochl. acid. . . . . aa gutt. clx.

M. Sig.: Two teaspoonfuls in a wineglass of water one hour after each meal.

*Headache of cerebral congestion* requires:

R. Sodium bromid . . . . . ʒj.  
 Veratrum viride tinct. . . . . gutt. xxjv.  
 Ginger syrup. . . . . ʒijss.  
 Orange-flower water . . . . . ʒijss

M. Sig.: Teaspoonful in two tablespoonfuls of water every two hours.—*Medical Fortnightly.*

## The Physician's Library

*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, etc. 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 North-Western University Medical School, etc. Philadelphia: P. Blakiston's, Son & Co. Canadian Agents: Chandler & Massey Limited, Toronto.

The subject of dietetics is one of the most important in the treatment of disease, and is important because many of the curable diseases are the result of defective digestion and metabolism. It is important, therefore, that every physician should be familiar with the composition of foods as well as with diet best suited in individual diseases. The volume before us is both a practical and scientific treatise upon dietetics. The author first briefly discusses the composition, nutritive value, and assimilation of foods. In this connection the results of the investigations of Professor Atwater, of the United States Department of Agriculture, have been made use of in compiling the text. The remaining portion of the book is devoted to "diet

in health," "infant feeding," "food as a cause of disease," and "diet in disease." We think that the volume is an excellent one, and heartily recommend it to the profession.

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*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., Assistant Physician Jefferson Medical College Hospital. Vol. I. March, 1903. Philadelphia and New York: Lea Brothers & Co.

The high standard of excellence which has been exhibited in this publication has been maintained in this volume. The subjects considered are the following: Surgery of the Head, Neck and Chest; Infectious Diseases, including Acute Rheumatism, Croupous Pneumonia and Influenza; Diseases of Children, Pathology, Laryngology, Rhinology and Otology.

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*Morrow on Social Diseases.* The Relation of Social Diseases and Marriage. By PRINCE A. MORROW, A.M., M.D., Emeritus Professor of Genito-Urinary Diseases in the University and Bellevue Hospital Medical College; Surgeon to the City Hospital; Consulting Dermatologist to St. Vincent's Hospital, etc., New York. In one octavo volume of 390 pages. Cloth, \$3.00 net. New York and Philadelphia: Lea Brothers & Co. 1904.

The importance and practical value of this new and timely volume, written by a man of profound learning, long experience and sound common sense, upon a subject which so vitally concerns mankind individually and collectively, ensures its wide recognition. Venereal diseases in their origin, and especially in their far-reaching pathological effects, strike at the very root of race perpetuation. They blight the mental, moral and physical welfare of society as does no other agency. War, pestilence and famine are temporary; venereal diseases constantly ravage all grades of society. Since unlawful relations between the sexes have come to be known generally as "The Social Evil," the author has adopted the term "Social Diseases" to indicate the

infections most usually thus acquired. Their frequent infliction upon innocent victims through legitimate marital relations involves consequences which affect not only the health, but the peace, honor and happiness of the entire family, and the importance of venereal prophylaxis is beyond words. Heretofore no comprehensive treatise upon the subject has existed in our language, and it is fortunate for the profession and laity alike that an author of Dr. Morrow's achievements and established ability is the first to enter the field. The work sets forth clearly the dangers introduced by venereal diseases into marriage—dangers to the wife, dangers to the offspring, and dangers which come from their morbid irradiations in family and social life. The fulfilment of the protective duty, which has for its object the preservation of the helpless and innocent from infection, realizes the highest ideals of preventive medicine; and, while this duty devolves especially upon the physician, every member of the community is, and should be, the protector of the wife and mother and the preserver of the health and welfare of future generations. Not the least interesting chapter presents the author's views upon the "Medical Secret" and the exercises of professional discretion in restraining improper marriages, and gives valuable hints for the physician's guidance in many of the involved questions which so frequently arise. In dealing with these situations there is required not only a thorough knowledge of these diseases in all their recently revealed relations, but also a knowledge of human nature, and a professional sagacity which is not taught in the curricula of the medical schools.

It is to furnish just this knowledge that this book has been written, and its perusal, in fact, its study, may well be recommended not only to every physician, but to every thoughtful adult.

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*Aids to Surgery.* By JOSEPH CUNNING, M.B., B.S., F.R.C.S. (Eng.), Senior Resident Medical Officer Royal Free Hospital. London: Bailliere, Tindall & Cox. Canadian Agents: J. A. Carveth & Co., Limited, Toronto. Price, \$1.25.

For students preparing for examinations, this book will be found of real value. We have often advocated reading the large text-books up to within two months of examination time, and then a concise "aid," such as we now have before us. These condensed treatises impress the leading and more important

facts upon the memory. The work contains 384 pages, every one of which is brimful of information for the student preparing for examination.

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*A Text-Book of Legal Medicine and Toxicology.* Edited by FREDERICK PETERSON, M.D., Chief of Clinic, Nervous Department of the College of Physicians and Surgeons, New-York; and WALTER S. HAINES, M.D., Professor of Chemistry, Pharmacy, and Toxicology, Rush Medical College, in affiliation with the University of Chicago. Two imperial octavo volumes of about 750 pages each, fully illustrated. Philadelphia, New York, London: W. B. Saunders & Company. 1903. Per volume: Cloth, \$5.00 net; sheep or half morocco, \$6.00 net. Canadian Agents: J. A. Carveth & Co., Limited, 413 Parliament Street, Toronto.

This work presents to the medical and legal professions a comprehensive survey of forensic medicine and toxicology in moderate compass. For convenience of reference the treatise has been divided into two sections, Part I. and Part II., the latter being devoted to toxicology and all other portions of legal medicine in which laboratory investigation is an essential feature. Under "Expert Evidence" not only is advice given to medical experts, but suggestions are also made to attorneys as to the best methods of obtaining the desired information from the witness. The Bertillon and Greenleaf-Smart systems of identification are concisely and intelligently described, and the advantages of each stated. An interesting and important chapter is that on "The Destruction and Attempted Destruction of the Human Body by Fire and Chemicals;" for on the determination of the human or animal source of the remains frequently depends the legal conduct of a given case, and the guilt or innocence of the accused. A chapter not usually found in works on legal medicine, though of far more than passing significance to both the medical expert and the attorney, is that on the medico-legal relations of the X-rays. The responsibility of pharmacists in the compounding of prescriptions, in the selling of poisons, in substituting drugs other than those prescribed, etc., furnishes a chapter of the greatest interest to everyone concerned with questions of medical jurisprudence. Also included in the work is the enumeration of the laws of the various states, relating to the commitment and retention of the insane. In fact, the entire work is overflowing with matters of the

utmost importance, and expresses clearly, concisely, and accurately the very latest opinions on all branches of forensic medicine and toxicology.

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*The Practical Care of the Baby.* By THERON WENDELL KILMER, M.D., Associate Professor of Diseases of Children in the New York School of Clinical Medicine; Assistant Physician to the Out-Patient Department of the Babies' Hospital, New York; Attending Physician to the Children's Department of the West Side German Dispensary, New York. 12mo. Pages xiv.-158, with 68 illustrations. Extra cloth, \$1.00, net, delivered. Philadelphia: F. A. Davis Company, 1914-16 Cherry Street.

This is one of the most practical expositions of the subject of the practical care of the baby we have been privileged to inspect. The illustrations add greatly to its value, and the text is clear and concise. No nurse should be without it, and the accoucheur will find therein many valuable pointers to convey to intelligent mothers. A copy of it might safely be placed in the hands of many of them.

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*The Treatment of Fractures.* With Notes Upon a Few Common Dislocations. By CHARLES L. SCUDDER, M.D., Surgeon to the Massachusetts General Hospital. Fourth edition, thoroughly revised, enlarged and reset. Octavo volume of 534 pages, with nearly 700 original illustrations. Philadelphia, New York, London: W. B. Saunders & Company. Canadian Agents: J. A. Carveth & Co., Limited, 413 Parliament Street, Toronto. Polished buckram, \$5.00 net; sheep or half morocco, \$6.00 net.

Four large editions of this work in less than four years testify to its value. The book is intended to serve as a guide to the practitioner and student in the treatment of fractures of bones. The student sees the actual conditions as they exist in fractured bones, and is encouraged to determine for himself how to meet the conditions found in each individual case. Methods of treatment are described in minute detail, and the reader is not only told, but is shown how to apply apparatus, for as far as possible all the details are illustrated. This elaborate and complete

series of illustrations constitutes a feature of the book. There are 688 of them, all from new and original drawings and reproduced in the highest style of art. Several chapters of special importance are those on Gunshot Fractures of Bone; The Rontgen Rays and Its Relation to Fractures; The Employment of Plaster-of-Paris, and the Ambulatory Treatment of Fractures. In this fourth edition many new illustrations have been added, thus increasing the accuracy of this part of the work. The text has been thoroughly revised, thereby bringing the book absolutely abreast the times. X-ray plates of the epiphyses at different ages have been arranged. These will be found of value, not only as an anatomical study, but in the appreciation of epiphyseal lesions. An important addition is that of a chapter upon a few common dislocations. This chapter, like the rest of the book, is amply illustrated, and the accepted methods of treatment described.

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*Surgical Diseases of the Abdomen, with Special Reference to Diagnosis.* By RICHARD DOUGLAS, M.D., Formerly Professor of Gynecology and Abdominal Surgery, Medical Department, Vanderbilt University, Nashville; ex-President of the Southern Surgical and Gynecological Association; Fellow of American Association of Obstetricians and Gynecologists; Member of the British Gynecological Association, etc. Illustrated by 20 full-page plates. Philadelphia: P. Blakiston's, Son & Co. Canadian Agents: Chandler & Massey, Limited, Toronto.

The writer of this very excellent work has been a teacher and practical worker in the special field of abdominal surgery for eighteen years, which experience ought to qualify him to give to the medical profession much that will prove both valuable and useful in that department of surgery. In this volume Dr. Douglas has presented only those facts as have seemed to him of practical usefulness, and which have borne the test of application. It has been his object in contributing this volume to medical literature to elucidate the difficulties of diagnosis by a more thorough study of the causes and nature of these conditions. Operative technique has not been reproduced, but the proper surgical procedure is indicated. He has also discussed

some of the open questions involving the operative treatment and after management of abdominal cases. The volume embraces 866 pages of text, whilst the plates are new and excellent.

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*Plain Hints for Busy Mothers.* By MARIANNA WHEELER, Superintendent of the Babies' Hospital, New York, since 1891, and author of "The Baby." With illustrations in outline. Substantially bound in flexible leatherette. Price, 35 cents. New York: E. B. Treat & Co., 241-243 West 23rd Street.

This little hand-book, as its name implies, is intended as an aid to mothers whose means are limited, and who must care for their own babies, at the same time attending to their housework. It is written in such a plain and simple manner, that no one could fail to understand its directions. It is full of common-sense advice as to general health, clothing, food, bathing, fresh air, etc. Its pages on "Dont's" are specially practical and helpful.

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*Clinical Surgery.* By A. J. OCHSNER, M.D., of Chicago, Surgeon-in-chief Augustana Hospital, and St. Mary's Hospital; Professor of Clinical Surgery, University of Illinois. Chicago: Cleveland Press (The Clinical Review Publishing Company). Canadian Agents: Chandler & Massey Company, Toronto. 500 pages. Cloth bound, price, \$7.00.

Professor Ochsner, of Chicago, has given to the profession a work which deserves more than a passing notice. The book is not intended for the distinguished surgeon, but for the average practitioner who does surgery, and is largely the material of his clinical lectures, which brought the writer into prominence as a teacher. Professor Ochsner has adopted the plan of extensively illustrating his subjects. The numerous plates are for the most part original illustrations from immediate operations by the author. The book is packed full of the most approved and practical suggestions. The chapter on the various forms of hernia deals quite fully with the subject, and the cuts give one a clear idea of the author's operations for the radical

cure of this common affliction. This chapter alone is well worth the price of the book. In the reviewer's opinion kangaroo tendon would be a more suitable suture to close the internal and external layers in inguinal hernia. The chapters on surgery of the abdomen, mouth, face and skull are very practical. In fact, the whole book is the result of years of actual practice, and the younger surgeon will find many suggestions to help him in his work. The volume is well catalogued, well bound, printed in large, clear type, and in general make up does great credit to both author and publisher.

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*The Medical Epitome Series.* Organic and Physiologic Chemistry. A Manual for Students and Practitioners. By ALEXIUS MCGLANNAR, M.D., Associate Professor of Physiologic Chemistry; Instructor in Clinical Laboratory, College of Physicians and Surgeons, Baltimore, Md. Series edited by V. C. PEDERSEN, A.M., M.D., Instructor in Surgery and Anesthetist, and Instructor in Anesthesia at the New York Polyclinic Medical School and Hospital. Illustrated with nine engravings. Philadelphia and New York: Lea Brothers & Co.

In this volume there has been selected from an immense mass of knowledge, such facts as are essential to medical students and practitioners. This has been accomplished in a style brief and clear. For the facts stated, the author has drawn on all the available works on the subject. This volume keeps up the established reputation of the Medical Epitome Series, and will be found of inestimable value to the medical student.

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*Quiz Compend.* Compend of Diseases of the Ear, Nose, and Throat. By JOHN JOHNSON KYLE, B.S., M.D., Lecturer on Otology, Rhinology and Laryngology, and Assistant to the Chair of Surgical Pathology in the Medical College of Indiana, etc., etc. With 85 illustrations. No. 19. Philadelphia: P. Blakiston's, Son & Co.

This volume will keep up the reputation of Blakistons' Quiz Compend. It is practical and will readily convey a practical knowledge of the subjects handled. In fact, students will find

that on the eve of examinations a volume of this character will be an important helpmeet, and enable them to command a wider range of knowledge than can be less readily grasped from the larger special works

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*How to Attract and Hold an Audience.* A Popular Treatise on the Nature, Preparation, and Delivery of Public Discourse. By J. BERG ESENWEIN, A.M., Lit.D., Professor of the English Language and Literature in the Pennsylvania Military College. Price, \$1.00, postpaid. New York: Hinds & Noble, 31-35 West 15th Street.

Doctors, like others, are frequently called upon to address audiences, be they large or small; and a knowledge of the rules to apply in securing an easy and graceful delivery should be of the utmost importance. "How to Attract and Hold an Audience" is an art possessed by few, but it can be both cultivated and bought. The way to do this is to buy the book and cultivate it afterwards, using this as guide, which is a good one. The book is well worthy a place in every medical man's library.

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# Dominion Medical Monthly

And Ontario Medical Journal

EDITORS:

GRAHAM CHAMBERS, B.A., M.B.      WALTER McKEOWN, B.A., M.D.

ASSOCIATE EDITOR:

T. B. RICHARDSON, M.D.

MANAGING EDITOR:

GEORGE ELLIOTT, M.D.

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## OUR PRIZE COMPETITION

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On the opposite page will be read the announcement of our prize competition, and on another page, rear form, advertising, will be found a presentation of the \$125.00 microscope, complete in every detail, which will be shipped to the successful contestant from the well-known house of Lyman, Sons & Company, St. Paul Street, Montreal. So far as we know there has never been offered to the medical students and medical practitioners of Canada a prize of such undoubted value as the one we are offering for the best original paper on "The Pharmacology and Therapeutics of Salicylic Acid and Its Preparations." Every item in connection with this contest will be governed by the strictest honesty. The gentleman who has been selected to read the papers and pronounce upon their merits, will do so without the slightest knowledge of the identity of the writer. We have selected a subject which should be a popular one; and it is our first aim that some valuable

theses upon this subject may be secured for the benefit and knowledge of all who are constantly using and prescribing some one of its many preparations. Whilst the subject will commend itself to practitioners of medicine, who have had opportunities of observing the effects of this drug in the treatment of disease, it is not by any means one that should shut out the medical student; indeed, the latter should be able to make a presentation of almost equal value with the physician in practice. If the contest prove successful in the way of securing good papers for a symposium on the subject in a future issue of *THE DOMINION MEDICAL MONTHLY*, we shall be well repaid, and shall not hesitate to make further announcements similar in character from time to time. The contest will be limited strictly to physicians of the regular school practising in Canada, and to the medical students attending Canadian medical colleges.

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#### THE PROPOSED NEW ASSESSMENT LAW AS IT AFFECTS PHYSICIANS.

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Although we have not a printed copy of the proposed new Assessment Act for the Province of Ontario before us, we believe that Clause 7 of said Act will read somewhat as follows: Irrespective of any assessment of land under this Act in cities, towns and villages, every person occupying or using land in the municipality for the purpose of any business mentioned or described in this section, shall be assessed for a sum to be called "business assessment," to be computed by reference to the assessed value of the land so occupied or used by him as follows: Sub-section (e), every person practising or carrying on business as a barrister, solicitor, notary, public conveyancer, physician, surgeon, oculist, aurist, medical electrician, dentist, veterinarian, civil or mining or consulting or mechanical or electrical engineer, surveyor or architect, for a sum equal to 50 per cent. of the said assessed value. It will be seen by this that the income tax is to be abolished and a business tax substituted therefor. It is quite evident that this Act is going to discriminate against the medical profession, and to bear especially hard upon young practitioners and upon those who have ceased in their old age to carry on an active practice. To take Toronto

for an example: The young practitioner must work five or six years before he can command an income of \$1,000. Up to the time he reaches over \$700 he is exempt; but if he is making \$1,000 he is assessed at \$300, which, at Toronto rate, would be about \$5.70, taking it at 19 mills. Under the new Act, if he has his surgery and apartments in a \$6,000 house he will be required to pay 19 mills upon \$3,000, upon a 50 per cent. basis. This will mean to him a "business tax" of \$57, whilst he may not be making ten times that sum. It operates upon the aged practitioner in a similar manner. We believe we have said sufficient to cause the medical profession of the province to issue a strong protest against any such discrimination, and that, too, in the face of the unlimited service physicians and surgeons are constantly rendering the community in the way of preventing disease and attendance upon hospitals and charitable institutions. We understand that the matter has been taken up in one of the Toronto medical societies, and a committee named to confer with other societies and the profession at large in the different cities and towns and villages (incorporated) of the province. The attempt to pass any such measure into law should be resisted in the strongest possible manner. No doubt the matter will be watched with the keenest interest, but that will avail naught if some decisive action be not at once taken.

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### THE SERUM TREATMENT OF HAY FEVER.

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A writer on the above subject (Lewis S. Somers) groups cases of hay fever into three classes: Those in which a neurotic element apparently predominates; those in which a general systematic condition, such as lithemia, predominates; and those in which the outburst of hay fever is closely associated with the presence of pollen in the atmosphere. For seven years Dr. Dunbar, of Hamburg, has been conducting experiments, seeking the cause of this distressing malady and a cure for it. His firm belief now is that the specific cause of hay fever, or the casual agent, resides in the pollen of certain grains. This will produce the disease in the predisposed, but will have no effect whatever upon persons not susceptible to the disease. The specific casual agent, or toxin, is an albuminoid body found in the starch particles of the pollen granules. Such cereals and grasses as corn, wheat, oats, rye and maize, golden

rod, rag-weed and hog-weed distribute this toxin in the air, which, alighting upon the secretions of the respiratory tract in which it is soluble, produces the disease known as hay fever, that is if the person be susceptible, the peculiar symptom-complex taking place as completely in winter as in any other season. The nature of the susceptibility seems to be entirely obscure. By repeated experiments upon animals, Dunbar obtained the development of the antibody in the blood, which antitoxin neutralizes the toxin and immediately subdues the hay fever symptoms. For practical purposes it is applied by dropping one or two drops into each eye and nasal chamber whenever irritation is present, or an attack is expected. Dried serum may also be employed with an inert powder in the nasal chambers, to be repeated as necessary. Somers' experience with the serum on this continent embraces a series of ten cases. He used the antitoxin made from the serum of animals, inoculated with the pollen toxin of golden rod, and employed it both in the form of the serum and as a powder. Although the number of his cases are small, scarcely sufficient to base accurate conclusions thereon, he gives the following: (1) The serum produces prompt and positive amelioration of the symptoms of fall hay fever in the majority of cases; (2) in a smaller number this favorable result is soon accompanied with the complete disappearance of the affection; (3) where slight, or no action is seen after its use, pollen as an etiological factor does not predominate; (4) when results are obtained, it favorably influences all the manifestations of hay fever; (5) while I am unable to state from personal experience the effect of the serum upon hay fever occurring at other times of the year, or upon its effects when administered in advance of the attack, yet when given during the attack, irrespective of its severity, it produces marked, palliation rather than absolute cure; (6) its effects upon future attacks remain as yet unknown; (7) the serum in powder form is slightly soothing to the nasal mucosa; has but little influence upon the other symptoms of the affection, and in occasional cases it may act as a direct irritant.

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### DOES IT PAY TO BE A DOCTOR?

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We have been favored with a copy of the February issue of *Frank Leslie's Popular Monthly*, the initial article of which has the above title, written by Arthur Goodrich. The following

preamble, by the editors, introduces the article : " There is no group of men of like importance in this country whose pictures and personalities are so unfamiliar to the public as those of our distinguished physicians and surgeons. The fact is a striking commentary upon the unique conservatism which has marked a single profession apart in our commercial age. The interesting portraits which we have chosen to accompany this article are representative, in the best sense of the word, but space prevents our including in the list more than a very small number of the eminent men whose pictures would fittingly serve to illustrate an article dealing with the profession in America." The portraits of the men who adorn this article are well-known to the medical profession, their reputations, as well as their physiognomies—William Williams Keen, Nicholas Senn, William Osler, James William White, W. T. Councilman, J. Collins Warren, Charles McBurney, E. L. Trudeau, Roswell Park, Matthew D. Mann, Francis Delafield, and Abraham Jacobi. The article is an exceptionally interesting one. Some of the passages are worthy of reproduction. " How does the profession, as a whole, justify its pretensions to philanthropy, and purposely limit its business success for the sake of the people ? In what way does the practice of medicine differ from that of law or from business ? Was there ever a movement on the part of lawyers as a body, to prevent unnecessary legislation ? Most certainly not. Have manufacturers ever banded together to limit production or to restrict sale ? The medical profession, as a body, and by individuals, is striving constantly to improve the general health of every community in which it works." Again, " If a machinist invents a tool he patents it and draws royalties. No doctor who invents a new surgical implement or apparatus thinks of patenting it or of getting any money for it." This also is true : " Hundreds of physicians and surgeons are constantly doing things that are really great. The public has never heard of them and probably never will. The profession knows them and respects them." When a soldier on the field of battle saves a life at the risk of his own, or does a heroic deed, he is given the Victoria Cross. When a doctor isolates himself with small-pox patients, or drives twenty miles in the face of a terrific blizzard on the coldest night of the year to conduct a new life into the world, he simply does it for money or experience. The latter is sure. It is also truly remarkable how soon we forget our immediate wrongs. " Doctors are marks for respectable, as well as every-day, ' dead beats,' but they usually take their losses quietly and forget them in the press of work." Still, after all

has been said to our advantage or disadvantage, there is comfort in knowing that you have conducted your patient through a dangerous illness or a trying operation. There is eminent satisfaction in having ministered to the pangs of child-birth and seen your patient through an anxious puerperium, and finally leaving the threshold of that home in the early morning, conscious that the new-born cannot find fault with your technique. The practice of medicine has its humorous as well as its grave side ; but its worries are not equalled in any other calling in life. The article is a most excellent one, and we have no doubt will do a great deal of good. Pity it could not be read the world around.

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### Editorial Notes

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#### PROFESSOR HALLIBURTON'S LECTURES AND NERVE REGENERATION.

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As the result of a foundation by Dr. Christian A. Herter, there is to be every year at the Bellevue Medical School, a series of scientific lectures on some subjects connected with medicine by a distinguished investigator, or teacher from some other medical school in Europe, or this country.

The first of these series of lectures was concluded on Wednesday of the present week and was given by Professor W. D. Halliburton, of the University of London, England.

Professor Halliburton is known as an original investigator in physiology and physiological chemistry, and as one whose conservative conclusions are considered worthy of every attention. His lectures have proved of more than usual interest.

Dr. Halliburton's delivery is excellent, and he evidently has the precious gift of teaching, which, needless to say, not all original investigators share. It is seldom that a body of students has had the opportunity to enjoy an intellectual treat of so high an order as this in which the *utile cum dulce* were mingled so as to create the feeling that perhaps there was, after all, a royal road to the learning of physiology.

One of the most practical of Dr. Halliburton's lectures, was that on nerve regeneration—a subject that can scarcely fail to be of interest to every practitioner of medicine. The matter has been recently investigated by a number of observers, especially Ballance and Purvis Stewart, in England, and in this country

by Howell, Huber, and Cushing. Ballance and Stewart have taught that cut nerves regenerate not only from the central stump, as Waller originally taught, but also in the periphery. Howell and Huber have found that while in the peripheral portion of a cut nerve some preparation for regeneration may be noticed, the axis cylinder, the essential part of the new nerve regenerated only from the central portion. In confirmation of this, Mott and Halliburton found a great activity of neurilemma cells, which, by the Golgi staining, may resemble nerve fibres, but are not true nerve fibres. This conclusion has been confirmed by the studies of Langley and Anderson at the University of Cambridge in England.

In clinical surgical reports there are certain cases which seem to contradict entirely the teaching of the necessity for new growth of nerve fibres, since apparently they point to direct union of severed ends and almost immediate re-establishment of nervous transmission. Cut nerves are sewed together and feeling is noted very soon afterwards. In these cases Professor Halliburton is convinced that it is not the physician who is at fault in his investigations, but the patient who, because of an eminently suggestive mood, wrongly interprets the sensations present. As a rule, whatever sensations may be supposed to be present in the region supplied by the cut nerve, they soon pass off and the true restoration of nervous function takes many weeks or even months, but true return of function, both sensory and motor, has followed nerve anastomosis.

This whole subject of nerve regeneration was treated in a masterly fashion and withal with a pleasant teaching manner that made the lecture always a source of unflagging interest. It is evident that Dr. Herter has done an excellent work in thus providing an opportunity for students of Bellevue to hear distinguished medical authorities outside of their own faculty and his example may well be imitated by other members of the profession, or by others who wish to confer a real benefit upon medical education. These lectures are sure to produce a sympathetic appreciation of the literature of important subjects and at the same time broaden the views of medical students which are apt to be narrow enough as the result of being constantly influenced by the opinions of a single set of specialists.

It is not long since a distinguished foreign medical visitor announced that within a few years European medical students would come to America in order to finish their practical medical education. Under the inspiration of medical opportunities, such

as these, we can readily realize that the truth of such a prophecy will be seen much sooner than would otherwise be expected.—*Editorial, Med. News.*

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### THERAPEUTIC VALUE OF YEAST.

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The *Journal of the British Royal Army Medical Corps*, December, has an editorial dealing with yeast as a therapeutic agent. Beer yeast, the product referred to, has long been known as a home remedy for boils, carbuncles, and other inflammatory conditions. According to the editorial in question, Preston and Taruella (*Revista de Med. y Cirurgia*, June 15th, 1901) were the earliest workers to adduce experimental proof of the value of yeast, the most important of their conclusions being the following: (1) Beer yeast exercises a local and general curative action upon streptococcal and staphylococcal infection in rabbits, when administered hypodermically for five to twelve days in 10 c.c. doses of a well-grown culture; (2) similar injections repeated for four consecutive days render rabbits immune to these coccal infections; (3) the curative principles of yeast are intracellular and act only after liberation by a leucocytic or humoral ingestion of the cell; (4) blood serum of rabbits treated by yeasts has an agglutinating action upon streptococcus and staphylococcus albus and aureus. Yeast cultures in beef and barley medium show this same power after two days' growth and lose it when heated to 55 deg. C.; (5) mixed cultures of yeast and streptococcus and staphylococcus produce attenuation of the virulence of the latter; (6) in the pus of a subject treated by yeast the pyogenic organisms decrease in number and in virulence.

It is further stated that only about seven-tenths of an average sample of beer yeast consists of *saccharomyces cerevisiæ* the rest being impurities. If a yeast be kept in a dry but cool place it is capable of secreting its soluble ferments after a long lapse of time; moisture and warmth alter its character rapidly, mainly by enabling the impurities to replace the true *saccharomyces cerevisiæ*. The results obtained by yeast in the treatment of boils and carbuncles are apparently due to its antiseptic, phagocytic, and immunizing action, not to any specific action upon particular pathological lesions. Infantile diarrhæa, infective and micromembranous enteritis or dysentery have all been much relieved by the action of beer yeast.

In 1895 Cassaet recommended beer yeast for the treatment of diabetes mellitus, its beneficial action in this disease depending upon the conversion of all starchy elements into alcohol. Boigey confirms these statements.

Many other diseases are said to be much benefited by treating with yeast. The claim is not made for yeast that it is by any means a universal panacea, but it is asserted that, judging from experimental and clinical facts, it is a valuable remedy.—*Medical Record*.

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## News Items

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THE death-rate for Quebec is 19.9.

ALL our advertisements are worthy of your attention.

THE death-rate for Toronto is 15.4; Hamilton, 14.6; London, 15.2.

TWO HUNDRED people die each year in British Columbia from tuberculosis.

DR. KENNEDY has been appointed surgeon for the Grand Trunk at Port Dover.

THE Jubilee Hospital, Victoria, B.C., has been presented with a Finsen Light apparatus.

THE births registered in Ontario during 1902 were 47,796 as compared with 46,061 in 1901.

ADVERTISEMENTS.—The doctor owes it to good medical journalism to read the advertisements.

DR. G. C. FERGUSON has given up his medical practice in Strathroy and has removed to Toronto.

DOMINION MEDICAL PRIZE COMPETITION.—For announcement *re* this, see page facing first editorial page.

DR. F. A. LACKNER has returned from an extensive stay at Didsbury, Alta., and resumed his practice in Hespeler.

THERE were twenty deaths from scarlet fever and seventy-one from diphtheria in Ontario during December, 1903.

THE British Columbia Board of Health will take vigorous steps to check the spread of tuberculosis in that province.

IN the Out-Patient Department of the Royal Victoria Hospital, Montreal, during 1903 there were 4,398 patients treated.

DR. WALTERS, New Hamburg, has sold out his practice to Dr. Withrow, of Woodstock, who took charge 1st of February.

DR. C. A. HODGETTS, Provincial Inspector for the Ontario Board of Health, has succeeded Dr. Bryce as Secretary of the Board.

THE Hamilton Board of Health has recommended the increase of the medical health officer's salary from \$1,400 to \$1,800.

A CONSUMPTION sanatorium for British Columbia is proposed and the Provincial Government will be approached for a grant of \$25,000.

DR. J. T. NORMAN, of Toronto, has been appointed assistant superintendent of the Institution for the Feeble-Minded, at Orillia, Ont.

DR. T. W. DANIEL, St. John, N.B., has been chosen to contest St. John for the Dominion Parliament, in the Liberal-Conservative interest.

DR. S. N. DAVIS, of Parry Sound, has been appointed associate coroner for the District of Parry Sound, in place of David McFarlane, resigned.

THE epidemic of typhoid fever in the suburbs of Montreal is now well in hand, as very few cases have been reported during the past two weeks. In all there were over 600 cases.

AMONGST Canadians who attended the recent Tuberculosis Exposition at Baltimore, were Professor J. George Adami, of McGill, and Dr. J. H. Elliott, of the Gravenhurst Sanatorium.

DR. PETER H. BRYCE has resigned from the secretaryship of the Ontario Board of Health, and has accepted office under the Federal Government. His duties will pertain to immigration and Indians.

DR. T. H. MOHER, assistant superintendent of the Institution for the Feeble-Minded, at Orillia, Ont., has been promoted to the position of medical superintendent of the Asylum for the Insane, at Brockville, Ont., succeeding the late Dr. Murphy.

THE total number of patients treated in the Jubilee Hospital, Victoria, B.C., was 117; admitted during the year, 65.

THE Diet Dispensary of Montreal issued 13,236 orders during 1903. Of this number 473 were half price; 1,119 paid and 11,564 free.

BRITISH COLUMBIA will seek to have a university established at Victoria and we will probably yet see a medical school on the Pacific Coast.

WESTERN GENERAL HOSPITAL, MONTREAL.—The number treated in this hospital during 1903 was 600; 11 more than for 1902. The death-rate was 5.16 per cent.

ROYAL VICTORIA HOSPITAL, MONTREAL.—On January 1st, 1903, there were 188 patients in this hospital; discharged during the year, 2,911; died, 142; remaining at the end of the year, 208.

CANADIAN MEDICAL PROTECTIVE ASSOCIATION.—Why should not every doctor in Canada be a member of this worthy organization? One never knows when his time will come for legal trouble.

CANADIAN MEDICAL PROTECTIVE ASSOCIATION.—If you have not become a member of this worthy organization, probably the best ever instituted for the medical profession of Canada, this will serve as a reminder that you ought to join *now*.

IN Victoria, B.C., during 1903, there were 66 cases of diphtheria reported, with 6 deaths, and 117 cases of scarlet fever with 2 deaths. At the Lazaretto, on D'Arcy Island, there are two lepers, both Chinese. Taking the population of Victoria at 25,000, the average death-rate per 1,000 during the past three years has been 11.57.

THE British Columbia Association for the Prevention and Cure of Tuberculosis was formed on the 20th of January, with the Lieutenant-Governor, Sir Henri Joly, as Hon. President, and Dr. Proctor, of Kamloops, as Secretary; Dr. C. J. Fagan, Victoria, Treasurer. On the Executive Committee; Drs. J. C. Davie and R. E. Walker.

REMEMBER the dates of the Ontario Medical Association: June 14th, 15th and 16th at Toronto, under the presidency of Dr. James F. W. Ross, of this city. Dr. Charles P. Lusk,

Bloor Street West, is the general secretary. Dr. Albert A. Macdonald is the chairman of Committee on Papers and Business; Dr. Allen Baines is the chairman of the Committee of Arrangements.

DR. E. FLATH, who took Dr. Graef's practice in Clifford some three years ago, was married to Miss Irwin, of Chelmsford, and intends living in Drayton, where he has gone into partnership with Dr. Lucy.

CANADIAN MEDICAL ASSOCIATION.—The thirty-seventh annual meeting is to be held this year in Vancouver, B.C., on the 23rd, 24th, 25th and 26th of August, under the presidency of Dr. Simon J. Tunstall, of that city. Mr. Mayo Robson will be a guest of the Association.

THE Toronto Clinical Society, at its regular monthly meeting on the evening of January 6th, disposed of the following programme: Report of a Case of Prostatectomy (with specimen), Dr. George A. Bingham; Report of a Case of Perforation in Typhoid Fever, Dr. H. B. Anderson; Report of Plastic Operation on Thorax and Report of a Case of Syphilitic Tumor (with photos), Dr. Wm. Oldright; The Pre-Typhoid Condition, Dr. R. D. Rudolph. Drs. J. T. Fotheringham and George Elliott were elected representatives to the Industrial Exhibition from the Society.

MR. WILFRID WESTERN, 6 Glen Road, Toronto, whose card appears in our advertising columns, has made for himself, in the short space of one year, an established reputation as a masseur. Trained in the Battle Creek Sanitarium, and having had experience for some time in the Boston Dispensary, he came to Toronto a little over a year ago, and has already done work under the supervision of several of the leading physicians of this city, which has been in the highest order most satisfactory. By those upon whom he has performed massage, he is looked upon as an expert, many testifying in words of the highest and warmest praise of his ability in his own particular line. The many complimentary testimonials he has in his possession, both from physicians and laymen, are indicative that he stands first-class in his profession.