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THE MEDICO-LEGAL AUTOPSY.

BY G. SILVERTHORN, M.D., TORONTO.

Autopsies are performed for two especial purposes: Firstly, in order to ascertain facts from a scientific standpoint, and

secondly, for discovery for legal purposes.

With the first I shall not now deal, but I must say that there is no hard and fast lines between them, for every autopsy has some scientific interest, and it may be that the chief interest, from a scientific point, is not directly connected with the cause of death, whereas in the second class the main object is to arrive at the actual cause of death and how this cause was set in motion, along with a host of other questions that may arise, such as identification, time elapsed since death, the circumstances attending the death, etc.

I do not propose to enter into the usual order or method of performing a post-mortem, but wish for a few minutes to occupy your time as to a few of the especial features to be

observed in a medico-legal autopsy.

It is well in the first instance to ascertain from the coroner or some other person, whether the question of identification is likely to arise, for if not, you may avoid much unnecessary detail such as a minute description of the clothing, minute examination of the teeth, bones for old fractures, moles, naevi, scars, etc. If it is possible to have some idea of the questions which will arise, it often simplifies matters very much.

The first duty of the examiner may be an examination of the surroundings of the body for blood-stains, foot-marks, signs of a struggle, etc., but this duty as well as a search of the clothing

is usually performed by the police or coroner.

^{*}Read at Meeting of Ontario Medical Association.

In any case, however, where the body is clothed in ordinary wearing apparel the clothing should be carefully examined and kept for future investigation, if found necessary, and if blood stains are suspected, the clothing or other articles should be removed to another place before the post-mortem begins, in order to avoid any possibility of the stains being produced after the body is opened.

Then should follow a thorough examination of the body externally, also of the orifices, with a more or less detailed description of the body as a whole and a minute and clear description of any external injuries; and here, as in the internal examination, one must remember that artificial light is very deceptive in regard to colors such as jaundice, stains of nitric

acid, etc.

From this point on, the method of procedure varies as to the class of cases we have to deal with, and I intend to consider

only two of these, namely, wounds and poisons.

In regard to wounds the direction of the same should, if possible, be made out accurately, and their correspondence with cuts and tears in the clothing should be accurately determined. The condition of the parts, whether gaping or not, should be investigated, as well as the condition of the tissues, to determine whether the wounds were made ante or post mortem and their condition as to healing, to determine how long a time has elapsed since their infliction.

· Should a wound extend deeply, it is best to approach the deeper parts not directly by enlarging the wound and following it from the outside, but by opening any cavities, supposedly penetrated, from a point some little distance away from the wound and then ascertaining the condition of the parts within, assisted by the introduction of a probe gently inserted through the wound, in this way varying the ordinary mode of procedure, so as to make the wound a pivot round which the rest of the examination centres.

One other point I wish to dwell on is the importance of stripping the dura mater from the bones at the base of the skull in all cases of injury, for only in this way can one be certain that a fracture of the base does not exist.

It is, of course, scarcely necessary for me to say that any unnecessary disfigurement of the body is to be avoided, but on the other hand we must not omit examining thoroughly and minutely any portion of the body that is likely to throw light on the question at issue. The condition of the various organs must be examined also in a thorough manner in order to complete your report.

In suspected poison cases great care must be taken in the examination of the surroundings, orifices, search of clothing,

etc., and the internal examination must be varied from the usual routine so as to afford to the chemist the best possible opportunities for the detection of the poison, and moreover, to determine in what organs the poison is located. To this end it is imperative that the organs be placed in separate jars, preferably new ones, cleaned under the supervision of the examiner, and sealed, labelled, delivered, and identified by the examiner

as the proper ones and untampered with.

The abdomen should be opened first, the esophagus and duodenum ligated, stomach removed unopened, and transferred to separate jar and sealed. The intestine then double ligatured in several places, removed, placed in separate jars and labelled. Then the liver in a special jar, and then the kidneys also. If any urine is contained in the bladder it is advisable to remove it to a suitable receptacle and preserve it also. No preservative fluid should be used for these specimens, but if it is absolutely necessary, then the fact should be stated on the label and the amount and formula also stated.

The labels should also state whether there has been embalming fluid used or not before the post-mortem was done. Some advise the opening of the hollow viscera and preservation of the contents in order to examine the wall in a recent condition, but this always gives a chance for possible contamination of the contents and is in the majority of cases not advisable.

ruptured aneurism, a clot in the brain, or a diseased heart, must not be forgotten.

In connection with this paper I would like to say a few words in regard to two cases that have come under my observation

The possibility of poison in the stomach co-existing with a

illustrating the advantage of a thorough examination.

In regard to the first of these I must crave your indulgence because I have already published the case, but as some of you may not have seen it I shall read from the report of the case from the *Canada Lancet*, November 3rd, 1900, read before the

Toronto Clinical Society, October 3rd, 1900.

On the left side, commencing one and five-eighths inches outside the nipple line and on a line with the nipple itself, was the external wound or wound of entrance. The bullet had fractured and punctured the fifth rib two and three-quarter inches from its junction with the cartilage. It then passed through the pleura and through the anterior angle of the upper lobe of the left lung, then through the pericardium, then along the left border of the heart, which it grooved up, and then passed backwards tunnelling the fat in the left auriculoventricular groove, then passed out of the pericardium and backwards through the posterior portion of the lower lobe of the left lung, and still backwards into the aorta and just

through the aorta opposite the ninth dorsal vertebra. this point onwards the track of the bullet could not be traced, and although the most careful and thorough search was made of all the vertebre and tissues in this neighborhood the bullet was not to be found. After removing all the ribs and vertebre in the neighborhood and again replacing the organs in their original position and again searching without result, I was in a quandary, but at last the idea struck me that possibly the bullet had dropped back into the aorta after striking the posterior wall of the aorta against the vertebral column and in this way cutting the aorta and making what appeared to be a wound of exit. Following out this idea I searched the vessels down to the popliteal space in the right leg without result and was nearly dissuaded from continuing the search in the left leg, but on passing the probe down the femoral artery an obstruction was felt just below Poupert's ligament. I then excised the femoral artery and I here show you the specimen with the bullet in situ, tightly lodged in the artery just where it narrows after giving off the profunda. The bullet measures exactly a quarter of an inch in diameter, and is found base downwards with the anterior end somewhat deformed, produced, no doubt, during its passage through the rib.

I herewith present for your inspection the specimens from

the case, the heart and artery with the bullet in situ.

In connection with this I should remind you that at the autopsy on the late President of the United States of America, the examiners failed to locate the bullet, but no doubt this is acc, unted for by the fact that they did not wish to disturb the body more than was absolutely necessary. Nevertheless this case illustrates the necessity of a thorough examination and the possibilities in regard to the track of a bullet.

Another and more recent case is one that presented itself a short time ago in which a man working on the unfinished roof of a four-story building, where his work compelled him to walk along planks laid on joists, was found at the bottom of the building inside with very severe injuries, from which he died very shortly after being removed to the hospital. It is to be remembered that in this building the floors were not sheeted as the building progressed, as is provided for in the City of Toronto.

At the autopsy it was found that in addition to a fracture of the right thigh and a fracture of the left arm, as well as a fracture of the base of the skull, that he had an injury to the face commencing at the chin to the right of the middle line, as a slight abrasion of the skin and a separation of the deeper tissues from the bone, so that they would slide on the bone. Then an abrasion of the skin directly upwards, as far as the lower lip, which was torn in a horizontal direction as far as the right angle of the mouth about $\frac{3}{4}$ of an inch from the ver-

milion border and 1½ in length. Then the upper lip was torn through in a perpendicular direction to the opening into the right anterior nares, and from here upwards to near the inner canthus of the right eye there continued a superficial abrasion of the skin running perpendicularly. The nasal bones were fractured, and the soft parts of the nose loosened from the bony base. The right central incisor was broken off horizontally about its middle. From the appearance of these injuries it appeared that the injury came from below and travelling upwards caused these several injuries. From the mouth and

nose exuded a bloody fluid.

On opening the thorax the lungs were very voluminous, appearing somewhat like those of a drowned person, so I immediately opened the trache in situ and found the trachea filled with fluid and frothy blood, and on inserting the finger upwards I found a hard substance just below the vocal cords. I then removed the tongue, soft palate, pillars of the fauces, larynx, trachea and esophagus en masse, and on investigating the larynx found this piece of wood lying loosely just below the vocal cords. You will observe that it has two planed surfaces, the other surface being shelving and rough, and that the outline of this surface is somewhat of a segment of a circle corresponding almost to that of the upper row of teeth in the human jaw at its anterior portion. The nature of the wounds on the face and the broken tooth would seem to indicate that this piece of wood was cut from some of the joists that he passed on his way down, and as the question of the manner in which he came to fall, whether from a broken plank or a stumble, was likely to arise in a civil suit for damages, it was of importance to know whether such was the case, and if so from which joist this piece was cut. Dr. Riches, who had charge of the case, was good enough to have a carpenter examine the joists on the different floors and he found that a joist on the second floor up was damaged and he removed this part from the joist, and I think that if you will examine this piece of wood that I will now pass around and compare it with that found in the trachea you will come to the conclusion that they correspond exactly.

This, of course, would be very good evidence that he fell feet first, at least during this portion of his descent, and this would, perhaps, lead to the presumption that his fall was due

to a breaking plank rather than a stumble.

This case shows the wisdom of doing any post-morten thoroughly even when the cause of death is apparently clear.

One other subject I should like to take up very briefly, and that is the subject of the "Identification of Human Blood-stains."

Until two years ago the medical expert was not able, except

in very rare cases, to give a more positive statement in regard to a blood-stain than to say that it was mammalian blood, and from examination and measurements it was consistent with human blood. At the present day one can go much farther and can state definitely whether a given blood-stain is human or not, and can even go still farther and state whether it is a stain from any alleged domestic or other animal.

This test is known as the "Serum Test," and is performed

for testing human blood in the following manner:

A rabbit is given from three to six injections of human blood scrum, about 10cc. each, preferably into the peritoneal cavity, at intervals of several days. Then the animal is allowed to rest for several days and some blood is then withdrawn from the animal and allowed to coagulate, and the serum is then used for the test.

If fresh blood is to be examined it should be diluted with normal saline solution to about 1-100, that is a light pink color, and then either allowed to settle and the supernatant clear fluid decanted, or else centrifuged and the clear portion used.

If dried blood-stains are to be examined, and can be scraped off on to a watch glass a solution is made with distilled water, but if on bibulous material then some of it is cut out and allowed to soak in a small quantity of distilled water for some time to allow solution of the scrum to take place. This is then diluted with a small quantity of normal saline solution, cleared and transferred to a narrow test tube.

To this liquid in the test tube is added a few drops of the serum from the treated rabbit (human-immunized rabbit serum) and at ordinary temperatures there is a precipitate after a little time, but at blood heat there is an abundant whitish precipitate distinct in a few minutes if the solution contains any human blood serum. This reaction occurs with no other species of blood except some of the apes, and here the reaction is a very faint one. In the same way any other species of blood might be tested for by injecting a rabbit with the serum from an animal of the species from which the stain is supposed to have come.

I do not know that this test has been used in any medicolegal case in Canada as yet, but I have had some experience of it in an experimental way and can vouch for the practicability of it, and I may say that I have taken a series of twentyfour bloods, including the ordinary domestic animals, and many wild ones as well, and have found that none of them can be confounded with human blood, although that of the monkey will sometimes give a slight and slowly forming precipitate.

The technique, however, is not quite as simple as it might appear, although the difficulties are not insurmountable and

require only patience and a little practice.

SOME VIEWS REGARDING PUERPERAL INFECTION AND ITS TREATMENT FROM OUR PRESENT-DAY VIEW-POINT.

By H. MEEK, M.D.,

Fellow British Gynecological Society. Gynecologist to Victoria Hospital, London, Ont.

When requested a month ago to prepare a paper for this meeting of our Association I was at a loss for a time to know what subject to choose. After due deliberation, however, I decided in favor of the subject announced for this evening's paper, for the following reasons:

1. Because no paper on the subject of puerperal infection has been read before our Association for years; if I remember

rightly the last having been read by myself.

2. Because our views, more particularly as to the management of many of these cases, have been considerably modified

during the past few years.

3. Because in looking over recent reports regarding the frequency of, and mortality from puerperal infection, we find that although there has been a great reduction both in the frequency and mortality in hospital practice since the introduction of asepsis and antisepsis in obstetrical work, this does not apply to private practice. Reports from both Europe and America show that the mortality from puerperal infection outside of well-conducted maternity hospitals, is not much less than in pre-antiseptic days.

This deplorable condition of affairs is explained to be due (in great measure) to more frequent interference with the parturition process than formerly and also to improper after management. In reference to this I cannot speak positively, but judging from the number of cases I now see in consultation, contrasted with the number seen several years ago, I should infer that in this vicinity both the frequency of and mortality from puerperal infection in private practice had considerably

decreased.

4. Finally, I have chosen this subject because it is a subject in which all the members of our Association are interested, about which all will probably have their individual opinions. A subject, therefore, which all can discuss with mutual benefit.

From our present-day view-point I shall first briefly consider what is meant by puerperal infection, its causation, the avenues by which it spreads, the natural safeguards in parturient patient against infection, and the mortality in cases where no active treatment has been used.

Secondly, I shall consider the treatment prophylactic and curative.

The only difference between puerperal infection and infection in the non-puerperal state is due to the altered condition of tissues and organs incident to pregnancy and the puerperal state. In both the infection is due to microorganisms and their products which are identically the same in each. The changes which take place during pregnancy, the unavoidable traumatisms that occur in the genital tract during labor and more particularly the large open wound in the uterus occasioned by separation of the placenta are conditions favoring infection; and added to this the lowered vitality, the result of a wearisome labor process and its attendant blood losses, very greatly increases the patient's susceptibility.

The micro-organisms causing this infection with which we are now most familiar are the streptococcus, staphylococcus,

colon-bacillus, gonococcus, and the saprophytes.

As to how infection is introduced all are now agreed that with rare exceptions the infecting agent is introduced from without during or soon after parturition. In a small percentage of cases the source of infection may be a pre-existent focus in abdomen, pelvis, or genital tract, e.g., an old appendix abscess, pus tube, latent gonorrhea in cervix or Bartholin's ducts. The so-called auto-infection cases occur in this way. With these rare exceptions the infecting agent is introduced from without and is the result of neglect of surgical cleanliness by those who have the management of the case during labor or soon after.

In all the more serious infections the point at which such infection starts is in the uterine cavity, the infecting agent having been carried there by unclean manipulation. Infection once introduced into the uterus may spread by continuity along the mucous membrane up through the fallopian tubes and into the peritoneal cavity. The gonococcus and colon-bacillus spread in this way, but these infections are not immediately

dangerous to life.

Second: By penetrating deeply into the underlying tissues, causing destruction in their path, or both germs and their products may be taken up by the lymphatics, and the infecting process may either become localized in some part of the pelvis or enter the general circulation causing general systemic infection, or the infecting germs may enter directly into the circulation through the open mouths of the veins at placental site or other wound surface in uterus. In the latter the infection may flood the system and rapidly prove fatal, or it may become more or less localized in uterine and pelvic veins, causing a phlebitis from which focus toxic products are carried to all parts of the system, or infected emboli may be carried to distant

organs producing all the lesions and symptoms characteristic of pyemia.

The strepticoccus spreads in this way, and all strepticoccic

infections are very dangerous to life.

The staphylococcus also penetrates deeply into the tissues, but it seldom produces a fatal general systemic infection, usually becoming localized in the pelvis and continuing as a local infection.

The more important natural safeguards in the patient against infection are, first, the epithelial cells lining the genital tract. In the vagina the several layers of flattened epithelial cells lining the mucous membrane make a strong barrier against the entrance of infecting germs into the general system in this part of the genital tract. Higher up in the uterine cavity the epithelial protection forms a less pregnable barrier, there being only a single layer of cuboidal epithelium and this is unavoidably broken through by the separation of placenta and decidua.

Second, another natural safeguard against infection is the acid secretion of vagina, the acidity being the result of the action of Doderleins' bacillus on the normal vaginal secretion. This acid secretion has a destructive action on the streptococcus and other pathogenic germs, so that when vaginal discharge has this normal acid reaction it safeguards the vaginal outlet against the entrance of the most dangerous of pathogenic germs. It does not, we are told, antagonize the gonococcus and colonbacillus, but these germs are not very dangerous to the life of patient.

Third, another safeguard against the entrance of pathogenic germs into the general circulation is what is known as leukocytosis and the phagocytic action of the leukocytes.

The mortality from puerperal infection (all cases) not actively treated, we are told, is 1 per cent; mortality from streptococcus infection about 5 per cent. The streptococcus infection constitutes about 25 per cent. of all cases of puerperal infection and is the only infection (except in rare instances) attended by a mortality. We are also told that a mixed infection is much more dangerous than a simple infection. The saphrophytes work only in dead tissue and affect the general system only through the absorption of their toxic products.

Treatment.—With our present knowledge as to the causation, mode of entrance, natural safeguards and mortality without active treatment, etc., we should be in a position to deduce a few rules of guidance both in prophylactic and curative treatment. Prophylactic treatment is all important, and if proper prophylactic treatment is carried out serious puerperal infection will become almost unknown. By prophylactic treatment I mean the same care in preparation of patient for labor and the

same care during and after labor that the careful surgeon would exercise with a surgical operation case. Bearing in mind that the normal acid vaginal secretion is a safeguard against infection, no vaginal douches should be used before labor. Bearing in mind too, that infection comes from without and the carrier of infection is often the examining finger, vaginal examinations during labor should be as infrequent as possible, and owing to the difficulty of properly sterilizing the fingers, examinations should be made with sterilized rubber gloves. Of course if the vaginal secretion before labor should be abnormal (alkaline or neutral) the vagina should be carefully cleansed with soap and water and lysol douches. has been conducted asentically and the after treatment is aseptic, no post-partum douche should be given for the first week. Even in cases where the surroundings are such that an asentic and antisentic technique cannot be secured, it is more than probable that post-partum douching would increase the risks of infection.

Curative Treatment.—So long as we are unable to secure the same degree of surgical cleanliness in obstetrical work as is obtained in surgical work or in the management of obstetrical cases in a well equipped Maternity Hospital, puerperal infection will occasionally occur and curative treatment will be called for. If we should see a case of fever (101°F or higher) following labor it is important to find out if this elevation of temperature is the result of infection or something else. This is sometimes a difficult matter to determine. The symptoms peculiar to the different diseases causing fever must be thought of. In a follicular tonsilitis or an influenza, we usually find symptoms which lead one to suspect the nature of the trouble. Sometimes we have elevation of temperature due to fecal impaction, but this rapidly subsides after clearing out the intestinal tract with a cathartic. Again, fever may be due to breast trouble, and an examination of breasts should always be made to ascertain if the cause is in the mammary gland.

Where there has been more than the ordinary Traumatism during labor we may have what is known as traumatic fever during the first 24 to 36 hours, but this rapidly passes off.

The lochial discharge as it appears on vulvar pads or diapers should be examined. According to Jellett, "The stain produced by normal lochia is red in the centre and gradually fades away becoming lighter in color as it approaches the outer margin of stain. In putrescent lochia it produces a hard, deeply stained edge and becomes lighter toward the centre. If from the symptoms and our general investigation we suspect infection of the genital tract, a careful examination of this tract and pelvic organs should be made under the most rigid aseptic and antiseptic precautions."

Much depends on how this examination is made, for if improperly made it may be the cause of serious harm. The patient should be placed on a table in good light so that the external genitals can be carefully inspected. The lower abdomen pubes, inner sides of thighs, buttocks, vulva and perincum should be carefully cleansed with soap and water and I per cent. lysol. The examination field should be isolated with aseptic towels. Hands and instruments used in the examination should be made surgically clean. The examination should be made from below upward, each organ in its turn systematically. First vulva and perineum, then after these parts are carefully cleansed we should examine vagina and cervix. Next a bimanual examination of pelvic organs should be made. Now if it is thought necessary to examine the uterine cavity, the cervix and vagina should be thoroughly cleansed before doing so. The uterine cavity is best explored by the aseptic finger covered by a sterilized rubber glove. Before exploring the uterine cavity it is advisable to secure some of the discharges in uterus (with a Doderlein tube) for bacteriological examination. By this method of examining from below up, we reduce to a minimum the risk of carrying infection from an infected area low down to a non-infected area higher up, and also the risk of producing a mixed infection in uterine cavity. The question as to what local treatment should be adopted is decided upon by this examination and the symptoms the patient presents. If infection is due to saphrophytes the symptoms will be those of sapremia, viz.:

(1) Elevation of temperature probably 102½ or 103°F about the sixth or seventh day or earlier (2) Moderately increased frequency of pulse. (3) Offensive lochia from putrefaction of blood clot or separated secundines acted on by the saprophytes. The proper treatment in such cases will be to remove the offending material by careful irrigation with salt solution or 1 per cent. lysol, assisted by the finger or blunt curette. After the removal of the putrescent material the tract should be carefully irrigated and then gently packed with sterilized 5 per cent. iodoform gauze wrung out of formalin solution 1 in 500 or a solution recommended by Webster.

Ŗ	Glycerine (sterile)			Зiv.	
	Formal	in 	. 30 r	n.	
	Water	(sterile)	. 0j.		

The gauze packing may be left in the uterus usually 12 to 24 hours and not renewed.

If the examination shows the genital tract free from putrefaction material and the general symptoms, such as rigors, high temperature and sweats, point to uterine and pelvic phlebitis, then all local treatment to uterine cavity should be carefully avoided. In other cases where the uterus is empty and the symptoms point to lymphatic septicemia, if one strongly suspects or is sure from examination of the discharges that the infecting agent in the uterus is the streptococcus, then interference with the uterine cavity, either by curette or irrigation, will be exceedingly risky and should be avoided.

There is now no doubt that the mortality in this class of cases has been greatly increased from this line of treatment; in fact, I think, generally speaking in practice outside the hospital, except in the hands of experts and when a perfect technique can be obtained in all cases where the uterine cavity is found empty the woman is much safer without intra-uterine treatment of any kind; even in sapremic cases if one suspects the possible association of a streptococcic infection, the removal of the putrescent material with finger or curette as well as the after, treatment calls for the greatest possible care. If such an association were actually known to exist, it is more than probable that unless a rigid aseptic technique can be secured in clearing out the uterus, the mortality would be less by leaving the case to nature.

What I have previously stated regarding the mortality in puerperal infection must be kept in mind, viz.: That the streptococcus is the cause of mortality. That the mortality in streptococcic cases is 5 per cent. and that the mortality in all cases is about 1 per cent. It must be remembered, however, that in many of the cases that do not terminate fatally the patients become chronic invalids from the effects of pathological lesions caused by the infection.

Pryor claims for his treatment a lessening both of mortality percentage and morbidity percentage. This treatment, he claims, is applicable to all cases of puerperal sepsis except phlebitic cases, and consists (1) in a careful cleansing of the parts under anesthesia. (2) Curettage and thorough irrigation of uterus and packing its cavity with sterilized iodoform gauze. (3) A free incision into the cul de sac posterior to cervix, evacuating the poisonous fluids which he claims always accumulate there, and then packing the posterior pelvis behind the uterus from side to side to the brim with sterilized 5 per cent. iodoform gauze. The vagina is also packed in the same way. He claims that nascent iodine is rapidly absorbed into the circulation and cuts short the infection. To assist in elimination of iodine and sepsis, after saline enemas are given, and in cases where the pulse is 120 or over, an intra-venous injection of two or three quarts of normal salt solution is given before the operation. The removal and renewal of the gauze packing will depend on the symptoms.

Webster, in similar cases, recommends clearing out debris that may be found in uterus by careful irrigation, then packing without curettage with iodoform gauze wrung out of a solution glycerine 4 ounces, formalin 30 minims, water 1 pint. The gauze packing to be renewed in twelve hours if improvement should follow, otherwise no further intra-uterine treatment.

Pryor's treatment, in my opinion, should not be experimented with outside of hospital practice, and even the method of careful irrigation followed by packing with gauze wrung out of formalin solution, should be tried only where a proper technique can be obtained.

Infected wounds in lower genital tract should be treated by keeping parts clean by frequent irrigations with lysol 1 per cent. or by applying to the infected surface, after cleansing with hydrogen peroxide, a dressing of iodoform gauze wrung out of the previously mentioned formalin solution.

In all cases general treatment should receive careful atten-The intestinal tract should be kept cleared out by calomel and salines. Saline enemas should be given. Diet should be concentrated liquid nourishment. Alcoholic stimulants should be given freely, from 4 ounces to 12 ounces of whiskey during the 24 hours. For fever, quinine may be required in large doses, and later it should be given in tonic doses. Strychnia is probably the best heart stimulant in these

Antistreptococcic serum has proved a failure, probably because the streptococcus in bad cases of streptococcic puerperal sepsis is a different germ from that from which the serum was obtained. Later on, when the acute process has subsided, the pathological conditions resulting can be treated on general medical and surgical principles.

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THE RADICAL CURE OF HERNIA.

BY A. GROVES, M.D.,

Medical Superintendent, Royal Alexandra Hospital, Fergus.

When it is remembered that about 20 per cent. of the whole population is afflicted with hernia, and that apart from the hernia of infancy and childhood no attempt is made to cure the vast majority, it would not appear that any apology would be necessary for drawing the attention of the profession to the subject of the radical cure. It seems to me the profession has been and is remiss in its duty in this matter. I know that as a rule when a case of hernia presents itself, a truss is the first and only thing recommended, when it should be the last thing thought of. Except in certain special cases a truss is usually an evidence of incompetence and always a proof of failure. truss is generally merely a means of palliation, whereas the first aim of the surgeon should be to cure, and only when that is impossible should he admit defeat and abandon the field to the truss maker. A large percentage of cases is curable, and it is not creditable to the profession to have men and women going around all their lives wearing trusses when they ought to be cured. It is a simple and easy matter to order a truss, but is it fair to the patient to keep him in ignorance of anything better, and condemn him all his life to the discomfort and danger of an uncured rupture as well as the irksomeness of a mechanical support?

It is not to be wondered at that the travelling rupture specialist thrives when the great mass of the profession practically tell their patients there is no cure for rupture, or if perchance radical cure is mentioned it is often in a deprecatory strain. The possible dangers of the operation are quite vividly painted, and the possibility of failure is not allowed to be forgotten. These things are true, but they are not the whole truth. The danger of a hernia becoming strangulated, and death resulting therefrom, is quite as great as the danger of death from a radical operation undertaken when the patient is

well.

Before attempting the radical cure of a hernia it is necessary to have a clear understanding of the anatomical conditions which render a hernia possible, and on this point the text books are not clear and are often misleading. In Dennis' System of Surgery, for instance, it is stated that "hernia occurs at the umbilicus where muscular planes are lacking, and at points where an interval exists between muscular fibres," thus leading the reader to imagine that insufficiency of muscular structure is responsible for hernial protrusions. To my mind this is erroneous teaching. Fascial or aponeurotic structures

alone prevent protrusion. The function of a muscle is active work, that of a fascia passive resistance, and one cannot do the work of the other. Ordinary striped muscle cannot resist lateral pressure, either it will stretch before it or the fibres will be separated; fascia, on the contrary, will not easily stretch, and it is only with difficulty an opening is made in it by pressure. The great function of the abdominal fascia is to act as a retaining wall for the abdominal contents, and so long as it is intact no hernia can occur. When a rupture occurs it is because of weakness or deficiency of the fascia, and it is to be cured only by restoration of fascial integrity. I would define hernia as the protrusion of a viscus owing to fascial insufficiency. The failure to appreciate this principle accounts for the many futile methods of operating which have from time to time been devised. Amongst these might be mentioned the injection method, whereby it was supposed sufficient adhesion of the walls of the canal could be produced to retain the bowel, but such a hope is groundless. Then there are the various methods of plugging the canal, as well as the open method in which cicatrical tissue was depended on to effect a cure. All such methods must of necessity fail because they are not founded on the primary principle that fascia and nothing else can retain the bowel. When about to operate for the cure of a hernia it is well to keep in mind that the one object to be attained is the restoration of the abdominal wall to its normal condition, and that in so far as this ideal is missed to that precise extent will the operation lack perfection. An operator who has not grasped the true principle involved will find himself more or less lost in a maze of great names, each advising something different, and all to a greater or lesser extent away from the truth. Surgeons burden themselves trying to remember the many operations and modifications of operations laid down in the various text-books, when the simple problem before them is to restore the continuity of the abdominal wall after the viscera have been replaced in the abdomen, and the success of the operation depends mainly on how the abdominal wound is put together, for faulty technique here means failure. The problem is simply the putting together of an abdominal wound, and the same rules apply as in any other wound of the abdomen. The rule I follow is to restore the continuity of each layer of the abdominal wall, taking special care to bring together most accurately the edges of the fascie, allowing no muscular or other structures to be included in the fascial sutures. Where muscles have been incised or separated I restore muscular integrity by sutures, including only tissues normally continuous. The same thing with an aponeurosis, that is. I never put in through-and-through sutures. It is never well to bring

together structures nature never intended to be together. putting in of through-and-through sutures in an abdominal wound is haphazard surgery with the chances immensely against the lavers coming together in their natural order, and if they do not, even by a little, by that little the operation fails of complete success. A foreign body is simply matter out of place, so that if muscle intervenes between the edges of fascia it is a foreign body, and as such prevents natural union. The sac protruding down through the canal is a foreign body and must be put back where it naturally belongs. Foldings, twistings, or reduplications of the sac are of no avail, in fact they are positively injurious, and have been recommended from a misconception of the principles of cure. To epitomize, I would say in all cases open the canal thoroughly, restore to the abdominal cavity everything belonging to it; if the sac cannot be easily freed ligate, cut off and drop back, close the wound layer by layer. For suture material anything that is aseptic nonirritating and that will undergo absorption is suitable. As a permanent aid in keeping parts together no suture is of any use; indeed, sutures being foreign bodies are at best a necessary evil designed to keep parts in apposition temporarily but incapable of acting as permanent supports, hence metallic sutures should not be used in situations where they cannot be removed when their work is done. Antiseptics are in those cases, to my mind, at best valueless: if weak they will not destroy disease germs if strong they injure the tissues, lessen their powers of resistance, and interfere with the normal process of healing. The introduction of any foreign substance, call it what you will, into a clean wound, is injurious. Sterile water or normal saline solution is less injurious than anything else, and is all that is required. The simple formula, "Wash and be clean," is as true now as when first uttered, and if thoroughly carried out will be followed by perfect results. As to the dangers of the operation with modern aseptic methods, it would appear that in competent hands the death factor can he practically eliminated, but it would not be fair to argue from this that there was no danger. The danger is very real and imminent, and it is only by realizing this fact and taking every precaution that an operation can be undertaken with an almost absolute assurance of safety. Whilst in children the operation is quite as safe as in adults it is more difficult and, ordinarily, I think unadvisable, until any reasonable hope of spontaneous cure has passed. Generally there is a fair chance of recovery without operation under proper treatment up to ten years of age, but after this the chances rapidly lessen, and after twenty there are few recoveries. In my opinion the patient should be kept in bed for a month after the operation.

as firm union will not take place in less time. If a truss is required afterwards the operation has been a failure, but there should not be more than two per cent. of failures, and even these will arise from some fault of technique in most cases. There may, indeed, be cases where the deficiency of fascia is so great that its integrity cannot be restored, but they are rare in the hands of a competent operator. To succeed in any given case the operator must not only believe success possible, but also that it is possible to him. If he does not so believe he had better not operate, for no man's results are better than his ideals, and if his ideals are low his results will be also low. It might be permitted me to illustrate by two or three examples the results of operation: First—A patient, aged forty-six years, with a large scrotal hernia which had troubled him all his life. and which no truss he had used would retain. The canal was thoroughly laid open, the sac opened, cut off, ligated and returned to the abdomen, then layer by layer the continuity of the abdominal wall was restored as nearly as possible as nature intended it to be in a normal case. He was kept in bed for six weeks to give ample time for perfect consolidation. had no further trouble with his hernia, and no longer needed a truss.

Second—A woman, aged fifty-five years, with an umbilical hernia which had existed as long as she could remember. The sac was laid open, adherent omentum ligated and cut off, the stump being dropped back, the sac itself dissected up, the redundant portion cut off and the edges having been stitched together the remainder was returned to the abdomen. It remained only to bring together the edge of the opening in the linea alba and the skin wound. A perfect cure resulted after a month in bed.

Lastly—I take a case of femoral hernia where the patient found it impossible to wear a truss on account of adherent omentum. She had been advised to let well enough alone when she was far from being well enough, the dangers of an operation had been laid before her in minute and elaborate detail, and it was only when life had become unbearable that she came to the hospital ready, as she expressed it, to run the awful risk of an operation. She was astounded when told that at most there was not more than one chance in a thousand that she would not recover. After attending to the omentum and sac the fascial edges were brought together and a cure resulted.

To quote further cases is unnecessary, for these are typical of those usually met with, and these results can practically always be obtained if the surgeon never loses sight of the truth that to restore the fuscia is to cure the hernia.

CHRONIC RHEUMATISM AND NEURITIS.*

By JAMES J. WALSH, M.D.

There is probably no affection which has proved a source of more opprobrium to medicine than so-called chronic rheumatism. Forms of the disease are constantly occurring for which effective treatment is almost entirely lacking. The fact of the matter is, however, that the group of diseases known as chronic rheumatism is not a single entity in medicine, but represents a large number of disparate pathological conditions, that is, a number of affections that bear practically no relation to one another, and have no reason at all for being grouped under the word "rheumatism," except that they represent painful conditions usually occurring in the neighborhood of joints.

I have pointed out, in a series of articles published during the last few years, that many of the cases of so-called chronic rheumatism are really other affections. There seems no doubt that the term "chronic rheumatism" will eventually disappear practically entirely from medical literature. At the present time most of the chronic rheumatism of the foot and ankle is really due to flat-foot. Most of the rheumatic conditions involving the forearm and wrist are really occupation neuroses. So-called rheumatism of the shoulder also is often an

occupation neuroses.

Case 1. The patient is a man about sixty, who complains that he is no longer able to lift his arm straight out from the side, or, rather, that he has rheumatism of the shoulder and cannot use his arm. His ailment developed gradually about six months ago. At first he noticed that his arm was much more tired than before when he used it, and that the fatigue that developed became painful after a time. On rainy days his condition was much worse than on other days, and he became tired much sooner. On rainy days, too, the painful feeling and fatigue lasted into the night, so that sometimes he lost sleep on account of it. He went to see doctors about it, and was told that he had rheumatism. His shoulder was rubbed with various liniments, and he was given medicine.

An examination showed that the main element in the case was the impossibility of raising his arm straight out from his body. In a word the deltoid muscle refused to functionate. As a result of disuse for more than three months, there was some atrophy of the muscle. When asked as to his habits as to alcohol, he said that he usually drank three or four or more

^{*} Read at a meeting of the Clinical Society of the New York Polyclinic Medical School and Hospital.

glasses of beer a day, and a glass or two of whiskey. When asked as to I is occupation, he said that he was a "chipper," that is, he worked in a foundry, and when the rough castings came from the mould, with a hammer and chisel he went over the rough parts where joints in the moulds occur and made them as smooth as possible. This involves use of the hammer all day, and as is well known, means the use of the deltoid muscle and of the group of muscles supplied by the circumflex nerve. It is evident that his occupation has considerable to do with the location of his neuritis in this particular nerve—the circumflex. This nerve is overworked. He is taking enough alcohol at least to predispose to alcoholic neuritis, and so the condition is almost surely a neuritis.

At first the fatigue and pain that he noticed were due to the fact that the muscle was not receiving its proper trophic influences through the gradually inflaming nerve, and in addition it was not receiving the ordinary nervous impulses to set properly in motion. Why these conditions are worse on rainy days is one of the mysteries. It is well known that a tooth that has not been troublesome for some weeks or months will become insistently annoying on a damp day. This is, perhaps, due to the hydroscopic character of the sensitive dentine, which causes it to take up moisture from the air. In some cases, however, the sensitive dentine is not exposed, and the fact that nerves will begin to be painful before the weather actually becomes very damp (the prophetic nerve pains that enable so many people to announce the approach of damp weather) shows that the nerve sensitiveness is probably due to the drop in the barometer, and the consequent disturbances of the capillary circulation for the moment by the change in air pressure.

This man has been treated with the salicylates and other socalled rheumatic remedies. Are they likely to do any good? Yes, whenever the painful condition exists, in addition to being antipyretic they are anodynes. Twenty grains of salicylic acid or salicylate of soda, as many dentists know, will as effectually dispose of toothache as ten grains of antipyrine or a corresponding amount of phenacetin or acetanilid. To the underlying condition, however, the salicylates, instead of doing good are likely to do harm. They are depressant drugs. comfort is, at most, only an incident in the case. It is loss of power that is the main thing. Some atrophy of the deltoid muscle already exists, and it will not be long before atrophy of structures within the joint will commence, because it is from . the circumflex nerve that the joint issues receive their trophic impulses. After a time, then, those changes will occur in the joint structures, which are pointed to with confidence as an evidence of chronic rheumatism. In reality they are no such thing, but a manifestation of trophic disturbance, partly nervous

and partly due to lack of use.

Case 2. The next illustrative case is that of a man who complains of rheumatism in his elbow and hands. He knows that it is rheumatism because several doctors have pronounced the magic word. He has pain in his elbow and some loss of sensation on the ulnar side of his hand. The muscles of his arm become very tired very soon when he uses them, and the fatigue, after a time, is almost painful. He points out very clearly where the difficulty lies, and makes a beautiful demonstration of the course of his ulnar nerve. He shows a tender spot in what is familiarly called the "funny bone," that is, in the grove on the inner side of the arm at the elbow, and says that his third and fourth fingers are lacking in sensation. He says that the outer side of his third finger is without sensation, though the inner side retains a certain amount.

His occupation is that of a stone-cutter. He uses a hammer and chisel constantly. He is compelled to grasp the chisel very firmly, using especially the ulnar side of his hand for this purpose, because when he strikes the head of the instrument, its sharp edge is against the rock, and there is considerable vibration. It is his ulnar nerve, then, that is being overworked, and it is in this that the neuritis has developed. His habits with regard to alcohol are not so clear. He confesses to drinking a few glasses of beer a day, but no whiskey. He works in the open air constantly, and it would seem that when overworked nerves are exposed to frequent changes of temperature, they

become less resistant to infections of many kinds.

In this case we have to deal with a neuritis, and it will not be benefited by the administration of salicylates. The man will probably be compelled to give up his present occupation. He may never again be able to use his ulnar nerve in the way he has used it before. In the meantime, general stimulation, massage of the muscles of the part, provided it can be done without pain, and perhaps electricity, may do him good. Time and rest are the main elements, however, that will effect a cure and interference with Nature's slow processes will only hinder rather than help the progress of the case. It is probable that Nature has been giving warnings with regard to the overuse of this nerve for several years. It is useless to hope that a patient will go up a hill faster than he will go down. It is of no use to promise these people an immediate cure; they cannot have it.

These cases illustrate certain phases of the painful condition about the shoulder-joints that are often called "chronic rheumatism." Many more of the cases of rheumatism of the

shoulder joints than might be imagined can be explained in just the same way as in these cases. The tired ache that follows the use of muscles when certain auxiliary muscles are unable to functionate properly, because a low grade neuritis prevents the sending down of motor impulses, is the basis for

much of the discomfort experienced in these cases.

As a matter of fact, faithful examination of the cases that we are tempted to call chronic rheumatism will practically always bring about their relegation to some other category than that of rheumatism. If rheumatism means anything it means a collection of fluid in the joint, because it is derived from the Greek word "to flow," meaning an excess of secretion. None of these cases presents a superabundance of fluid within the joint capsule, and though changes sometimes take place within the joint, these will be found to be due partly to the lowered trophic condition incident to the nervous affection, and partly to the unfavorable circumstances in which the joint tissues are placed because of the inaction.

Dr. W. R. Townsend opened the discussion, saying that a great number of cases of flat-foot follow acute rheumatism and gouty attacks, but he did not believe that all cases of rheumatism of the foot were flat-foot. While rheumatoid arthritis may very well follow one of the infectious processes, still it is difficult to prove this always to be the case. It is very easy to accuse a man of having had gonorrhea or syphilis when there are no symptoms of these conditions present, but a patient's statements are not always false, and other causes must be sought, very often, to account for the joint symptom. Chronic rheumatism, while it may be exceedingly rare, certainly exists, although the classes of cases that the reader of the paper had grouped together were certainly of neuritis or allied to it.

Society Reports.

LONDON MEDICAL ASSOCIATION.

RESUME OF WORK DONE DURING 1903.

By DR. W. M. ENGLISH.

GENTLEMEN,—I am pleased to be able to report that the past year has been one of pleasure and, I believe, profit to the mem-

bers who attended our meetings.

In addition to our eight regular meetings, at which the average attendance was ten, we had under our auspices a most interesting and instructive lantern lecture on small-pox by Dr. C. A. Hodgetts, of the Provincial Health Department, Toronto.

The meeting of the Canadian Medical Association in August last was an event in the medical life of the city and we were all pleased to know that it was one of the most successful gatherings in recent years both in the matter presented at the

sessions and the entertainment provided.

Four members have been added to our numbers during the year, yet the attendance at our monthly gatherings is not what it should be and the hesitancy of the majority of our fellows in contributing papers or exhibiting cases or specimens is one that makes the position of your president in providing a programme a by no means easy one.

At the January meeting, nine members being present, Dr. Weeks showed a specimen of the right ovary and tube and the

appendix which had been removed.

In the absence of the retiring president, Dr. Minns, Dr. English gave a résumé of the work done by the Association in 1902, and also gave notes of a case of cancer of the vagina with operation and recurrence, thyoseyamine being given to relieve pain etc., with some success. Dr. Weeks referred to a case of puerperal eclampsia in which free use of morphia gave relief

In February, with an attendance of twelve members and one visitor, Dr. Eccles showed a solid tumor of the ovary and read a paper on tumefactions of the abdomen, dealing with the difficulties of diagnosis and the best ways of overcoming them. Also at this meeting it was decided to invite Dr. C. A. Hodgetts, of Toronto, to give his illustrated lectures on small-pox.

At the March meeting nine members and two students being present, Dr. H. Williams gave notes of two cases of strangula-

tion of the bowel; the first being caused by a firm fibrous band which passed around the bowel; and the other one of strangulated inguinal hernia. Dr. D. H. Arnott reported a case of tumor of the brain, the symptoms lasting for two years and being subjective until three months before death. On postmortem a sarco-glioma was found and presented to the meeting.

Eleven members and some students being present in April, Dr. H. A. McCallum, by request, gave a most interesting address on diseases of the nervous system and illustrated his subject with a number of clinical and pathological lantern slides.

At the May meeting, eight members being present, Dr. R. Ferguson reported a case of inguinal hernia, the sac of which on being opened was found to contain a rudimentary uterus with its appendages. Dr. English referred to a case recently operated on where the hernial sac contained a section of Dr. Hodge exhibited a specimen of gangrenous omentum. aneurism of the aorta and inominate artery from a man 61 years of age who had syphilis in early life. Adjournment then took place until October, when, ten members being in attendance. Dr. Weeks gave notes of a puzzling case that developed hyperpyrexia and acute nephritis. Those present could throw no decided light upon it as to cause, etc. Dr. Hodge reported a case of glycosuria, and gave a detailed diet list and showed how the quantity as well as the quality of food given these patients was most important. Under this scientific treatment the patient had gradually recovered.

At the November meeting, eleven members being present, Dr. Eccles referred to a couple of cases recently treated of intractable cystitis. In the first he formed an artifical vesico-vaginal fistula and after keeping it open for four months it was closed and for the past twelve months the patient has been thoroughly well. The other case had a fistula produced and though all irritation had disappeared he would not close the opening for

some weeks yet.

At the present meeting I am pleased to see eleven members and sixteen students present and I am sure we have listened with much pleasure and profit to the timely, able and instruct-

ive paper of Dr. Weeks, on Puerperal Infection.

Gentlemen, I thank you most heartily for the kindness you have shown me during my ten years of office in this Association and trust that my successor will receive the same hearty assistance.

London, Dec. 14th, 1903.

The officers of the London Medical Association for the ensuing year are:—Dr. W. J. Weeks, President; Dr. D. H. Arnott. Vice-President; Dr. E. L. Williams, Secretary-Treasurer.

Progress of Medical Science.

MEDICINE.

IN CHARGE OF W. H. B. AIKINS, H. J. HAMILTON AND T. A. CLARKSON.

Medical Treatment of Appendicitis.

Robin, of the Hôpital de la Piété, protests energetically against the classical treatment of this disease by giving opium, applications of ice to the abdomen and then operating as soon as possible. Out of a series of 250 cases reported by him, he has advised surgical intervention in six only. Of these six, two died and four recovered.

Making the requisite reservation for the infective appendicitis of influenza, eruptive fevers, etc., for that which accompanies the lesions of the uterine adnexa, and for that caused by traumatism or foreign bodies, Robin holds that ordinary appendicitis—that occurring in persons suffering from habitual constipation-represents the ultimate manifestation of the intestinal resentment, determined by hypersthenic dyspepsia, and that it can be avoided by treating that dyspepsia and the primary disturbances of the intestine. By interrogating patients suffering from this disease, we find that most of them have had a gastric hypersthenia. What is the bond that unites so many cases of appendicitis with this hypersthenic dyspepsia? Examining the feces, we find that they have an acid reaction. In the intestines they undergo fermentations, which are a continuation of the anomalous fermentations already begun in the stomach; further, compared with normal feces, they are richer in inorganie substances (phosphate of calcium and magnesium). feces are irritating and under their influence there is produced a relative inhibition of the functions of the intestine, since the extreme acidity of the chyme not only saturates the intestinal juices but acidifies them, thus interfering with the action of the ferments secreted by the pancreas and by the mucosa of the small intestine. These substances accumulate in the cecum and cause constipation, one of the most common symptoms of hypersthenia. Naturally the mucosa of the cecum and appendix reacts under the influence of these irritating acid feces, secreting mucus, which soon becomes infiltrated with lime salts, so abundantly found in such feces. In this way the mucosa and the submucous tissue of the appendix become inflamed and thus

prepare the way for a microbic infection. If the latter occurs, then there is created a true appendicitis, against which medical treatment is unavailing and surgical intervention is necessary whereas surgery can do no good in the first stages of the dis-Robin, in support of his theory, adds that cecal constipation is one of the most important symptoms of gastric hypersthenia, and that in all cases of appendicitis he has found gastric hypersthenia co-existing with cecal constipation. Robin's treatment is therefore in accord with his theory. He forbids the use of opium because it immobilizes the intestine, whereas the essential indication is to purge it. He therefore administers castor oil (30 gr.) or 40 centigr. calomel, if the former fails. After the first evacuations he gives free high intestinal irrigation, using a litre and a half of water with 10 drops of tincture of sage, which causes peristalsis. During the irrigation he has the hips held high enough to allow the water to pass by its own weight into the sigmoid flexure, and when all has been introduced, the legs and pelvis are raised so that the water may pass into the descending colon. At the moment when the characteristic gurgling announces the fall of the liquid, the patient is quickly turned on his right side, so that the water may pass into the transverse colon, whence, by straightening the trunk, it will pass into the ascending colon and cecum, where it is easy to detect its presence. Now, Robin makes a gentle massage at all the points where there is constipation, so as to loosen the hardened feces. Then he makes similar movements in the opposite direction, so as to bring back the liquid to the rectum. In this way he obtains two or three large evacuations, in which are found hard black or yellow scybala of a special odor. This operation is repeated every day so as to prevent the accumulation of feces in the intestine, and every two days the patient receives the castor oil. Throughout the attack the patient is kept on a strict milk regimen, according to the usual rules. The best argument for Robin's method of treatment is his record of 244 recoveries out of 250 cases, of which six were operated He claims that at the most 10 per cent. of the cases require surgical intervention.—Translated by HARLEY SMITH.

Reproduction of Syphilis in Anthropoid Apes.

At the July meeting of the Academy of Medicine of Paris, Roux and Metchnikoff made an important announcement on the positive results obtained from the inoculation of syphilitic virus in a young female chimpanzee. It is well known that many attempts to introduce syphilis into animals have hitherto given negative or very imperfect results, so much so that Barthélemy, in a résumé on this subject (La Syphilis, V. 1, 1903) concludes, "Up to the present time there is not known in animals, whether

in the dog or horse, in the hog or ape, a disease which can be

defined as syphilis."

The study of a series of human diseases is made very difficult by the fact that the animals ordinarily chosen for experiments present a complete immunity towards the diseases. Hence the necessity of inoculating diseases exclusively human in anthropoid apes, as being nearest to the human being. Roux and Metchnikoff, having made a scarification of the epidermis on the right side of the fold of the clitoris of a female chimpanzee, inoculated a little virus taken from a syphilitic ulcer, about a month old. Five days later they made another inoculation on the left side of the fold with the product obtained from scraping a hard sore, only three days old. The inoculations did not produce any immediate lesion and the points of inoculation closed without leaving any mark. During the first three weeks no symptom appeared, but on the 26th day there appeared near the clitoris, on the right side, at the point of inoculation, a small oval, transparent vesicle, surrounded by a reddish zone. This vesicle became an ulcer, markedly hard in character. The bottom of the ulcer was round and yellowish, but the ulcer soon was covered with a grey pseudo-membrane. The small inguinal glands began to enlarge and were not painful on pressure. Up to the 46th day, when the report was made to the Academy, no secondary symptom had appeared.

Fournier, at the same session, said that, at the invitation of Roux and Metchnikoff, he had examined the animal and had no doubt that the sore referred to was of the hard type, presenting to the fingers that special kind of resistance resembling a visiting card or parchment. Further, the duration of the incubation period points to syphilis, being in this case 25 days. Then the character of the glandular swellings points similarly to syphilis. In this disease the buboes are multiple, hard and indolent. While Fournier was inclined to consider the evidence already strong enough, he advised postponing a definite judgment until the appearance of secondary symptoms—granting that syphilis in the animal develops under the same laws as in

man.

If the experiment prove successful, it opens up the possibility of studying in the animal a hundred different problems in therapy, immunization and vaccination. "Perhaps," Fournier concluded, "we are at the dawn, thanks to Roux and Metchnikoff, of one of those discoveries which, like so many others that have come from the *Institut Pasteur*, represent not only a signal glory for science, but also a great benefit for humanity."—Translated by HARLEY SMITH.

Inoculation of a Chimpanzee with Syphilis.

At the meeting of the French Academy of Medicine held last July, Messrs. Roux & Metchnikoff reported the inoculation of a young female chimpanzee with syphilitic virus. Twenty-five days later this was followed by an indurated sole at the seat of inoculation, and then in a few days by a bubo. M. Fournier, on examining these manifestations, pronounced the picture typical. About a month later, the secondary rash appeared, but unfortunately, if we are to believe the press reports, the animal died.

From the close affinity between man and this most anthropoidal ape, as shown not only by its anatomical structure, but also by the precipitation and agglutination of its serum, we may hope that we are nearing a solution of some of the great problems of syphilis, such as those of immurization and of vaccination which would be of vast benefit to the human race.

The Stomach and the Digestion of Itself.

Weinland, a young German physiologist, has shown that in the cells of the gastro-intestinal mucous membrane are certain anti-substances, apparently like antitoxins, antilysins, etc., which we have lately learned from bacteriology. These antipepsins and antitrypsins protect the stomach and intestine from the action of the gastric and pancreatic juices, and thus solve the old problem, "Why does not the stomach digest itself?"

Beginning with the tapeworm, he was able to isolate a substance which, when added to a mixture of fibrin and pancreatic juice, prevented the digestion of the fibrin. Following the line of this experiment, he next isolated an antipepsin from the stomach and an antitrypsin from the mucous membrane of the intestine. The process of separation was readily accomplished, the anti-bodies being precipitated from solutions of the mucous membranes by various agents.—Zeitschrift f. Biol. Vol. 43.

Treatment of Pneumonia.

Dr. Jas. Barr, Liverpool, takes issue with Dr. Lees (British Medical Journal, Dec. 19th), who delivered a lecture on this subject. Dr. Lees tries to revive the practice of blood-letting, but Barr holds that in the late stage of pneumonia when vene-section is usually practised, it is useless, because bleeding from the median basilic vein empties the arterial tree and can hence have no effect upon the dilated right heart. "What good." he says, "can there arise from drawing blood from a comparatively empty arterial system? You can only thus relieve the right side of the heart by diminishing the total amount of blood in circulation. Personally I fail to see the advantage

that can accrue from abstracting 8 or 10 oz. of blood from the arm and putting a pint of milk in the stomach. The amount of fluid in circulation will soon be re-established."

The manufacturers of oxygen must feel indebted to Dr. Lees for the maintenance of that much-worshipped fetish. No one can use more than 4 or 5 per cent. of the available 20 per cent. of the oxygen in the atmosphere. Where, then, is the necessity for the artificial product?

Dr Lees advocates the use of icebags over the chest, not only to relieve pain, but to inhibit the growth of the pneumococcus. But he refutes his own argument by removing the icebags when the patient's temperature reaches 100°F, whereas the

optimum temperature of the pneumococcus is 90.5°F.

Barr further protests against frequent examinations, in order to follow the progress of the disease. "Any person with one eye should be able to see how the patient is progressing without these frequent examinations; and if the ice is applied to the abdomen, there is no necessity for discovering the particular patch over which the icebag should be located."

Edema of the Lungs and its Importance as a Mode of Death—
(A Clinical Lecture by SIR ISAMBARD OWEN, British Medical Journal, January 2nd).

The mechanism of death in the great majority of cases is neither obvious nor simple. It is easy enough to apply such terms as "toxemia," "cardiac failure," "collapse" or "asthenia," which are mere cloaks of ignorance. In disease of the - heart-valves, for example, the commonest danger to be apprehended is the extension of the dropsy to the lung itself. This in its earliest stages interferes very little with the resonance of the chest, but on deep inspiration the ear will detect a number of clear, fine, "fluid" crackles of uniform size, which are diagnostic of this condition. The subjective symptoms of pulmonary edema are few-increased distress of breathing and increased cough. In pneumonia, this condition is of even more importance and will explain the fatal termination of cases where the consolidated area is very small. "A patient," says a recent writer, "may die of pneumonia, and yet the area of consolidation be not larger than a small orange." But the unconsolidated portions are always found edematous. This condition is not a post mortem change because the amount is too large to be explained by passive oozing, and because the signs are detected during life, sometimes several days previous to the fatal issue. Neither is it mechanical, because it is not always found in the most dependent parts, and because it appears without signs of cardiac failure. From these facts it is obvious that frequent examination of the lungs is necessary to find out

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the condition of the unconsolidated portions. Venesection, so much lauded nowadays, has its use, not from the relief to the right ventricle, but from the altered pressure in the blood vessels, and consequent temporary relief of the pulmonary edema. The other remedies advocated are leeches over the front of the chest and free watery purgation; of drugs strychnine is most satisfactory. The condition is not necessarily fatal, and often in fighting it delay is equivalent to victory.

The Contagiousness of Scarlet Fever-

The old idea that the contagion of scarlet fever is conveyed chiefly by the exfoliating skin, has of recent years been made a matter of doubt, especially since the publication of Asser's work in Christiania (Nord. Med. Arch.). Out of 3,800 cases seventy-nine were infected from patients who had been discharged from the isolation hospital, where the average period of retention was nine weeks. That the hair played little part in carrying the contagion is shown from the fact that of the seventynine persons carrying infection, forty were boys whose heads had been shaved. Nearly a half of this infection-bearing group had ceased to desquamate at least a week before discharge, and the rest for a longer period up to five weeks previously. Asser thinks that the chief source of contagion is the discharge from the nose and the ear, and concludes that as long as there is an abnormal secretion the patient must remain isolated, and no patient should be discharged until the physician has satisfied himself by careful examination of throat, nose and ear that the secretion has ceased.

SURGERY.

IN CHARGE OF EDMUND E, KING, GEORGE A, BINGHAM AND F. MARLO Y.

The Modern Treatment of Fractures.

An address delivered by Mr. Berghard before the South West London Medical Society, and reprinted in the British Medical Journal, December 19th, 1903, is so thoroughly comprehensive and embraces the recent ideas of the treatment of fractures, that we heartily recommend it to our readers. The treatment of fractures has advanced wonderfully in the past few years; the old idea of keeping our fractured limbs confined to splints, rigidly done up for a great length of time, is rapidly changing to the more modern and scientific method of quickly putting the limb in motion after the fracture has been

reduced and immobolized for a short period. The old idea entirely overlooks the condition of the soft parts. The new idea looks to their function being maintained and inflammatory change and adhesions prevented in muscles and ligaments.

The use of anesthesia during the reduction of fractures is more and more coming into general use, and where these fractures involve the long bones, particularly near the joints, it should be a routine practice to reduce under anesthesia. It is of as much advantage to the surgeon as to the patient that the reduction should be made with the least amount of resistance, and the greatest amount of freedom of manipulation to accomplish the best results. Simple splints should be used, and these complicated affairs done away with as much as possible.

We have taken from this very excellent paper of Mr. Berghard's a paragraph on Colles's Fractures, and can recommend it as embracing the ideas of treatment as they exist to-

day.

Colles's Fracture.

This, which is one of the commonest fractures met with in practice, is also one that gives rise to more anxiety than many others. The trouble may sometimes arise in setting the fracture, but in the majority of cases the important point is the disability which the patient suffers afterwards from the stiffness about the wrist and the fingers, and it is in this particular fracture that the modern plan of passive movement and massage produces its most brilliant results. As an example I may quote two cases that came before me only to-day in the outpatient room. The first patient, a burly mechanic, came to ask if his wrist had been broken, as he had been told that it had been. He had fallen on the outstretched palm eight weeks before he presented himself. Examination showed the typical deformity of a bad Colles's fracture, and an X-Ray photograph showed a fracture in the usual situation extending into the wrist-joint. The patient had the most perfect movement, both in his fingers and in the wrist-joint, and he declared that he · had never had any medical treatment at all, and that all he had done himself was to work his wrist about and to rub it; he said that he was unable to afford the time to lie up and had to go on with his work which he had done from the time of the injury uninterruptedly. He said that he had a good deal of pain on the first day but that subsided readily when he rubbed it, and from the time of the accident to the time that he presented himself at the out-patient department he had never worn any apparatus of any kind, not even a sling. The other patient complained of stiffness of the fingers; he also had sustained a Colles's fracture which had been treated immediately,

and had been excellently reduced, but the splints applied had extended to the tips of the fingers and had been kept on for six weeks. The result was that there were adhesions in all the tendon sheaths and apparently extensive adhesions in the wrist-joint itself. The first case I have mentioned emphasizes the point that is being more recognized every day, viz.: that the disability after a Colles's fracture depends not upon irregularity of the fractured surfaces or upon bad coaptation so much as upon adhesions in and around the wrist-joint, mainly in the tendon sheaths surrounding the joint, and the same case shows how, in spite of every marked deformity, the use of the hand and the wrist can be perfectly preserved by the painstaking

application of massage and passive movement.

A safe way of treating this form of fracture is to set the bone as accurately as possible after having reduced any impaction present, preferably under an anesthetic. An anesthetic is not absolutely necessary in these cases, but is always advisable, as, owing to the proximity of the wrist-joint, perfect coaptation is important. After reduction has once been properly effected there is little tendency for the recurrence of the displacement, as the fractured surfaces are quite broad and not easily displaced from one another. As to splints, the form in common use known as Carr's is, perhaps, the most comfortable but straight anterior and posterior splints do equally as well provided that the former does not reach lower down than the transverse crease of the palm. Massage over the seat of the fracture applied to the dorsal aspect of the limb should be used from the time the limb is secured on the splint, and at the same time active and passive movements of the fingers should be practised. The black splint must, of course, be removed to allow of the massage. Before the end of the first week passive movement should be made in the wrist; at first the joint is merely extended as it lies on the splint, while the seat of the fracture is steadied by the other hand, but by the seventh day the limb may be taken right off the splint, the seat of the fracture grasped in one hand, and passive movements of the wrist made with the other. Some time during the third week it will be possible to leave off the splint altogether, the arm being carried in a sling and perhaps being supported by a good firm leather wristlet. Active movement of the wrist-joint should be encouraged from the end of the first week.

Editorials.

STRICTER RULES FOR POST OFFICES.

The Postmaster-General of Canada has determined to put an end to the circulation through the mails of magazines, books, or publications of any kind, which contain anything of an immoral or indecent character. Recently a monthly magazine was prohibited for lampooning members of the medical profession and publishing indecent advertisements. It seems now, from careful examination, that there are many magazines of this class being circulated, which has led to the issue of the following notice:

"If it is established to the satisfaction of the Postmaster-General that any person is engaged or represents himself as engaged in the business of publishing any obscene or immoral books, pamphlets, pictures, prints, engravings, lithographs, photographs, or other publications, matter or thing of an indecent, immoral, seditious, disloyal, scurrilous or libelouscharacter, or in the business of an illegal lottery, so-called gift concerts, or other similar enterprise offering prizes or concerning schemes devised or intended to deceive and defraud the public for the purpose of obtaining money under false pretences, or in the business of selling or in anywise disposing of counterfeit money or what is commonly called 'green goods,' or of drugs, medicines, instruments, books, papers, pamphlets, recipes, prescriptions, or other things with the object, or with the pretended object of committing a crime, and if such person shall, in the · opinion of the Postmaster-General, endeavor to use the Postoffice for the promotion of such business, it is hereby declared that no letter, packet, parcel, newspaper, book, or other thing sent or sought to be sent through the Post-office by or on behalf of or to or on behalf of such person, shall be deemed mailable matter."

FUNCTION OF THE CORPUS LUTEUM.

Physiologists have puzzled over the question of ovulation and menstruation for many years with little success till last year, when Frænkel published Gustav Boru's posthumous work. Boru gathered together the various facts that were known, such as the difference in appearance between the so-called true and false corpus luteum, and also the intimate relationship of the growth of the corpus luteum and the growth of the pregnant uterus, both occurring in the early months of gestation. When the corpus luteum begins to disappear, the uterus ceases to grow at such a rapid rate as previously, the increase in size being due now to the growth of the fetus. Then, too, the histological structure of the corpus resembled a gland.

From a consideration of these and other well-known facts, Boru came to the conclusion that the corpus luteum elaborated an internal secretion. He formed plans for proving his theory by experiments. His untimely and lamented death prevented their execution, but he was able, in his last illness, to commit his ideas to the safe keeping of Frænkel, who a few months ago completed the observations.

Using rabbits for his experiments because their generative cycle has been thoroughly studied, he found that the removal of the ovary early in pregnancy prevented maturation of the ovum. By burning out the corpus luteum, and leaving the rest of the ovary intact, he could accomplish the same thing, the effect being brought about through an atrophy of the uterus.

From many such experiments, he found that the corpus luteum gave rise to a secretion which in some as yet unknown way accomplished favorable conditions for the implantation of the ovum, and afterwards for the growth of both the ovum and the uterus. The absence of this secretion would probably account for the abortions so common in women with ovarian tumors, the new growth having involved the corpus luteum.

To ascertain the relationship of these bodies to menstruation the corpora lutea of menstruation found in women who were undergoing operation, were burned out, with the result that in eight out of nine cases, the next monthly period was missed. This seems to indicate that, in some way not understood, the corpus luteum of one month causes the menstruation of the next.

To apply these results to practical use, was Frænkel's next endeavor. He administered lutein tissue from the cow to women in whom the operative menopause had produced unfavorable symptoms, and was able thus to ameliorate their condition, and thus further establish his experimental conclusions.

"DO YE NEXTE THYNGE."

The next thing to improve the health of towns and cities in Ontario is to improve the milk supply. It is not satisfactory. In Great Britain great attention is directed at present to this thing, and great efforts are being made to improve the milk supply. Dr. Pierce, Medical Officer of Health for Guildford and Woking, finding himself face to face with an extensive epidemic of fever and sore throat in his kingdom, presented to the Woking Urban District Council on November 28th a report, in which he mentioned that ninety-eight houses were infected with this epidemic, and further described a visit made by him to a certain farm to which the infection had been traced. He was accompanied by Mr. Wild, Veterinary Inspector to the Council. Mr. Wild milked the twenty cows on the farm, keeping the milk from each teat separate, and in the case of two of the cows the milk "consisted for the most part of pus, such as would be contained in an abscess"!

The information was also elicited that the farmer and his family had recently suffered from sore throats.

In many of the cities and towns of the United States, Milk Commissioners are at work and the milk supply has thus been greatly improved.

Dr. Sheard, Medical Health Officer of Toronto, has done good work in this direction, but it is manifestly impossible that the ordinary staff of any Health Department can adequately attend to this matter.

Under the heading, "Pus as a Beverage," the British Medical Journal publishes an editorial which concludes as follows: "With mothers and housekeepers lies the handling of this

national problem. If a few ladies in every town would take up the question, would insist on their milkman telling them where the milk they give their children comes from, and would give a day or two to visiting the farms, we believe that, so far as the milkmen who supply the wealthier classes are concerned, the problem would solve itself, we had almost said, in a month. And we do not believe that these ladies, having set their own milk supply in order, would rest content until they had effected a like reform for the milk supplied to the poor. It is really a question of supply and demand; if housekeepers insist on having clean milk it will be supplied, and it will be supplied at the same price to the public, and at much the same rate of profit to the farmer and milkman as now. This has been amply proved by the experience of a few companies. We appeal to women to look into the facts and to act before next summer."

PORTRAIT OF PROFESSOR GOLDWIN SMITH.

Mr. John Ross Robertson, of Toronto, has presented to the University of Toronto a portrait of Professor Goldwin Smith. Professor Clark, of Trinity University, on behalf of Mr. Robertson, who is now in Egypt, unveiled the portrait in the library and formally presented it to the University, January 23rd. In doing so he paid a high tribute to Professor Smith's eminence as a scholar, a publicist and a citizen of Toronto. At Oxford he "took everything in sight" in the way of honors and prizes. He afterwards filled the chair of Modern History in his own university until he resigned to come to America. During the last thirty years he has elevated the literary tone of Toronto and the whole Province of Ontario.

President Loudon, in accepting the portrait on behalf of the University, said he considered it fitting that the portrait of so great a writer and thinker should adorn the walls of this library as his works adorn the shelves of the room behind. He came to Toronto at a critical time in the University's history, and as a member of its Senate for a considerable time did much to assist in the great advances made in scientific teaching. Professor Smith delivered a short address, in which he expressed the great pleasure he had always felt in his connection with the University.

THE VISIT OF PROFESSOR HALIBURTON.

Fortunate, indeed, has been the lot of the students of the medical faculty of the University of Toronto this year. They have received the advantages of the strength arising from amalgamation. They have for their work-place the fine new building with its commodious lecture rooms and bright laboratories. And in the third place they have had the opportunity of seeing and hearing many celebrated workers in the different fields of medical science.

The visit of the distinguished physiologist of King's College, London, England, to this city, on January 22nd, was a sudden but very much appreciated addition to the list of treats of this remarkable term. Professor Haliburton, who is well known to the student body, as the editor of the later editions of "Kirke's Physiology," and to scientists as the author of two widely recognized works on chemistry in relation to physiology, crossed the waters to deliver the course of Herter lectures before the Bellevue Hospital Medical School, New York City.

The subject of the lecture given here was "Nerve Degeneration and Regeneration." The theme of the study was that along with histological changes in degenerated nerve tissues there occur also chemical changes, and that evidence of these latter may be found in certain of the general body fluids. The most demonstrable chemical result of the breaking down nervous tissue is choline, a product of lecitlein. This substance may be obtained from the blood or cerebro-spinal fluid, under conditions of injury to the nervous system, in the form of eight sided crystals, by means of absolute alcohol and platinum chloride.

A series of excellent micro-photographs was projected on the screen to illustrate an experiment in a number of cats in which the sciatic nerves had been cut and in which death had been brought about at different periods for the study of these injured structures.

On one hand was shown the histological condition of the nerve, and on the other the chart of the animal's blood pressure before death. It was seen that the greatest effect on the latter (due to choline) was in the case of the cat killed during the

height of degeneration of the sciatic, while in those killed during regeneration of the nerve there was a steadily diminishing amount of influence on the vascular system.

The clinical bearing of this substance choline is that it may be found in the blood and cerebro-spinal fluid of man in the presence of organic diseases of the nervous system, such as general paresis. It has also been found that it occurs with neurasthenia, though it has been vainly sought in hysteria.

Professor Haliburton is a most finished lecturer and was followed closely by the large assembly. Though to many of his hearers choline was a new name, it has been known and searched for clinically in Toronto for several years. His announcement of it was some little time ago. Professor Haliburton spent several days in this city.

PATHOLOGICAL DEPARTMENT, UNIVERSITY OF TORONTO.

In regard to the question of the payment of fees for work done in the Pathological Department by members of the pathological staff, the following report of a committee appointed to consider the matter has been adopted by the Faculty:—

It is to be understood that work done in the Pathological Department may be divided into two classes:

First—Work which is of general or special scientific interest, the investigation of which may be of value in the prosecution of pathological research, or for the purposes of advancing the clinical education of the students.

Second—Work the results of which are used by the practitioner for the purposes of diagnosis or control and treatment of his case.

In regard to the former class, it is to be understood that members of the pathological staff welcome the opportunity for such investigation and desire to impress upon members of the Faculty the advisability of sending in to the laboratory all such material.

In the latter class it is felt the work of the laboratory should be considered in the light of a consultation, and as con-

sultations in practice are regularly paid for when the patient is able to pay, it seems but just that similar fees should be paid to the pathologist making such examinations.

In cases where the patient is unable to pay the full consultation fee for an examination he should pay in proportion to the fee paid to his practitioner.

In regard to the amount of the full fee the following scale is suggested as an adequate remuneration:

Throat exudates
Sputum
Widal tests, \$2.00 per test, or \$5.00 per case
where several tests are necessary.
Blood counts including differential counts of
leucocytes and hemoglobin estimation10.00
Stomach contents 5.00
Uterine scrapings and tissue examinations,
up to10.00
Urine analysis 5.00
Urine analysis when examination for bacillus
of tuberculosis necessitating an inocula-
tion

ONTARIO MEDICAL ASSOCIATION.

The following committees have been appointed for the next meeting of the Ontario Medical Assocation:

COMMITTEE ON PAPERS AND BUSINESS.

Drs. A. A. Macdonald, G. A. Bingham, W. J. Wilson, G. Chambers, J. Caven, N. A. Powell, J. T. Fotheringham, T. F. McMahon, R. D. Rudolf and H. Parsons.

CORRESPONDING MEMBERS OF COMMITTEE ON PAPERS AND BUSINESS.

Dr. McNulty, Peterboro'; Dr. John Sheahan, St. Catharines; Dr. Jas. A. Ashbough, Windsor; Dr. W. T. Parke, Woodstock; Dr. Jas. Third, Kingston; Dr. R. W. Garrett, Toronto; Dr. H. S. Griffin, Hamilton; Dr. H. A. McCallum, London; Dr. J. D. Courtenay, Ottawa; Dr. Perry Goldsmith, Belleville; Dr. Angus McKinnon, Guelph; Dr. J. L. Bray, Chatham; Dr.

T. H. Middlebro, Owen Sound; Dr. Arthur, Collingwood; Dr. J. C. Smith, Barrie; Dr. W. C. Gilchrist, Orillia; Dr. Frank Lawrence, St. Thomas; Dr. L. Ashton, Brantford; Dr. D. B. Frazer, Stratford; Dr. R. A. Bowie, Broekville.

COMMITTEE OF ARRANGEMENTS.

Drs. A. Baines, H. J. Hamilton, W. B. Thistle, A. H. Garratt, E. E. King, A. Eadie, H. A. Bruce, W. H. Pepler, B. L. Riordan, A. Primrose, D. J. G. Wishart, J. M. Cotton, C. J. Hastings, J. B. Gullen, R. J. Dwyer and F. Fenton.

HOSPITAL ABUSE.

Drs. W. J. Wilson, R. A. Reeve, C. J. Hastings, E. J. Barrick, A. A. Macdonald, C Sheard and G. A. Bingham.

NECROLOGY.

Drs. A. Primrose, J. McCullough and A. H. Howitt.

AUDIT.

Drs. D. J. G. Wishart, C. H. Carveth and G. Elliott.

Port Huron, Mich., is to have a \$25,000 hospital, and has already collected \$10,000 of the amount.

Dr. D. C. Gilman has announced his intention of resigning the presidency of the Carnegie Institute at Washington next year.

Smallpox as officially reported in the United States for the period from June 27th, 1903, to December 4th, 1903, amounts to 11,908 cases, with 491 deaths, as against 14,262 cases, with 729 deaths, in the corresponding period of last year.

The thirty-seventh annual meeting of the Canadian Medical Association will be held at Vancouver, B.C., on the 23rd, 24th, 25th and 26th of August, 1904, under the presidency of Dr. Simou J. Tunstall of that city. Mr. Mayo Robson will be a guest of the Association.

Dr. George McDonough left Toronto, February 8th, for the West Indies, and will return and resume practice about March 27th.

Dr. J. H. C. Willoughby, of Saskatoon, N.W.T., visited Toronto early in February.

Personals.

- Dr. C. H. Britton has been appointed Medical Health Officer of East Toronto.
- Dr. Harry M. Torrington (Tor. '03) is practising at Greenspond, Newfoundland.
- Dr. W. G. Anglin, of Kingston, is recovering from a severe attack of septicemia.
- Dr. J. H. Hamilton is Resident Physician in the Kootenay Lake General Hospital at Nelson, B.C.
- Dr. Jas. F. W. Ross, of Toronto, when last heard from had visited Khartoum and was returning to Alexandria.
- Dr. W. H. K. Anderson (Tor. '97), formerly of Ottawa, now of Vancouver, visited Toronto January 26th.
- Dr. T. J. Norman (McGill, '87) has been appointed Assistant Superintendent at Orillia in place of Dr. Moher, promoted.
- Dr. W. O. Eastwood, who graduated in Arts, 1849, and in Medicine, 1853, University of Toronto, is still in active practice in Whitby.
- Dr. Freeman has been placed in charge of the Hamilton General Hospital and is expected to hold the position until another superintendent has been appointed.
- Dr. Vrooman, M.P., of South Victoria, is in the Toronto General Hospital recovering satisfactorily from an appendicectory performed, January 25th.
- Dr. Helen MacMurchy has been elected President of the "Old Girls' Association" of the Jarvis Street Collegiate Institute, Toronto.
- Dr. W. Hackney (Tor. '98) M.R.C.S., Eng., formerly of Mitchell, has passed the first examination for Fellowship of the Royal College of Surgeons, England.
- Dr. Jas. G. Cranston, Mayor of Arnprior, was presented with a silver teaset, January 20th, in acknowledgment of his services as chairman of the Board of Education for thirty-five years.
- Dr. J. C. Mitchell will leave Toronto in April to visit certain epileptic hospitals in Great Britain. After remaining for some time in London and Edinburgh he will pay a short visit to the Continent.
- Dr. C. A. Hodgetts has been appointed Deputy Registrar General of Ontario and Secretary of the Provincial Board of Health in the place of Dr. P. H. Bryce, and will also continue to act as Medical Health Inspector. Dr. Hodgetts has been in the health department for eight years, and has done much admirable work, especially in connection with small-pox. We are glad to be able to say that the appointment has given general satisfaction to the physicians of Ontario.

Dr. Peter H. Bryce, Secretary of the Provincial Board of Health, Ontario, for twenty-one years, has been appointed Inspector of Immigration of the Interior by the Dominion Government.

Dr. Arthur T. Emmerson (Trin. '89), who has been practising for the last thirteen years in Claude, County of Peel, is now doing some work in the University laboratories. He expects to go abroad in a few weeks.

Dr. Thos. J. Moher (Trin. '89), Assistant Superintendent of the Asylum for the Feeble-minded at Orillia, has been appointed Medical Superintendent of the Asylum for Insane, Brockville, in the place of Dr. Murphy, deceased.

Dr. Langrill, who was recently elected Superintendent of the Hamilton General Hospital, and accepted the appointment, has, with the permission of the Hospital Governors, withdrawn his acceptance and will continue to be Medicai Health Officer of the city.

The by-law favoring the establishment of a sanitarium for consumptives in Toronto was carried on January 1st, the vote being as follows: for, 4,070; against, 3,880. This means that the city will give \$50,000 towards the institution as soon as a similar amount has been raised by private benefactions.

Dr. Byron Field, of New Liskeard, has been appointed a Coroner for the District of Nipissing; Dr. C. McL. Lang, of Owen Sound, Coroner for County of Grey; Dr. John Marty, of New Hamburg, Coroner for County of Waterloo, and Dr. Albert F. Reynar, of Palgrave, Coroner for the County of Peel.

Dr. Orlando Orr, who left Toronto for New York December 28th, remained only a few days in the latter city. Early in January he went to England on business connected with the Toronto Industrial Exhibition. One of the results has been the engagement of the celebrated Black Watch Band for the next Toronto Fair.

The Southern Surgical and Gynecological Association, in session at Atlanta, Ga., on the 17th of December last, elected the following officers to serve for one year: President, Dr. Floyd W. McRae, of Atlanta; first vice-president, Dr. George S. Brown, of Birmingham, Ala.; second vice-president, Dr. Shelton Horsley, of Richmond, Va.; treasurer, Dr. Charles M. Rosser, of Dallas, Tex.; secretary, Dr. W. D. Haggard, of Nashville, Tenn., who was re-elected. The next meeting of the association will be held in Birmingham, Ala., on December 13, 14 and 15, 1904. At this meeting a statue erected in memory of Dr. W. E. B. Davis, founder, secretary and last President of the Association, will be unveiled.

MATTHEW FLETCHER HENRY, M.D.

Dr. M. F. Henry (Univ. Buffalo, '50) of Humberstone, Co. Welland, died December 3rd, aged 79.

THOMAS NORTON, M.D.

Dr. Thos. Norton, of Shelburne, Ont., died of cancer of the stomach, January 14th, aged 52. He was born in Montreal and graduated in McGill in 1874.

JOHN B. MURPHY, M.D.

Dr. J. B. Murphy, Superintendent of the Asylum for Insane Brockville, died suddenly from heart disease at his home, January 17th, aged 54. He graduated in medicine at Queen's College, Kingston, in 1876, and practised for a time in Belleville. He was appointed Superintendent of the Asylum for Insane at Mimico in 1891 and was transferred to Brockville in 1894.

ROBERT LAMBERT, M.D.

Dr. R. Lambert, the oldest physician in Windsor, died Jan. 22nd, aged 76. He was a graduate of Queen's University, Kingston, in 1859, and practised in Windsor for more than forty years. He was for some years Medical Health Officer in that city.

JOHN HERBERT SANGSTER, M.A., M.D.

Dr. J. H. Sangster, of Port Perry, died suddenly at the King Edward Hotel, Toronto, January 27th, aged 72. Heart disease is said to have been the cause of death. Dr. Sangster was born in London, England, but came to Canada with his parents when quite young. He received his early education at Upper Canada College and the Provincial Normal School. At the age of 17, he became one of the teachers of the Provincial Model School

in Toronto. When 22 years of age he went to Hamilton and was for some years head master of the Central School of that city. At the age of 27 he became first master in the Provincial Grammar School in Toronto, and in the following year (1859) became Lecturer in Science and Mathematics in the Normal School. While occupying this position he went through a course in Arts and Medicine in Victoria University, becoming M.A. in 1861 and M.D. in 1864. He became Head Master of the Normal School, and also Professor of Chemistry and Botany in Victoria in 1865, at the age of 34. He resigned these positions in 1871 and went to Chicago, where he remained about one year and a half. Between 1858 and 1871 he wrote and published a number of school books which became the authorized text-books for the public schools of the Province.

He decided to engage in active practice in his profession in 1875 and went to Port Perry, where he practised as a physician up to the day before his death. He was elected a member of the Ontario Medical Council in 1894, and was well known as the leader of the Medical Defence Association of Ontario. He was a man of varied talents, and showed rare ability as an educationist, an author of text-books, a newspaper writer, a platform speaker, a debater, and a physician. He had strong opinions and always the courage of his convictions. His combative instincts were developed to such an extent that he became a strong controversialist on many public questions, and in that way made a certain number of enemies; but as a general rule he was respected by friend and foe. He will long be remembered as one of Canada's most gifted sons.

E. GRAVES KITTSON, M.D.

Dr. Kittson, of Hamilton, died suddenly, February 4th, aged 52. He was a graduate of McGill, Montreal, 1873, and became a Licentiate of the Royal College of Physicians. London, in 1879. After he returned from England he settled in Hamilton, and remained there up to the time of his death. On account of ill-health he had not been engaged in practice for the last ten years.

Book Reviews.

The Prevention of Consumption. By Alfred Hillier, M.D., C.M., B.A., Secretary to the National Association for the Prevention of Consumption, London; Member of the Council of the International Association for the Prevention of Tuberculosis, Berlin; Visiting Physician to the London Open-Air Sanatorium. Revised by Prof. Robert Koch. Illustrated. Longmans, Green & Co., 39 Paternoster Row, London, New York and Bombay, 1903. Price, 5 shillings.

This is a small book intended for popular reading, dealing with the prevention of tuberculosis in a thoroughly scientific way, and yet in such simple language that any intelligent person can understand it. The authors emphasise the fact that phthisis is very often a disease due to ignorance, and that since the wider recognition of its infectiousness, with the resulting precautions, the death rate has slowly diminished; therefore the great necessity for such a volume as this, which should be in the hands of every adult in the land, especially those who, by reason of their family history or their occupation, have a tendency towards the disease.

Clinical Examination of the Urine and Urinary Diagnosis.—By J. Bergers Ogden, formerly Instructor in Chemistry, Harvard University Medical School, Boston; Assistant in Clinical Pathology, Boston City Hospital, etc. Philadelphia, New York, London: W. B. Saunders & Company, 1903. Cloth \$3.00 net. Second Edition, Thoroughly Revised. Toronto: J. A. Carveth & Co.

This book has already taken its place among the best works on the subject. There is no similar book which is equally valuable on the question of diagnosis in this particular branch of medicine, and both students and physicians will find it a satisfactory authority. Part I. deals with the chemistry, physiology and working methods. Part II. is devoted to diagnosis. This second edition has been carefully revised and recent advances in the knowledge of the subject have been incorporated. Thus Cryoscopy, Boxybutyric Acid, and other matters are dealt with, and changes have been made in the sections devoted to urea, uric acid, and total nitrogen.

Transactions of the Southern Surgical and Gynecological Association,—Volume XV. Fifteenth Section held at Cincinnati, Ohio, November 11th, 12th and 13th, 1902. Edited by W. D. Haggard, M.D.

In November, 1886, a few prominent physicians of Birmingham, Alabama, met for the purpose of organizing the Alabama Surgical and Gynecological Association. As a result the Association had a meeting October 11th and 12th, in Birmingham,

Dr. Rosser being President, and Dr. W. E. B. Davis, Secretary. At this meeting the larger Southern Association was organized, Dr. W. D. Haggard of Nashville being elected President, and Dr. Davis Secretary. The phenomenal success of this great Association was largely due to the untiring exertions of Dr. Davis, who was Secretary for twelve years until 1900, and President in 1902. His untimely death last February, from an accident, caused the deepest grief among the members. Since 1900 Dr. W. D. Haggard, son of the first President, has proved a worthy successor to Dr. Davis in the Secretaryship. The report of the meeting of 1902 is one of the most interesting in the history of the Association.

High Frequency Currents in the Treatment of Some Diseases. By Chisholm Williams, F.R.C.S., Edin. Member of the Royal College of Surgeons, Eng.; Licentiate Royal College of Physicians, Lond.; Licentiate Society of Apothecaries, Lond.; Electro-Therapeutist West London Hospital, W.; Surgeon Out-Patients City Orthopædic Hospital, E.C.; Honorary Secretary British Electro-Therapeutic Society, etc. London: Rebman, Limited, 129 Shaftesbury Avenue, Cambridge Circus, W. C., 1903. Canadian Representative, Charles E. Wingate, 186 Adelaide Street, W., Toronto.

· We have before us the first work to appear, in the English language, on the Electric High Frequency Currents. These are the currents described by the French investigator, T'Arsonval, and bear his name. The English have been rather slow in adopting this line of treatment, but having begun, it will be thoroughly investigated. The advent of the present volume, no doubt, will aid in its being more freely taken advantage of. Workers in the X-ray field can very readily equip themselves with the necessary additional apparatus, and greatly augment their field of usefulness. This volume is describing a new electrical field, and it is proper that a very full and complete description should be given of the appliances. These descriptive chapters are short, clear and concise, yet not too brief. Then the Physical and Physiological characteristics of the current are described, and finally the therapeutical applications. In all new methods of treatment, and this is a new method in England and America, although in France and Germany, many years old, the tendency is to look upon them as a panacea for every ill. Dr. Williams is altogether too careful an investigator to let one run off with this idea. He has written the book based on the experience of himself and others, and he warns us against falling into any such error as that of expecting too much. Yet encourages the investigator, and only recommends where he has proven the value of the treatment.

We can recommend the little volume to all readers, not only those who are interested in electricity as a means of treatment, but those who should be in a position to advise their patients where to look for proper treatment, if they do not possess the necessary appliances themselves.

The typography, illustrations, paper and binding are in the

usual fine style of the Rebman Company.

Modern Surgery: General and Operative. By John Chalmers DaCosta, M.D., Professor of the Principles of Surgery and of Clinical Surgery in the Jefferson Medical College, Philadelphia. Handsome octavo volume of 1099 pages, with over 700 illustrations, some in colors. Philadelphia, New York, London; W. B. Saunders & Company, 1903. Canadian Agents: J. A Carveth & Co., Limited, Toronto. Cloth, \$5.00 net; Sheep or Half Morocco, \$6.00 net.

This work presents in a concise form the fundamental principles and the accepted methods of modern surgery. Obsolete and unessential methods have been excluded in favor of the living and the essential. The author's extensive experience as a teacher is evident throughout the entire work, the statements being clear and to the point.

The progress of surgery in every department is one of the most notable phenomena of the present day. So many improvements, discoveries, and observations have been made since the appearance of the last edition of this work that the author found it necessary to rewrite it entirely. In this fourth edition the book shows evidences of a thorough and careful revision, and there has been added much new matter. There have also been added over two hundred excellent and practical illustrations, greatly increasing the value of the work. The book will be found to express the latest advances in the art and science of surgery. We certainly recommend it.

Medical Jurisprudence, Insanity, and Toxicology. By Henry C. Chapman, M.D., Professor of Institutes of Medicine and Medical Jurisprudence in the Jefferson Medical College, Philadelphia. Third Edition, thoroughly revised, greatly enlarged, and entirely reset. Handsome 12mo volume of 329 pages, fully illustrated, including four colored plates. Philadelphia, New York, London: W. B. Saunders & Company, 1903. Cloth, \$1.75 net. Canadian Agents: J. A. Carveth & Co., Limited, 413-415 Parliament Street, Toronto.

This work is based on the author's practical experience as Coroner's Physician of the City of Philadelphia for a period of six years. Dr. Chapman's book, therefore, is of unusual value to the medical and legal professions, presenting, as it does, the information gained from active participation in medico-legal cases. This third edition, enlarged by the addition of new matter to the extent of seventy-five pages, has been entirely reset, and it is evident that in its preparation every page has undergone a careful scrutiny, so as to include the very latest

advances in this important branch of medical science. Much of the matter has been rearranged, the text has been more fully illuminated by additional references to cases, and a number of new figures and tables have been added.

In reviewing this excellent work we have found that it covers the field completely and thoroughly, nothing of practical importance to the physician or lawyer having been omitted. In our opinion, there is no doubt that the work will meet with as great favor as the previous edition—a popularity which it certainly deserves.

Organic and Physiologic Chemistry—a Manual for Students and Practitioners. By ALEXUS MCGLANNAN, M.D., Associate Professor of Physiologic Chemistry, etc., College of Physicians and Surgeons, Baltimore, Md. Series edited by V. C. Pedersen, A.M., M.D., Instructor in Surgery and Anesthetist, New York Polyclinic Medical School and Hospital. Illustrated with nine engravings Philadelphia and New York: Lea Brothers & Co. Medical Epitome Series.

In 250 pages the author has boiled down the facts of essential importance to the medical student, and yet has avoided the baldness of style so characteristic of Quizz-compends. The book admirably fulfils the purpose for which it is intended, and is equal to the others of the Epitome Series.

Atlas of the External Diseases of the Eye, including a Brief Treatise on the Pathology and Treatment. By Prof. Dr. O. Haab, of Zurich. Authorized translation from the German. Second Edition revised. Edited by G. E. de Schweintz, A.M., M.D., Prof. of Ophthalmology in the University of Pennsylvania, etc., etc. Ninety-eight colored lithographic illustrations on 48 plates. Philadelphia, New York and London: W. B. Saunders & Co. 1903. Canadian Agents: J. A. Carveth & Co., Toronto. Price, \$3.00.

This is another of the translations of the world-famous Lehmann "Medicinische Landatlanten," which for accuracy, beauty, and cheapness, surpass anything else in the world, and this volume keeps up the reputation of its predecessors. In fact, the illustrations are even better than those in the other atlases which this firm have issued. It is a book which every practitioner and every student finds absolutely necessary in his everyday work.

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, Publishers.

This is a book of 158 pages neatly bound and well illustrated, intended for nurses and mothers, and admirably suited to their needs. Dr. Kilmer emphasizes on every page the practical side of baby's care, by making his directions so clear that no one

can mistake his meaning. Full of all kinds of useful information, especially about that important subject, infant feeding, it should be in every nursery.

"Handbook of Diseases of the Middle Ear." By RICHARD LAKE, F.R.C.S., Surgeon to the Royal Ear Hospital and Metropolitan Ear, Nose and Throat Hospital, London, England.

As a compendium of diseases of the ear, this work is both succinct and complete, and is thoroughly up to date. It is clear and practical, and not overburdened with nomenclature, nor history of cases, nor long disquisitions. It consists of plain straightforward teaching, designed for advanced students and busy practitioners; and put so clearly that he who runs may read. The appendix contains many valuable formule for prescriptions. There are in the work three colored plates and fifty-four illustrations, all the pathological ones being original. The book contains 232 pages, is small and well gotten up. The publishers are Balliere, Tindall & Cox, of London, Eng. P.B.

Roger on Infectious Diseases. Their Etiology, Diagnosis and Treatment. By G. H. Roger, Professor Extraordinary in the Faculty of Medicine of Paris, etc., translated by M. S. Gabriel, M.D., New York. In one octave volume, of 864 pages, with 43 illustrations. Cloth, \$5.75, net. Lea Brothers & Co., Philadelphia and New York, 1903.

This volume comprehends almost the entire scope of internal medicine and touches upon many of the principles underlying modern surgery as well. It could not have been prepared by a laboratory investigator however brilliant, nor by a clinician however extensive his experience; its creation remained for one who combines the instincts and training of a student in original research with almost unprecedented opportunities for clinical investigation.

Never losing sight of the fact that the purpose of the laboratory is to amplify and explain clinical observations, Professor Roger has pursued clinical and experimental researches in the closest relation to each other. In this work he unfolds the knowledge of his subject by simple and practical methods. He first studies the pathogenic agents, inquires into their distribution in nature, the conditions under which they attack man and their modes of invasion. Full consideration is then given to their influence upon the human economy and the reaction of the latter upon the invaders. Amp'e time and space are devoted to questions of diagnosis and prognosis and that the work is eminently practical is shown by the fact that more than a quarter of the volume is devoted to treatment both preventive and curative.

Professor Roger has had opportunities for the study of infectious diseases which rarely fall to the lot of any man. In the hospitals under his charge are received all cases of con-

tagious diseases which occur in Paris and he has personally attended more than 16,000 patients during a period of five years. The effect and purpose of this work is to harmonize any seeming antagonism between experimental researches and clinical observation and to reduce the theories of infection and immunity to a basis of practical utility.

Progressive Medicine, Vol. IV, December, 1903. 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. Octavo, handsomely bound in cloth, 434 pages, 46 illustrations. Lea Brothers & Co., Publishers, Philadelphia and New York.

The completing volume of "Progressive Medicine" for the year 1903 contains some of the most important contributions of the series. Dr. J. C. Hemmeter's article on Diseases of the Digestive Tract is really a monograph, embodying the new physiology of digestion. The bacteriology of dysentery and the diarrheas of infants; the subject of intestinal parasites and the recent advances in the diagnosis and treatment of diseases of the liver and gall-bladder, are fully considered. Diseases of the pancreas have of late been exciting much attention, and Dr. Hemmeter has devoted considerable space to their discussion.

In the article on Surgery, by Dr. J. C. Bloodgood, of Johns Hopkins, there will be found a particularly interesting discussion of the entire field of anesthesia, both local and general, considered not only from the standpoint of the surgeon-specialist but also from that of the general practitioner.

Dr. Belfield's contribution on genito-urinary diseases covers the entire field in a most practical manner. Of special interest to the general practitioner will be found that part which deals with tuberculosis and other infections of the genito-urinary tract. The article on the prostate, especially on the treatment of hypertrophy of that organ, is of the highest interest.

In dealing with diseases of the kidneys, Dr. John Rose Bradford, of University College, London, presents an interesting discussion of the blood changes in chronic renal disease, and particular attention may be called to his able consideration

of the surgical treatment of chronic Bright's disease.

The concluding section of the issue is taken up with the Practical Therapeutic Referendum, by Dr. Landis. It is a thorough, up-to-date index of the progress in therapeutics, treating not only of the drugs recently introduced to the profession, but also dealing fully with the physiological action and clinical uses of older remedies.

The publishers announce that, with the new year, the annual subscription price of "Progressive Medicine" will be reduced from \$10 to \$6, and that, for convenience in carriage, it will divest itself of the heavy cloth binding. The volumes will

each contain 300 pages, abundantly illustrated, and the work will continue to be issued under the same editorial management and with the same brilliant corps of contributors which have made it the indispensable assistant to the active, busy practitioner. The series of these volumes forms annually a practical treatise covering the entire domain of medicine and surgery.

Hustrated Review of Physiologic Therapeutics. A Medical Journal devoted to a review of the work of each month, placing a complete record of Clinical Methods and Progress at the command of Physicians who use Therapeutic Apparatus. By S. H. MONELI, M.D., editor, New York City, 19 East Sixteenth Street. E. R. Pelton, Publisher. Postage free, \$6.00 per year.

We wish to draw the attention of the profession to a new journal that made its appearance in January of this year. The journal starts out with 136 pages of reading matter, most copiously illustrated. The illustrations are of a very beautiful type, and are so thoroughly clear and well done that they are of real value. The letterpress is, as the title indicates, a review of all the articles appearing in a limited time on the subject. We look forward to a continuance of this journal under the widest support. The publisher has started out with the idea of illimiting advertising matter entirely from the journal, and depending upon the subscription list. We are anxiously waiting the result, and can only say that we sincerely hope that the publisher will not be disappointed in the support he receives from the profession. The subscription price is moderate for the book, \$6.00 per year, with four issues, and will well repay the investment, but it seems to us that the subscription list will have to be exceedingly large to repay the publisher. The size of the journal is large, but not unweildy, and the paper and typography could not be excelled. We wish the new journal every success.

Portfolio of Dermochromes. By Professor Jacobi, of Freiburg in Breisgau. English adaptation of Text, by J. J. Princie, M.B., F.R.C.P., Physician to the Department for Discases of the Skin at the Middlesex Hospital. In two parts. London: Rebman, Limited, 129 Shaftesbury Avenue, Cambridge Circus. Toronto: Wingate, 186 Adelaide Street West.

With the appearance of parts three and four the portfolio of Dermochromes is completed. The general appearance of the work is, if possible, better in the third and fourth parts than in the previous parts. The coloring and reproductions are, as we stated before, simply admirable. We have the eczemas, the acnes, and the parasite diseases shown in the third part, together with a half dozen plates on the drug rashes, which are absolutely true to the conditions found. The whole subject of skin diseases finishes up with these two parts. Part four deals with the subject of syphilis in all its many and varied forms; of course, it is a well recognized fact that any

form of skin disease may be simulated by syphilis. By the aid of these diagrams men who are kept away from large clinics can really fortify themselves in their diagnosis. These two volumes embrace such a wide scope of illustrative skin diseases that practitioners who meet with skin diseases at all frequently cannot afford to be without it as an atlas of reference. The moderate price at which it is placed before the profession places it within the reach of all. The typography and birding are all that one could wish for.

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. "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 medicolegal 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.

Selections.

What the Tuberculous Patient Should Know.

Stevens insists on the tuberculous patient coughing into a handkerchief, not coughing at all in the dining-room, never swallowing the expectoration, using an antiseptic mouth wash before each meal, and the careful cleansing of the hands, avoiding talking if it increases the cough, avoiding spitting into anything excepting a proper sputum receptacle, the thorough disinfection of whatever is soiled by the sputum, abstinence from kissing, taking exercise only under direction and none of a sporting character, taking none if the temperature is abnorml, if there is blood in the sputum or if losing in weight. Always stop before becoming tired, never run or get out of breath, and never lift or strain, avoid breathing exercises except those as specifically directed. If the temperature reaches 100 lie down, and if it reaches 101 undress and go to bed in earnest. Spend ten hours in bed each night, and retire early enough to finish your sleep before sunrise. Spend all the time possible in the open air. Keep the windows of the sleeping room open. Protect the head from the direct rays of the sun when taking outdoor rest cure, avoid dust, draughts, crowded and poorly ventilated rooms, and if you catch cold report at once to the physician. If the digestion is good use a generous mixed diet, taking no food between meals. Forced feeding, if necessary, must be under the direction of a physician. It is not the quantity eaten, but the quantity digested or assimilated that benefits. If not on the full diet, a light luncheon of milk and crackers, malted milk or raw egg should be taken regularly two or three hours after each meal, taking no food within less than two hours of a regular meal. Do not drink milk hastily. Sip it, eating something at the same time. Regularity of meals is essential. Take only such medicines as are prescribed and stop any that disturb the stomach; beware Throw away any medicines that have of sleep producers. been ordered discontinued. The clothing should be adapted to the individual; avoid chilling and overheating; wear nothing that interferes with respiration. Use sensible footwear, and no chest protectors. Unless there is special reason for not doing it, a cold sponge bath or shower bath should be taken each morning, and a full warm bath only once a week, rubbing the skin well with a coarse towel after the shower or sponge bath. Omit the cold baths during a pleurisy, or after a night sweat, or if the morning temperature is below 97 F., using a dry rub instead. Alcohol, if prescribed in exceptional cases, should be used the same as medicine and with the same care as to dose and time as with other medicines. Smoking should not

be indulged in, and chewing should be condemned for sanitary reasons, because it increases the tendency to expectoration. Co-operate with the medical adviser, make a business of getting well. Do not take too many suggestions from outsiders. The less one knows of a subject the more ready he is to advise. Avoid self-experimentation. Do not discuss your symptoms with other patients. If you do not trust your physician, change him.—New York Medical Journal, December 19th.

Bradycardia in Measles.

Burzi (Gazz. degli Osped.) relates the case of a healthy welldeveloped girl, aged 16, who had a severe attack of measles in February last. At the onset of the attack she complained of precordial pain, dyspnea worse on the least exertion, langour and dull pain in the heart. When first seen in February 25th she was very anemic, the heart's apex was a little inside the nipple line and on palpation gave the idea of two beats; there was no thrill or fremitus. On pressure in the third and fourth left intercostal space deep-seated pain was complained of by the patient. There were no murmurs, but the heart sounds were weakened and prolonged. The rate of the pulse varied from 38 to 32 per minute. The blood pressure was diminished. The liver was enlarged and there was some pretibial edema This condition lasted a month and a trace of albumen. unchanged and then slowly improved, and eventually the pulse came back to a rate of 64 to 68 per minute. The edema and slight albuminuria disappeared. During the period of bradycardia the patient also suffered from fainting attacks.—British Medical Journal.

Dangers of Stomach Inflation.

Three cases of death following stomach dilatation for diagnostic purposes with CO2 gas are reported by Behrend. In the first case death resulted from hemorrhage at the base of the ulcer; in the second case the patient was prostrated from its use and never rallied, dying the following day. It was one of carcinoma of the esophagus and stomach with cholelithiasis and pericholecystitis in a very debilitated patient. The third case was in a man suffering from carcinoma of the esophagus and the patient was semi-conscious from the administration of the gas until the time of his death. He thinks that these cases show that the use of carbonic acid gas in inflating the stomach is rather a serious operation, infinitely more dangerous where there is a disease of the esophagus and the cardiac end of the stomach. This may be due to pressure exerted within the narrowed limits. If used, the procedure must be employed only with discretion and in selected cases.—Medical News, Dec. 19th.

Effect of Work on Temperature in Tuberculous Patients.

T. Neumann (Norsk. Mag. for Laegevidenskaben) says Penzoldt was the first to show that bodily exertion produced among tuberculous patients an increase of temperature which was insufficient to produce a rise of temperature in healthy subjects, and he considered such a rise to be of diagnostic importance. Hochsteter, Birgelen, and others have made special researches, and record the same results. The investigations of Ott in regard to this point were made in order to observe if this elevation was associated with any distinct causes. He considered that such was the case, as he frequently found albumose in the urine of patients in which it had been absent before the commencement of the work. He investigated 25 cases, of which 22 had a temperature of 38° C. before a quiet walk, but whose temperature rose to 38.8° C. immediately afterwards. Neumann considers that the rise of temperature is a distinct febrile phenomenon, as he found albumose in six cases where it was entirely absent before the walk commenced. In 11 cases, however, the rise of temperature was only slight.—British Medical Journal.

Koplik's Spots as an Early Symptom of Measles.

The opinions expressed as the significance of Koplik's spots in measles differ considerably, although the majority of observers regard the spots of diagnostic importance. M. Manasse (Die Heilkunde, vii, No. 10) has been able to see 48 cases of measles in a very early stage, and has watched for Koplik's spots. These spots are small bright red spots, with irregular shape and with bluish-white glittering centres, and occur especially opposite the molars on the buccal mucous membrane or on the palate. In 45 of his 48 cases the spots were well marked and appeared about twenty-four hours after the initial symptoms, and could be easily separated from the actual eruption of measles, which appeared two, three, four, and even five days after the beginning. In cases of rotheln and scarlatina the spots were not to be found, and he therefore comes to the conclusion that Koplik's spots are easily differentiated from the real exanthem of measles, and are seen in the majority of cases; when seen they form an important early diagnostic sign.—British Medical Journal.

AT a meeting of the Faculty of Medicine of McGill University, Dr. Klotz, of Ottawa, was recommended to the governors for appointment as Governors' Fellow in Pathology at McGill. Dr. Klotz is a graduate of Toronto University, 1902, and for some time past has been conducting researches in bacteriology at the Ottawa Isolation Hospital. The appointment will officially be made at the next meeting of the board of governors.