

Technical and Bibliographic Notes / Notes techniques et bibliographiques

The Institute has attempted to obtain the best original copy available for scanning. Features of this copy which may be bibliographically unique, which may alter any of the images in the reproduction, or which may significantly change the usual method of scanning are checked below.

L'Institut a numérisé le meilleur exemplaire qu'il lui a été possible de se procurer. Les détails de cet exemplaire qui sont peut-être uniques du point de vue bibliographique, qui peuvent modifier une image reproduite, ou qui peuvent exiger une modification dans la méthode normale de numérisation sont indiqués ci-dessous.

- Coloured covers /
Couverture de couleur
- Covers damaged /
Couverture endommagée
- Covers restored and/or laminated /
Couverture restaurée et/ou pelliculée
- Cover title missing /
Le titre de couverture manque
- Coloured maps /
Cartes géographiques en couleur
- Coloured ink (i.e. other than blue or black) /
Encre de couleur (i.e. autre que bleue ou noire)
- Coloured plates and/or illustrations /
Planches et/ou illustrations en couleur
- Bound with other material /
Relié avec d'autres documents
- Only edition available /
Seule édition disponible
- Tight binding may cause shadows or distortion
along interior margin / La reliure serrée peut
causer de l'ombre ou de la distorsion le long de la
marge intérieure.
- Additional comments /
Commentaires supplémentaires:

Continuous pagination.

- Coloured pages / Pages de couleur
- Pages damaged / Pages endommagées
- Pages restored and/or laminated /
Pages restaurées et/ou pelliculées
- Pages discoloured, stained or foxed/
Pages décolorées, tachetées ou piquées
- Pages detached / Pages détachées
- Showthrough / Transparence
- Quality of print varies /
Qualité inégale de l'impression
- Includes supplementary materials /
Comprend du matériel supplémentaire
- Blank leaves added during restorations may
appear within the text. Whenever possible, these
have been omitted from scanning / Il se peut que
certaines pages blanches ajoutées lors d'une
restauration apparaissent dans le texte, mais,
lorsque cela était possible, ces pages n'ont pas
été numérisées.

CANADA
MEDICAL RECORD

VOL. XXIV.

JULY, 1896.

NO. 10.

Original Communications.

WHY SCARLATINA IS ENDEMIC IN MONTREAL.

ROBERT WILSON, M.D.,

Professor of Materia Medica and Therapeutics University of Bishop's College.

The last three months having been marked by more than the average number of cases of scarlatina, which, fortunately, this year has not been of the virulent type, to which this dread unknown disease is so liable—at least in certain sections of our city—and living in the constant fear that any one new case might run the dreadful course occasionally seen, and die while the attendant stands helpless and impotent to combat the intense intoxication of the malignant form; while watching by the bedside of a little one stricken to death, and find all trusted remedies alike fail; when waiting, as many a man before me has waited and watched, fighting the battle inch by inch through the dreary night, each moment showing more clearly that we are losing ground, and only to turn away at the ebb of the tide, at break of day, heavy at heart and weary, with a vague, ill-defined sense that, somehow, it might not have been, and a growing conviction that *would* not have been had things been arranged differently, the jotting down of more lives sacrificed to the demon of neglect, and then the blotting out of remembrance for the time being in the merciful (and merciless) vortex and whirl of everyday life—these are things which make one think, and wonder why scarlatina should be so perpetually cropping up in our midst, with a well-organized Health Department, a fairly good executive staff and a system of reports and investigations which appear on the face to be all that is needed, and yet the disease flourishes! It ought not to.

True, until we determine the specific cause of the disease, we are not in a position to say with exactness, that isolation, in its truest term, will eradicate the disease, or to stamp out with a specific, scarlatina, as diphtheria is being stamped out, and as small-pox has been stamped out. But it is at present our best, our only remedy for the spread of a disease whose mortality is heavy enough, in all conscience, and whose sequelae are appalling in their seriousness; and so we unconsciously find ourselves wondering whether there be not some fault with the isolation, or with the method of isolation, or with the completeness of isolation, or with the efficacy of disinfection *after* isolation, and with the pertinacity with which an idea will recur at unwonted moments, it gains weight, and you sit down, gentle reader, and reason the thing between puffs, and come to the conclusion that isolation *is* at fault, both in itself and in its method, in its completeness; and that disinfection, as practised to-day, is the most expensive, screaming farce which has ever disgraced a civilized community, numbering progressive physicians among its citizens, or ever levied a death toll on our babies as the price of its existence. Let us, dear reader, if I do not bore you, just glance for a moment at isolation as it is generally attempted to be carried out; as I have, and you have, too, often seen it carried out. The mother refuses to let the child go to the hospital, and is directed to carry out the usual precautions, and the next visit is paid in a little hope that your orders have been carried out (N. B.—This is based on a small remnant of faith in human nature, which, for some unaccountable reason, occasionally lingers in the breast of the medical attendant), but with a substratum of conviction, based on stern experience, that what has been done is this: Nothing in the bedroom has been touched—chest of drawers, trunks, boxes, all containing more or less clothing of the household; wardrobes or clothes-closets hung around with dresses, hats, bonnets, etc.; carpet still reposing peacefully in its original calmness and dust; children not yet down, running about, and maybe dressed, washed and fed by the mother, who thinks, or pretends to, that in crossing the threshold of the sick room, all infection drops from her, only to be resumed on her next entry; dishes, glasses, cups, spoons, remains of milk, coffee or tea carried out into the kitchen and left to the tender mercies of the other youngsters, or

perhaps another grown-up member, or friend. Look for the boys of the family, and you will find them in the midst of an admiring group of other boys, detailing for their edification what the doctor said, or how Johnnie looked, or what a bully time he was having, now mother was most of the time with Johnnie, and so on, while the younger girls, with that affection so distinctive of their sex, are exchanging confidences in whispers, with arms entwined round each other's necks. The mother! Oh, she has been up all night, and has not had time to take her clothes off, but will, as soon as your back is turned, promptly hurry off to the butcher's or grocer's, while the father, thanks to the carelessness of his employer (if he be not a Grand Trunk employee), will serenely keep on at work, infection or no infection. At length—say after three or four weeks (and if you are busy you are quite liable to forget which, yielding to a hurried inspection and the entreaties of the friends and mother)—disinfection is ordered; the officer asks the family how many rooms require to be disinfected, close off the rest with newspapers pasted over the cracks, and start a couple of pounds of sulphur on their malodorous and mischievous career. At the end of six hours, windows and doors are thrown open, house aired, and family returns with a childlike faith that all is well and scarlatina stamped out—in *that* house, at any rate: If the price we pay for this sort of thing were not measured out in the life blood of our children, and sometimes the children's mothers, would it not be funny enough to embody in a comic opera? Yes, I grant you, I have perhaps combined one or two, or even three families into the one which has been cited as an example, and perhaps taken the worst three of the list, but have you not yourself seen some such precautions to transmit the disease as I have mentioned taken? During a little over three and a half years' practice in Montreal, with an average number of cases of scarlatina and diphtheria in my note-book, I have only been able to have isolation carried out perfectly *once*. What if, in some cases, children are sent to the infectious diseases hospital, and all precautions taken to prevent the spread of the disease, still, a chain is only as strong as its weakest link, and where, as is the case, so many are neglected, what inducement is there to do one's duty, beyond the desire that at least at your door there shall not lie any criminal negligence marked with a small mound of earth. Although the statement may

seem harsh, it is as well to face the truth squarely, if the physicians and Board of Health wished, in this city, in five years hence, scarlatina would be as rare and as much dreaded as small-pox now is. Other places have succeeded with isolation; why not Montreal? During a residence of six months, in the summer of 1893, in the White Mountains of New Hampshire, it was my good fortune to see one case of scarlatina, and it did one's heart good to see how thorough were the means employed to effectually isolate the case, and keep a popular summer resort, where annually some fifteen or twenty thousand people assembled, free of the disease. Isolation, properly carried out, resolves itself into two forms: (1) Isolation at home, and (2) isolation in a public institution especially prepared to deal with infectious cases. The former is necessarily the more difficult, and can only be effectually carried out by means of eternal vigilance on the part of the attendant, and an intelligent co-operation of those isolated, with a necessary submission to some of the discomforts which is the price those pay who wish to partake of the advantages and benefits of living in a large community in health. And first, of the medical attendant. There are in Montreal, as in all large cities, men who will deliberately hide a case of scarlatina, and so long as one of this class remains, just so long will he be a standing menace and danger to the public health. Many a pilot has had his ticket suspended for guiding the ship entrusted to him carelessly, and more than one lawyer has had his name crossed off the rolls for shady practice in a court of justice. An injury done to a ship may be mended, and an injustice done in a court may be rectified, but a life lost through criminal negligence may never be called back, and the punishment of an infringement of the law, requiring infectious cases to be reported within twenty-four hours, should be equally rigorous, if not more so. I would suspend his license to practice in the Province for six months for the first offence, and revoke it altogether for a second. Next as to the patient: this is more difficult. The patient may employ a medical man, and fail to carry out his instructions; here much may be done by the municipal or provincial board of health. I remember, about two or three years ago, some excellent little pamphlets being distributed by the Montreal Board of Health giving some common sense advice, and a rough sketch of the infectious diseases, and the means of disinfection, etc., recom-

mended to be employed. This was excellent, but it did not happen again. Why? Probably no money to waste (?) on printed pamphlets. They should be distributed every year. None so forgetful as the public. A good business man advertises every day of the year, and if the Board of Health really wish to educate the public, it must keep at it year after year; better have too much of such literature in a house than too little; better exaggerate the danger than underestimate it. Again, the patient or parents may not employ a medical man, but with some experience of former cases, may diagnose the illness, and if fairly mild, say nothing. In these cases the fullest opportunity should be given for the report of neighbors, etc. The people should be taught that it is not telling tales or spying; it is a duty they owe to themselves and their families; and the Government should allow the same privileges to letters addressed to the municipal or provincial health officer as is granted to letters addressed to the Postmaster-General—they should be free of postage. Next, as to the hospitals: We have to congratulate ourselves on the existence in our midst of an institution which has done more to help destroy scarlatina and impress the public than would have appeared possible even five years ago. Surely an institution which has found its way into the confidence of the people of this city, as the Montreal Civic Hospital has, is deserving of the highest praise, and speaks volumes for the unremitting care alike of medical attendants and nurses; but even hospitals have their limit of usefulness; they need an auxiliary, a convalescing home, where, in the regular routine, children should be sent. I recall three cases of scarlatina traced to a convalescent from the Civic Hospital after confinement for the regulation six weeks, when apparently all possibility of infection had disappeared.

As to the method of isolation, when carried out at home, in this most infectious of all contagious diseases, it must be most thorough. In the event of other children being in the house, school must be strictly forbidden, as well as playing in the streets with other children, and school authorities notified. If a self-contained house, then the patient's room will be upstairs, and the rest of the family downstairs. All carpets will have been removed and floors gone over with a damp cloth, to remove all dust—not washed. Light, and lots of it, with fresh air in plenty, and every trace of furniture,

except what is absolutely necessary, removed. Of the various antiseptics, such as Condy's, etc., I have little experience and less faith, and prefer to depend on one or two sheets kept moist with a strong carbolic solution, say 1 in 40, and suspended inside the door, and reaching to the floor. Cups, plates, spoons, etc., should either be dropped into boiling water at once after use, or else allowed to stand some time in a carbolic solution. Bed linen, night dresses, towels, etc., should steep forty-eight hours in a 1-80 carbolic solution prior to boiling. Where it is possible and necessary for the nurse (perhaps mother) to go out to purchase commodities, another dress should be donned, leaving the old one in the sick room. These precautions, with a fair amount of common sense, will usually be sufficient. With reference to the isolation of the dwelling, the placards should be placed where they will be seen, i.e., outside the usual door of entrance of the house, and each disease should have its color—say red, with white letters, for scarlet fever; white, with red letters, for diphtheria; and yellow, with black letters, for small-pox. As things are now, one has to look for the sign in a dark stairway, the object apparently being to comply with the letter, and evade the spirit, of the law. No one but the medical attendant should be permitted to go inside the door except as noted above. The public are fairly easily led; one false alarm of fire has killed more people than many a good-sized conflagration, and when the public see that the authorities dread the disease so much, it will not be long in having a wholesome fear of it also.

But when the Health Department comes to the most important part of the duty entrusted to its care, what shall we say of it?—for proper disinfection is undoubtedly the most important item in the prevention of the spread of the disease. It is true, sulphurous acid gas is a very efficient disinfectant, but ——! There is only one perfect system of absolute certainty in disinfection, and that is by superheated steam under pressure. This, obviously, is impossible in a room. In my opinion, chlorine gas comes next, and to efficiently carry this out, the room or rooms should be sprayed by a small portable steam jet spray, to provide the proper moisture, and then chlorine liberated by the action of sulphuric acid on common rock salt. Everything portable, and absolutely every article of clothing, should be removed in special vans, subjected to the action of superheated steam

in proper sterilizers, and returned in other vans. It will not injure the most delicate fabric, and is absolutely certain; and in this connection Dr. Hocheegee's ink for a test stamp is valuable as showing that the temperature has exceeded 212 degrees Fahrenheit. It is alum acetate, 150 parts; *alizarine paste (25 per cent.), 5 parts; water, 150 parts. A temperature of 212 degrees Fahrenheit or over will turn this ink from a brownish red to a bright red, and a piece of fabric enclosed with the object to be sterilized will give absolute proof of having been subjected to not less than the proper temperature, and finally, a visit by the health officer two weeks after disinfection to see if there be any case of sickness in the family.

Of course, the precautions named look excessive; but are they? Properly carried out, would they be any more irksome than the present ones? Is the game worth the candle? I think so. If we can afford to keep a sharp look-out at our borders for diseases, and to do so think it no false economy to maintain an efficient quarantine staff, where is the inconsistency of applying the principle to a disease (or two diseases), which annually carries off a terrible number of victims.

Here are the figures for 1894 for the city of Montreal, given in order of largest number of deaths:

Diarrhoeal diseases, 1,069; French, 906; English speaking, 151; strangers, 12.

Pulmonary tuberculosis, 589; French, 383; English speaking, 203; strangers, 3.

SCARLET FEVER, 503; French, 295; English speaking, 203; strangers, 5.

Diphtheria, 212; French, 153; English speaking, 57; strangers, 2.

In the County of Hochelaga, excluding St. Henry, St. Cunegonde and the city of Montreal, the deaths were:

SCARLET FEVER, 77; French, 65; English, 12.

Pulmonary tuberculosis, 72; French, 56; English, 16.

Diphtheria, 31; French, 27; English, 3; strangers, 1.

For the county this brings the figures to:

Pulmonary tuberculosis, 661.

Scarlet fever, 580.

Diphtheria, 243.

* Alizarine-yellow C., a derivative of pyrogallol, a pale yellow powder soluble in alcohol and glycerine, almost insoluble in water, used in Dermatology as a substitute for pyrogallol.

In 1893 an outbreak of small-pox in the Province rightly called forth all the energies of the Board, and the disease was stamped out at a cost of 151 cases and 32 deaths. How much money it cost, the report says not; but here is a disease, the third largest on the list in 1894, and not far off for 1895 and 1896, annually taking away almost as many as consumption, over twice as many as diphtheria, and a little over eighteen times as many as the small-pox in 1893, calmly going on. If I have spoken somewhat plainly, do not the facts warrant it? I do not speak disparagingly of the Provincial Board, for they are doing good work, and doing some of it well; but is it not possible that some of it has suffered a little oversight? If isolation and vaccination stamped out small-pox, then, in my humble opinion, isolation and proper disinfection will stamp out scarlatina.

CAUSES PREDISPOSING TO INFECTION.

By A. J. RICHER, M.D.

Lecturer on Physiology, University of Bishop's College.

Roux has said, in his usual plainness of language, "We become infected only through our carelessness or ignorance." This sounds perhaps too much like laboratory talk, but its truth stands out prominently nevertheless, even in ordinary life. "The door is left open to infection," has said Bouchard, "if we neglect to treat our minor ailments, as these are signs of reduced or impaired vitality, meaning the impossibility of resisting the effects of micro-organisms."

In considering the predisposing causes of infection, one must deal separately with the following factors: First, Heredity—As the physical characters of the parents are usually transmitted to the child, it is reasonable to believe that to certain anatomical elements, analogous, constitutional and biological elements are also implanted; this fact has been well brought out by experiments made with pregnant animals, infected, notably, with anthrax, the toxic secretions of which leave their impression upon their offspring (Brauell, Arloing, Malvoz, Chamberland, Strauss).

Second, Diathesis—As a predisposing cause to infection is now generally admitted, and perhaps the most potent fact is the frequency with which diabetic patients give way to infection; gout and scrofula must not be lost sight of in this connection.

Capitan claims that diathesis influences the organism in two ways—firstly, by interfering with cellular nutrition, while also altering the constitution of the cell itself, and this is especially marked in gout; secondly, by these altered cells giving birth to abnormal products, either in nature or quantity, which act as substances favoring the development of micro-organisms.

Third, General Hygiene—The hygiene of the newly-born infant will always determine its powers of reaction with regard to infection, whatever these hygienic conditions may be. Food, aeration, cleanliness, antiseptics of skin, digestive tract, etc., are important factors to consider under this heading, and are worthy of proper interpretation at the hands of the attending physician, as any of these not properly conducted may explain such or such another infectious disease of the future, to all of which the child is above all exposed. We can to-day, with our knowledge of bacteriology, more strenuously insist upon good hygiene, and more clearly define the rules for the better carrying out of the proper hygienic measures. The effects of pure air and mitigated insolation upon micro-organisms are well known; the exaltation of virulence of certain normal inhabitants of the digestive tract through errors of feeding are not by most practitioners ignored, consequently enlightened by these peculiarities of development of microbes, we are better prepared to meet the wants of the organism in order to assist its defence against infection.

Fourth, Age—We know with what frequency certain infectious diseases develop in preference at certain periods of life. In young children, enteritis and tuberculosis are very common; later we meet with eruptive fevers and osteomyelitis, and still later, when bordering upon adult life, typhoid is not uncommon. In adults, infections of the stomach, liver and kidneys predominate, while in the decline of life cancer and lung infections, particularly tuberculosis (which may have been latent for years), are among the most common infections.

Fifth, Sex—Is a factor not to be ignored. Women, on account of the menstrual function, pregnancy and lactation, are exposed to tuberculosis in its various forms, septicaemia, pyemia, erysipelas, nephritis, etc., while men, by their different habits of life, and their tendency to the excessive use of alcohol, are particularly exposed to hepatic, renal and cerebral infections.

Sixth, Meteorological Influences—These are many; thermometric and barometric variations, electric and hygrometric states, altitudes, climates, etc. The augmentation of electrical tension; the marked hygrometric state; the lowering of the barometric pressure are all known to have a marked influence upon phthisical patients, often producing the final crisis, and we can easily understand how these influences, acting energetically upon the nervous system, can react upon the vaso-motor centres and so modify affected, weak or even healthy organisms, lessening phagocytosis, thus facilitating the penetration and future development of pathogenic micro-organisms. One often observes how nursing children will be affected by storms, under the influence of which they often develop symptoms of gastric fermentation, probably due to the too rapid coagulation of the milk. Cold and heat each have their specific actions upon micro-organisms as well as upon living tissue. Cold contracting the peripheral blood vessels forces the dilatation of the internal vascular system, and, added to this, some experiments of Bouchard's have proved that the globules of the blood are altered, cellular reaction interfered with, phagocytosis lessened, leaving the organism a prey to any infectious agent which may have penetrated the respiratory and digestive tracts, to speak only of these. Wurtz has, by bringing down the temperature in animals, been able to determine the passage of micro-organisms through the intestinal walls. Pasteur's classical experiment of cooling a hen (otherwise refractory) to 37 degrees C., after infecting it with anthrax, has always reproduced the disease by this lowering of temperature; Gibier, by elevating the temperature of frogs to 37 degrees C., has always been able to obtain the infection with anthrax, to which they resist at their normal temperature. Heat seems to act more energetically than cold upon epithelial surfaces; its influence upon the central nervous system is sufficient evidence to prove how its influence would modify secondarily the secretions and functions of the different organs.

Seventh, Fatigue—Plays one of the most important parts as a cause predisposing to infection.

Herzen, Arloing, Nocard and Roux have clearly demonstrated the favoring action which lactic acid exerts upon the development of microbes within the organism, and the fact that the muscles during activity secrete notable quantities

of this acid would explain to a very great extent the mechanism by which infection is favored.

Eighth, Traumatism—Experimental medicine has proved the important part it plays in the determination of infection. Hosts of micro-organisms, when inoculated in healthy animals, will not determine any particular infection until a traumatic lesion is made at any one point, as, for instance, over the cardiac region, causing in most cases endo-cardiac infections.—(Hermann, Bouchard, Schuller.)

Ninth, Intoxications—These are often accompanied by impaired nutrition. Alcohol, lead, copper, CO₂ and numberless noxious or irritating gases met with in certain industries, exposing the workers; these hetero-intoxications also prepare the way for auto-intoxicants as well as to expose to direct infection by lessening the powers of defence. Bouchard, Charrin and Roger have demonstrated experimentally that gastric and intestinal auto-intoxications greatly favored the development of the staphylococcus pyogenes in any part of the organism; so we can understand that though the influence is secondary, perhaps to some of the already enumerated causes, yet we must constantly keep these auto-intoxications in mind when trying to unearth the primary cause of an infection, but they must be distinguished from direct auto-infections.

Conclusion—When one considers that the air breathed in a city contains almost innumerable quantities of different micro-organisms per cubic foot; that these, both pathogenic and non-pathogenic, lie constantly in wait for the proper time of admission into the organism, sleeping, so to speak, yet developing in common with saprophytes in our buccal, nasal, laryngeal and pharyngeal spaces, being introduced daily into our digestive tract along with food, must put us on constant guard to prevent infection. We can thus understand how urgent systematic and vigorous antisepsis of these parts are necessary—the skin, the ears, the eyes, the sexual organs are also not to be neglected. Antisepsis of the skin, mouth, nose and digestive tract is worthy of our serious consideration, especially when dealing with weak or debilitated subjects.

Selected Articles.

PROGRESS IN ORGANOTHERAPY.¹

BY AUGUSTUS A. ESHNER, M.D.

Professor of Clinical Medicine in the Philadelphia Polyclinic ; Physician to the Philadelphia Hospital.

The basis of a great therapeutic advance was established when it was demonstrated by Eiselsberg in 1890 that the clinical syndrome resulting from total extirpation of the thyroid gland—and comprehended in the designation cachexia strumipriva—could be prevented by transplantation of the removed organ in a new situation. Schiff, who in 1856 had observed that extirpation of the thyroid gland was followed invariably in dogs by death, and who was able in 1884 to confirm his earlier observations, found that death could be prevented under these circumstances by grafting a portion of the gland beneath the skin, or within the peritoneal cavity. In 1877 Ord pointed out changes in the thyroid gland in cases of myxedema, and in 1882 J. L. Reverdin called attention to similar changes in the sequence of surgical removal of that gland. In 1883 Semon suggested a causal relationship between the loss of thyroid function and the resulting symptoms; and the validity of this proposition was shortly afterward established by an investigation conducted by a special committee of the Clinical Society of London. In 1890, independently of the observation of Eiselsberg, Horsley suggested grafting of sheep's thyroid in the treatment of myxedema, and a little later this suggestion was successfully acted upon by Bettencourt and Serrano. In the same year Vassale prevented the development in dogs of the phenomena following thyroidectomy by intravenous injection of an extract prepared from the removed gland, and in the following year Murray treated successfully a case of myxedema by hypodermic injection of an extract of thyroid gland. It was soon found that the same good results could be secured by the administration by the mouth of the gland itself or of an extract prepared from it, and the long record of successes that has marked the therapeutic employment of thyroid gland in one form or other elicits the warmest admiration for the scientific acumen and the professional zeal that guided the successive steps by which the underlying principles of organotherapy have been established upon a firm basis.

Within the comparatively short period covered by the discoveries narrated, a vast literature upon the subject has grown up, and the matter has attained an importance the magnitude of which we are even yet scarcely able to realize. Not only has the use of thyroid preparations been extended to the treatment of diseases other than those in which its utility was first demonstrated, but the principle on which this practice is based has been applied to a far wider range of therapeutic purposes; and almost every day brings some new development in this promising field. Already physiologists have succeeded in isolating from the thyroid gland a body designated thyriodin, which is capable of much of the therapeutic usefulness of the gland itself. The benefits of the new therapy have accrued not only to the physician, but to the surgeon as well; for the latter has learned in the removal of organs physiologically concerned in some way in the bodily metabolism—and few, if any,

¹ Read before the Philadelphia County Medical Society, June 24, 1896.

organs are not so concerned—to leave behind if possible a portion of the glandular structure.

Of the results obtained in the treatment of myxedema and cretinism with thyroid preparations it is scarcely necessary to speak, so uniformly successful have these results been. To insure their permanence, however, the treatment must be persisted in, though occasional intermissions are attended with good effects rather than otherwise. By organotherapy there is supplied to the body a substance or substances essential to metabolic equilibrium, but wanting through glandular deficiency. The effect ceases with the withdrawal of the agent with whose aid that equilibrium is artificially re-established. It must at the same time not be forgotten that the glandular preparations thus used are capable of harm when employed in excess, and appropriate precautions should in all instances be observed to prevent deleterious effects.

In view of the pronounced effects of thyroid therapy upon the cutaneous and subcutaneous and allied structures, as observed in the treatment of myxedema and cretinism, it was an easy step to the employment of the same measure in the treatment of other diseases in which the skin is affected. The results secured in the treatment of obesity with thyroid preparations have been scarcely less successful than those in myxedema and cretinism and do not require extended consideration.

In 1893 Bramwell reported before the British Medical Association cases of psoriasis treated with thyroid extract, with results "at once surprising and gratifying." Others have had a similar experience. A successful result has also been reported in a case of syphilitic psoriasis in which other measures had already been employed without relief.

Believing that the special susceptibility to tuberculosis manifested by cases of myxedema might be due to the absence of thyroid function, Bramwell was led to employ thyroid extract in the treatment of lupus, and the results were so favorable as to suggest the applicability of the same method in the treatment of other forms of tuberculosis. Thyroid extract has further been used in the treatment of eczema, dermatitis exfoliativa, rosacea, universal alopecia, pityriasis rubra, ichthyosis, scleroderma and xeroderma, with varying, though in general not disappointing, results. It has also been suggested that the remedy might prove successful in the treatment of leprosy, erysipelas and carcinoma. In the case of a young woman presenting an hypertrophied scar of the face White observed reduction in the size of the disfiguring cicatrix in the sequence of thyroid therapy in conjunction with topical applications of collodion, after other measures had failed.

Bramwell has reported excellent results from the employment of thyroid extract in the treatment of tetany, and from the association of this disorder in infants with rickets and laryngismus stridulus he has suggested the possible efficacy of similar treatment also in these latter conditions. Perhaps, too, the same procedure might be effective in other spasmodic and convulsive disorders. Cases of tetany successfully treated with thyroid extract have also been reported by other observers.

The improvement in the mental state noted in cases of myxedema and cretinism subjected to thyroid therapy naturally led to the employment of thyroid preparations in the treatment of insanity. According to Bruce the remedy is especially useful in cases of insanity at the adolescent, climacteric and puerperal periods; when recovery is slow; and in cases of long standing with a tendency to dementia. It is counterindicated in cases of mania attended with acute excitement, rapid loss of weight and danger of exhaustion from malassimilation of food.

Reports with the results secured in the treatment of exophthalmic goitre with preparations of thyroid gland have been varied and con-

flicting—improvement being noted in some cases, aggravation in others. In the few cases in which I have adopted this plan the resulting improvement was not greater than I have observed following the administration of strophanthus or the salicylates. Successful results have also been reported from similar treatment in cases of simple goitre, especially of the parenchymatous variety. Relief likewise was afforded in a case of exophthalmic goitre in which thymus gland was administered by mistake for thyroid. In a case of exophthalmic goitre complicated by scleroderma the symptoms of both morbid conditions were relieved by treatment with thyroid gland.

Thyroid extract has also been used in the treatment of cases of rachitis, associated with anemia, with resulting general improvement and gain in weight, but without appreciable changes in the bones.

Having observed in two cases the development of osteo-arthritis in the sequence of removal of the uterine appendages, Macalister learned upon inquiry in a number of other cases that some disorder of uterine or ovarian function had preceded the articular disease. As a result of these and other observations he formulated the hypothesis that the glandular structures of the body elaborate substances that exert a controlling influence over the growth of individual tissues, and that an excess or deficiency of any tissue-element is attributable to the absence or perversion of the secretion that physiologically controls the growth of that particular constituent. In accordance with these views he employed thymus gland in the treatment of a case of pseudo-muscular hypertrophy, upon the assumption that the symptoms of this disease are dependent upon the removal of an influence inhibiting the growth of the fibrous parts of the muscles, in consequence of premature atrophy of that gland; and in a case of lymphadenoma in an old man he administered a mixture of red and yellow bone-marrow in equal parts. Lepine has reported two cases of muscular dystrophy in which dynamic improvement, without other change, followed thyroid treatment.

Looking upon the red marrow of bone as the chief agent in promoting the development of red blood-corpuscles, Mann was led in 1894 to use a glycerin extract of marrow obtained from the long bones of calves in the treatment of anemia, and in a series of cases of varying kind and origin encouraging results were secured. A little later Fraser reported a case of pernicious anemia in which remarkably satisfactory results followed the employment of bone-marrow, in conjunction with arsenic, iron and salol. Since this time a considerable number of cases of grave anemia of varied type have been reported in which bone-marrow was used, and the results, while in some degree conflicting, are on the whole encouraging, and justify the further employment of the remedy. From the evidence that has accumulated there can be no doubt that bone-marrow taken by the mouth is capable of favorably influencing the state of the blood, and as anemia arises from a multiplicity of causes it should not occasion surprise that any remedy will fail in some cases.

In 1894, Bigger reported a case of leukemia, in which recovery followed the therapeutic administration of bone-marrow, after arsenic and iron had been employed without success. Lawrie has also reported a case of leukemia successfully treated with bone-marrow. Bone-marrow, in conjunction with splenic tissue, has also been successfully employed in the treatment of malarial cachexia.

Having observed spontaneous disappearance of the symptoms of exophthalmic goitre in a case complicated by the development of splenitis—probably of traumatic origin—and the formation of a splenic abscess, subsequently evacuated, Wood (4) was led to employ hypodermically a glycerin extract of beef-spleen in the treatment of a later case of exophthalmic goitre, with results that were in every way gratifying.

For a long time physiologists have realized the fatality of total

extirpation of the pancreas, and pathologists had early observed changes in the pancreas in fatal cases of diabetes examined after death. It is, however, only within recent years that experimental removal of the pancreas has succeeded without immediate death; and under these circumstances glycosuria, polyuria and wasting invariably developed. Here again it was found that if a portion of the gland were permitted to remain or were grafted in a new situation the symptoms failed to appear. Pancreatic preparations have been employed in the treatment of a number of cases of diabetes in the hands of different investigators, with resulting improvement in some cases.

It is the consensus of opinion that the symptoms of Addison's disease are dependent upon changes in the suprarenal bodies; and in conformity with this view a number of clinicians have employed suprarenal extracts in the treatment of that disease. Oliver who, in conjunction with Schafer, has made a study of the physiologic action of suprarenal extract, recommends its use also in cases attended with loss of vaso-motor tone, in exophthalmic goitre, in cyclic albuminuria, in diabetes insipidus and diabetes mellitus and in cases of capillary hemorrhage. In cases of anemia thus treated, he has observed a rapid rise in the percentage of hemoglobin. In a case under my observation presenting Addisonian symptoms, no appreciable benefit followed the use of such an extract. Postmortem examination, however, failed to disclose distinctive changes in the suprarenal glands.

It has been shown experimentally that the symptoms resulting from removal of the pituitary body—lowering of temperature, anorexia, lassitude, convulsive movements and dyspnoea—can be prevented by injections of pituitary extract. In some cases of akromegaly relief has followed employment of a similar extract. In the discussion following the report of a case of akromegaly that it was my privilege to make to this Society in 1895. I took occasion to refer to the possible utility of a preparation of the pituitary body in the treatment of that disorder. In accordance with this thought Messrs. Armour & Co., of Chicago, at my request kindly prepared for me such an extract, of which one part of the desiccated product represented seven parts of crude pituitary body. Of this I began the administration of one grain thrice daily, but the patient did not remain long enough under observation, and no therapeutic effect was noted. At about the same period or a little later, Marinisco reported to the Societe Medicale des Hopitaux three cases of akromegaly treated with pituitary extract in which symptomatic improvement resulted. Bramwell and Murray have employed thyroid extract in the treatment of akromegaly, but without pronounced effect.

Actuated by the results secured in the treatment of goiter with thyroid extract, Reinert was led to employ the prostate gland of steers in the treatment of four cases of prostatic hypertrophy, in two of which reduction in the size of the enlarged gland was noted. If the observations be correct the validity of the fact cannot be negated by *a priori* considerations, although one would naturally look for therapeutic effects from prostatic administration in the presence of symptoms attributable to loss of function of the prostate in consequence of surgical removal or of disease. A parallel statement may be made concerning the employment of testicular extracts. At the same time it is not necessary to deny that from their nature all organic extracts may possess stimulating properties.

The most recent development in the domain of organotherapy consists in the employment of preparations of the ovaries of animals in the treatment of the symptoms resulting from removal of the functional influence of the ovaries in women either at the natural menopause or at that induced artificially by surgical intervention or by disease processes. Observations upon these lines seem to have been made almost simultaneously and independently by Mainzer

and by Chrobak in conjunction with Knauer. To the former belongs the credit of priority of announcement, who reports a case in which relief of symptoms followed use of an ovarian extract. Chrobak had independently conceived the idea that the distressing symptoms so often observed after ovariectomy could be prevented by permitting to remain a portion of ovarian tissue, and that they could be relieved when present either by ovarian grafting or by internal administration of some preparation of the ovary. Acting upon this thought he has of late years in operations upon uterus and ovaries made a practice, whenever possible, of leaving behind a portion of ovarian tissue. He has besides during the past year employed an ovarian extract in a number of cases in which the ovaries had previously been removed, and in one with normal genitalia in which profound climacteric symptoms were present. The results so far as they could be analyzed were satisfactory and encouraging. The experiments of Knauer, undertaken at the suggestion of Chrobak, show not only that the ovaries are susceptible of successful transplantation, but that they are also capable of functional activity in their new situation.

In the foregoing account I have not attempted to enter upon an exhaustive consideration of the whole subject of organotherapy, but have endeavored merely to illuminate some of its more practical aspects. There is much yet to learn, perhaps not a little also to unlearn, but a good deal of what has been accomplished will permanently endure, while the outlook for the future is hopeful and encouraging—*The Philadelphia Polyclinic*, July 4, 1896.

Progress of Medical Science.

MEDICINE AND NEUROLOGY.

IN CHARGE OF

J. BRADFORD McCONNELL, M.D.

Associate Professor of Medicine and Neurology University of Bishop's College,
Physician Western Hospital.

TURCK'S GYROMELE IN THE DIAGNOSIS AND TREATMENT OF DISEASES OF THE STOMACH.

This subject is discussed in the *Therapeutic Gazette* for July, by Edgar A. Planck, M.D., Union, Michigan. He first points out the unsatisfactory results obtained by the ordinary methods of exploration by succession, palpation, inspection and transillumination. "The gyromele consists of a flexible cable, to the end of which is attached a spiral spring covered by a sterilized sponge, which is removable and can be changed. The cable passes through a rubber tube, and is attached to a revolving apparatus for the purpose of producing revolution of the sponge." To determine the location of the greater curvature, the revolving sponge can be palpated as it is passed along this curvature. The determination of the degree of distensibility of the stomach is done by using cables of different degrees of flexibility. To procure material for microscopical examination the revolving

sponges secure, besides the loose material, adherent mucus. It readily procures stomach contents for chemical examination for HCl., and for ascertaining the activity of the rennet ferment.

For the treatment of gastric diseases it is particularly useful in removing mucus from the walls of the stomach, especially if a solution is used containing one drachm of green soap and one of lysol in a pint of water and done before breakfast or just before the evening meal. In chronic gastritis when this treatment is carried out, Turck's needle-douche is used to get rid of the debris, a fine shower of fluid is thrown forcibly against the walls of the stomach and then removed by a syphon or aspirator. It is effectual also in stimulating the muscular tissue of the stomach by the vibratory movements, leading to increased power and tone; the gyromele may also be used as an electrode. By removing mucus, hyper-acidity is overcome. It has proved beneficial in constipation due to congestion of the visceral vessels and atony of the muscular tissue of the intestines, it increases the circulation in the mesenteric vessels. Dr. Planck cites a specimen case treated solely with the gyromele, and is of the opinion that it supercedes the old method of treatment by drugs.

THE CLINICAL VALUE OF ELSNER'S METHOD OF DIFFERENTIATING THE TYPHOID BACILLUS.

In a recent article Chantemesse calls attention to the value of the Elsner method of differentiating the typhoid from the colon-bacillus, and of isolating the typhoid bacillus from the stools.

He states that out of sixteen cases he was able to obtain the typhoid bacillus by this proceeding in thirteen, and notes that in two of the three unsuccessful attempts the failure was probably due to imperfect technique.

Of the thirteen cases three merit special attention, as the bacteriological examination was of great value in clearing up the diagnosis. In the first of these cases a young girl was admitted to the hospital, and after some days of fever a probable diagnosis of typhoid was made; the temperature, however, dropped suddenly, and the clinical diagnosis was doubtful, but was cleared up by finding the bacilli in the stools. A second patient was admitted in an alcoholic condition, complaining only of weakness. He had no fever, and at first was supposed to be a paretic with alcoholism, but an examination of the stools revealing the presence of typhoid bacilli, a history of a recent attack of typhoid was elicited.

A third patient was admitted to the hospital, afebrile, with photophobia; contraction of the fields of vision, and hemianaesthesia. The case was thought to be one of hysteria,

but typhoid bacilli being found in the stools, a history of the patient having had fever, diarrhoea, and vomiting fifteen days before admission, was elicited.

Chantemesse points out the fact that by means of this medium an early diagnosis can be made, and obscure cases can be cleared up.—*Comptes Rendus de la Societe de Biologie*, March 5, 1896, in *American Journal of Medical Science*.

Lazarus (*Berliner Klin. Woch.*, 1895, No. 45, p. 1068, *Medicine*, July, 1896) has made a clinical test of Elsner's method of diagnosing typhoid bacilli. He adds one per cent. of potassium iodide to Holz's acidulated potato-gelatin. Upon this medium the bacterium coli develops rapidly, forming at the end of forty-eight hours coarsely granular brown colonies. The typhoid bacillus, on the other hand, grows more slowly, the colonies at the end of forty-eight hours appearing like small, glistening drops of water with very minute granulations.

The stools of five patients with typhoid gave positive results during the first, second and third weeks of the disease. After the subsidence of fever, bacilli were occasionally found, in one case as late as forty-one days after defervescence. Repeated examinations are necessary, as negative results were shown at times to be false by positive findings at a second examination. In one case of typhoid, where remittent fever persisted, the bacilli were found in the stools even up to the ninth week. Negative results were always obtained in patients suffering from non-typhoidal disease of the intestines.

LAWRIE'S VIEWS OF THE MALARIAL PARASITE.

In an editorial in the *British Medical Journal* for May 16, 1896, the writer further reiterates a previously expressed opinion that the view of Surgeon-Lieutenant-Colonel E. Lawrie, of Hyderabad, regarding the conception that Laveran's bodies are not in the nature of parasites, is entirely wrong. Dr. Lawrie is credited with a statement to this effect, upon the truth of which he still insists; and, considering the present position of sanitary affairs in India, and the possibility that public opinion may be influenced by either of the opposing views on this subject, the editorial in question deemed it advisable to repudiate once more Dr. Lawrie's views. It seems that Dr. Lawrie has stoutly asserted that Laveran's bodies are not parasites, and that the figures and descriptions of those bodies given by distinguished writers are misleading; and that the bodies in question are neither

more nor less than white blood-corpuscles in various stages of development, variously altered by a true cause of malarial disease, which he considers is still unknown. The editorial referred to considers that Dr. Lawrie's views are founded on an absolutely novel doctrine regarding the origin of white blood-corpuscles,—viz., that at its earliest stage the red corpuscle is nucleated, the white corpuscle being derived from the nucleus of the young red corpuscle,—in fact, that it is the nucleus of the latter which has escaped and become free in the blood plasma. According to Dr. Lawrie, the evolution of white corpuscle takes place principally in the spleen. When this organ becomes diseased by malarious influences, the escape of the nucleus of the red corpuscle does not take place, evolution is arrested, and the still nucleated red blood-cell passes into the general circulation. It is this nucleus which Lawrie holds to be Laveran's body, which is, he says, an immature white corpuscle. Thus the whole of Lawrie's theory in this matter hangs on a question of physiology,—the origin of the white blood-corpuscle. Views on this point have hitherto, it is true, been somewhat indefinite, but no one has ventured to assert that the white corpuscle originated from the red corpuscle, though a possibility of the reverse has in some instances been suggested. The slender evidence advanced by Lawrie on a theory so diametrically opposed to the accepted views of leading physiologists would cause one to hesitate in accepting it. If Lawrie's views as to this origin of the white blood-corpuscles are wrong, it necessarily follows that that which hangs on these views—his theory of the nature of Laveran's bodies—is also wrong. The writer believes that the descriptions and drawings of Laveran, Marchiafava, Golgi, Mannaberg, and many others are substantially correct, and that Laveran's bodies are genuine parasites; moreover, that they are the cause of malaria,—not, as Lawrie would have us believe, one of its effects. The suggestion is made that the bodies found by Lawrie in the spleens of frogs may be the sporulating forms of drepanidium, or of dactylosoma, or of some other and similar intracorpuseular parasite, and that he may have been misled in this way.—*International Medical Journal*, June, 1896.

ON THE LIFE HISTORY OF THE MALARIAL GERM OUTSIDE THE HUMAN BODY.

By PATRICK MANSON, M. D.

(*British Medical Journal*, March 14, 21, 28, 1896.)

The plasmodium enters the human body for one of three reasons: First, a residence there is in some way necessary for its evolution and existence as a species; second, it may enter

accidentally, and find a suitable medium in which to maintain itself, but not to propagate its species; third, it may find not only an asylum, but also a suitable place in which to propagate its species, although it possesses other hosts or media elsewhere in nature, that is to say, man may be an alternative host and the malarial infection of man an example of optional parasitism. As malaria abounds in the tropical wildernesses, the first cannot be true, nor can the entrance be purely accidental, since exposure is almost certain to result in infection; it must, therefore, be a case of optional parasitism. The earliest extracorporeal form is the flagellate body. This appears upon the slide about fifteen to twenty minutes after the blood is drawn. It contains particles of melanin in active motion, and at times a flagellum breaks away and swims about in the plasma with a spirillum-like movement. The flagellate body arises in this wise: at certain times in ordinary tertians, large pigmented intracorporeal forms are seen, and some large spherical bodies not enclosed in red blood-cells; occasionally an enclosed form may be seen to escape and become a free body. After a time the pigment in the free body becomes violently agitated, the body itself is contorted and jerked about, and then suddenly long flagella are projected from its circumference and begin waving about. In certain chronic malignant forms, crescents are also found,—that is, crescent-shaped intracorporeal bodies with a mass of pigment in the centre. After the blood is drawn these gradually assume a spherical form, the pigment commences to be agitated, and finally the flagellate body is formed as from the spherules. Now this transformation must be either a degenerative change or a vital evolutionary one. That it is the latter is indicated by its definitiveness of form, by its movement, and by its adaptation to a certain definite purpose in the life-history of the organism. The movement of the pigment is not of the nature of the Brownian movement. Under favorable conditions, one of which is a temperature below that of the human body, nearly all the crescents and spherules develop into this form, and it can be found in nearly every case if carefully sought. The flagellum probably represents the spore of the rosette form, and the crescent bodies and the spherules of the tertians and the quartans are the extracorporeal homologues of the intracorporeal sporulating bodies. It is not impossible that the flagellate bodies arise from conjugation forms, the result of multiple infection of a blood-corpuscle. The exit of the plasmodium from the human body must take place either by its own active efforts, or as the result of hemorrhage, or as the result of some outside influence, such as a suctorial parasite, and the close analogy between the plasmodium and the filaria, as well as the asso-

ciation of malaria and mosquitoes in various regions, renders the last explanation not unlikely. In the human blood, the corpuscle acts as a protection to the organism, for when the spores burst out, the phagocytes actively attack and envelop them; and the same is true of the extra-corporeal flagellate forms upon the slide. At the suggestion of Dr. Manson, Surgeon-Major Ross, of India, undertook to make a careful study of the relation of the mosquito to the malarial parasite, selecting those cases in which the crescents were common. It is obvious that one of only three results must occur in the body of the insect; first, the plasmodium would be killed; second, it would behave exactly as upon the glass slide; third, there would be a rapid development into the flagellate form. From the examination of blood from mosquitoes that had been fed upon a patient suffering from malarial cachexia, Ross concluded that: 1, almost all the crescents are converted into spheres shortly after they enter the mosquito's body; 2, the spheres are always found, at first with the pigment massed in the centre, next with the pigment particles in a state of violent agitation, whilst the whole cell acquires a jerking movement; 3, the flagellate organism may be found from seven to thirty-five minutes after the blood is drawn, the whole manifestation ceasing in a very few minutes; 4, spent spheres or pigment masses—that is, the discarded bodies of the flagellate forms—are seen at first in small numbers, later they increase; 5, phagocytes containing spheres and pigment begin to be seen later than the free spent pigment; 6, about thirty per cent. or forty per cent. of the spheres fail to throw out flagella. Quinine appeared to have a paralyzing effect upon the plasmodium, and its evolution was delayed. Water in which some of the fed mosquitoes had died was given to a healthy native, and eleven days later he had headache and a rise of temperature, and plasmodia were found in his blood; in other instances this experiment did not succeed. There remains yet the careful tracing of the flagella to their resting place in the cells of the mosquito and then a study of their further existence. Certain objects must be considered: 1, mosquitoes exist where there is no malaria, but it is easy to imagine that other conditions are necessary to the existence of the parasite; 2, malaria is said to exist where there are no mosquitoes, but this Manson, after careful enquiry, doubts; 3, certain students believe that the flagellate form is a degenerate stage. Manson considers that the most serious objection is the fact that the cycle has not yet been completely made out.—*International Medical Journal*, June, 1896.

PRACTICAL AIDS IN THE DIAGNOSIS OF PERICARDIAL EFFUSIONS IN CONNECTION WITH THE QUESTION AS TO SURGICAL TREATMENT.

By WILLIAM EWART, M.D.

The author enumerates the following characteristic signs of pericardial effusion: 1. Considerable extension of the lateral boundaries of the total area of dullness. 2. Great extension of the absolute dullness, the sternum absolutely dull. The latter is due to separation of the lungs, and is not pathognomonic, as it may be caused by a dilated heart. 3. Depression of the liver. In obesity the liver is apt to rise, although the area of pericardial dullness is increased. 4. Rotch's sign, —dullness in the right fifth intracartilaginous space; this may also be caused by enormous distention of the right auricle. 5. The lower angle of pericardial dullness projects towards the right; this can never occur as a result of cardiac enlargement. 6. The apex-beat is somewhat within and above the area of dullness of the left side in pericardial effusion, at the extreme limit of the dullness in the case of pericardial enlargement. In pericardial effusion the apex is never raised, occasionally, indeed, as a result of the depression of the diaphragm, it is lowered, but an impulse from the base may sometimes be felt in the third interspace. Among the thoracic signs may also be mentioned the great resonance of the upper part of the chest, the activity of the costal breathing, the bulging of the left half of the thorax, and the altered relation between the clavicle and the first rib. 7. The first rib sign: the upper edge of the first rib may be felt as far as the sternal attachment, but the rib continues to move with respiration, and is not fixed as in emphysema. 8. The posterior patch of pericardial dullness is found at the left inner base, and extends laterally usually not quite as far as the angle of the scapula, and vertically to the ninth or tenth rib with an abrupt horizontal boundary, the patch being shaped something like a square. It is an area of partial dullness only and is pathognomonic. 9. Tubular breathing below the left mamma. 10. The posterior pericardial patch of tubular breathing and ægophony. 11. Secondary pleural effusion. 12. Large and slapping pulse. Of course, all these signs may be greatly modified by the presence of pericardial adhesions.—*British Medical Journal*, March 21, 1896.)

CONCERNING LOCALIZATION IN THE OCULOMOTOR CENTRES.

By STEFAN BERNHEIMER, M.D.

Dr. Bernheimer extirpated certain ocular muscles innervated by the third nerve, and investigated the changes in the nuclei by the method of Nissl. He noticed:—

1. Changes in the nuclei twelve to fifteen days after the operation. The period required was longer than that stated by Nissl as necessary for such alterations in the nucleus of the seventh nerve after a similar experiment.

2. These changes occurred only when the muscle was entirely extirpated and not merely cut through.

3. They were similar to those stated in the description given by Nissl for the seventh nucleus. The chromophilic elements and the cell-nuclei were involved. The cells became round, the processes were less distinct or absent. Fourteen days after the operation little was to be seen of the structure, and the cell-body appeared almost homogeneous. The degenerative process was not equally advanced in all diseased cells.

4. When all four external muscles innervated by the third nerve were destroyed in a rabbit and the nuclei examined fourteen days later in a series of forty-five sections, counting from behind forward, a great number of altered cells were noticed on both sides of the median line in the first thirty sections, and these were more numerous on the side opposite the lesion. In the proximal end of the centre the degenerated cells were less numerous, and in the last eight or ten sections only normally-formed cells were found.

It appears that in rabbits the four external ocular muscles innervated by the third nerve have their centres in the distal and middle portions of the oculomotor nucleus, and especially in the contralateral side, whereas the cells for the internal ocular muscles are located in the most proximal portion.—*Wiener klinische Wochenschrift*, January 30, 1896, No. 5; *International Medical Magazine*, June, 1896.

PHARMACOLOGY AND THERAPEUTICS.

UNDER CHARGE OF

ROBERT WILSON, M.D.,

Professor of Materia Medica and Therapeutics University of Bishop's College.

ACTION OF SALOPHENE IN CHOREA.

Pierre Marie reports the results of using salophene in various diseases, especially chorea, and reports the case of a girl of 16 presenting all the symptoms of an attack of genuine Sydenham's chorea. On the ninth day of the disease he prescribed 4 grms. (60 grs.) of salophene in 6 doses.

This was followed by improvement and complete recovery in ten days. The author, while not venturing to claim that this rapid recovery was due to salophene alone, points out that the attack was undoubtedly genuine Sydenham's chorea, and not hysterical, and that therefore suggestion played no part in the recovery.

(Salophene is a salicylate of amidophenol, a derivative of salol, and used as a succedaneum for that drug, as it does not, like the latter, split up into salicylic and phenic acids in the intestines, but into salicylic acid and acetyl-p-amidopenol. It has been lately recommended for neuralgia, rheumatism, and especially for influenza complicated with nervous disturbances. Usual dose, 6 to 8 grams every two or three hours.)

TRIONAL AND PHENACETINE.

Next case of bad headache you get, with insomnia and restlessness, try ten grains of phenacetine, pulverized in a mortar, with five grains of trional, and repeat, if necessary, in an hour. The mixture gives splendid results.

VERATRIUM VIRIDE.

I must admit that I have always had a soft spot in my heart for veratrium viride, and am more than half convinced that in this case at least "The Diel's no sae black as he's painted." I have yet to be convinced that, given a case of sthenic lobar pneumonia, and *ceteris paribus*, bleeding is going to work harm, and it is equally hard to understand why bleeding out of the body, and removal, for some time at least, of 8 to 10 oz. of blood should be better than bleeding into the vessels, with lessened heart force. In deference to our almost universal prejudices, I have only used the drug twice in the condition named, nor have I regretted so doing, and shall certainly use it again when opportunity offers.

With reference to its administration: Although in the United States the fluid extract (in doses of 1 to 3 drops) is preferred, and extensively used, I have used the tincture in 2 to 10 drop doses, commencing with the two drops and increasing until the pulse fell to 70 or 75, administering the remedy every hour, with a precautionary dose of tincture of opium, 10 to 15 M., given half an hour before commencing. Dropping of the pulse-rate, profuse sweating, or the onset of nausea, are signals for the withdrawal of the drug. Certainly in both cases I have seen the patients, from a hot, semi-delirious condition, with rapid, high tension pulse, bounding along at 140 or 150 a minute, breathing labored and cough severe, pass, in three hours, into comparative quiet,

with moist skin, eased respiration, softened pulse, and calmed and quietened cerebral circulation.

Of course, like every other article of the pharmacopoea, it has its uses, and may have its abuses, and although comparatively safe, is not to be trifled with. The best test I know of as indicating its exhibition is to ask one's self, "Would bleeding do this patient good?" If you answer the question affirmatively, then veratrum will do the bleeding, and more, and still keep the patient with his 10 or 12 ounces of blood in his circulation.

Now, is heart disease a contra-indication—that is, in certain forms? Its action on the spinal nerves in lessening reflex irritability, and causing vaso-motor dilatation, with eased heart action, point to its use in a condition where digitalis is contra-indicated, i.e., valve lesions with hypertrophy. In all asthenic types of fever, it is not only contra-indicated, but will work positive and perhaps irreparable harm. In speaking of the tincture, it is well to remember that a saturated tincture, known as "Norwood's Tincture," is also prepared, the dose of which is considerably less than the ordinary tincture, (one-half to two or three drops). In general practice the ordinary tincture will be found very efficacious, prescribed either pure, and measured with a medicine-dropper, or put up into a 4-oz. mixture, with syrup of orange, and teaspoonful doses of two minims each, directing the nurse to double the dose for three or four consecutive hours, watching the pulse carefully meanwhile, and always commencing by a preliminary dose of morphine (1-4) or tincture of opium (10 to 15 ℥).

AMAUROSIS PRODUCED BY MALE FERN.

* Dr. Grosz (*Ann. d'Ocul.*, 1895) report a case in a man of 25 (who took about 8 grams.—2 drams) of combined ethereal extract of male fern and extract of pomegranate preceded by syncope and severe diarrhoea.

Prof. Masius (*Med. Weekly*, 1895) undertook some experiments to determine the cause of the amaurosis, and determined the primary lesion was vascular, consisting of a proliferation of capillaries with cell-infiltration of the perivascular space, determining at an early date strangulation of the optic nerve in the foramen opticum.

Poulson, of Strasburg, has shown that of the extractives of male fern, crystalline filicic acid is neither a poison nor a vermifuge, while the amorphous filicic acid possessed both in a high degree.

Van Aubel (of Liege), attributes the amaurosis to the filicic acid which stimulates the spinal cord, and might by extending to the sympathetic system, cause dilatation of the

* *Pediatrics*, June, 1896.

pupils, stimulation of the vaso-motor nerves and constriction of the central arteries of the retina; on this hypothesis strychnine and nitrite of amyl be useful remedies.

FORMALIN IN GONORRHOEA.

Rarely has a drug made such rapid progress in general favor as has the 40 per cent. solution of formic aldehyde, known as "formalin." Formic aldehyde, an oxidized methyl alcohol, is a powerful antiseptic and germicide, perfectly innocuous to tissues, and efficacious in from 1-2 to 2 per cent. solutions, the latter powerful enough for all purposes.

Recognizing the microbic origin of gonorrhoea, several observers have tried this remedy in this disease, and, while the cases reported are neither numerous enough nor diverse enough to base any conclusions upon, they are sufficiently satisfactory to warrant a perseverance and further trial.

The strength of injections or irrigations used have varied, but usually from 1-4 to 1-2 per cent. will be found quite strong enough, and as strong as the patient will bear at the first two sittings.

In acute cases, no dilatation will be necessary, and no complications of the testes need be feared, but in old standing cases, dilatation up to 22 or 24 French is absolutely essential, with subsequent flushing out by a reflow catheter, with a quart or two of 1-2 per cent. hot formalin solution. A final instillation of 2 to 5 gr. to the oz. of nitrate of silver solution by means of a (Guizon) instillator may be necessary.

OPHTHALMOLOGY.

IN CHARGE OF

J. W. STIRLING, M.B. Edin.

Professor of Ophthalmology and Otolaryngology, University of Bishop's College, Ophthalmologist,
Montreal Dispensary.

ELECTRICAL TREATMENT IN EYE DISEASES.

REUSS.—*Wiener Klinische Wochenschrift*, May 14, 1906.

Reuss says the current acts by the to and fro current of the blood, hereby removing morbid products and improving nutrition.

In Episcleritis and Scleritis, R. uses the galvanic current, the indifferent electrode being placed on the forehead or cheek; the other electrode, after cocainizing the eye, being placed on the sclerotic area.

The latter pole, whether anode or kathode, depends on the sensitiveness of the patient, and also whether a weaker or stronger current is desired.

The strength used is generally 1 to 15 M.A., rarely 2 M.A., the duration being one to one and a half minutes.

The result is immediate marked increase of injection, and sometimes a bleb of mucus at the spot of application; there is also sometimes slight pain, which disappears in a few hours.

Ten or twelve sittings in all, one every second day, generally suffice. In the great majority of cases Reuss got a good result.

The faradic current Reuss found to be of much service in relieving pain in iritis and cyclitis, although it had no direct effect on the inflammation.

The same relief is experienced in the pain of acute inflammatory glaucoma.

AMBLYOPIA DURING NURSING.

HEINZEL.—*Beitrage zu Augenheilkund*, xxi., 1895.

Heinzel reports three interesting cases of optic neuritis occurring in mothers nursing their infants.

In all of them optic neuritis was well marked, and resulted only in partial recovery, some atrophy ensuing.

Heinzel thinks the cause was auto-intoxication, due to lactation.

Knies, in his classical work, holds that lactation merely acts as a debilitating factor.

REFLEX OCULAR EFFECTS DUE TO EAR DISEASE.

URBANSCHITSCH.—*Wiener Klinischer Wochenschrift*, January 2, 1896.

A short resume of this very instructive article will not be uninteresting.

1. Nystagmus, generally oscillating, rarely rotary, can arise from irritation of the outer, middle or inner ear, and also of the nerves or centres.

Syringing the ear, especially with cold water, can set it up, also the presence of cerumen, foreign body, insect, polypi suppuration, and finally morbid states of the occipital lobes or thrombi of the sinuses.

The eyes have a tendency to turn toward the side in which the exciter is.

2. Strabismus is a rare aural reflex.

The author mentions a case of convergent strabismus of two years' duration, which almost completely recovered on the cure of the ear disease.

BACTERIOLOGICAL ETIOLOGY OF THE DIFFERENT FORMS OF ACUTE CONJUNCTIVITIS.

MORAN AND BEACH.—*Archives of Ophthalmology*, January, 1896.

This exhaustive article is of interest as giving a fair indication of our present knowledge of the subject.

Taking the various forms of conjunctivitis seriatim, they start as follows:

1. Acute contagious conjunctivitis of the catarrhal type—A small specific bacillus has been found, which was discovered by Koch in Egypt and Weeks of America.

This disease is quite distinct from the simple catarrhal non-infectious conjunctivitis.

2. Gonorrhoeic form—The presence of the gonococcus is the characteristic.

3. Diphtheritic form—True diphtheria bacillus present, and its presence is main diagnostic point to distinguish it from the pseudo membranous form of conjunctivitis. Again it is only in the true form that the anti-diphtheritic serum acts.

3. Paralysis of the superior oblique, following aural supuration, has been reported by Moos.

4. Gelle reports unilateral pupillary disturbance from irritation in the outer and middle ear. Mydriasis (temporary), following operation on ear, aural inflammation, and also from rarefaction or condensation of air in an ear with intact membrana tympani.

FORMALIN IN EYE DISEASES.

GUAITA. *Annali di Ottalmologia di Suagluid*, August, 1895

DAVIDSON MACKENZIE, *British Medical Journal*, Jan. 18, 1896.

Both these authors, and especially MacKenzie Davidson, of Aberdeen, laud the action of this drug as a non-irritant antiseptic for eye surgery.

The hourly instillation of 1-3000 solutions of Schering's Formalin are what Davidson advises.

Guaita urges stronger solutions, 1-1000, and in such strength as a good preservative for the various alkaloids, which it does not precipitate.

In Davidson's cases the action in purulent ulcers, hypopyon, etc., was certainly remarkable.

3. Pseudo membranous conjunctivitis of streptococcic origin occurs mainly in children during decrudescence of measles, scarlet fever, sometimes is associated with impetigo of the face, may give rise to very serious corneal lesions. The secretion contains mainly the streptococcus.

4. Conjunctivitis accompanying inflammatory states of the lachrymal sac, it is very infectious and may be associated with hypopyon; streptococci are ordinarily found here.

5. Conjunctivitis of pneumococcic origin, generally benign type of childhood accompanied with coryza and watery eyes.

Medical Society Proceedings.

MONTREAL MEDICO-CHIRURGICAL SOCIETY.

Stated Meeting, April 17th, 1896.

F. G. FINLEY, M.D., First Vice-President, in the Chair.

ICHTHYOSIS HYSTRIX.

Dr. G. Gordon Campbell showed a photograph of a remarkable case of this disease. The patient, a boy aged seven years, was born in Vermont, and, except for the discomfort caused by the cutaneous lesion, had always had good health. The family history was negative; one sister, three years of age, showed no tendency to xeroderma. The eruption was first noticed, three weeks after birth, as a thickening of the skin of the palms and soles; and since then, although there had been marked improvement at times, the boy had never been entirely free from it. The distribution was accurately symmetrical and the intermediate skin perfectly healthy. The palmar surfaces of the hands from the wrist to the tips of the fingers were covered with dark-green horny masses, half an inch in height, and so thickly set together that it was impossible to close the hand. Less prominent warty growths extended on to the backs of the hands, forming a bracelet around the wrist and covering the knuckles and backs of the fingers. The whole of the feet from the ankles down were covered with similar horny growths, thickest upon the soles, and rendering any movement of the instep or toes impossible, except after softening with some oily application. There were also small patches, about two inches in length and half an inch in width, running vertically at the anterior axillary lines and the groins; broad patches on the extensor surfaces of the knees and elbows; and one surrounding the anus and following the fold between the buttocks. The horny growths in these latter localities were not nearly so prominent. Owing to the apparent increase in the size of the extremities, due to the heaping up of epidermis, the condition had been mistaken for elephantiasis.

FOAMING LIVER.

Dr. J. G. Adami showed specimens of a case.

Dr. C. F. Martin recalled two instances of a condition somewhat similar to that described by Dr. Adami. In one, at a post-mortem which he had seen performed in Vienna, the mucous membrane of the urinary bladder had been almost entirely lifted by the emphysema. The *B. coli communis* was suspected, though no bacteriological examination had been made. In the other, a case of septicaemia from streptococcus infection, occurring in this city, a large portion of the ileum presented the same emphysematous appearance. He thought that these two conditions, although not recognized at the time, were probably due to the same cause.

ADHESIONS AND MALPOSITIONS OF THE OMENTUM.

Dr. J. G. Adami read a paper on this subject.

Dr. H. A. Lafleur asked how Dr. Adami could harmonize with his theory the fact that in typhoid fever, in which perhaps more fre-

quently than in any other abdominal disease death threatened from perforation of the bowel, omental adhesions were so seldom found. He had yet to see a case of typhoid fever with perforation in which such adhesions had formed. In appendicitis omental adhesions were common, and in dysentery adhesions between the coils of the bowel were not infrequent.

Dr. N. D. Gunn asked if when fat was laid down in the omentum there was a corresponding increase in the capillaries; if not, then Dr. Adami's statement concerning the vascularity of adipose tissue was disproved. Also, that the presence of much fat in the omentum would greatly interfere with the elasticity which, according to Dr. Adami, was necessary to the protective function which he suggested.

Dr. F. A. L. Lockhart thought that the paper was of as great interest to the abdominal surgeon as to the pathologist, from the important part played in surgery by the omentum in preventing adhesion of the intestines to the abdominal wall. He referred to a case in which the intestines had become adherent in two places to the line of incision, and through the loop thus formed a coil of intestine had passed, and caused obstruction. This would not have occurred if the omentum had been drawn down at the previous operation. The extreme variations in the size of the omentum referred to by Dr. Adami he had frequently observed. That a long and adherent omentum might complicate diagnosis and operation in abdominal work, the following two cases clearly show. He operated, two years ago, on a patient who had double pus tubes, and, on opening the abdomen, had found that the intestines were covered in by a long omentum, which was adherent to the anterior part of the pelvic brim, and which had to be ligatured and divided in order to get at the diseased tubes. The second case was a dermoid of the right ovary, which was held in the vesico-uterine pouch by the right tube and broad ligament on the one side, and by the omentum, which was adherent to the left side of the tumor and extended to the left pelvic brim, where it was also attached. He had frequently remarked the fact that there was less haemorrhage from an abdominal wound in a fat person than in one who had thin parietes.

Dr. Wesley Mills had long held, and often expressed, the view that the study of physiology should not be confined to those who were physiologists by profession, but that everyone connected with the medical profession should endeavor to do something to throw light upon the function of parts in health as well as in disease. He referred to the scant notice taken of the omentum in text-books and discussed some of the probable uses of the organ. He also pointed out the importance of both the circular and longitudinal muscle supply in arteries as elastic structures that often served a good purpose when the elastic tissue proper had been impaired by disease.

CEREBELLAR ATAXIA.

Dr. N. D. Gunn reported the following case of a boy, aged 12 years, of normal somatic development, sluggish cerebration and psychièc perversions.

Family history was good, and no hereditary or familial diseases could be traced. The doctor was consulted because of inability to control movements of the legs, spasmodic incontinence of urine, and great pain in the head. Besides these there was violence of temper and sexual excitement.

The incoordination began two months after an injury to the head, which perhaps was only incidental. Besides at this time there were diplopia, vertigo, headache and cerebral vomiting, the latter lasting two months.

Examination revealed static ataxia, with inclination of the body to the right side. Speech deliberate and monotonous. Inability to stand without support. Incoordination of arms. Muscular power

good. Muscular irritability increased. Deep reflexes increased. (Patellar greatly exaggerated, and very slight clonus.)

There was no nystagmus, but there was a choroiditis.

The doctor, on the authority of Brissand, considered the presence of exaggerated reflexes enough to exclude spinal ataxia.

The presence of ankle clonus and the disturbances of the higher centres, shown by diplopia, cerebral vomiting, stasis ataxia and zig-zag incoordination, and the absence of nystagmus, made this case conform pretty closely with Marie's group known as "hereditary cerebellar ataxia," though the element of heredity was here absent.

Dr. James Stewart referred to a very similar case, with, however, a history of ataxia preceding the injury. He thought that it was very difficult to separate cerebellar ataxia from Friedreich's ataxia.

Stated Meeting, May 1st, 1896.

A. D. BLACKADER, M.D., President, in the Chair.

EXCISION OF THE MAXILLA WITH THE USE OF AN ARTIFICIAL
PLATE.

Dr. G. E. Armstrong reported this case as follows: Mr. W., aet. 48, was admitted to the Montreal General Hospital on the 5th March, suffering from a rapidly growing sarcoma, situated chiefly in the anterior of the left superior maxilla. There was nothing unusual about the operation of removal of the upper jaw, which was done by the median incision, but I have brought him here this evening to show the plate which Dr. J. S. Ibbotson, the dentist to the Montreal General Hospital, has made for him. You will see, by examining him, that it consists of an upright plate, which restores the form of the cheek, and a horizontal part, which takes the place of the absent hard palate on the affected side. He seems to wear it with comfort, and when it is in place he can eat, drink, and speak very well. It seems to be a decided success.

THE TROPOMETER.

Dr. Buller showed the instrument and demonstrated its use.

PRIMARY CANCER OF THE URINARY BLADDER ASSOCIATED WITH
STONE.

Dr. W. H. Jamieson reported the case, which will appear later.

Dr. J. G. Adami pointed out the very extensive study and attention that Dr. Jamieson had given to this case. It was worth so much study, inasmuch as primary cancer of the bladder was so very rare, more especially when associated with stone. He recalled a case that he had brought before the Society in 1893, in which also he was dealing with cancer of the bladder; but in this case the cancer was primary in the prostate. In that also there was great difficulty in following out the cancerous manifestation, from the fact that the growth in the bladder-wall became so cellular as to be scarcely distinguishable from a round-celled sarcoma.

CYANIDE OF POTASSIUM POISONING.

Dr. Wyatt Johnston showed the organs from a case, and described the methods used in detecting the toxic agent.

Dr. Adami remarked that Dr. Johnston's case, with his demonstration of the so easily recognizable odor of potassium cyanide so

many days after death of the individual, recalled vividly to his mind his experiments upon dogs, undertaken in connection with the Hooper case, in which he found that the cyanide could readily be detected eleven days after death. At the same time he pointed out how peculiarly volatile is this poison, for within a few seconds, in fact, almost immediately after Dr. Wyatt Johnston had opened the bottles containing his specimens, he and those around him had no difficulty in recognizing the well-known odor. But he fully felt the force of what Dr. Johnston had said, namely, that those unaccustomed to the autopsy smell might easily, at a postmortem examination, be overwhelmed by that smell, and fail to recognize or analyse the conjoined odor of potassium cyanide.

Dr. C. G. L. Wolf said that the tests for the detection of hydrocyanic acid at the postmortem table were highly sensitive and at the same time easy of performance. There were two, the potassium sulphocyanide test, and the obtaining of Prussian blue. In the first test one allowed the gas escaping from the stomach on opening to impinge against a paper moistened with yellow ammonium sulphide. On driving off the excess of sulphide by gentle heat over a flame, and touching the spot with a dilute solution of ferric chloride, the splendid blood-red color of ferric sulphocyanide appeared.

In the second a filter paper moistened with potassium hydrate solution was exposed to the gas, and then moistened with a solution of ferrous sulphate, by which one obtained potassium ferrocyanide. It was then treated with dilute hydrochloric acid and a solution of ferric chloride, when, if hydrocyanic acid was present, Prussian blue was formed.

It was interesting to note that in the sample of powder which had been examined, and which was probably part of the potassium cyanide used, no trace of hydrocyanic acid was found, as by the action of the air it had been changed to potassium carbonate.

The sample used in this case had been an ordinary impure cyanide, containing originally a large quantity of sodium cyanide.

FRACTURE OF THE SKULL.

Dr. Wyatt Johnston showed a skull sent to him by Dr. Austin, of Sherbrooke, in which a fracture had been caused by a blow of the fist on the side of the head. Death occurred about twenty-four hours later from meningeal haemorrhage. The case will be reported in full.

Dr. A. L. deMartigny referred to a similar case which had come under his notice. A beer drinker had been struck on the head with a bottle and fell down, but a few minutes later walked home, saying he was all right. Four hours afterwards he went to sleep and never woke again, dying within twenty-four hours after the injury. The autopsy showed the same sort of fracture of the skull as seen in Dr. Austin's case.

THE BRAIN AND SKULL OF A CRIMINAL.

Dr. Wyatt Johnston showed the skull and brain of a criminal from Longue Pointe Asylum, and Dr. George Villeneuve gave the clinical history of the case, a report of which will be published later.

TUBAL PREGNANCY.

Dr. A. Laphorn Smith read the following report:

The following notes of the case are taken from the records of the Samaritan Hospital for women, as reported by Dr. Fiske, the Registrar. Mrs. R., age 38, was admitted on the 3rd of March, 1896, complaining of pain over the abdomen and in the back and of metrorrhagia, both of which had lasted five weeks.

Previous history, never been very strong; has been married nine years; had no children, but has had five abortions at about seven weeks of pregnancy, the last one in January, 1895, from which she made a good recovery. Nearly nine years ago, Dr. William Gardner removed a polypus from her womb. Three years ago she was curetted by Dr. Laphorn Smith who wished to perform abdominal section for disease of the ovaries and tubes and retroversion with fixation. This latter she declined and was treated locally for a year, at the end of which time the condition of the pelvic organs had considerably improved, the uterus becoming fairly movable and the ovaries ceasing to cause much pain. She was then treated for a year with pessaries which kept her comfortable.

History of present illness—Had her period in last week of December, after which she saw nothing until the last week of January, when she began to flow and has continued doing so on and off for five weeks. About a week before admission she was taken with inflammation of the bowels and Dr. Aylen was called in. As she was losing a good deal and suffering a great deal of pain and was moreover seriously ill with pelvic peritonitis, he advised her to enter the hospital for prompt operative treatment.

Present condition—Patient very emaciated, anxious expression, abdomen tender and extended; nausea and vomiting; pulse, 130; tongue clean, appetite poor. Heart, lungs, liver and spleen normal. A vaginal examination shows the uterus to be retroverted and fixed, with a tumor the size of an orange in the left ovarian region. Right tube enlarged to the size of a sausage and tender.

A diagnosis of tubal pregnancy was made, being based upon the following symptoms: First, she believed herself pregnant since her December period, because she had morning sickness, pain in the breasts and fulness of the abdomen. Second, I was aware from my previous knowledge of her case that she had diseased tubes and that it would be difficult for the ovum to reach the uterus. Third, that a mass could be felt in the vaginal lateral cul-de-sac, which was causing pelvic peritonitis, and which could hardly be anything else than a pus tube or a ruptured tubal pregnancy. Fourth, the continuous haemorrhage, coupled with the previous symptoms.

Abdominal section was performed on March 10. On entering the peritoneal cavity, the pelvis was found pretty full of black clotted blood, of which about a cupful was removed, after which the left tube and ovary forming a mass the size of an orange was detached with some difficulty from its adhesions. While bringing it out of the incision the sac ruptured and a perfectly formed foetus, about three inches long, escaped with the gush of fluid and hung by the cord. After removing this tube the other tube and ovary were detached with some difficulty, and removed. The latter tube was found to be closed at both ends and full of clear fluid. About twenty minutes were spent in cleaning out the clots which were firmly attached to the omentum and intestines, and after sewing the uterus to the abdominal wall, the latter was closed with silk worm gut. The patient made a smooth recovery and left the Samaritan at the end of four weeks.

THE CANADA MEDICAL RECORD

PUBLISHED MONTHLY.

*Subscription Price, \$1.00 per annum in advance. Single
Copies, 10 cents.*

Make all Cheques or P.O. Money Orders for subscription, or advertising, payable to JOHN LOVELL & SON, 23 St. Nicholas Street, Montreal, to whom all business communications should be addressed.

All communications for the Journal, books for review, and exchanges, should be addressed to the Editor, Box 2174, Post Office, Montreal.

Editorial.

THE REPORT OF THE AMERICAN PEDIATRIC SOCIETY'S COLLECTIVE INVESTIGATION INTO THE USE OF ANTITOXIN IN THE TREATMENT OF DIPHTHERIA IN PRIVATE PRACTICE.

This report appears as a supplement in *Pediatrics* for July, and was read at the annual meeting of the Society held in Montreal in May last. In order to ascertain the results of the use of this new remedy in private practice, a circular letter was issued in April, and distributed widely among members of the profession in the United States and Canada.

“The circular letter asked for information upon the following points: Age; previous condition; duration of disease when the first injection was made; the number of injections; the extent of the membrane—tonsils, nose, pharynx and larynx; whether or not the diagnosis was confirmed by culture; complications or sequelæ, viz., pneumonia, nephritis, sepsis, paralysis; the result; and remarks, including other treatment employed, the preparation of antitoxin used, and general impression drawn from the cases.

“Reports were returned from 615 different physicians, with 3,628 cases. Of these, 244 cases have been excluded from the statistical tables. These were cases in which the disease was said to have been confined to the tonsils and the diagnosis not confirmed by culture, and therefore open to question. A few cases were reported in such doubtful terms as to leave the diagnosis uncertain. The figures herewith given are therefore made up from cases in which the diagnosis was con-

firmed by culture (embracing about two-thirds of the whole number) and others giving pretty clear evidence of diphtheria, either in the fact that they had been contracted from other undoubted cases, or where the membrane had invaded other parts besides the tonsils, such as the palate, pharynx, nose, or larynx. It is possible that among the latter we have admitted some streptococcus cases, but the number of such is certainly very small.

"There are left then of these cases, 3,384 for analysis. These have been observed in the practice of 613 physicians from 114 cities and towns, in fifteen different States, the District of Columbia and the Dominion of Canada.

"In the general opinion of the reporters, the type of diphtheria during the past year has not differed materially from that seen in previous years, so that it has been average diphtheria which has been treated. If there is any difference in the severity of the cases included in these reports from those of average diphtheria, it is that they embrace a rather larger proportion of very bad cases than are usually brought together in statistics. The cases, according to the extent of the membrane, are grouped as follows: In 593 the tonsils alone were involved. In 1,397 the tonsils and pharynx, the tonsils and nose, the pharynx and nose, or all three were affected. In 1,256 cases the larynx was affected either alone or with the tonsils, pharynx and nose, one or all. In many instances the statement is made by the reporters that the serum was resorted to only when the condition of the patient had become alarmingly worse under ordinary methods of treatment. This is shown by the unusually large number of cases in which injections were made late in the disease. Again, many physicians, being as yet in some dread of the unfavorable effects of the serum, have hesitated to use it in mild cases, and have given it only in those which from the onset gave evidence of being of a severe type. The expense of the serum has unquestionably deterred many from employing it in mild cases. These facts, it is believed, will more than outweigh the bias of any antitoxin enthusiasts by including many mild cases which would have recovered under any treatment: It will, however, be remembered that tonsillar cases not confirmed by culture have not been included."

In addition, 942 reported cases were, through the courtesy of Dr. H. M. Biggs of New York, placed at the disposal of the Committee, most of them injected by the corps of inspectors of the New York Health Board, in the tenement houses of New York; 50 per cent. of these cases were of a more than ordinary severe type. Through Dr. Biggs also 1,468 cases treated at their homes in Chicago were reported.

The grand total gives 5,794 cases with 713 death, or a mortality of 12.3 per cent., including every case returned; but the reports show that 218 cases were moribund at the time of injection, or died within twenty-four hours of the first injection. Should these be excluded there would remain 5,576 cases (in which the serum may be said to have had a chance), with a mortality of 8.8 per cent.

Of the 4,120 cases injected during the first three days there were 303 deaths—a mortality of 7.3 per cent., including every case returned. If from these we deduct the cases which were moribund at the time of injection, or which died within twenty-four hours, we have 4,013 cases, with a mortality of 4.8 per cent. Behring's original claim, that if cases were injected on the first or second day the mortality would not be 5 per cent., is more than substantiated by these figures. The good results obtained in third-day injections were a great surprise to your committee. But after three days have passed the mortality rises rapidly, and does not differ materially from ordinary diphtheria statistics. Our figures emphasize the statement so often made, that relatively little benefit is seen from antitoxin after three days; however, it must be said that striking improvement has in some cases been seen even when the serum has been injected as late as the fifth or sixth day. The duration of the disease, therefore, is no contra-indication to its use.

A careful analysis of the 450 fatal cases is given; among the many causes of death given, the chief are seen to be sepsis, cardiac paralysis, broncho-pneumonia and laryngeal diphtheria without operation. The following summary presents the chief points of interest in the report, and none is so striking and convincing as to the beneficial effects of antitoxin than the unparalleled success in laryngeal diphtheria.

SUMMARY.

(1) The report includes returns from 615 physicians. Of this number more than 600 have pronounced themselves as strongly in favor of the serum treatment, the great majority being enthusiastic in its advocacy.

(2) The cases included have been drawn for localities widely separated from each other, so that any peculiarity of local conditions to which might be ascribed the favorable reports must be excluded.

(3) The report includes the record of every case returned except those in which the evidence of diphtheria was clearly questionable. It will be noted that doubtful cases which recovered have been excluded, while doubtful cases which were fatal have been included.

(4) No new cases of sudden death immediately after injection have been returned.

(5) The number of cases injected reasonably early in which the serum appeared not to influence the progress of the disease was but nineteen, these being made up of nine cases of somewhat doubtful diagnosis; for cases of diphtheria complicating muscles, and three malignant cases in which the progress was so rapid that the cases had passed beyond any reasonable prospect of recovery before the serum was used. In two of these the serum was of uncertain strength and of doubtful value.

(6) The number of cases in which the patients appeared to have been made worse by serum were three, and among these there is only one new case in which the result may fairly be attributed to the injection.

(7) The general mortality in the 5,794 cases reported was 12.3 per cent.; excluding the cases moribund at the time of injection or dying within twenty-four hours, it was 8.8 per cent.

(8) The most striking improvement was seen in the cases injected during the first three days. Of 4,120 such cases the mortality was 7.3 per cent., excluding cases moribund at the time of injection or dying within twenty-four hours, it was 4.8 per cent.

(9) The mortality of 1,448 cases injected on or after the fourth day was 27 per cent.

(10) The most convincing argument, and, to the minds of the Committee, an absolutely unanswerable one, in favor of serum therapy is found in the results obtained in the 1,256 laryngeal cases (membranous croup). In one-half of these recovery took place without operation, in a large proportion of which the symptoms of stenosis were severe. Of the 533 cases in which intubation was performed, the mortality was 25.9 per cent., or less than half as great as has ever been reported by any other method of treatment.

(11) The proportion of cases of broncho-pneumonia—5.9 per cent.—is very small and in striking contrast to results published from hospital sources.

(12) As against the two or three instances in which the serum is believed to have acted unfavorably upon the heart might be cited a large number in which there was a distinct improvement in the heart's action after the serum was injected.

(13) There is very little, if any, evidence to show that nephritis was caused in any case by the injection of serum. The number of cases of genuine nephritis is remarkably small, the deaths from that source numbering but fifteen.

(14) The effect of the serum on the nervous system is less marked than upon any other part of the body; paralytic

sequelæ being recorded in 9.7 per cent. of the cases, the reports going to show that the protection afforded by the serum is not great unless injections are made very early.

THE ACTION OF THE SOCIETY UPON THE REPORT.

At the close of its presentation, the Society voted to accept the report of the Committee, and after a full discussion it was decided to embody its conclusions in the following resolutions :

(1) *Dosage.* For a child over two years old, the dosage of antitoxin should be in all laryngeal cases with stenosis, and in all other severe cases, 1,500 to 2,000 units for the first injection, to be repeated in from eighteen to twenty-four hours if there is no improvement; a third dose after a similar interval if necessary. For severe cases in children under two years, and for mild cases over that age, the initial dose should be 1,000 units, to be repeated as above if necessary; a second dose is not usually required. The dosage should always be estimated in antitoxin units and not of the amount of serum.

(2) *Quality of Antitoxin.* The most concentrated strength of an absolutely reliable preparation.

(3) *Time of Administration.* Antitoxin should be administered as early as possible on a clinical diagnosis, not waiting for a bacteriological culture. However late the first observation is made, an injection should be given unless the progress of the case is favorable and satisfactory.

The Committee was appointed to continue its work for another year, and was requested to issue another circular asking for the further co-operation of the profession, the circular to be sent out as soon as possible in order that physicians may record their cases as they occur through the coming year.

NEW YORK POST-GRADUATE MEDICAL SCHOOL AND HOSPITAL.

The fifteenth Annual Announcement of the New York Post-Graduate Medical School and Hospital has just been issued. Five hundred and forty-two physicians from all over this Continent have attended the course at the Institution during the past year. More than one thousand operations were performed in the Hospital, which is one of the largest in the City, containing special wards for babies and children, while nearly twenty thousand patients were treated in the out-door department. Recent discoveries have revolutionized medical and surgical methods, and a man whose medical

education ended fifteen years ago is not a physician or surgeon within the present meaning of the term. Post-graduate medical instruction is for the purpose of furnishing to these graduates in medicine a means of refreshing their knowledge. It supplies them with the opportunity of coming in direct contact with disease by means of special courses in all the departments of medicine.

AMERICAN DERMATOLOGICAL ASSOCIATION.

The meeting will be held at the Hot Springs of Virginia, September, 8th, 9th and 10th, 1896.

We learn from the Secretary, Dr. Chas. W. Allen, 126 Sixteenth street, New York, that everything is being done to make the meeting a success, and that a number of papers on interesting subjects have been already promised.

Dr. White will open a general discussion on the subject, "What effects do diet and alcohol have upon the causation and course of the Eczematous Affections and Psoriasis."

BY-LAW TO AMEND BY-LAW NO. 105 CONCERNING HEALTH.

Passed 18th May, 1896.

At the adjourned monthly meeting of the Council of the City of Montreal, held in the City Hall, this eighteenth day of May, one thousand eight hundred and ninety-six, after the observance of the formalities prescribed in and by the act of incorporation of the said City; at which meeting not less than two-thirds of the members of the said Council are present, viz.: His Worship the acting Mayor, Alderman Grothé, Aldermen Préfontaine, Lefebvre, Stevenson, Costigan, Marsolais, Prévost, Penny, Prénoveau, Ouimet, Brunet, Savignac, McBride, Reneault, Turner, Dupré, Connaughton, Dupuis, Kinsella, Charpentier, Wilson.

It is ordained and enacted by the said Council as follows:

Sec. 1.—The By-Law No. 105 is amended by replacing sections 12, 13, 14, 15 of said By-Law by the following:—

"Sec. 12.—No person shall dig or open any grave or cause any grave to be dug or opened in any burying ground, cemetery, church or church yard, or in any other part or place

in the said city; or shall inter or deposit, or cause or procure to be interred or deposited in any such grave, or in any vault or tomb, any dead body, within the said city; provided, however, that nothing herein contained shall prevent the interment in Roman Catholic churches in the said city, of the bodies of the priests and nuns of the Roman Catholic Church.

"Sec. 13.—The Superintendent of every cemetery in the adjoining municipalities shall make and deliver to the said Board of Health, regular weekly returns of all persons buried in such cemetery; and the said returns shall be according to the following form: name and surname, date of death, sex, social condition, age, place of death, residence (street, number, ward), occupation, nationality, cause of death, name of the certifying physician.

"Sec. 14.—Within twenty-four hours after the death of any person within the limits of the City of Montreal, a certificate of death according to the following form, signed by a licensed physician, shall be deposited in the Health Department:—

1 Date of Death.....	The....day of the month of....189
2 Name.....	}
3 Age.....	} (3).....; (4).....
4 Sex.....	} years months days Sex
5 Civil condition.....	} (5).....; (6)*.....
6 Occupation*.....	} Married, widowed or single Occupation
7 How long resident in City.....	} 7).....; (8).....
8 Birth-place.....	} Number of years Country Parish
9 Residence.....	} No..... Street
10 Place of Death.....	} No..... Street
11 Father's Name and Birthplace..	}
12 Mother's Name and Birthplace..	}

13 I, the undersigned, do hereby certify that, to the best of my knowledge and belief, the information given above is true; that I attended the deceased from.....to..... and that the cause of death was as follows:

{ CAUSE of DEATH }	Immediate (or direct).....
 duration..... years..... months..... days
	Primary (or remote).....
 duration..... years..... months..... days

14 Signature of the Medical Attendant..... M.D.
 Montreal.....189

“(1).—In the absence of a medical certificate as aforesaid, when the case is not one properly coming under the jurisdiction of the Coroner, the Medical Health Officer or his duly authorized deputy shall make such enquiry or inquest as may be necessary to establish, so far as possible, the cause of death.

“(2).—It shall be unlawful for any Superintendent or keeper of a cemetery, or for the persons enjoying the privilege mentioned in section 12, to inter or permit to be interred or to deposit in a vault the body of any deceased person without a certificate signed by the Medical Health Officer declaring that the required death certificate has been deposited in the Health Department.

“(3).—No dead human body shall be brought into the city without a permit from the Health Department.

“(4).—It shall be unlawful to remove a dead human body from the place of death to any other part of the city of Montreal or out of the said city, without a special permit from the Medical Health Officer, unless in the case of an inquest authorized by the Coroner.

“Sec. 15—The Board of Health is hereby empowered to provide such other means of obtaining correct and reliable statements or information in reference to the mortality and its causes in the said city as it may from time to time deem necessary.”

Sec. 2.—Any person violating or contravening any of the provisions of the present by-law, for which a penalty is not already hereinbefore provided, shall be liable to fine, and in default of immediate payment of the said fine and costs, to an imprisonment to be fixed by the Recorder's Court, at its discretion; and any person who shall violate the present by-law shall be liable to the penalty mentioned in this section for each and every day that such violation or contravention shall last, which shall be held to be a distinct and separate offence, for each and every day as aforesaid; but such fine shall not exceed forty dollars for each and every offence as aforesaid, and the imprisonment shall not be for a longer period than two calendar months also for each and every offence as aforesaid; the said imprisonment, however, to cease at any time before the expiration of the term fixed by the said Recorder's Court, upon payment of the said fine and costs.

RELATIONS OF MEDICAL EXAMINING BOARDS TO THE STATE, TO THE SCHOOLS AND TO EACH OTHER.

DR. WILLIAM WARREN POTTER, of Buffalo, president of the National Confederation of State Medical Examining and

Licensing Boards, chose this title as the subject of his annual address at the sixth conference of this body held at Atlanta, May 4, 1896.

He said there were three conditions in medical educational reform on which all progressive physicians could agree, namely : first, there must be a better standard of preliminaries for entrance to the study of medicine ; second, that four years is little time enough for medical collegiate training ; and, third, that separate examination by a State board of examiners, none of whom is a teacher in a medical college, is a prerequisite for license to practise medicine. It is understood that such examination can be accorded only to a candidate presenting a diploma from a legally registered school.

He further stated that a high school course ought to represent a minimum of academic acquirements, and that an entrance examination should be provided by the State for those not presenting a high school diploma or its equivalent.

He did not favor a National Examining Board as has been proposed, but instead thought all the States should be encouraged to establish a common minimum level of requirements, below which a physician should not be permitted to practise ; then a State license would possess equal value in all the States.

In regard to reciprocity of licensure, Dr. Potter thought it pertinent for those States having equal standards in all respects to agree to this exchange of inter-State courtesy of official indorsement of licenses, but that other questions were of greater moment just now than reciprocity. Until all standards were equalized and the lowest carried up to the level of the highest, reciprocity would be manifestly unfair.

He urged that the States employ in their medical public offices none but licensed physicians. This, he affirmed, would tend to stimulate a pride in the State license, and strengthen the hands of the boards.

He denied that there was antagonism between the schools and the boards, as had been asserted. He said that both were working on parallel lines to accomplish the same purpose, that there could not possibly be any conflict between them, and that they were not enemies but friends.

The medical journals of standing from one end of the

country to the other, he affirmed, were rendering great aid to the cause of reform in medical education, and the times were propitious.

He concluded by urging united effort by the friends of medical education, saying that "the reproach cast upon us through a refusal to recognize our diplomas in Europe cannot be overcome until we rise in our might and wage a relentless war against ignorance, that shall not cease until an American State license is recognized as a passport to good professional standing in every civilized country in the world."

RUSH MEDICAL COLLEGE, CHICAGO.

Prof. Edwin Klebs has been elected to the chair of Pathology in Rush Medical College.

This college has recently been recognized by the Examining Board of the Royal College of Physicians and the Royal College of Surgeons of London, England. This recognition entitles its alumni to all the privileges accorded to the graduates of other institutions recognized by that board.

THE JENNER CENTENNIAL.

The Jenner centenary number of the *British Medical Journal* is a very creditable effort on behalf of high class medical literature. Nearly the whole number is devoted to the life and work and writings of Edward Jenner, the discoverer of vaccination, it being one hundred years on the 14th May, 1896, since Jenner performed his first vaccination. His early history is given, and incidents of his association with John Hunter, and his family life at Berkeley; the honors and diplomas conferred on him, and grants from the House of Commons. Excellent cuts of a number of celebrated portraits are given, and one of the old vicarage at Berkeley, where, on the 17th of May, 1749, he was born.

A history of smallpox before Jenner's time is given and of smallpox inoculation, and then that of a century of vaccination. The relation of cowpox and smallpox is discussed. The most striking feature of the number is the reproduction in colors of Kirkland's colored drawings, showing, true to nature in every detail, the progress of vaccination and variolation day by day from the second to the sixteenth day; these

chromographs are worth more than one annual subscription to the journal, and reflect credit on the skill which has produced such superb reproductions and the enterprise of the editorial directorate.

Several interesting papers follow on such subjects as the Bacteriology of variola and vaccinia, animal vaccination, etc. This number of the *British Medical Journal* is a fitting tribute, dedicated to the memory of one who is the recognized herald of a method of combating disease, which in various modifications is now only after a century has passed receiving proper appreciation; and clear outlines of hopeful methods are looming out from the dim uncertainty of a century of groping.

The following circular has been distributed among the practitioners of the Province by the Board of Health of the Province of Quebec:—

Montreal, May 6th, 1896.

Sir,—I have the honor to communicate to you the following extract from the minutes of our meeting of the 29th April last.

“Being informed that a great number of cases of croup escape the control of sanitary authorities, and that it is mostly due to the public being generally under the impression that croup is not a contagious disease, the Board of Health of the Province of Quebec authorizes the publication of the following definitions:

“Croup is nothing else than diphtheria attacking more especially the respiratory tract (larynx). The expression laryngeal diphtheria designates better than the term croup the nature of the disease and should be preferably employed.

“Distinction should always be made between croup or laryngeal diphtheria, which is contagious, and false croup or laryngismus stridulus which is not contagious. There are no membranes in laryngismus stridulus or false-croup. The cough of croupal form which characterizes this disease is due only to a nervous element.

We hope, Sir, that each time you will have occasion to do so, you will see that the measures prescribed against diphtheria be equally applied against croup, both being one and the same disease.

I have the honor to be

Your obedient servant,

ELZEAR PELLETIER,

Secretary.

THE CANADIAN MEDICAL ASSOCIATION.

This Association will hold its next meeting in St. George's Sunday-school room, No. 15 Stanley street, Montreal, on August 26th, 27th and 28th next.

The local committee are putting forth every effort to make the meeting a success. There will be "Clinics" at 12.30 each day at the various hospitals, General, Hotel Dieu, and Royal Victoria. The "Clinics" will be followed by the reading of papers in the theatre of the hospitals, and in order that time may be saved, light lunches will be served. On two afternoons, Wednesday and Thursday, there will be short excursions, and on Thursday, Aug. 27th, at 7.45 p.m., the Association dinner will be held.

Special arrangements have been made with the Street Car Company, so that no time will be lost in going to the hospitals from the place of meeting.

This promises to be the largest meeting of the Association ever held.

The Inter-Provincial Registration Committee, about which so much interest centres, is booked to meet on August 26th at 10 a.m.

The regular sessions of the Association commence at 12.30 p.m. at the General Hospital.

PAPERS FOR THE CANADIAN MEDICAL ASSOCIATION.

President's Address..	Jas. Thorburn, Toronto.
Address in Bacteriology..	J. G. Adami, Montreal.
Address in Medicine..	Geo. Wilkins, Montreal.
Address in Surgery..	John Stewart, Halifax.
Address in Midwifery..	J. F. W. Ross, Toronto.
*****	J. D. Thorburn, Toronto.
Hemorrhagic Pancreatitis..	A. McPhedran, Toronto.
*****	Wm. Osler, Baltimore.
100 cases of Retroversion of the Uterus, treated by Ventro-fixation and Alexander's operation, with results..	A. Laphorn Smith, Montreal.
The influence of Mitral Lesions on Pulmonary Tuberculosis..	J. E. Graham, Toronto.
A note on Amputation at the hip joint in Tubercular Disease..	A. Primrose, Toronto.
Tetany following Scarlatina..	J. B. McConnell, Montreal.
The Foot, its Architecture and Clothing..	B. E. McKenzie, Toronto.
*****	H. S. Birkett, Montreal.
Ophthalmia Neonatorum..	R. Ferguson, London.
Observations on the Relation between Leucaemia and Pseudo-leucaemia..	C. F. Martin and G. H. Matthewson, Montreal.
Etiology and Treatment of Acne Vulgaris..	A. R. Robinson, New York.
Thyroidectomy..	D. Marciel, St. Eustache, Que.
Some Observations on the Heredity of Carcinoma..	T. T. S. Harrison, Selkirk.
Some Applications of Entomology in Legal Medicine..	Wyatt Johnston and Geo. Villeneuve, Montreal.

Physiological Demonstrations of Interest to
 Medical Men. Wesley Mills, Montreal.
 The Theory of the Eliminative Treatment of
 Typhoid Fever. W. B. Thistle, Toronto.
 Oral Surgery. G. Lenox Curtis, New York.
 * * * * * H. N. Vineberg, New York.
 Clergyman's Sore Throat (?) J. Price Brown, Toronto.

Fare and a third rates have been secured by rail and by R. & O. boats.

For further particulars see provisional programme, or address F. N. G. Starr, 471 College street, Toronto.

PROGRAMME OF PROCEEDINGS.

Wednesday, August 26th.

10 a.m.—Inter-provincial Registration Committee meeting in St. George's Church school-rooms, 15 Stanley street.

12.30 p.m.—Montreal General Hospital, Clinical Work, followed by the general work of the Association in the operating theatre of the hospital.

4 p.m.—Short excursion.

8.30 p.m.—President's Address in St. George's school-rooms, 15 Stanley street, followed by continuation of papers adjourned from the afternoon meeting.

Thursday, August 27th.

10 a.m.—Meeting in St. George's school-rooms, Reading of Papers.

12.30 p.m.—Hotel Dieu Hospital, Clinical Work, followed by continuation of papers in the operating theatre of the hospital, adjourned from morning session.

4 p.m.—Short excursion.

7.45 p.m., sharp.—Dinner of the Association.

Friday, August 28th.

10 a.m.—Meeting in St. George's school-rooms, Reading of Papers.

12.30 a.m.—Royal Victoria Hospital, Clinical Work, followed by continuation of papers in the lecture room of the hospital, adjourned from the morning.

Light lunches will be provided for the members at the hospitals, and special electric cars will be furnished to and from the hospitals.

A SYMPOSIUM ON OBSTETRIC.

Our contemporary, *La Clinique*, has issued, in its June number, a "special" on obstetrics, a symposium by the gentlemen who, ambitious for the chair of Obstetrics in Laval University, submitted their theses for adjudication. Dr. DeCotret was successful, his paper being a clear, vigorous,

and, withal, tactful essay on "The Treatment of Puerperal Eclampsia." Bearing in mind the edict of the Holy See, that it is unlawful to save the mother at the expense of the child, or, what amounts to the same thing, that it is unlawful to destroy the foetus in utero, that the mother may live, where there is a possibility of both being saved, it is easy to understand Dr. DeCotret when he says, in reference to evacuating the uterus for the convulsions: "Why, for a benefit, which is at most problematical, should we be guilty of foeticide, and expose the mother to the danger of death by inducing an abortion, a thing always dangerous of itself? Are we justified in exposing her to a real danger to save her from a theoretical one?"

With reference to his treatment, he gives reports of cases where (1) bleeding had been resorted to with good results, but in some cases protracted convalescence, due to the anaemia; (2) where the internal bleeders so-called, *veratrum viridi* and *pilocarpine*, had been used. Of *veratrum viridi*, he speaks favorably, quoting Jewett, and Percy, and Reamy (of Cincinnati); of *pilocarpine*, he exonerates it from the charge that it evacuates the uterus, saying that it only regulates and emphasizes uterine contraction when once commenced; (3) the anti-spasmodics, chloral and chloroform; (4) inhalations of oxygen; (5) compression of the carotids (to replace bleeding); (6) subcutaneous injections of normal saline solutions in cases where the urine was scanty and high-colored; (7) narcotics, opium and morphine. In his conclusions, he advocates bleeding (8 to 10 oz.) first, if patient can stand it; if not, the remedies in the order mentioned above.

On the whole Dr. DeCotret's paper is very readable, and presented in an agreeable manner. We may not agree with all his conclusions, neither may we find anything startling or new; but it certainly presents his subject in a well-condensed form, and Laval did well to choose him.

Of the other papers, much as we should like to quote extracts, it is sufficient to say that they all give evidence of careful reading and painstaking preparation.

Dr. Montpetit, in "Puerperal Septicaemia," regrets that he has no cases to report on the use of the anti-streptococcic serum (Marmorek) in this condition. Had the Doctor's paper been delayed a month, he might have had the advantage of a case in the Women's Hospital (in connection with Bishop's College here) successfully treated with 10 c.c. injections of Marmorek's original serum, and which we hope to have reported by Drs. Reddy and Richer at an early date. In speaking of the clinical features of septicaemia, the Doctor says: "—The lochia dark and foetid" It is to be regretted that he did not also add a note anent those cases where there was total absence of any odor, but of none the less virulent type. Dr. Ouimet gives a readable paper on the treatment of haemorrhage in placenta praevia, where

the foetus is dead, advocating rupture of the membranes and tamponading, but adding little or nothing that is new on the subject; and the same may be said of Dr. Larin's paper on the treatment of the parturient during and after delivery at term.

In speaking of the separation of the placenta, we must certainly take objection to the statement italicized (the italics are ours): "To the outsider the camp is divided—one party temporizing; the other active. Dubois used to say, 'When you have waited 10 to 15 minutes, make traction on the cord.'" On the other hand, Pajot * * * who would not admit that nature was thus bound down arbitrarily to a question of minutes, said: "Do not employ traction until the placenta is detached;" and Tarnier added: "Detached and lying on the interior segment of the uterus."—*Such, in a word, is the practice even up to the present.*

Crede's method is recommended only in cases of velamentous insertion of the cord, and traction of the cord is only given up because "L'Union fait la force," and a velamentous insertion of the cord is more likely to tear the membrane and edge of placenta, and so favor either bleeding, or the leaving behind of a piece of placenta.

On the whole, the papers are worth reading, but it will hardly repay the busy practitioner in search of anything new. Dr. DeCotret's paper is worthy of note, as much for its style and clearness as its subject matter, and M. Le Redacteur de la *Clinique* is to be congratulated on such a creditable turnout and the fewness of typographical errors:

Book Reviews.

Nouvelles Formules D'Oculistique (1889-1895), par le Dr. de Bourgon, Lauréat de la Faculté de Médecine de Paris, etc. Paris, Société d'Éditions Scientifiques, Place de l'École de Médecine.

This little work of Dr. de Bourgon's, we must speak of in the highest terms.

It deals with the various drugs used in eye diseases, their preparation, combinations and indications.

The information is drawn from every source and very well classified, there being both a therapeutical and pharmacological index.

The work must necessarily be of most value to the specialist, but nevertheless it will be useful as well, to the general practitioner.

The Newer Remedies—Coblentz: second edition, revised and enlarged, 1896. D. O. Haynes & Co., New York; price 50 cents.

To attempt to keep track of even the more important of the newer remedies, which the synthetic chemist, from the secrecy and seclusion of his laboratory seems to delight in springing on a long-suffering and unsuspecting generation

of busy practitioners, were a herculean task; nor in most cases would the lapse of memory work injury, rather otherwise. Yet there are many synthetical remedies which have proved their worth by their staying qualities—they wear well. Again, when reading of some new compound which an enthusiastic experimentalist has created and given birth, duly christened with a sixteen-syllabled name and dubbed with a conveniently short nick-name, for which some equally enthusiastic godfather has stood sponsor, clothed it with an imposing mantle of statistics (all favorable), and launched it on a career of vicissitudes ending too often in premature death, it is a certain amount of satisfaction to trace its lineage and descent, to find its exact standing in the pharmaceutical “De-bret,” and promptly forget it; and Coblentz has gathered together the odds and ends, the “scattered remnant,” the rag-tag and bob-tail of these preparations; the waifs of which all that is known is that “they are of a proprietary nature.” and their composition “given upon the authority of various published analyses,” as well as the aristocrats of the series, the drugs which mix in good society, and appear on the prescription pads of the “specialist”—and the faddist. When one remembers that Coblentz has classified considerably over a thousand of these remedies, it will be seen that the work has not been a light one, and a reference to the little book will show that it has been well and conscientiously done, thoroughly up to date, most complete, with name, synonym, method of preparation, chemical formula, tests, hints on handling, and very briefly, its chief therapeutic uses, and doses (maximum and minimum adult), in grms. and approximate apothecaries’ measures. It is a little work which does not pretend to deal extensively with the physiological action, but as a handy reference work, arranged alphabetically, it will be found invaluable, and will save many an hour’s fruitless search through files of old periodicals.

A Manual of Anatomy, by Irving S. Haynes, Ph.B., M.D., Adjunct Professor and Demonstrator of Anatomy in the Medical Department of the New York University. Visiting Surgeon to the Harlem Hospital, etc., etc. Published by W. B. Saunders, Philadelphia.

This manual contains 134 half-tone illustrations from photographs of the cadaver, showing various dissections, and 34 diagrams. Some of the photographs show up the dissection sufficiently well to be of material advantage to the dissector, but many do not show the fine points clearly enough to recommend this method of illustration. Dr. Haynes has employed the camera to aid in illustrating his work much more freely than former writers, and deserves credit for his effort. Photography is more accurate than sketching, but sketching gives a clearer, plainer portrait of the average dis-

section taken from a number of specimens, and is easier for the student to comprehend. The diagrams and text are good. The descriptions are clear and to the point, but not so complete in detail as most recent works. It is a very useful work for the graduate to review any forgotten point.

PUBLISHERS DEPARTMENT.

THERAPEUTISCHE MONATSHEFTE.

Berlin, June, 1896.

A NEW APERIENT WATER.

BY GEHEIMRAH PROFESSOR OSCAR LIEBFEICH, M.D.

(Regius Professor of Chemistry, University of Berlin)

It has oftentimes been pointed out, and that, too, with reference to mineral waters, that the first condition of therapeutic efficacy is the constancy of the remedy employed. In the case of natural mineral waters this point is of the greatest importance. The aperient waters offer the one sole exception in regard to this constancy among our natural mineral springs. These are formed by impregnation of the natural basins which supply the mineral constituents. From this, as observation teaches us, there arises an extraordinary inconstancy of the chemical constituents. The aperient waters, therefore, form an exception to the mineral springs proper. For medical purposes it is absolutely necessary, in prescribing this water, to know the dose. It has happened not infrequently that a wine-glassful of aperient water has been shown to contain the same amount of mineral constituents as the practitioner would, from the analysis, expect to be present in a tumblerful. It is obvious, therefore, that neither the practitioner nor the patient can form a correct opinion in this manner; and under these circumstances it may even happen that an unexpectedly great degree of concentration may do harm by useless irritation of the intestines. There is a further disadvantage arising from changes in mineral constituents, so that, instead of the sulphates which the water should contain, chlorides are present in an injurious amount. The opinion has very often been expressed that the bottling of such waters should be under scientific control, so that their proper constitution should be ensured exactly in the same way as that of other medicines is regulated by the Pharmacopœia. It is therefore a matter for high satisfaction that the aperient water, "Apenta," from the Uj Hunyadi springs in Ofen, has been placed under State control. The Royal Hungarian Chemical State Institute (Ministry of Agriculture) has undertaken this charge, and therefore it is now possible to obtain a water which is free from injurious extraneous waters infected with organic substances. The analysis has been published by Professor Liebermann, Director of the said Institute. The proportion of sulphate of soda to sulphate of magnesia is 15.432 to 24.4968 in the litre, so that this water is to be classed with the best aperient waters, and may be pronounced one of the strongest. Owing to the constancy of the Apenta water ensured by the State guarantee, that confidence in aperient waters which had been lost will be revived through this important therapeutic agent. The constancy of the Apenta water makes the use of it indicated not only as an occasional purgative, but in systematic courses of treatment. It is particularly recommended for the regulation of tissue change in the most diverse diseases, in obesity, chronic constipation, portal obstruction, hæmorrh-

holds. Whether the lithia contained in this water is of any therapeutic importance is at present doubtful, but its presence is a distinctive feature in the analyses.

Like a cool, refreshing breeze from the ocean, which acts as a physical stimulus and tonic during the summer heats, the August "Arena," breezy, strong, vigorous, refreshing, comes to us as a mental tonic. This number has an unusually attractive and varied table of contents, any item of which will well repay reading. The portrait of George Canning Hill, the Massachusetts member of the National Bimetallic Union, forms the frontispiece. Mr. Hill contributes a strong and admirably written paper in favor of free silver, entitled "The Morning of a New Day." Hon. C. S. Thomas, in his "Reply to 'A Financial Seer,'" utterly puts to rout his critic, "A Financial Seer," and, with the aid of a startling array of facts and figures, culled from the most authoritative sources, refutes in the clearest and most convincing manner the many fallacies advanced by the upholders of the single gold standard. Notes by the Editor contain some very startling revelations and should be read by all who wish to be informed in regard to the tactics resorted to by the gold monometallists in their frantic endeavors to uphold the gold standard. Prof. Frank Parsons' series on "The Telegraph Monopoly" still continues, and Part VIII is one of the most striking and powerful papers yet written on the subject. It still further exposes the essential tyranny and lawlessness of this giant monopoly. Under the title of "Whittier—The Man," the editor of the "Arena," Mr. B. O. Fowler, furnishes another of his delightful and instructive papers on our Quaker poet. The serials,—“The Valley Path” and “Between Two Worlds” become more and more interesting with each succeeding chapter, and a glance at the titles of the remaining articles, with the names of the authors, given below, will convey some idea of the rich store of mental food provided in the August issue of that always live and original magazine, the "Arena:" "Bibliography of Literature dealing with the Land Question," by Thos. E. Will, A.M.; "Is the West Discontented?" by John E. Bennett; "Club Life versus Home Life," by G. S. Crawford; "A Social Settlement," by Annie L. Muzzey; "Mahayana Buddhism in Japan," by Annie E. Cheney; "The Convict Question," by J. Kellogg; "Ethics the Only Basis of Religion," by R. B. Marsh, M.A.; "Associated Effort and Its Influence on Human Progress," by M. L. Holbrook, M.D.; "Philosophers Afloat," by Helen H. Gardener.

"THE ART OF MIND-BUILDING."

In the "Metaphysical Magazine" for July, Professor Elmer Gates, formerly of the Smithsonian Institute, explains for the first time the results of his extended experimental researches in the domain of Psychology. These experiments have been conducted in a thoroughly scientific manner, and the demonstrations are of the very highest importance to every branch of learning. Order early.

The contents of this number also include: "Karma in the Bhagavad Gita," by Charles Johnston, M.R.A.S.; "The Subtile Body," by E. G. Day, M.D.; "The Serpent and its Symbol," by Lieut. C. A. Foster, U.S.N.; "Spirit in Man and Nature," by C. Staniland Wake; "Conception and Realization of Truth," by Frank H. Sprague; "A Prophetess of the New Life," by Lilian Whiting; and other articles on occult, philosophic, and scientific lines. At all news-stands. Price, 25 cents; yearly subscription, \$2.50. In foreign countries, 14s. The Metaphysical Publishing Company, 503 Fifth avenue, New York.

APPLETONS' POPULAR SCIENCE MONTHLY FOR JULY, 1896.

One is always sure of finding in "Appletons' Popular Science Monthly" much that is helpful in making the most of the life we are now living, both in private and social affairs. The July number opens with a useful lesson on Taxation, contained in the experiences of India, which are set forth by Hon. David A. Wells. The strength and weakness of Our Banking System are shown by Logan G. McPherson. Prof. W. R. Newbold has an article on Suggestion in Therapeutics, or the influence of the mind in aiding the cure of disease. On a related subject is Dr. Douglas Graham's account of Massage in Sprains, Bruises, and Dislocations. A novel System of Polar Exploration is proposed by Robert Stein, the essential feature of which is a permanent station at a place in the arctic regions reached yearly by whalers. The processes of Photographing Electrical Discharges, whether from the clouds or electrical machines, are described by Walter E. Woodbury, with a number of striking pictures. Prof. J. Mark Baldwin discourses on The Genius and his Environment. There is a bright illustrated sketch on the food and feeding habits of birds, by Harriet E. Richards. Prof. Warren Upham discusses the Causes, Stages, and Time of the Ice Age. Two brief but suggestive articles are County Parks, by Prof. Thomas H. Macbride, and Sociology in Ethical Education, by Byron C. Matthews. The possibility of a new industry on our Pacific coast is shown by Charles S. Pratt in his article on Pearls and Mother-of-Pearl, and there is a Sketch with Portrait of the distinguished Dutch physiologist Jacob Moleschott. New York, D. Appleton & Company. Fifty cents a number, \$5 a year.

HARRIET BEECHER STOWE'S LAST LETTER.

The last thing written by Mrs. Harriet Beecher Stowe, only a few days before her death, was a loving acknowledgment to the public for fond remembrances and tokens and expressions of affectionate esteem, on her 85th birthday, which she sent to "The Ladies' Home Journal." In the next issue of this magazine it will be published in fac simile. It reflects the beautiful nature of the gifted authoress, and by her death has become her last message to the American public.

WHO?

Who does more good in the world than they who relieve suffering humanity? I have used Sanmetto in many cases where it was indicated, such as enlarged prostate of old men, and in cystitis and gonorrhoea. I truly believe that I have carefully tested every remedy in the Pharmacopœia for these distressing and painful affections of humanity, and none give relief like Sanmetto. In one case where solid casts from the urethra were voided (resembling chicken guts), where micturition was so frequent as every ten or fifteen minutes night and day, and where the catheter would not pass into the bladder, Sanmetto brought relief. I consider it the great reliver of these affections.

Webster, W. Va.

C. N. BROWN, M.D.

SCIENTIFIC AMERICAN.

We have received a copy of the Fiftieth Anniversary number of the "Scientific American," covering 72 pages, and comprising a review of the progress of the Industrial Arts and Sciences during the past fifty years. No expense or pains have been spared to make this a publication of rare merit and value. Among the subjects treated of are the following: The Transatlantic Steamship; Railroads and Bridges, Physics and Chemistry, Progress of Printing, Iron and Steel, Phonograph, Telephone, the Bicycle, Naval and Coast Defence, the Sewing Machine, Electric Engineering, the Locomotive, Photography, Telegraph, Telescopes, also the Prize Essay on "The Progress of Inventions during the Past Fifty Years." Price 10 cents per copy.